Finding Empowerment: Appalachian Ohioans' Experience with the Digital Works

Computer Training Program

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Abstract

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<u>Finding Empowerment: Appalachian Ohioans' Experience with the Digital Works</u>

<u>Computer Training Program</u>

Director of Dissertation: George E. Korn

At least 531,000 rural Appalachian Ohio adults do not have broadband access which is indicative of the Digital Divide in the region. The cost or lack of availability of high speed broadband access, computer and Internet trainings, and employment, places those citizens at a disadvantage in their ability to improve their lives that are defined by poverty and unemployment. Improving their jobs skills in industries requiring broadband access is one way to stimulate demand for broadband deployment in rural areas as well as address unemployment. Jobs that require high speed Internet access create a pool of quality customers who would keep current with their monthly subscription fees, making the return-on-investment of expanding high speed infrastructure more acceptable for private service providers. A training program, *Digital Works*, was established to provide computer and Internet skills training to citizens of Appalachian Ohio so they could acquire jobs that would in turn stimulate demand for broadband. This qualitative research study explored the lived experience and meaning making of participants in the *Digital Works* training program and how it made an impact on their lives and communities.

In-depth interviews were conducted with participants, trainers, and administrators in the *Digital Works* computer and Internet training program. A textual analysis of *Digital Works* and its parent program, *Connect Ohio's* available organizational

documents—budgets, websites, and authorizing legislation—as well as news articles about the program was conducted also.

Over the course of this study, funding for both programs was not renewed by the state and federal funding agencies, as well as the national support organization, *Connected Nation*. Many of the participants' interviews reflected their surprise and disappointment over losing this source of opportunity and hope.

The present study found that participants who completed the *Digital Works* training programs benefitted beyond simply finding jobs directly related to the computer and customer services skills they learned. In addition to the economic advantages, participants also found deep value in the sense of self-worth, confidence, self-esteem and hope they derived from the program. Participants developed a strong family-like bond with other participants, stimulating community involvement in towns and villages where that citizen participation was lacking. The self-empowerment and community building that resulted from the presence of *Digital Works* have long-term ramifications for economic and community development efforts in this rural Appalachian region.

Dedication

To my dad Harry, (1933-2012) who waded through fire,

and to my mom Zoe (1933-2018), love that is real will not fade away;

and family Nick, Alex, and Ethan,

whose unwavering support made this possible.

Acknowledgments

Writing a dissertation is said to be an independent project. However, clearly it took many people participating, listening and guiding to make this dissertation successful. First, I would like to acknowledge my Committee Chair George Korn, who stepped in late in the process and patiently guided my research to completion. Dr. Jenny Nelson was invaluable in her feedback and positive attitude. Thank you to rest of the committee, Dr. Geoff Buckley and Dr. Hans Meyer for your guidance and advice. A thank you goes to Dr. Lawrence Wood and Dr. Joseph Slade for your early support. My deepest appreciation to the folks at the Graduate Writing and Research Center, Dr. Rachael Reyerson, David Johnson, Dr. Bob West, Dr. Talinn Phillips, and Candace Stewart for your focused help. Tutors Prya Gupta, Nancy Katu-Ogundimu, and Franklin Charles were also so helpful. Without the guided and selfless assistance of Dr. Jacob Okumu, this dissertation would not be complete. I am forever grateful. Shannon Rose and Vicki Carter, your encouragement and advice kept me going.

For my many friends who I neglected while completing this dissertation, I appreciate you being my cheerleaders. To my sisters, Linda, Cynthia, and Kim, your support means the world.

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Chapter 1: Appalachian Ohio and the Digital Divide

When Sam Smith[1] lived in the Appalachian Ohio village of New Marshfield in Athens County, he would go to the corner grocery, the post office, cross the railroad tracks and walk home. He mostly kept to himself. His grandchildren say that he never would have imagined that the hub for community communication would be around his gravestone. Today, village residents visit this unlikely social "hot spot" to use their phones to access the Internet. To get enough cell reception, New Marshfield resident Ben must climb the gravel road to the cemetery in daylight and stand to the left of Smith's gravestone. The stone lies at the highest point in the village, and it's only here that Ben can receive messages on his phone about possible work. If he walks more than 10 feet in either direction away from the gravestone, he loses his reception. He cannot answer messages for his handyman services business or access the Internet to read about tools or repair techniques. The village of New Marshfield is just 7.4 miles west of the nearest city—Athens—a place with adequate cell phone and Internet service that the 22,000 residents use with only occasional disruption.

In addition to holding down a part-time job cleaning houses in the county, Ben mostly barters his farm-chore and repair skills for meals or the use of neighbors' equipment. Ben lost his job after 18 years at the area's largest factory, Rocky Boots, when the owners decided to outsource their production. Ben fell into depression, turning to drugs, which eventually led to him serving time in prison. Once out, he remained off drugs and has been sober for eight years. However, his lack of access to the Internet

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[1] All names are pseudonyms unless otherwise specified.

prevents him from obtaining emails from potential customers, impeding his ability to make a living. He cannot afford a computer on his limited income. Even if he had a computer, he cannot rationalize paying the additional broadband access cost of $25 per month for satellite computer service at his home because the price is greater than the signal strength justifies. The hilly terrain and many trees in the village disrupt the signal. Cable access is only available in this part of the county via satellite and costs at least $100 per month. These charges would be in addition to his basic cell phone monthly service cost of $60.

Three miles down the road, Ben's neighbor, Sallie Jo, revs up her four-wheel drive Mule (all-terrain vehicle) to climb her hillside property to a wooded knoll. There she can get a signal on her cell phone, so she can pay her bills online. Her interest in online bill paying was sparked while recuperating from knee surgery, but now using the Internet is routine for this 63-year-old retiree who has lived on her 80-acre farm for 35 years. It's 14 degrees outside, so she layers on wool shirts and a toboggan. The Mule ATV slides in the snow as she makes her way to the peak among the pine trees where she can actually get three bars of service on her cell phone. As the cold proves too much for her arthritic fingers to key in information, she navigates the Mule down the hill. She knows she will have to drive her car the seven miles to the Athens library to get Internet access and pay her bills, as well as check for messages from friends and family. Sallie Jo receives Internet service for her home computer, but the signal is weak, or drops frequently, so she has come to rely on her cell phone for online access. That service, however, is unreliable. Its strength depends on where she stands on her property.

Ben and Sallie Jo are just two of many in rural Appalachian Ohio who struggle daily with inadequate broadband service to their homes; but this inadequate service also hinders small business development and entrepreneurs. Carol, a 60-year-old entrepreneur who has run successful service businesses in custom tiling and tree farming, has transitioned to a partnership in a full-farm-experience bed and breakfast. The selling point of the eco-tourism enterprise is coming to the countryside and living and working on the farm where she raises organic vegetables and free-range pigs. Since being in a rural location is crucial to the business, Carol expresses extreme frustration with the poor Internet service available in the eastern part of Athens County. She cannot respond promptly to potential customers, and her website and business rating on her host web portal depend on fast and efficient response. Her business is too far from nearby Athens for Verizon (the local company, now Frontier) to provide service, and the signal on her phone is weak. Satellite is the only other option, but service is sporadic, slow, and unreliable. For Carol, the $80 monthly service cost is not worth the poor-quality signal she would receive.

To answer inquiries about the bed and breakfast, Carol must climb the hill behind her house where she gets two to three bars on her phone…maybe, depending on wind, weather, or other factors. Verizon representatives suggested she buy a Verizon-provided service called a Jet Pack to boost her signal, but that has not worked and now she is locked into a two-year contract. Another service provider in the area, Intelli-wave, told Carol her house must be within sight of a tower to get a good signal and service.

To respond to emails for her business, Carol must travel seven miles into Athens over two-lane, curvy roads, two or three times per day. In frustration, she said, "I'm disenfranchised because I cannot participate in this economy. It's not my choice either. This is a legitimate business that I'm trying to grow and create jobs in rural America, but it's all about the Internet." The farm could also sell its pork products over the Internet and bring in more tourists, pulling income into the area if the Internet service was more reliable and available. In addition, guests often want access to high speed Internet even when traveling. Without this access, people may not opt to visit the bed-and-breakfast.

The spring floods of 2017 that covered the county resulting in numerous road closures proved to be another challenge for those living without broadband access. Some roads closed as the water rose; others closed overnight. Carol did not know how to safely leave her home. The only way to find out about closures was to listen to the radio or go on the Internet, but the radio merely referred listeners to the Ohio Department of Transportation website instead of reporting specific road closings. Speaking to this dilemma, Carol said, "It's just another reminder of my inaccessibility to the rest of the world."

Other Appalachian Ohio business owners report the same frustration with Internet service. Sallie Jo is a talented artist but cannot sell her work online because of her location and lack of quality Internet access. A neighbor about three miles away in New Marshfield wanted to put her jewelry and organic herbs online but could not get reliable service to answer customers' inquiries or take their payments. She became discouraged when trying to reach customers through what she believed to be more cost-efficient

electronic newsletters. Her Internet drops frequently, stalling her marketing communications. Other business owners say they must spend time on daily operations instead of trying to learn how to use online business programs that do not work well with erratic and unreliable Internet service.

In addition to hindering business growth and progress, poor and unreliable Internet service stymies efforts of those marginalized in Appalachian Ohio to find living wage employment. Recognizing the difference between discarded soda pop cans and other roadside debris determines whether Mary Ann of Gallipolis, Ohio stops the car alongside traffic and gets out into the high grass to retrieve the aluminum treasures. A Mountain Dew can gives off a dull gray glint from among the roadside weeds. A Pepsi can has a brighter shinier glean. Each can, when combined with hundreds of others, brings in about $3 at the nearby recycling center. Three trips a month supplements the Medicare to afford her husband's bandages for his chronic, festering leg wounds. Gathering aluminum cans from the roadsides for cash is often all the income Mary Ann raises in a month. She wants a job with flexible hours where she can work from home and care for her husband.

Another woman from West Union said a job would help her, but she believes she is unemployable. Constantly looking over her shoulder from the maroon leatherette booth at McDonald's, Jill seems to be expecting someone, or is hiding from being found or followed. She's jittery and jumpy as she tells her story of once being a drug dealer, serving prison time, and hiding from the family of a man her husband shot and killed. Jill believes her past keeps her from getting a good job at better than minimum wage, so she

drives 45 minutes each way for a temp job loading boxes. She would like to work from her home through an online opportunity and have a job that gives her back her life.

For people who chose to live in the Appalachian Ohio area because of family, the challenges of participating in the online world are frustrating. For example, Eleanor came home to her Appalachian community to care for her ailing mother and sister. She enjoyed her work as a salesperson in Chicago, and she is shocked at the lack of employment near her Adams County home. If these women had access to broadband at their homes, they could perhaps find jobs or opportunities online. Their stories represent the situation thousands of rural Appalachian Ohio citizens find themselves dealing with every day. They are unable to experience the benefits the Internet can bring to their lives. They are living on the wrong side of the Digital Divide.

The Digital Divide

These stories of what rural citizens are experiencing illustrate what is called the Digital Divide, the term that grew from the Knowledge Gap theory. The Knowledge Gap theory was first described by Severin and Tankard (1982) as the disparity between information and technology "haves" and "have-nots." With the development of new technology to include personal computers and dependence on the Internet, these researchers were concerned that ordinary citizens would not have the means or access to technology to be involved with communication and information in society. Severin and Tankard (1982) focused their research on this gap between those with and without information and access to technology in the digital age, but this concern with equal access has followed every new technological advancement in communications.

Advances in technology have historically triggered concern over equality of access. When the telegraph, then the major form of communication, was replaced by the telephone starting in the 1900s, the new technology was heralded and celebrated. With wider adoption by the public, concern over equal access for all led the government to intervene and make telephones a public utility, available to all at reduced or subsidized pricing. The rise of television in the 1920s, while praised for its democratizing effects, concerned society that considered the economic and commercial forces controlling content and availability (Baran, 2011) and sought ways to equalize access across social strata through stricter government regulation and access. The Communications Act of 1934 was passed based on the principles of universal service—that all Americans should have access to communications services (fcc.gov/universal-service). The Universal Services Fund established the Federal Communications Commission and programs to implement the principles of universal service, mainly making telephone services available, especially in rural areas. The Telecommunications Act of 1996 expanded on the principle of universal service to include telecommunications and other advanced services, such as high-speed Internet access for all consumers at "just, reasonable, and affordable rates" (fcc.gov/universal-service). This Act specifically focused on providing access to citizens in rural and insular areas, and for low-income consumers. Additionally, the Act provided for increased access to high speed Internet in the nation's schools, libraries and rural health care facilities. The FCC established four key programs within the Universal Services Fund to implement the Telecommunications Act: the Connect America Fund (support for rural areas), Lifeline, phone service for low income citizens,

Schools and Libraries (E-rate), and Rural Health Care (fcc.gov/universal-service). As part of the Connect America Fund, *Connect Ohio* was established with its spin-off *Digital Works,* formed to specifically address the Digital Divide and unemployment issues in Ohio. This program will be discussed more in-depth in Chapter 2. In the meantime, examining the various definitions of the Digital Divide help understand how policy decisions and resource allocations have been determined.

With each new technology, and new concern about equal access, the definitions of the Digital Divide evolved to incorporate changes in technology and in society. The Pew Charitable Trusts defines the Digital Divide as, "An economic and social inequality gap between those who have modern technology, such as a computer, the Internet, and now, Smart Phones, and those who do not. The divide the inequality creates in society can be seen along lines of race, gender, educational attainment, income, as well as geographic regions of the country" (Pew Charitable Trusts, 2010). The Pew definition guides this study.

These other definitions contribute to the study. In the 1990s, the U.S. Department of Commerce through the National Telecommunications and Information Administration (NTIA), offered a similar definition of the Digital Divide, as, "an economic inequality between groups, broadly construed, in terms of access to, use of, or knowledge of communication technologies (ICT)" (NTIA, 1998). This definition informed scholarly studies of the Digital Divide phenomenon as they evolved with every new technological innovation. Change often brings discomfort as well as opportunities for disparity, thus the

term Digital Divide is used when referring to advances in communication technologies that are not enjoyed equally among social groups.

One of the first scholarly references to the Digital Divide came from researchers discussing the impact advances in communication technology would have on individuals and society. Access to information communications technology (ICT) was first viewed as the most obvious and compelling way to describe the Digital Divide. Definitions evolved to include the skills an individual possessed to access information and then utilize it (Mossbarger, 2003; Blau, 2002; Hargital, 2003; and Hobbs, 2011). In addition, the Digital Divide was described by examining a user's income level, education, age, training, geographic location, desire to use the technology, what kind of usage was employed (casual, entertainment, highly engaged, creating and sending messages or information), and what technology was used (Hilbert, 2011). Along with being defined as access to information, the Digital Divide also is described as the prediction that the Internet threatens to divide society into two classes: the information elite and those not linked to the Internet (Rosenthal, 1999). Like the other definitions, Brown (2011) defined the Digital Divide as, "the clear disparity that exists between those that have access to and fluency in new media and those that do not" (p. 1). This creates a gap. The gap created by new technology and communication innovations also divides by race, gender, income, education and geographic location (Ortega, 2011). The gap also hinders community development, increases economic disadvantages and causes economic turmoil. The disparity in access to technology diminishes human potential. Describing the Digital Divide in more detail, van Dijk (2005) explained that it refers to those without

access to the Internet, high speed broadband access, or possessing the skills and education to utilize the capacity of the Internet. These people are left out of the digital society and the digital economy and experience more inequality in their lives in terms of access to information or economic opportunity. Another relevant factor in the discussion of the Digital Divide in Appalachian Ohio is that citizens who live outside the profitable zones for receiving broadband access from private providers are considered as living in "The Last Mile" and make up the largest segment of the population in the Digital Divide. The history and implications of the Digital Divide and the Last Mile will be discussed more fully in Chapter 2.

Addressing the Digital Divide in Appalachian Ohio: Digital Works. Inadequate broadband access in Appalachian Ohio means the citizens lag behind the rest of the country in opportunities for jobs, education, and business growth, as well as receiving or sharing information, all of which have implications on the quality of their lives and communities. Employment and Internet access are intertwined issues and there is no single solution to these and the many other problems facing Appalachian Ohio.

Recognizing the need for all citizens to be part of the ever-expanding digital world, the federal and state governments supported the growth of *Connected Nation* in 2008 and implemented various programs to respond to the Digital Divide. The FCC recognized that broadband was a necessity rather than a luxury for full participation in our society and economy, so it adopted systems to accelerate build-out of broadband to 23 million Americans (www.fcc.gov/general/universal-service) and expanded the *Connect America Fund* to include broadband initiatives. According to *Connected*

Nation's website, its mission was to "improve lives by providing innovative solutions that expand access, adoption, and use of high-speed Internet and its related technologies to all people" (www.connectednation.org, 2001). *Connected Nation* focused on developing digital training and job placement programs, mapping and analysis of digital access, and transforming education, along with helping states develop technology action plans. Using *Connected Nation's* guidelines, every state was given the opportunity to develop a partner program. Ohio launched *Connect Ohio* in 2008, which has worked with state and local governments, private partners and community leaders in an attempt to ensure that every Ohioan has access to affordable broadband services. *Connect Ohio* mapped broadband access throughout Ohio, focusing on rural areas. This mapping showed areas in need of better broadband access, and highlighted opportunities for nearby service providers. *Connect Ohio* also worked with local, regional and state governments to develop plans and policy aimed at increasing broadband access in the state. According to the *Connect Ohio* website, this technology initiative worked to create a better business environment in the state, more effective community and economic development, improved healthcare, enhanced education and more efficient government (ConnectOhio.org, 2008). *Connect Ohio* developed its subsidiary program, *Digital Works,* with the goal of helping to bridge the Digital Divide in Appalachian Ohio by providing rural citizens with training to use computers, the Internet and providing job training. The training aimed to stimulate demand for broadband access, especially in rural Ohio. To achieve this objective, *Digital Works* provided participants with training and mentoring for online jobs that require high speed online access. Whether trained

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participants chose to work at home, or at *Digital Works* training sites, these on-demand call jobs required reliable, efficient and sufficient speed broadband access. The idea of providing training for work-at-home, on-demand jobs meant employed citizens would need broadband services. This increased demand would help convince service providers there would be regular paying customers in rural areas thus warranting an investment in the necessary infrastructure.

The Study

Digital Works training was created to teach computer skills to Appalachian Ohio citizens living in the Digital Divide, so that they could acquire employment. Because employment affects every aspect of people's lives the research objective of this dissertation is to explore the lived experience of participants in the *Digital Works* training program. This means to try and describe the lived experience in the way that retains and communicates the essential meaning of that experience; to capture its essence (van Manen, 1990).

The best way to gather the lived experience of participants is by using qualitative methods that include in-depth, open-ended interviews that gather their previously unshared personal stories of their lives before, during and after the training experience. To explore what meaning emerges for them from the experience I will use the constructivist grounded theory method where the researcher and the participants co-create the meaning of the experience from the in-depth interviews and categories that develop. In this study I will explore the research question of:

What was the existential meaning of the *Digital Works* program in the lives of

Appalachian Ohio participants?

Details of the experience for participants gathered from the in-depth interviews

will inform theme development that then arrives at a distillation of the meaning of the

training program for Appalachian Ohio participants. Given the poverty, high

unemployment, lack of formal education, and other life challenges participants in the

Digital Works training program live with daily, this study examines the role *Digital*

Works played in their lives and what meaning of the experience emerged for them.

Jobs and the Digital Divide

Employment is necessary to meet basic needs for people to become contributing

members of society, a trait our society values. Consequently, this study examines the

lived experience of participants in a jobs training program while living in the Digital

Divide. In addition to struggling to meet basic needs of food, water, shelter, safety and

health care (Maslow, 1943), while living with a lack of employment, citizens of

Appalachian Ohio also face the challenge of surviving without access to adequate and

efficient telecommunications and broadband (Yu, 2002). This creates additional hardship

and challenges for people in a region that is already marginalized. The importance of the

Digital Divide and access to technology is illustrated by UN Secretary General Kofi

Anan who stated, "Being cut off from telecommunications services is a hardship almost

as acute as these other deprivations and may indeed reduce the chances of finding

remedies to them" (Yu, 2002, p. 3). The lack of information and being underinformed has

consequences that influence how decisions in society are made, which is important in a

democracy. In today's digital society, a path out of unemployment and the lack of information and the ability to participate depends on access to information. Lack of broadband limits job opportunities. In Appalachian Ohio, lack of jobs leads to the challenges of surviving, thriving and living up to one's fullest potential.

Other studies have focused on equipment and technology as the only solutions to the Digital Divide, or they focused on the influence of for-profit businesses on broadband policy and availability, and the political and economic criteria on which resource allocation decisions are made (Blau, 2002; Brown, 2008; Cheung & Weber, 2008; Cotton, Anderson, & Tufekci, 2009; Busch, 2011; and Cardozo, 2011). These studies all point to the need for my study. My study fills the gap in the literature by focusing on the people, their impressions and what meaning participants made of their experience with the jobs training program in relation to their communication capabilities in the digital world. Analyzing these data about people's lived experience of surviving on the wrong side of the Digital Divide should contribute to the overall knowledge about the Digital Divide in Appalachian Ohio. Thus, this dissertation is guided by the subjective-interpretative theoretical paradigm (Burrell & Morgan, 1979) and designed using the constructivist grounded theory methodology.
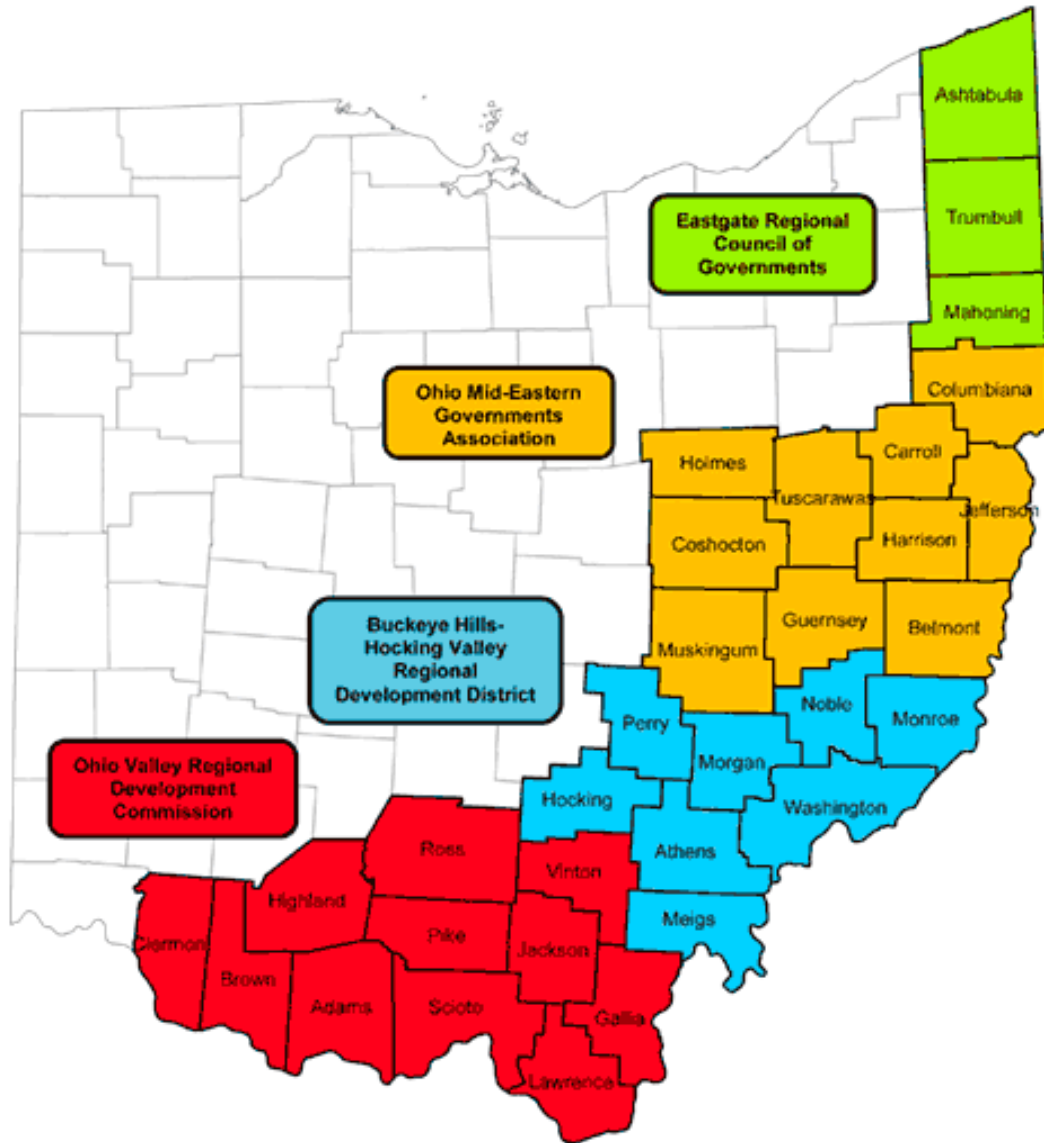
Figure 1. Map of Appalachian Ohio counties. ARC website.

Experiencing the Digital Divide: The Appalachian Ohio region

       To contextualize the challenges facing the people living with the Digital Divide

who are at the heart of my study, it is important to understand the people and culture, and

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some of the issues relevant to Internet access and employment in the Appalachian Ohio region.

Appalachian Ohio: Demographics and geography. The federally-designated area of Appalachian Ohio (illustrated by Figure 1) includes 32 counties— Adams, Ashtabula, Athens, Belmont, Brown, Carroll, Clermont, Columbiana, Coshocton, Gallia, Guernsey, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Mahoning, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Trumbull, Tuscarawas, Vinton, and Washington (ARC.gov/counties). These 32 Ohio counties run along the edge of the state from the northeastern to the southwestern tips (See Figure 1). They are a part of the greater Appalachian Region which is "a 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. Appalachia includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Virginia" (See Figure 2) (ARC.gov). An Act of Congress in 1965 federally authorized the Appalachian Regional Commission (ARC) to serve as a regional "economic development agency that represents a partnership of federal, state and local government" (ARC.gov). Due to its responsibility of overseeing development and spearheading investment of public resources in the region, the Commission has vast resources on Appalachia and Appalachian Ohio. Per its mission statement, it aims "to be a strategic partner and advocate for sustainable community and economic development in Appalachia" (ARC.gov) and thus makes it one of the most reliable agencies to use as a resource when examining Appalachia.
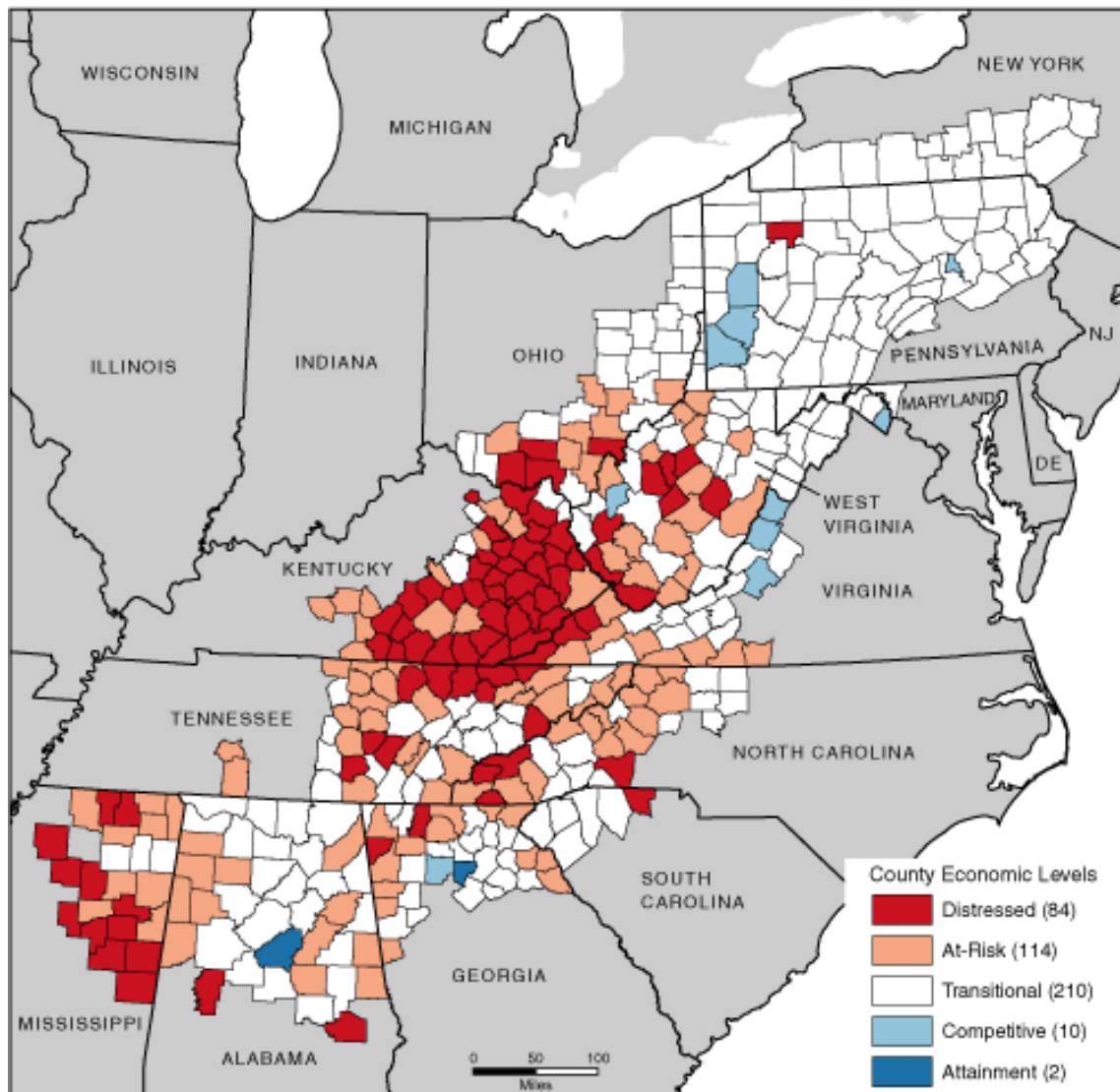
Created by the Appalachian Regional Commission, March 2016
Data Sources:
Unemployment data: U.S. Bureau of Labor Statistics, LAUS, 2012–2014
Income data: U.S. Bureau of Economic Analysis, REIS, 2014
Poverty data: U.S. Census Bureau, American Community Survey, 2010–2014

Effective October 1, 2016
through September 30, 2017

Figure 2. Map of Appalachian Region. ARC website.

The people. People of this region share many characteristics and cultural similarities. For instance, scholars describe the citizens as independent, self-sufficient, and family-oriented, and as living in harmony with nature (Duncan, 2011; Egan, 1993). They are often spatially and socially isolated and considered conservative in their values and attitudes (Tickamyer & Duncan, 1990; Childs & Melton, 1993). They also have low trust in outsiders (Tickamyer & Duncan, 1990). Characterizations of the Appalachian people have evolved little over time. Michael Harrington in his seminal book from the 1960's, *The Other America*, described these citizens as living with intractable long-term poverty that is "demoralizing because it destroys aspirations" (Harrington, 1962). This description of poverty's impact on a people is still relevant today. Researchers found that family ties and the Appalachian family culture determine socialization, gender, class and self-image for citizens of the region (Coles, 1967; Fisher, 2001; Cotter, 2002; Keefe, 2015). A family who has experienced generational poverty negatively influences family members' ambitions and beliefs that there are solutions and options. Some citizens have managed to rise above the beliefs of limitations through hard work and capability to be responsive to opportunities (Billings, Norman, & Ledford, 2000; Buckwalter, et al., 2014; Childs & Melton, 1993). More recent scholars describe Appalachia's citizens as hard working and ambitious (Sarnoff, 2003; Cantrell-Gordon, 2010), indicating that given the chance, people will work to improve their lives. Yet, at the time *Digital Works* was operating, many citizens lacked jobs—the unemployment rate for the region was 8.5 percent, compared to Ohio's unemployment rate of 4.9 percent (Ohio Labor Market

Information, 2015). In 2018, Ohio's unemployment rate was 4.6 percent, compared to 3.7

percent with the rest of the country (Ohio Labor Market Information, 2018).

In Appalachian Ohio, "42 percent of the region's population is rural, compared to

twenty percent of the national population" (Appalachian Regional Commission, 2016). In

the region's 32 counties, 17.8 percent of the citizens live in poverty according to the

February 2016 Ohio Poverty Report (Ohio Development Services Agency, 2016). More

than 17 percent of Ohio residents in the Appalachian region can be categorized as

economically challenged (ARC.gov., 2016). A 2012 *Connect Ohio* report indicated that

the region "features a lower per capita income and higher poverty and unemployment

rates than the state and the nation" (p. 2).

Internet access and need. In addition to economic and employment challenges,

the low population density makes building technology infrastructure costly for service

providers in the Appalachian region. Broadband access, however, could be a significant

factor in the economic growth and development of Appalachian Ohio. Availability and

affordability of broadband can stimulate economic growth by helping to generate

employment and assisting local businesses in joining an information-based economy.

Studies conducted by *Connect Ohio* predict an increase in broadband use by as little as 7

percent could create and save over 90,000 jobs and boost the state's economy by $5.2

billion (Connect Ohio, 2015).

Appalachian Ohio lags behind the state average in the adoption and use of

broadband technology. A 2016 annual Broadband Progress Report issued by the Federal

Communications Commission (FCC), indicated that while about 34 million Americans

still lack access to broadband, "a persistent digital divide has left approximately 40 percent of the people living in rural areas and on Tribal Lands without access to service at the FCC's speed benchmark" (2016). The FCC's benchmark speeds are 25 Mpbs for downloads/3 Mpbs for uploads. In contrast, "only 4 percent of urban Americans lack access to 25/3 Mbps broadband" (Broadband Progress Report, FCC, 2016). A *Connect Ohio* reports showed that only 55 percent of residents in rural Appalachian Ohio subscribe to broadband service, compared to 66 percent statewide (Connect Ohio, 2011; 2012). According to the 2015 *Connect Ohio* quarterly report, 531,000 rural Appalachian adults do not have access to broadband in their homes, significantly lower than the state's average of 66 percent. "Thus, a significantly larger share of rural Appalachian residents still relies on home dial-up service or access the Internet someplace other than home, such as a school or public library" (Connect Ohio, 2015, p.1). According to the *Connect Ohio* report, more than 124,000 adult Ohioans either cannot get broadband service, or struggle with inadequate speed. In addition to the efforts to stimulate demand for affordable broadband access in Ohio, there are still barriers to broadband access and adoption, especially in the Appalachian Ohio area. These barriers go beyond infrastructure and include issues of skills to use the technology. Findings of a 2013 statewide broadband adoption survey identified several reasons for non-adoption including factors like no home computers available, a perception there is no need for Internet service and the cost and value of service. Survey participants also named non-availability of Internet service and difficulty in using technology as factors influencing non-adoption of broadband Internet (Hoag, 2016). Other surveys have shown that some

local businesses in Appalachian Ohio do not use broadband because they believe they do not need the technology (Connect Ohio, 2012), they do not have adequate training to utilize it, or it is not available.

Since broadband is unavailable, too costly, or inefficient in the Appalachian Ohio region, many citizens forgo subscribing, opting instead for only cell phone service (Colley, 2014). The Pew Research Center Home Broadband 2015 report found that adults 18 and older, particularly those in rural areas, use only their smartphones to access the Internet and do not have traditional broadband service at home. Non-broadband users show a strong appreciation of the importance of home service but cite the monthly cost as the primary reason they do not subscribe (pewinternet.org, 2015). Like Ben, Sallie Jo, and Carol, more people are relying upon their cell phones for Internet service because broadband access to their homes is not available or is inadequate. The Pew Center report showed that "smartphone adoption has reached parity with home broadband adoption (68% of Americans now report they own a smartphone), and 13% of Americans are 'smartphone-only,' an increase from 8% in 2013" (Pew Internet, 2015). Instead of subscribing to broadband service at their homes, people use their phones for Internet access, foregoing more expensive at-home Internet service that is often only available at inadequate speeds. However, often, even cell phone service is spotty, inefficient and costly, reducing even more the number of broadband users in the Appalachian Ohio region.

Lack of broadband influenced by culture. An assessment of the Appalachian culture by Cantrell-Gordon (2010) offered insight into the mindset of the region's people.

Historically, the story of Appalachia is one of exploitation. Throughout the 20ᵗʰ Century, the timber, coal and other extraction industries such as clay mining, resulted in the removal of the region's resources by outside companies (Burns, 2007). Citizens felt that their culturally constructed sense of "place," which came from natural geography, landmarks, architecture and artifacts, was threatened (Howell, 2002) by the removal and destruction of natural resources caused by extractive industries. The long-term family roots of living on a piece of land for generations, their family traditions and their way of life were all threatened, interfering with communities' identification with a place (Howell, 2002). The people and their culture were not valued and respected (Cantrell-Gordon, 2010). If people are told repeatedly that their lives have so little value that they are not worthy of the expenditure of resources to improve their lives, they start to believe this is true. They already live a life of doing without, and they suffer for it, with poor health, poor outlook that life will improve, and poverty. They have lived without government aid for years, so they do not believe public policy will be a source of assistance. Cantrell-Gordon (2010) explained his assessment of the situation in *The Appalachian Inheritance: A culturally transmitted traumatic stress syndrome?*

> Within Southern Appalachia there are distinct, historic patterns of exploitation. These patterns have helped to give shape to certain cultural tendencies that are similar to clinical manifestations of groups who have experienced traumatic stress. Once normative adaptations to the well documented crises that come with unemployment, over the generations, they became ingrained in the culture. The resulting cultural traits—an enduring sense of resignation, deep depression, and

disrupted relationships represent the presence of a culturally transmitted traumatic

stress syndrome that is induced by exploitation. (p. 41)

The exploitation of Appalachia by the coal, timber, clay, and other extraction industries

throughout the 20th Century, resulted in the high unemployment and poverty levels. The

coal and timber barons controlled livelihoods and thus communities. Whatever those

corporations deemed important or worthy of support became the norm; otherwise. people

did without resources. Today, large corporations still wield control over the region

evidenced by the decisions of whether to build digital infrastructure or not. The Digital

Divide could be considered one more example of how people of Appalachian Ohio live in

an unjust, unequal, and unfair society.

Implications of the Digital Divide in Appalachian Ohio

Rural citizens, like those in Appalachian Ohio, who do not have access to

broadband Internet access due to cost, location, availability, or skill sets, put the region at

a disadvantage with the rest of the country. The Digital Divide affects all aspects of

citizens' lives from employment, education, health, small business development and

growth, to self-esteem, community development and cohesiveness, and it affects the

health and safety of the elderly (Bowling, Fleissig, Gabriel, Bannister, Dykes, Dowding,

and et al, (2003). The issues of the Digital Divide are like a connected circle—every

aspect connects or impacts the other aspects. The Internet could offer rural citizens

significant benefits, helping to overcome the disadvantages of distance and social

dispersion (Warren, 2007), and address the high unemployment prevalent in the region as

well as other issues of survival.

Digital Divide's impact on small businesses and job creation. In addition to not having high speed Internet access in their homes, those living in rural areas have more challenges while trying to participate in a digitally driven world and economy. The online world of commerce (B2C—business-to-consumer) has developed to more than "$1.2 trillion U.S. dollars in 2013" (NTIA, 2013, n.p.). Small businesses and entrepreneurs make up the largest source of job creators in rural areas of the United States and are often the economic lifeblood of a community. Better access to broadband services could help this growth. Muske, Woods, Swinney and Khoo (2007) studied micro businesses (those that employ less than 10 people) in rural Oklahoma and found they form a "dynamic, integral part of the market economy, providing goods and services and a gateway by which millions enter the economic and social mainstream of American society" (NTIA, 2013, n.p.). By comparison, businesses in Appalachian Ohio without high speed Internet access cannot participate in the online world of commerce, where e-commerce statistics show that "40 percent of worldwide Internet users have bought products or goods online via desktop, mobile, tablet, or other online devices" (NTIA, 2013, n.p.). This amounts to more than 1 billion online buyers, a number that is projected to continue to grow (NTIA, 2013, n.p.). The benefits of e-commerce could trigger resurgence for businesses in rural Appalachian Ohio if high speed Internet were available or adopted.

According to the 2012 *Connect Ohio* Business and Broadband report, nearly 40% of businesses in Appalachian Ohio—21,000 businesses—do not use broadband (Connect Ohio, 2012, n.p.). The median annual revenues of businesses with broadband in Appalachian Ohio are $200,000 more than those without broadband in the region

(Connect Ohio, 2012, n.p.). These figures indicate that more availability and adoption of broadband in the region could create economic advantages including job creation, increased business efficiency, and more regional economic development. Without business growth, unemployment rises. This exacerbates the rising problem of regional community development as people who cannot find jobs in their communities must leave the region for employment.

Job seeking. The lack of broadband access limits citizens' capacity in job searching, especially when most employment opportunities are now posted online. Additionally, many employers require that applications be completed and submitted online. The decline in the number of print publications (newspapers) and their employment ads in Appalachian Ohio means citizens must learn about jobs through the Internet. As a result, citizens of Appalachian Ohio without reliable Internet access miss out on jobs postings and the networking opportunities available online. Information about job opportunities often occurs among friends' posts on social media sites such as Facebook or LinkedIn. Business and social network sites can often help with references and referrals for jobs. According to a Career Builder survey, "45 percent of employers use social media to screen potential candidates and this percentage is growing" (Smith, 2013, p. 274). A 2014 Career Builder survey reported "52% of employers" use social media to research candidates (Career Builder blog 2014, par. 1). The reliance on social media and the Internet to vet job candidates increases with the ease of use, access and trend toward posting resumes and job interests online.

Establishing an online social media network of friends, family, and business associates brings attention to a job seeker. According to Career Builder, "One of the most essential skills for the 21st Century job seeker is an understanding of how to use social media like Twitter, Facebook, LinkedIn and blogs strategically" (Smith, 2013, p. 274). *Forbes* reported that more than "a third of all employers utilize" social networking sites. A CareerBuilder survey revealed that "29% of surveyed hiring managers found something positive on a profile that drove them to offer a candidate a job" (Smith, 2013, n.p.). Those without an online presence do not get offered jobs as often. This puts Appalachian Ohio citizens at a great disadvantage when job seeking. Because people of Appalachian Ohio do not have access at home and must travel to other places to get broadband, *Connect Ohio* reported that 72,000 adults in rural Appalachian Ohio use the library or other places to get broadband for free ("Technology Barriers," 2011). Using public places has its own limitations. Libraries, for instance, limit the amount of time that a person may use the Internet there. The computers and equipment in rural libraries are often outdated and do not always have the most recent versions of software installed (Hendrix, 2005). In addition, increased security risks accompany the use of open Internet access in public sites. Residents must travel to libraries or other public WiFi sites, which can be a costly, time consuming inconvenience, especially when residents are unemployed and searching daily for job opportunities, which requires access to email for responses from potential employers (Hendrix, 2005).

Employment, environment and infrastructure. When there is unemployment, high poverty, and low educational attainment as is the case in Appalachian Ohio, the

likelihood of environmental degradation of the region increases. This issue has been persistent since the 1800s with the growth of the mining and extraction industries, and is worsened by the continuing cycles of poverty, lack of education, and unemployment in the region. Since their opportunities are so limited, people in the region will take whatever jobs are available, such as those with low pay or no benefits. They are exploited easily. To stay employed, people will not speak out against unfair or poor working conditions or employer-caused environmental damage, or otherwise challenge the status quo (Cantrell-Gordon, 2010).

Unemployment and underemployment have a negative ripple effect into the communities of Appalachian Ohio. Extraction industries remove the region's resources, and take the financial gains as well, leaving little behind for providing essential public services. As of 2016, there are still communities without the basic public service of sewer systems (Tibbetts, 2005; Dave, 2015). What little funds that are available in the community are earmarked to remedy these basic infrastructure needs of water, sewer, and roads. Priority is given to these public works projects with little left for other services, especially for expansion of broadband Internet services in a community. Consequently, those without high income or those living where broadband service is unavailable do not get equal access opportunities.

Brain drain. Another facet of unemployment in the Appalachian Ohio region is the impact it has on the community. Unemployment in the region surpasses state and national averages. Low wages or lack of jobs causes outmigration, or brain drain, for the region as the youth leave the area for jobs elsewhere. As Harrington (1962) first noted in

The Other America, people in Appalachia are often forced to choose between leaving their communities or facing a lifetime of poverty. Nearly 50 years later, this statement is still true. When people who have skills or education leave the area, the region does not recoup its investment in educating those citizens (Heinemann, 2014). This "human capital flight" also drains an area of ideas, innovation, possible tax revenue, and energy to help a community grow and thrive (Heinemann, 2014; Policy Coherence for Development, 2007). Rural development becomes stunted and communities languish.

When citizens are unemployed, or leave for employment, there are fewer people left to contribute to a community's vibrancy. As the quality of life of the unemployed declines and, in turn, their communities deteriorate, this degradation gives outside corporations avenues to come into an area and take advantage of the vulnerable region. Mining or timber companies remove valuable natural resources and damage the environment, or other companies offer below-market wage jobs with no benefits. This scenario has been the case throughout the past century in Appalachian Ohio. Coal mining and forestry industries dominated the Appalachian region throughout the 20th Century. Fluctuations in growth followed increasing automation and national demands for coal and timber, impacting the region's economic stability. Pollution of streams, mountaintop removal, deforestation of millions of acres of land all lead to degradation of the natural environment and job loss (Coles, 1967). The region and its people have no doubt carried the burden of advances in the rest of society.

Education. Limited broadband access also significantly impacts educational opportunities and the potential achievement of high school and college students, as well

as children living in the Appalachian Ohio region. A *Connect Ohio* 2011 report showed that one-third of households in the region do not have access to home broadband service. This means "more than 125,000 children living in the region are unable to use broadband to go online from home to do their homework or conduct research that will prepare them for college" (*Connect Ohio*, 2011, p.1). At a July 2017 conference on broadband issues in the region, parents attending the regional Connectivity Summit on Broadband held in Marietta, reported they had to drive to a nearby McDonalds, and park in the lot to piggyback on the available WiFi provided at the fast food chain so their children could do their homework. Rural schools do not have the technological resources to train students well on using the Internet, and, often, rural schools do not have adequate broadband access if they have any at all. Programs designed to help high school students attend college by giving them dual-credit, such as the post-secondary SB 140 program, are ineffective when students fall behind in college assignments because their home Internet is inadequate. In many cases, they cannot drive themselves to university libraries or other public places to get high speed service. Too often they drop out of the advanced courses and reconsider a college education.

The Internet can provide many people affordable access to education, but without a consistent, reliable Internet connection, these residents cannot take advantage of the online education opportunities available which could provide marketable job skills. According to *Connect Ohio's* research among low income Ohio Internet users (i.e. those with incomes below $25,000), only 41 percent go online to further their education (Connect Ohio, 2015). This equates to 1.5 million low income Ohioans who are not using

the Internet to expand their educational opportunities (Connect Ohio, 2015). This finding describes the effect of the Digital Divide—those with access to information use it; those without adequate access or skills necessary to use the Internet are left out or left behind the rest of society.

Lack of adequate broadband access also hinders the ability of educators to do their jobs efficiently. Mark, a professor who chose to live in the rural area for the tranquility and his desire to farm, cannot grade his students' work online from his home, which frustrates him. He cannot conduct his own research from his home, requiring a trip to the university, nearly 10 miles each way. For Samantha, an elementary school special education teacher, driving all the way to her classroom to enter student grades and lesson plans because her home Internet is inadequate is exhausting. Education efforts in the region suffer as a result of lack of broadband.

Senior citizens left behind. When educated students decide they must leave their homes or the region due to lack of employment, they leave behind communities that will not benefit from their formal training. They take with them their vibrant energy and ideas, their critical thinking and problem-solving skills, and they also leave behind their families. Often the ones who suffer the most from this outmigration of the region's youth are the area's senior citizens. Interactions with family occur less frequently, contributing to isolation of seniors. Their ability to leave their homes and socialize also is reduced, often because of their dependency on family members for transportation.

In addition to isolation, senior citizens do not feel competent with their skillset and thus feel irrelevant in trying to participate in today's global information society

(Abad, 2014). A significant hurdle for older Americans is that to use digital devices they

need assistance. Among seniors who do go online but do not currently use social

networking sites such as Facebook and Twitter, 56% say they would need help if they

wanted to use these sites to connect with family or friends (Smith, 2014). This is

indicative of the need for computer and Internet skills training for senior citizens.

According to a 2014 Pew Research Center study, seniors continue to lag behind all

American adults, 18 and older, in technology adoption. Many seniors are still not part of

the online world—41% report not using the Internet at all, 53% do not have broadband

access at home, and 23% do not use cell phones (Smith, 2014). While there are no direct

data on senior citizens in Appalachian Ohio, based on the averages of other data,

broadband access in Appalachian Ohio should be lower. *Connect Ohio's* research into

broadband adoption and non-adoption in Appalachian Ohio indicated that non-adopters

are older, 40 percent are over the age of 75, with the median age of non-adopters in the

range of 55-65 (Hoag, 2016, p. 23). In addition to being older, non-adoption of

broadband could be attributed to being low income, having less education, having a

physical impairment, or living in Appalachia (Hoag, 2016, p. 47).

The lack of training or skills to get online and navigate digital information means

senior citizens cannot participate in the predominantly digital society (Adams, Stubbs &

Woods, 2005). This is problematic because most information for health care, news,

banking, community notices and events and activities can be accessed only online.

Recipients of any government assistance programs are now directed online to access

information about the services and benefits available. Seniors who are living in the Digital Divide or are part of the 'age' divide must figure out how to take part.

Access to health care. For senior citizens and others who are not Internet savvy or do not have adequate broadband, accessing their health care information is a challenge because most clinics, medical providers, and doctors now use online patient portals. Appointments, questions for doctors, messages and prescriptions are all conducted online. For example, in Appalachian Ohio, one of the largest medical providers, Ohio Health, requires notifications of appointments, correspondences with nurses or doctors and patient history to be provided first online in a password-protected patient portal. Patients without adequate Internet access cannot research alternative care options or obtain basic medical information on sites like WebMD. They have difficulty signing up for the Obamacare health insurance program as well. Medicaid and Medicare applications and notifications are sent via email. Seniors unfamiliar with the Internet, or who do not have adequate broadband access may not get information important to their health. When a senior citizen does have familiarity and comfort with the Internet, slow upload and download speeds limits the independent research they can do on their health and medical care.

Lack of broadband limits social capital, community building. Another impact of the brain drain is the diminishing effect on regional communities. In addition to barriers to improved quality of life, lack of broadband access limits how communities can progress. Broadband Internet access can mean more than just jobs for residents living in a rural area. The importance is intertwined with how people perceive themselves and their

place in their community, their region, and society overall. Several studies have argued that low broadband adoption rates among rural residents in Appalachian Ohio means rural citizens miss opportunities to participate in society and in the democratic decision-making process (Hoffmann & Kornweitz, 2011; Wellman, Haase, Witte, & Hampton, 2001; Gerhards & Schafer, 2010; Tolbert & McNeal, 2003). In addition, lack of broadband access impacts voting. A study conducted by Tolbert and McNeal (2003) found that changes in communications technology play an important role in influencing electoral behavior. The Internet enhanced voter information about candidates and elections, and in turn stimulated increased participation in the electoral process. Access to the Internet and online election news made people more likely to vote (Tolbert & McNeal, 2003). Citizens can research issues and candidates independently. People can make their own assessments and create their own opinions instead of having to rely on another source, such as television news pundits, to interpret information for them. Without broadband access for information, citizens are left out of the process of self-governing because most information needed to participate in our democracy is now online.

All of these factors of the Digital Divide—lack of adequate broadband service, comfort with using the Internet, lack of access to information for jobs, education, health and participation in a democracy—affect the quality of life for citizens of the Appalachian Ohio region and provide important reasons to examine the lived experience of those who participated in a program to address some of these issues.

Reflexive Statement

      In qualitative research, the researcher is viewed as an instrument of the research (Merrigan & Huston, 2009) and should discuss personal interests and experiences as well as potential bias using a reflexive statement (Marshall & Marshall, 2011). Consequently, I will explain how some of my personal experiences influenced how this study came about. My life experiences in Appalachian Ohio led to my desire to study employment and Digital Divide issues in the region. My work experience as an educator, journalist, business owner and economic developer permitted me to interact and observe a wide cross section of the region's citizens. As a teacher, I saw how not having broadband Internet service at home makes high school and college students' education a struggle for them. As an economic developer, I recognized how vital broadband service is to regional development and progress. My small business was started before the Internet or computers became widely available, but I realized the ease and efficiency that technology provided to entrepreneurs. All these positions showed me the critical importance of jobs to a region.

      Knowing how to navigate the Internet and use computers opened many opportunities for me, adding efficiency and knowledge to my life and work. Each of my jobs gave me insight and connections to the people of Appalachian Ohio, stimulating my interest in the issues affecting their lives and communities. While my job titles may have changed, my connections to the people elicited interest from me in researching regional problems. Access to the Internet and broadband, and their relationship to jobs and

employment emerged as two important areas for researching, along with how access to

skills for using the Internet and its effect on self-esteem and community involvement.

Chapter 2: Digital Divide and the Knowledge Gap

This chapter discusses the literature about the Knowledge Gap that led to thinking on the Digital Divide and attempts to bridge that divide. A brief overview of the Knowledge Gap leads to an exploration of the Digital Divide, its history and development, why it is important to address the Digital Divide, and a look at what attempts have been implemented to resolve it. The chapter concludes with an explanation of the *Digital Works* training program which was designed to help people find jobs while living in the Digital Divide.

The Knowledge Gap Informs the Digital Divide

In the 1970s Tichenor et al. (1970) studied how people get information about current events from the media and identified a 'knowledge gap' between what people knew about a subject. They had hypothesized that the widespread availability of information through mass media should have increased peoples' knowledge but found that education and socioeconomic status influenced the opportunities and motivation to use available information. Socioeconomic status also determined if people had the means to access technology to access readily available information (Tichenor et al., 1970). The knowledge gap theory argues that mass communication does not improve people's lives nor make democracy work better, despite the increased quantity of information available from mass media. In fact, access to mass communication is thought to potentially have the opposite effect of increasing the gap in knowledge between members of different social classes (Severin & Tankard, 1982; Tichenor, Donohue & Olien, 1982). This gap can lead to increased social tension as the "information-rich" reap benefits while the

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"information poor" fall behind or are left out (Parker & Dunn, 1972, p. 1396). Since its inception by researchers Tichenor, Donohue, and Olien (1970), the concept of the knowledge gap has been informing public policy and government agency decisions in relation to allocation of public resources.

Severin and Tankard (1982) first used the term "have nots," when discussing the knowledge gap as information communications technologies (ICTs) became more prevalent in society. Lloyd Morrisett, former president of the Markle Foundation, receives credit in some scholarly circles for the label information "haves" and "have-nots" (Hoffman, Novak, & Schlosser, 2000). Late in the 20th Century, Jackson et al. (2008) are credited with coining the phrase, the Digital Divide to describe the gap between those with and without information technology (Jackson et al., 2008).

The knowledge gap was originally thought to be widened simply by inadequate access to technology, but researchers found other relevant factors, such as skills and information literacy also contributed to the disparity in information. This thinking led to the focus of providing ways to improve people's skills when using the Internet and digital technology. Resources and programs were developed under the principle of universal service to offer training to citizens so that more people had access to communications technology. It is out of this thinking that the *Digital Works* computer training program emerged.

History of the Digital Divide. Definitions of the Digital Divide have been informed by the knowledge gap. When explaining the origins of the Digital Divide, scholars have used several terms that describe the disparity of information flow and access, and the gap

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in knowledge. As technology expanded over the past decades scholars described each evolution as an "information revolution" (Graham, 2011, p. 3), a "computer revolution," a "knowledge economy," or a 'third wave" in human history bringing a "network society" (Berkeley, 1962; Machlup, 1962; Drucker, 1969; Jones, 1982; Dahendorf, 1997; Tofler, 1980; Castells, 1996; and Benkler, 2006). Every technological advancement from the telephone, radio, television, to personal computers and the Internet, was viewed as beneficial for society. Each development brought new ways to access and use information, and the information revolution was seen as having the capacity to decentralize power and help spread democracy (Barber, 1998; Ayres, 1999; Graham, 2011). Some believed new technological developments could address poverty (Purcell & Toland, 2004). As technology advanced, however, the promises of its potential were not enjoyed equally in society.

The innovations that made the Internet easier to use, and the widespread adoption of personal computers, made technology seem like a panacea for accessing and sharing knowledge in society. However, scholars acknowledged that disparity in information flow and Information and Communication Technologies (ICTs) access "will exacerbate economic and socio-spatial segregation" (Graham, 2011, p. 5). This conceptual thinking that access to information is not shared evenly through society led to the coining of the phrase 'digital divide' at the beginning of the 21st century. Communication technologies were seen in the 1970s as having capacity to bring positive economic and social development and connect different corners of the world. The caution here is that with the growth and adoption of more communication technologies people from different socio-

economic and geographic backgrounds would have "vastly different spheres of knowledge" (Castells, 1998). The term 'digital divide' emerged from scholars examining global technology advancements comparing between rich and poor countries (Singer, 1970; Mowlana, 1997).

Government and scholarly concern progressed from just focusing on access to computers and usage to access to communications technologies, meaning the Internet (Graham, 2011). Compaine (2001) uses the term Digital Divide to refer to concerns over quality, speed and reliability of connections to the Internet. The World Bank, the Organisation for Economic Cooperation and Development (OECD) and other international development agencies identified the digital divide as a gap between people and places, and funneled money and government resources into addressing this gap.

The Digital Divide evolved to be viewed as more than just access to the technology, but also of having the skills and knowledge of how to use the technology in a beneficial manner (Benton Foundation, 2011). Researchers in academia have approached the Digital Divide as an issue of access to technology (Ferro, Dwivedi, Gill-Garcia & Williams, 2010), while politicians focus upon physical equipment in terms of the need for resource allocation in the 1990s (p. 631). The different philosophical approaches to addressing the Digital Divide determined resource allocation for addressing it. Warschauer (2003) wrote,

> A digital divide is marked not only by physical access to computers and connectivity, but also by access to the additional resources that allow people to use technology well. However, the original sense of the digital divide term—

which attached overriding importance to the physical availability of computers and connectivity, rather than to issues of content, language, education, literacy, or community and social resources—is difficult to overcome in people's minds. (p. 6)

Ferro, Dwividi, Gill-Garcia, and Williams (2010) argued that the digital divide "as a concept, must be understood to be part of the continuum of socio-economic inequalities; not simply as a discrete phenomenon restricted solely to issues of access, use and benefit derived from ICTs" (p. 642). Lepper (1985) suggested the knowledge gap is further widened due to a lack of access to technology. Those with financial means and knowledge access technology and information more easily than those with lower socio-economic status. Persistent poverty and inequality add to the problem of the Digital Divide (Servon, 2002). Race and educational level impact ease of use of technology and influence how the Internet can improve lives of those of lower socio-economic status and their ability to achieve social equity and empowerment (Mehra, et al., 2003). Economic and political factors cause some of the inequalities of access as well (Calderaro, 2009). Underserved communities must contend with lack of access to broadband based on lower overall wealth in the community and political will of its citizens.

Severin and Tankard (1982) described knowledge as power and information as a resource, both of which afford people competencies to take advantage of opportunities that they may not be aware of due to lack of access to information. Thus, control of society is based on power and those who control information, gain power (Beaver & Cohen, 2004; Castells, 2011;). Citizens can take more control of their lives with

education and training on how to access and use the Internet and new media technologies. For citizens to participate in the digital society—the digital economy, online exchange of ideas, or use online information—they must have access to the Internet as well as skills to understand and interpret messages and information. My study was fueled by concerns about equal access to information and the capacity of citizens to take control of their own lives.

Defining the Digital Divide. In addition to definitions discussed in Chapter 1, other definitions of the Digital Divide explain how resources have been allocated to address unequal access to digital information. Larry Irving, who was the Department of Commerce's Assistant Secretary for Communications in response to the NTIA third "Falling Through the Net: Defining the Digital Divide" report in 1999 said he believes he borrowed the term Digital Divide from two *Los Angeles Times* reporters who invented the term in 1996 to describe the social division between those who were involved in technology and those who were not (Gunkel, 2003, p. 501). He explained that he first heard the term at a 1995 conference, but it did not gain widespread use by the NTIA until the 1999 report. Andy Carvin of the Benton Foundation stated he believed the term was already in use by the Clinton-Gore administration to describe a gap in educational opportunities (Gunkel, 2003).

Journalist Howard Wolinsky published an article in *The Chicago Sun-Times* in 1996 titled, "the Digital Divide" which reported on how 'unequal computer access for students in creating tomorrow's 'have and have-nots' (Wolinksy, 1996). Massachusetts Congressman Ed Markey in April 1996 issued a press release in response to the proposal

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for the E-rate fee, a program of the Universal Services Fund that would help eligible schools and libraries receive up to 90 percent discount on telecommunications and Internet access (www.fcc.gov). Media coverage of the issues surrounding the digital divide brought the concept to the forefront of public knowledge and discussion. In January 29, 1996 *New York Times* reporter Gary Poole wrote about the digital divide and American education (Poole, 1996).

In 1997, the digital divide term was used to describe "technical incompatibilities" (Gunkel, 2003) from analog and digital networks for cellphones and televisions, to satellite transmissions, radiology and racial diversity in high-tech industries. The NTIA report solidified the digital divide as a socioeconomic inequality determined by the level of access one has to IT (Gunkel, 2003). The term grew from meaning whether one owned a personal computer to Internet access to delineating those with broadband access from those with slower dial-up modem access. One of the first government references to the Digital Divide came from a National Telecommunications and Information Administration (NTIA) report in 1998 which used the term to describe "computer ownership and usage" (NTIA, 1998).

Finally, in 2001, the Benton Foundation Digital Divide Network (2011) expanded the definition to include that people need to know to use the Internet and computers (p. 1). The many ways that the digital divide has been described and examined show that there is not one but many inequalities and discrepancies of social, economic and technological differences that may intersect and influence each other (Gunkel, 2003).

The changing definitions of the digital divide reflect the speed at which technology changes and the rate at which problems associated with it evolve (Gunkel, 2003). The NTIA yearly reports echo these advances in technology. The first report, "Falling through the Net: A study of the "have-nots' in rural and urban America (NTIA, 1995) addressed telephone service and computer and modem ownership, not the differences in Internet access and usage (Gunkel, 2003). At the time, the Internet was used mostly by academics, defense contractors and computer enthusiasts, not necessarily by the general public. By the time of the 1999 NTIA report, the Internet was considered crucial to the nation's information infrastructure (Gunkel, 2003), so the report focused on who had access to telephones, computers and the Internet, and who did not.

Why the Digital Divide is important. Knowledge, like other kinds of wealth, is not distributed evenly around society; therefore, those struggling with financial poverty are also information poor (Severin & Tankard, 1982). Wong, Chen, Lee, and Fung (2014) stated that citizens need to be informed, and they suggested, "The most crucial characteristic of an information economy is that information becomes an important, if not the most important, commodity in society" (p. 145). Castells (2002) argued that being connected to the Internet is imperative for accessing information in a digital society. While some scholars viewed the information revolution as reaching all of society, the reality is that it did not, thus the impetus for this study. Citizens of Appalachian Ohio have been left behind much of the access to the digital society and studying how this has affected their lives is important. Typically, addressing the information requirements of the financially poor are focused on basic human necessities: food, shelter, health care,

safety, and security rather than on Internet access. For their lives to function properly, the financially poor are focused on physiological needs first, long before they can consider higher levels of needs of belonginess and love—intimate relationships—esteem needs of self-esteem, confidence, prestige and feeling of accomplishment, and self-actualization of achieving one's fullest potential, creative activities and problem solving, as Maslow (1943) outlined in his Hierarchy of Needs (Simplypsychology.org, n.d.). If basic needs are met, through a job or economic stability, then citizens can focus their energies on gathering information that aids them in contributing to their community.

In addition, people who cannot improve their lives because they do not have ways or means to do so do not progress and grow in ways of thinking, innovating or keeping pace with changes occurring in society. These citizens essentially are stunted or stifled in achieving their full potential. As Maslow (1943) explained, people are not realizing their personal potential, nor finding self-fulfillment.

The Internet could offer rural citizens significant benefits, helping them to overcome the disadvantages of distance and social dispersion (Warren, 2007). However, Oxley (2011) found that while there is more political information available because of new media, knowledge gains occur more among better-educated citizens than the less educated and thus widening the knowledge gap (p. 29). The lack of access to information has implications for society "because a democracy depends on well-informed citizens…One must be well-informed to vote intelligently" (Severin & Tankard, 1982, p. 231). Mason and Hacker (2003) suggested that the Digital Divide perpetuates inequality as those "with most access and ability to influence changes in social structures will have

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more influence and benefits than those who are offline" (p. 52). Concerns about the Digital Divide also have political implications for a society. McLeod and Perse (1994) argued that "the underlying assumption is that information and knowledge translate into social power; inequalities in knowledge thus lead to exclusion from social resources and inequalities in social power" (p. 434). Living without access to information and the ability to participate in civic decision-making means citizens have less clout (Bach, 2012). This diminishes their ability to influence how decisions are made, resulting in them having less power or influence in a community or society.

Consequently, those with means to acquire the latest technology or to afford the highest speed Internet access could have more power within a community and in society. Citizens who are left out or left behind the digital communication occurring in communities become cut off from their government and lose the ability to have an influence within the civic decision-making process (Aspen Institute, 2009; Al-Hujran & Aldelehemen, n.d.). Inequality of access to information that leads to diminished ability to participate does not create a well-functioning representative democracy.

Digital Divide Issues in Appalachian Ohio

Access to the Internet and having computer skills are essential today. Upon examination of the issues that lack of access to the Internet creates in a community, the challenges are inter-related and connected, feeding off each other. For example, the issues facing the Appalachian Ohio region include poverty, unemployment, and low education. In addition, environmental degradation occurs because of lack of jobs. People must leave the area to find work. Communities lose the citizens and the connections that

give strength and vitality to a place (Albert, 2010). The outmigration of citizens leaves

communities without access to those citizens' education, training or energy (Anthony &

Padmanabhan, 2010). High unemployment also creates a disconnect from the community

and from social institutions. This disconnect leads to isolation, depression, health issues,

drug and alcohol abuse, domestic violence, or child abuse (Atkinson, Billings, Desmond,

Gold & Tournas-Hardt, 2007). These challenges create their own problems, such as high

school dropouts, truancy, teen pregnancy, and juvenile delinquency, which all contribute

to community deterioration. The implications of not having adequate computer skills and

Internet connection for people of Appalachian Ohio, and thus the lack of ability to get

jobs, have ramifications for more than simply their individual life situations.

When a community falls on hard times and infrastructure falls in disrepair citizens

become depressed over where they live, their lack of opportunity, and they step further

back from their personal involvement in their communities. In this way, social capital

suffers. Social capital is the effort of a group of people working together to solve mutual

problems (Pew, 2011). Without social capital, communities do not thrive, and prospective

entrepreneurs opt out of starting small businesses, which means creating fewer jobs.

Small businesses need their community to survive and thrive, and communities need

small businesses. Consequently, loss of connections to community also hurts a

community's ability to come together and solve problems. When this happens, the

community further erodes, which in turn leads to a regional decline. People not being

involved in their communities or not participating in civic decision-making, like voting,

hurts their communities. Lack of civic participation weakens democracy (Coleman, 1988;

Dyk & Wilson, 1999; Aspen, 2009; Ellison, Vitak, Steinfield & Lampe, 2011;Bach, 2012; Black, 2012; and Castells, 2012).

    Social justice and democracy. Democracy is based on the idea of fair and just treatment of all people, which is another way of defining social justice. Democracy needs well-informed and involved citizens to function properly, and those without access to the Internet or broadband, must overcome those communication hurdles in order to participate fully. Citizens must have access to the public sphere, a place where ideas are exchanged about civic issues and policy (CommGap, n.d.; Habermas, 1995). The public sphere has evolved with the emergence of the Internet and social media and is considered now more of a "communication structure" (CommGap, n.d., p.2) that includes all channels of communication where all citizens can send and receive information that is useful for their daily lives and where they can participate in self-governing and in the world economy (Lehdonvirta & Ernkvist, 2011).

    International bodies such as the United Nations, UNESCO and other organizations have debated, discussed, and adopted resolutions and declarations acknowledging that access to information and the ability to express oneself are basic human rights. The right to communicate is recognized by The United Nations Human Rights Council in Article 19 of the Universal Declaration of Human Rights as a basic human right (UN Human Rights Council, 2011; LaRue 2013; Yu, 2002). The UN declared that the Internet permits "individuals to exercise their right to freedom of opinion and expression" (Winter, 2013, p. 41) and that citizens should have access to infrastructure and uncensored and unrestricted content "(except in cases where access

violates international human rights law)" (Winter, 2013, p. 41), and "this right includes freedom to hold opinions without interference or to seek, receive and impart information and ideas through any media and regardless of frontiers" (Yu, 2002). Thus, it is the responsibility of a democratic government to assist the public in receiving information necessary to participate in the "democratic public sphere" (CommGap, n.d.; Habermas, 1995). To have these communication capacities makes society fairer and more just. When people, such as those from Appalachian Ohio, are left out of the communicating process because of no or inadequate Internet access, that is not a just society.

Social justice should be a moral norm in the global information world of today Britz (2008) argued. Communication has become more complicated with the use of and reliance upon Information Communications Technologies (ICTs). Use of modern technology has "impacted socioeconomic and political activities," and has produced a "profound societal transformation, transforming not only the information and knowledge landscapes but also the ethical and socioeconomic landscape" (Britz, 2008, p. 1171). This information transformation means it is more difficult for those without access, such as the people of Appalachian Ohio, to be involved in society. Even with the transformation, people should still have access to online information. Britz's arguments about fairness, equality, a just society, and human rights help frame my study.

Britz (2008) described marginalized and socially excluded individuals as "information poor," or living in "information poverty" which he defined as

> …that situation in which individuals and communities, within a given context, do
> not have the requisite skills, abilities or material means to obtain efficient access

to information, interpret it and apply it appropriately. It is further characterized by

a lack of essential information and a poorly developed information and physical

infrastructure. (2008, p. 199)

Being excluded from the information flow in society is not fair or equal treatment of all

citizens and violates basic human rights. This is an additional way of explaining the

Digital Divide.

At the World Summit on the Information Society (WSIS) meetings held in

Geneva (December 2003) and Tunis (November 2005), debate occurred on the ethical

dimensions and challenges facing the global information society. A Declaration of

Principles was published after the Geneva Summit, stating that, "the global information

society must uphold the fundamental values of human freedom; human rights should be

respected; there should be no abusive use of modern ICT" (Britz, 2008, p. 1171). In the

Plan of Action published after the Tunis Summit, Part C10 stated, "that the information

society should be subject to universally held values and promote the common good"

(para. 25). UNESCO suggested the importance of ethical dimensions for the development

of an "inclusive Information Society" (Britz, 2008, p. 1171) which should be a

"universally held value" as the moral notion of social justice (Britz, 2008, p. 1172).

Having awareness of the moral obligation to treat everyone equally creates a sense of

social justice in society, which in turn "creates a consciousness with regard to the social

injustices facing us in the global information society" (Britz, 2008, p. 1172). Rawls'

(1971) Theory of Justice called for equal liberties and equal opportunity for all citizens

and indicated that the government should provide more access and information for

underserved populations of the country. Similarly, Britz (2008) agreed, adding that, cultural diversity, human dignity, and freedom in the global information society should be socially inclusive and morally acceptable (p. 1172). However, these ideas are not always present in Appalachian Ohio as citizens in the region do not have equal access to broadband and technologies needed to participate in the digital world. This divide of access and social exclusion is morally unacceptable and needs to be addressed, which is my impetus for gathering data about lived experience of the people in the Digital Divide and the meaning they attached to the *Digital Works* training program and its efforts to address the Digital Divide.

Impact of inequality in access to information. To understand how to assess the Digital Divide, and to morally address it, it is helpful to include some discussion about being a fairer and more equal society. In an online review of two books on equality, Robert Reich wrote that inequality "erodes two foundation stones of modern society— openness to new ideas and opportunities, and a conviction that all citizens are morally equal" (Reich, 2017, p. 16). For 30 years after World War II, openness and equality allowed the United States to invest in ideas and activities that stimulated prosperity, such as education, research, infrastructure and social insurance. Consequently, people were more adaptable to change which "fostered even greater equalities of income and opportunity. The result was a high level of trust in the fairness of the political and economic system" (Reich, 2017, p. 16). Investing in people, and their information needs leads to a better, more stable, equal, and more prosperous society.

To achieve the ideals of a more just and equal society, we must understand that technological advances, including the Internet and broadband, while beneficial on one level of enhancing communication and access to information, also took away jobs which damaged communities. Those who had access to the technologies, or training to use it were able to advance, creating inequalities in earnings, wealth, and job security. When the financial crisis of the 1980's occurred, people lost jobs, financial stability and began to feel that they had been "neglected, disadvantaged, powerless or otherwise left behind" (Reich, 2017, p. 16). They lost faith in the fairness of the system. To address this doubt, we can apply Britz's (2008) four interrelated criteria for a morally-just global information society. The first criterion is the presence of a well-developed, well-maintained, and affordable ICT infrastructure (p. 1172). The ramifications of not having such an ICT infrastructure, means "global socioeconomic activities and political participation are limited, even impossible in some cases" (Britz, 2008, p. 1172). This is the case in Appalachian Ohio where citizens do not have the same opportunities to participate in online economic or political activities that could improve the quality of their lives. The second criterion Britz (2008) suggested is that ICT infrastructure is only adequate if it provides access to relevant information needed to participate "meaningfully" in socioeconomic and political activities. Relevant information Britz (2008) maintained must be affordable, timely, and available in languages and contexts users can relate to, understand, and receive benefit from (p. 1172). Often, this is not the case in Appalachian Ohio.

The third criterion is that the economy be stable for a morally-just information society. With the high unemployment and widespread poverty, it is clear the economy in the Appalachian Ohio region is not booming or stable. The fourth criterion Britz (2008) identified is investment in and development of human intellectual capacity, to facilitate further human development and sound economic growth (p. 1172). In addition, educational infrastructure support must be present along with ICT infrastructure and relevant information. It is in this criterion where *Digital Works* attempted to provide that educational infrastructure that would in turn stimulate more demand for broadband so private broadband providers would see the value in investing in Appalachian Ohio.

These criteria reveal the need in Appalachian Ohio for technology infrastructure. In this region, infrastructure is inadequate. Private companies cite return-on-investment as difficult to recoup in rural areas because of low density of population. Cost is cited as one of the main reasons people do not adopt broadband, and availability is cited as the second reason (Pew, 2011). Service providers are not willing to expand into an area where there are not enough customers or population density to warrant the investment, the description of The Last Mile. The Last Mile is the final leg of telecommunications networks that deliver service to customers (medium.com, 2017). The numbers of customers are not increasing because knowledge and training to use information 0technology are not widely available in rural areas. This training is important for participation in the global information society yet marginalized and socially excluded individuals do not have that option. People do not have adequate access to information

because of poor broadband service or lack the skills and training to appropriately use the Internet, if they are able to gain access through public locations.

Britz (2008) elaborated that "essential information is information that people need to survive and develop" (p. 1173), and includes meeting their basic minimum needs, as well as information essential to the development of capital generation and needed infrastructure to support it. Maslow (1943) used similar criteria when examining if people were fulfilled and reaching their full potential. Britz (2008) further argued that there is a societal benefit in using essential information and that it should be regarded as a public good, and therefore non-exclusionary in nature (Britz, 2008, p. 1173). In these statements, Britz (2008) argued that the global information society needs to be morally acceptable and socially inclusive (p. 1173) for a more just society. The morally wrong issue with the global information society that is relevant to Appalachian Ohio is that the Digital Divide contributes to the brain drain, high illiteracy levels, unfair exploitation and misappropriation of indigenous knowledge and artifacts, high communication costs, and imbalance in the flow of information (Britz, 2008). In looking at the region through this lens, evidence exists that Appalachian Ohio has not been treated fairly or justly when it comes to access to the Internet and broadband services.

Can a Sense of Fairness Help us Address the Digital Divide?

Britz (2008) advocated for "a moral consensus" on addressing the ethical challenges of the global information society by including the voices of the poor and the marginalized (p. 1174). Justice as "a moral, normative guideline can address inequalities, such as those between the information rich and the information poor" (Britz, 2008, p.

1174). Our connection as humans should guide us in respecting and showing concern for each other. In a socially just society that agrees to treat all people equally, each person must have equal access to basic liberty, and people need opportunities and choices. More can be done in Appalachian Ohio to make the region more equitable and just regarding broadband and Internet access.

If society shares a strong sense of justice, then it will be less likely to act unfairly (Rawls, 1973), and be more willing to invest in and support initiatives that help individuals improve themselves. Self-development of individuals leads to social justice. If government officials and corporate leaders want to lead an equitable and fair society, then they should consider paying more attention to helping people help themselves, especially in rural areas. When individuals are enabled to improve the quality of their lives, they can become contributing members of society which is more just and is related to Sen's (1999) capabilities approach. Sen (1999) outlined capabilities approach as acknowledging the equal moral worth of each individual and recognizes equal human rights. All people must have a similar right of access to the information needed to satisfy basic needs (essential information), to have freedom of expression and access to the ideas of others, to be respected in terms of their privacy, and have the right to knowledge that enables responsible decision making about opportunities that allow human well-being (Sen, 1999). Humans should have the option to reach their fullest potential (Sen, 1999). Equal access to information through broadband access and the Internet, means people have a fairer chance of reaching their fullest potential and contributing to society. This

sentiment echoed what Maslow (1943) advocated: people seek ways and should have the right to having their needs met so they may reach their highest level of self-fulfillment.

Without economic capabilities to access essential information the marginalized are put at risk of being unable to make choices in purchases, governing, and other life decisions that give them control of their lives, which "leaves the marginalized and information-poor powerless and exposed to the mercy of those who are informed and knowledgeable. Having to rely on the knowledge of other people creates asymmetric power relationships and puts them at risk of exploitation or exclusion" (Britz, 2008, p. 1176). To balance that power relationship, the information-poor and marginalized must have "freedom of expression on an equal basis and access to ideas of others" so they will have "a platform where their voices are heard, thereby recognizing their equal status as human beings. This category of justice reflects the first principle of justice" (Britz, 2008, p. 1176). Unfortunately, in Appalachian Ohio, this is not the case as so many live on the wrong side of the Digital Divide. They do not have access to information that is online, their voices are often ignored, which means they live in an unjust environment.

The greater good. A just society lives up to its promises of equal access to resources for the greater good, for the benefit of all citizens. Society benefits from equal access to information because that allows more openness to innovation, new ideas, new opportunities to show concern for each other, which creates a fairer and just way of being. As the guiding structure in how we are to get along, governments have an obligation to assure there is more equality. Britz (2008) argued that government promises to allocate funds for education for all and to create information infrastructure that allows

each individual access to public libraries and the Internet. This is part of the social contract governments have with citizens. Britz (2008) suggested that the information-poor and marginalized should demand that government fulfill its social contract because "the government has a moral responsibility together with a legal obligation to fulfill its duties to society" (Britz, 2008, p. 1177). Governments also have a moral obligation towards the marginalized and poor to fulfill their potential as human beings (Britz, 2008, p. 1178). In addition to providing access to information, governments have a moral obligation to assist citizens with the skills, training and tools necessary to use the Internet for information. The efforts of *Digital Works* attempted to fulfill this governmental responsibility to citizens.

Skills necessary for participation in a digital society. To participate in the digital society, people need specific skills such as knowledge of operating a computer, navigating the Internet and assessing information that is online, as well as knowledge of scams, misleading information, and knowledge of the terminology of the Internet. If using certain platforms, such as social media sites, people need a different type of media literacy such as understanding the conventions of that platform, and how to engage with it. Even though social engagement can occur through social networking, people also need awareness that social media can be all consuming and even addicting. It is government's role to assist in training that informs and engages citizens, for without training, people have no confidence in their skills to use a computer, or to navigate the Internet for information on civic and political issues.

Citizens, who do not have access to the Internet or broadband access, often need skills and training to engage in the online democratic political process (Norris, 2001; Hobbs, 2010; Fox & Ramos, 2011; Oxley, 2011; Pew, 2012; and Potter, 2014). A common theme running through much of the Digital Divide and Knowledge Gap literature is that Internet access alone does not automatically guarantee an informed and knowledgeable citizenry (Bonfadelli, 2002; LaRose, R., Strover, S., Gregg, J. L., Straubhaar, J., 2011). Interest in political and social issues must be present to stimulate media use and involvement (Kwak, 1999), yet, those very political influences can factor into some of the inequalities of access (Calderaro, 2009). Kwak (1999) discussed how citizens must be motivated to use resources, such as the Internet and other technology to gain knowledge. In addition to policy focused on supply and access, emphasis must be on content and communication skills (Bonfadelli, 2002). The sense of defeatism, that Gordon-Cantrell (2010) referenced earlier must also be addressed. All these factors influence how, when, where, why and the frequency which people use the Internet.

Government agencies have recognized the need to bring more citizens into the digital age as more and more information is placed online (Sullivan, 2014). The *Digital Works* program implemented for Appalachian Ohio attempted to address the need for digital literacy skills and to train people with computer skills, so they could find jobs. The training offered by the program was meant to stimulate interest in using online information and more online participation. The training was also meant to give people enough computer and Internet skills, that they would in turn create more demand for broadband access in the region. These skills would also lead to obtaining jobs.

Training people to use computers and understand how to navigate the Internet has other value to society. Engagement in social issues can happen through social networking, but if people do not have access, then they are less likely to become involved in helping solve society's problems. While the Digital Divide separates society, several studies have shown that citizens with Internet skills or training are more inclined to use social networking sites to participate in politics, through interaction, posting and responding to political blog posts (Bridges, Appel & Grossklags, 2012, p. 165; Baum & Groeling, 2008; Baumer, Sueyoshi & Tomlinson, 2011). Citizens who are joining the political discussions online are more receptive to accessing other online information such as government-related websites. Kang and Gearhart (2010) found that citizens who are politically involved online tend to use the practical functions of city web sites, which equates to more civic engagement (p. 459). Having citizens trained in using computers and using online information, as well as being comfortable with that technology benefits society.

Social capital and community development. When people do not adopt broadband, or it is not available, they are left out of much activity that occurs online. If we are to have a just society and a functioning democracy that has legitimacy as Britz (2009) and Rawls (2009) advocated, then citizens must be informed and participating in the governing process. If we are to have a socially just democracy, then citizens must have access to the Internet and the skills to access and create information. For an equitable and representative democracy, it is important to assure that citizens are involved in the public sphere where ideas are exchanged about civic issues and policy

and where decisions occur. To engage citizens in the governing process, citizens need content that recognizes their cultural needs and values. Communities, especially those in rural areas, prosper when there are connections among citizens. These community connections are formed when people are engaged in local activities and organizations and learn to trust one another. Interpersonal interactivity is considered the most important starting point and that trust is the foundation on which community communications can begin and succeed (Falk, & Kilpatrick, 2000; Calderaro, 2009; Gerhards & Schafer, 2010). This is how social capital is built. When people are unemployed, they must spend their time looking for a job, and must focus on basic needs, which reduces their inclination to volunteer in community activities. However, if there are pathways like those that could be opened through Internet access for involvement and connections for citizens, the community will be stronger socially and economically. If people in a community are communicating and building connections, they are building social capital, which then helps businesses grow and thrive. Social capital is an important component of economic development in a community. Flora (1998) discussed

> Economic development is a form of collective actions and that if entrepreneurial social infrastructure (ESI) is present this contributes to economic development. ESI adds notions of equality, inclusion and agency to the notions of social capital. Inclusiveness is closely related to community self-development and efforts to resolve community problems, including unemployment and poverty. (Flora, 1998, p. 481)

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Entrepreneurial social infrastructure (ESI) is a "framework for developing organizational forms that encourage collective action to achieve tangible goals" (Flora & Flora, 1993, p. 489), such as sustainable development and community improvements. The presence of ESI means local citizens are communicating and working together to solve community challenges such as creating jobs or access to broadband. This connectedness comes from times or places where citizens had the opportunity to meet, discuss mutual interests, build trust and decide to work together on a community project or issue. Without access to high speed Internet, as is the case in much of Appalachian Ohio, people do not have the opportunity to form these important communication networks that occur online.

Community connections are essential for communities to function well. Bourdieu (1986) explained that when the individual benefits personally by belonging to a group which shares resources and creates a network, social capital is formed. Social capital is an ingredient that must be present before adequate, meaningful, and sustainable social change can occur (Brennan, Flint & Luloff, 2008; Crowe, 2006; and Falk & Kilpatrick, 2000). If a community wants to address issues like unemployment, access to better education, or getting broadband in their city, social capital must be present.

For social capital to grow the culture of the citizens must be embraced and included in social change and development activities (Malecki, 2003; Brennan, Flint, & Luloff, 2009) and citizens must feel a connection to their communities. Local social interactions are a constant factor in how a community responds to challenges and further provides the network, connections, procedures, and channels of communication.

Community connections are strengthened when citizens use and feel comfortable with the Internet and communication tools. Citizens are empowered when they have confidence in their communication skills.

Psychological empowerment can be enhanced by how much content one puts online and by one's attitude and behavior in civic engagement offline Leung (2009) found. The more people feel comfortable working online, the more likely they are to be involved with local organizations and improving their community. Community development is concerned with the physical realm of a community—roads, sewers, water, among a few examples, but also the social, cultural, economic, political, and environmental aspects. Looking at a community's assets, all components that make the community function, attractive, and livable is called the asset-based emphasis. This is a more inclusive way to assess community status than need-based emphasis, which focuses upon all the physical aspects a community needs to be successful. Asset-based development aims at improving the quality of life and links community development with economic development. Hustedde (2015) explained seven contextual perspectives that provide a theoretical core to community development, these include: "organizations, power relationships, shared meanings, relationship building, choice making, conflicts, and integration of paradoxes" (n.p.). While all perspectives are important, the ones most relevant to this study are shared meanings and relationship building in a community. Shared meanings come through shared experiences that include opportunities to build relationships. Capacity building that comes through relationships helps build community capacity.

Community capacity is important because capacity building is an essential ingredient for community development, the heart of which is social capital (capacity) (Haines, 2015; Mattessich, 2015). Social capital includes any source that can be used by a community to guide outcomes. Social capital helps a region thrive and address challenges of poverty, unemployment, the growing drug abuse problem, access to broadband, and improved education.

Using social capital is one way to bolster a local economy by supporting local entrepreneurs, who when supported create jobs, thus addressing high unemployment rates. Rukuiziene (2012) identified the need for continuity in rural social capital for entrepreneurship to be developed. Small business development is an important factor in stimulating and stabilizing a local economy and creating jobs. With jobs comes the opportunity for people to get involved in community organizations and issues, thus building community. If people do not have the ability to communicate because broadband access is not available in their community, social capital is not built.

The discussion about community building and social capital is influenced by the ability of a community to have engaged citizens—those who participate in information sharing, discussions and research. Much of this occurs online today. Too often in rural communities, the lack of broadband access and the Internet stifle information sharing. In rural areas, where population density is low, and households are often spread further apart, private service providers have little motivation to pay for expanding optic fiber and building out infrastructure for broadband access. It is not cost effective for them to invest in equipment and lines in the Last Mile. Given the expense associated with providing

Internet access to these more remote areas, the cost per customer rises. While government agencies developed programs to address the lack of broadband access, it became clear that getting service to those living in the Last Mile needs the most attention. It is here, at the intersection of need for Internet access for those in rural areas, and the lack of desire from service providers to install or update broadband or fiber optic coverage, that situates my research. Citizens in the Appalachian Ohio region, where there is high unemployment, need high speed Internet access to locate or train for jobs, and to otherwise improve the quality of their lives. Yet, low density population or distances between homes make the investment in broadband cost prohibitive for private suppliers.

Addressing the Digital Divide in the United States: A Brief Overview

The debate on how to resolve this country's Digital Divide issue varies widely. Most recently the discussion has involved the cooperation between federal and some state governments which are working together for solutions. Government initiatives attempted to address issues of the Digital Divide as the Internet grew. Federal and state governments as well as social service organizations acknowledge the importance of informed citizens and began initiatives to encourage more citizens to access information online.

One of the first attempts to address the Digital Divide in the United States came from the E-rate program which instituted a fee on all interstate and international telecommunications services (E-rate program, 1997). That money was then given to schools and libraries to provide telecommunications services, usually just the Internet (Graham, 2011). The One Laptop Per Child Program (OLPC) was a project designed to

provide 100 million low cost laptops to children worldwide. As of 2008 1.5 million laptops were ordered and $2.6 billion in funding from public and private sources (Deva, 2008). While this effort was well-intentioned, too many of the young children receiving the laptops did not have the skills to use them, nor the infrastructure in their communities to make them effective learning tools.

One of the main objectives behind other initiatives was to connect all citizens and to offer better Internet training that expands beyond teaching skills to use social media (Young, 2015). Young (2015) found that "media literacy does not increase simply through consumption of new media by engaging with Facebook or watching *YouTube* videos" (p. 82). Training is needed for increased educational opportunities and to teach people how to utilize the Internet for business development and for enhancing their lives. Citizens also need training to use the Internet, so they become motivated to participate in the democratic process (Potter, 2014; Hobbs, 2010; and Norris, 2001). Comfort and confidence in a skill such as using the computer and navigating the Internet give people incentive to go online and search for information as well as participate in community and issue-centered discussions. But, if people do not have access to the technology, the training to use it, or access to high speed broadband Internet at reasonable speeds, their motivation diminishes.

Presidents Bush, Clinton, and Obama all implemented different programs to resolve the issue of citizens being unable to participate in the digital economy. The goals of these programs were more focused on creating jobs and opportunities for citizens than on addressing civic needs of more citizen participation in a democracy. As early as June

1998, President Bill Clinton spoke to the Massachusetts Institute of Technology condemning the "racial digital divide in America" (techlawjournal.com, 1998). His administration sought to "connect every classroom to the Internet by the year 2000" (techlawjournal.com, 1998). Clinton saw new technologies as having the potential to "create growth and new opportunity" (techlawjournal.com, 1998). Clinton and Vice-president Al Gore recognizing the potential of the Internet, and also the disparities in availability and access to computers, worked with the National Telecommunications Infrastructure Administration to fund initiatives to bring the Internet and computers to more people.

Clinton and Gore proposed a comprehensive initiative to bridge the Digital Divide in their Fiscal Year 2001 budget which included proposals to,

> broaden access to technologies such as computers, the Internet, and high-speed networks; provide people with the skilled teachers and the training they need to master the information economy; and promote online content and applications that will help empower all Americans to use new technologies to their fullest potential. ("Increasing technology access," 2000)

The proposals were a comprehensive effort to recognize high-speed Internet as vital to the economic health of the nation. The Clinton-Gore initiative centered on underserved urban and rural communities, providing a lower-cost rate for Internet access to schools, libraries, rural health clinics, and hospitals. The initiative included adding computers in classrooms, training of teachers, and encouraging electronic commerce among several other initiatives ("Increasing technology access," 2000).

Clinton and Gore established The Technology Opportunities Program (TOP) and the Community Technology Centers (CTC) programs to address the need for more technology training and adoption. The TOP program supported new telecommunications and information technologies to provide education, health care, and public information in the public and non-profit sectors ("Increasing technology access," 2000). CTC programs, according to the archived website, were created to expand community technology centers. Disadvantaged residents of economically distressed urban and rural communities could receive access to information technology and the training to use it at the centers ("Increasing technology access," 2000).

When President Bush took office in 2000, his administration seemed to believe that the government's mission of assisting every citizen to have access to broadband and Internet services was complete. The National Telecommunications and Information Administration (NTIA) under Bush in 2000 stated, "Recent reports suggest that this divide is narrowing, rather than expanding" (NTIA, 2000). Other agencies followed this thinking. After the U.S. Department of Commerce released "A Nation Online: How Americans are expanding their use of the Internet" in February 2002, the Bush administration declared that a "targeted national commitment to bridging the divide is no longer necessary" (edutopia.org, 2011). The Bush administration decreased educational technology funding in Fiscal Year 2003 by 17 percent from 2001 and slated the Technology Opportunities Program (TOP) and the Community Technology Centers Program (CTC) for termination in 2003 (edutopia.org, 2011). Editors of the website edutopia.org in its 20th anniversary examination of the Digital Divide criticized the Bush

administration's rationale for the reductions in funding. They disagreed with the thinking

that since "Americans are gaining access to computers at an acceptable pace and as a

result the role of government can be curtailed" (edutopia.org, 2011). This criticism of the

Bush administration's policies regarding broadband access and the Digital Divide spurred

other organizations to also act.

The Digital Empowerment Advocacy campaign, which noted that "almost half of

Americans do not have Internet access at home and only 25 percent of America's poorest

households are online compared with approximately 80 percent of homes earning over

$75,000," also disagreed with the Bush administration (edutopia.org, 2011). Independent

non-profit policy research organizations such as the Pew Internet and American Life

Project, the Markle Foundation, the Benton Foundation and The Children's Partnership,

all actively engaged in examining the Internet's impact on society to better inform policy

makers, also did not support the Bush administration's claim that Internet service to all

Americans was "Mission Accomplished" (edutopia.org, 2011). These organizations

urged more action on behalf of people without access, or without high speed Internet.

The Civil Rights Forum, Consumers Union, and the Consumer Federation of

America released a report in May 2002 called "Does the Digital Divide Still Exist? Bush

Administration Shrugs, But Evidence Says Yes." The report concluded that the measure

of the Digital Divide is in assessing home Internet access. It also stated that an inability to

access the enhanced content available via broadband is creating "a second-generation

divide" (edutopia.org, 2011, p.2). Members of the Bush Administration admonished

citizens in the Digital Divide, claiming that high speed access was not necessary for low-

income people, or that it was a luxury. In response to the arguments that the Internet is unnecessary or something of a luxury, Mark Lloyd, Executive Director of the Civil Rights Forum on Communications Policy, said, "Being disconnected in the Information Age is not like being deprived of a Mercedes or some other luxury….being disconnected means being disconnected from the economy and the democratic debate" (edutopia.org, 2011, p.2). All these organizations published reports and actively lobbied the government to increase or continue funding for more equal access to broadband throughout the country.

American Reinvestment and Recovery Act. Scholarly findings, reports, and research triggered government bodies such as Congress, the FCC, the Department of Commerce, (Yu, 2002) and the National Telecommunications and Information Administration (NTIA) (2000), to address the disparity in access to information. One factor that contributed to the slow-down of broadband adoption in 2008-2009, was the slow U.S. economy. Congress passed The American Recovery and Reinvestment Act (ARRA) of 2009 in response to the country's economic crisis and to stimulate "job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and state and local fiscal stabilization" (ARRA, 2009). In addition, this Act provided funds for broadband infrastructure in the United States, appropriating $7.4 billion to expand the reach and quality of broadband services (Hudson, 2011).

National Broadband Plan: Connected Nation. Congress, through the ARRA compelled the FCC to complete The National Broadband Plan, which launched a national

effort to provide Internet access and then to expand broadband services to underserved areas. Recognizing that there was indeed a need to expand broadband access and training to more citizens, especially those in rural areas, the federal government developed the Connected Nation program. This was a part of the federal government's Broadband USA program started in 2009 and continued to 2015 (National Technology Information Administration, 2009). Each state set up its own subsidiary of *Connected Nation* and that resulted in the creation of Ohio's *Connect Ohio*.

Connect Ohio. *Connect Ohio*, according to its website worked to "blanket Ohio with broadband Internet access and dramatically improve the use of related technology" (Connect Ohio, 2013). The goals of the comprehensive initiative were to create affordable broadband availability for Ohio, stimulate a better business environment and more effective community and economic development, to improve healthcare, enhance education, and create a more efficient government (Connect Ohio, 2013). *Connect Ohio's* main purpose was to collect and analyze data about home broadband adoption and usage, as well as barriers to adoption in Ohio. It filled the need for research and data in the state that generated statewide collaborations and provided reports for policy discussions.

Connect Ohio was funded in part by a grant administered by the NTIA's State Broadband Initiative (SBI) program to the Ohio Office of Information Technology (through 2014). *Connect Ohio* was also funded by a grant administered by the NTIA Broadband Technology Opportunities Program (BTOP) (through 2013), part of the broadbandusa.gov program. This was a $10 million project in Ohio, including $3 million

in matching funds and raised "$31 million in incremental annual subscription revenue for broadband" (Connect Ohio, 2013).

Every Citizen Online. To meet these goals of increased broadband adoption, *Connect Ohio* implemented *Every Citizen Online (ECO)* as a statewide broadband training program. During 2013, people interested in accessing and utilizing the Internet, could take the *ECO Online* training program for free at public libraries, community colleges, community organizations, and educational centers throughout Ohio. *ECO* recruited 43,537 Ohioans to attend trainings across the state (*ECO* Program Report, 2013). When the onsite trainings stopped at the end of 2013, interested citizens could access free online, self-directed trainings to learn how to get connected and use the Internet as well as access healthcare, education, and jobs information. However, this self-directed online access was apparently not enough to meet the technology and media literacy needs in Appalachian Ohio.

In its Program Assessment Report, *Connect Ohio* found that citizens recruited to participate in the *ECO* program were at a basic level of turning a computer on and off. The report noted that citizens did not have knowledge to open a web browser, making the self-paced trainings impossible. The Assessment Report also noted that there was a heightened need for digital literacy training in rural environments, that participants in rural counties had higher interest and completion rates. However, the *ECO* Assessment Report noted that people not participating in the training were not visiting public libraries to receive the technology assistance. Instead, many sought help from organizations they already frequented and trusted. As a result, *Connect Ohio* developed partnerships with

community colleges, workforce development centers, and other community anchor institutions to serve as supplemental training facilities (ECO Report, 2013, p. 1). The *ECO* Assessment Report also stated that there was an emerging need for enhanced technical training, including workforce development skills, throughout the state, noting in the report that the "economic downturn that caused multiple *ECO* partners to experience budget cuts also unveiled the need for advanced technical skills and job training to spark economic development in Ohio" (*ECO* Assessment Report, 2013, p. 2).

For these reasons, *Connect Ohio* administrators decided to incorporate *ECO* training activities into a new program called *Digital Works*, so that program could provide more in-depth, and focused training to citizens for specific types of jobs. The *Digital Works* training programs were set up to provide job-specific training for customer service and other work-at-home job opportunities in the on-demand call-services industry. Telework, as it is sometimes called, has become a growing industry, as corporations hire lower-wage people to take calls and orders, but gives the flexibility to work-at-home jobs, which saves companies the cost of overhead on facilities and call centers.

Digital Works training program. Launched in June 2013, *Digital Works: Connecting People & Jobs* established eight centers across the state of Ohio, five of which were opened in Appalachian Ohio counties. The program provided employer-designed training for in-demand technology careers, skills development, mentorship, placement assistance, and remote and facility-based opportunities with leading company partners (Digital Works, 2016).

Since service providers resist building out broadband in sparsely populated areas because of the low return on investment, one strategy for stimulating investment in broadband services in rural Appalachian Ohio was to create a customer base for the service providers. *Connect Ohio*, through its broadband mapping services, and its subsidiary program *Digital Works,* developed a jobs training program that required broadband access where tele-work employees could work at home. The theory was that people who are dependent on broadband access at home to perform their jobs would be regular paying customers, would stimulate demand, and thus warrant the investment in equipment for broadband build out. These job training programs were developed by *Digital Works* to partially stimulate the sagging regional economy, but also to stimulate investment by broadband service providers to build out the infrastructure.

When it launched, *Digital Works* received $1.5 million in funding from the Ohio Developmental Services Agency (DSA). According to its website, the program provided "leading-edge customer support and IT jobs for global corporations by providing training, mentorship and job placement assistance, as well as the opportunity for advanced careers" (Digital Works, 2014). The focus of the *Digital Works* training was on how to work remotely and how to take calls from national companies' customers. Trainees also learned how to be a 1099 employee, where the employee is responsible for reporting earnings and paying taxes. Training included learning how to use a computer, the Internet and how to maintain the computer. The focus of the training was teaching participants how to answer in-bound calls for the partner-employers. Each employer/partner helped develop the training curriculum that best fit their company's needs. Participants were

taught how to navigate multiple screens and read scripts provided by the companies. The participants were able to take the *Digital Works* training and then apply to take the certification tests for specific companies which led directly to jobs.

To participate in the training program, interested people had to enroll on the *Digital Works* website by filling out a simple intake form, make a profile and establish a password for access to the *Digital Works* training modules. The students had to attend an orientation session at the selected facility within 30 days of enrollment. A trainer at the participant's preferred facility would call the enrollee and make arrangements for taking one of the regular classes. The online enrollment form asked for information about the participant's education level, Internet and computer availability, as well as their computer skill level.

An online course guide helps learners look over all the course offerings and a dashboard tracks course enrollment and completion. On the intake website, training videos are immediately available for participants. There is a tutorial for how to use "Drive Your Learning," a self-driven learning module. New learners can sign up for a chat room area, where their questions can be answered by other participants in the chat room. Learners work with volunteer and paid trainers while completing the online training modules. Participants track their own progress and manage their classroom on a Dashboard. Every time they complete a class, they earn an electronic "badge" which indicates what skills the participant has earned.

The "Drive Your Learning" module connects trainees to a network of volunteer trainers. Students can question others in the group or the trainers and can access the

module from any computer. Other training modules offer students Internet and computer basics. Some lessons include: how to navigate the Internet and use e-mail, introduction to the Internet, evaluating web pages, Internet safety, Microsoft Word 2010, basic computer maintenance, how to use a mouse, and how to use Windows 8. Other modules let students select courses, learn the basics of "Drive," set up a list of most used sites, and offered discounts for computer equipment, broadband service, and other tools.

Course offerings include modules in job skills: how to write cover letters, resume writing, networking basics, interviewing 101, job applications, business planning 101, guide to starting a small business, and small business cybersecurity. The social media module teaches participants how to use Pinterest, Instagram, Facebook, Etsy and Linked In. The life skills module includes training in money management, car buying, a guide to buying a home, nutrition essentials, a guide to starting a business, taxes 101, business planning, and the U.S. Citizenship Exam Prep. The general education module includes standard exam preparations for topics in K-20 education, including SAT Math preparation, the GED Test tutorial, and the GMAT test prep. To build entrepreneurship in the region, the website also offered a module on selling on eBay. The Basic HTML programming is offered for learners with basic computer skills and includes courses on programming fundamentals, putting a business online, going to more complex trainings including introductions to: HTML, Ruby, Javascript, JQuery, CSS, and PHP basics.

Corporate partners with *Digital Works* created the training modules that helped new computer users gain technology skills. Course modules included: introduction to HTML, GCFLearn Free, PowerMyLearning, Lone Eagle Online Training and the Kahn

Academy. When selecting a course an introduction page gives an overview of what the course covers and then a new window opens with the lessons. The learner reads lesson modules. Once all modules are completed, the learner takes a quiz which delivers the badge that can be shared on Facebook.

Training centers were in empty buildings, or unused space of another social service agency, like the Ohio Department of Jobs and Family Services, or the local welfare office. Training facilities set up in five counties throughout southern Ohio usually had a large, open room with computer stations around the perimeter. Students sat at these stations and received their lessons via online modules when trainers were not leading the sessions. Trainers for the Centers were recruited from those who graduated from the training program with priority given to those who excelled at the training, and who lived in or near the community where the facility was located. They led class sessions, mentored participants through the online training programs and managed the facilities.

Information gathered from the *Digital Works* website shows the program has been successful in meeting its objectives of training, mentoring and connecting participants with IT-related job opportunities. The report indicates over 600 jobs in Ohio have been secured for participants by the end of the fourth quarter of 2015 (Digital Works, 2015). Similarly, some program graduates discussed in the online report the benefit of being able to work-at-home with the various *Digital Works* employer partners, while others said they had access to high-speed Internet through the *Digital Works* facility.

Despite the successes reported by the program, Appalachian Ohio still lags the rest of the country when it comes to technological barriers and adoption of broadband.

While some contend that the Digital Divide is decreasing, it is still present, as witnessed by the Federal Communications Commission, in its January 2016 Annual Broadband Progress Report where it acknowledged that the Digital Divide persists. Key findings from the report show that,

> 34 million Americans (10 percent of the population) lack access to fixed broadband at speeds of at least 25 Mbps for downloads/3 Mbps for uploads; Americans living in rural areas and on Tribal lands continue to disproportionately lack access, as 39 percent of the rural population (23.4 million Americans), and 41 percent of residents of Tribal lands (1.6 million Americans) lack access to 25/3 Mbps service; By contrast, only 4 percent of urban Americans lack access to 25/3 Mbps broadband. (Broadband Report, 2016)

Hoag (2016) argued that both demographics and geographic location have had an impact on broadband adoption and availability in the Appalachian Ohio region. For example, some studies suggest that older rural residents are non-adopters. A 2014 *Connect Ohio* report indicated that lack of available high-speed Internet at home, lack of computers, limited computing skills, and cost all remain critical barriers to broadband adoption and use in the region. With education, training and corresponding employment opportunities, it will be important to understand the participants' meaning of the lived experience of the *Digital Works* program. The meaning participants made from these lived experiences will help in understanding the phenomenon of living in the Digital Divide.

Chapter 3: Methodology

When seeking to understand the meaning-making of participants in the *Digital Works* computer training program, the constructivist grounded theory research design best serves the goal of gathering stories from voices not heard from often. In this design the researcher functions as an interpreter of the participants' experiences and the different levels of meaning the participants share during the data gathering phase (van Manen, 1990). The researcher and participants co-construct meaning of the experience. The structuralist-interpretive paradigm as discussed by Burrell and Morgan (1979) provides a structure and rationale for gathering data from individuals' unique experiences. Reality and knowledge are best understood from the perspective of those directly involved in an experience and this follows Burrell and Morgan's (1979) interpretation that the interpretive paradigm's goal is to understand the fundamental nature of the social world at the level of the subjective experience. This paradigm seeks explanation within the realm of individual consciousness and subjectivity, within the frame of reference of the participant as opposed to the observer of action (Burrell & Morgan, 1979). Every participant's experience in the *Digital Works* training program was unique to them based on their past personal experiences which supports the idea that social reality is best understood when acknowledging the importance of subjective experiences of individuals in the creation of the social world (Burrell & Morgan, 1979). "The search for understanding focuses on the way in which an individual creates, modifies, and interprets the world in which he finds himself" (Burrell & Morgan, 1979, p. 10). The

researcher seeks what is unique and particular to the individual rather than what is general and universal, which is the goal of the in-depth interviews used in this study.

Listening to and interpreting Appalachian Ohio citizens' lived experience of the *Digital Works* training program, using the constructivist grounded theory approach helps in understanding how they made meaning of the training program and as well as their experience of living in the Digital Divide.

Qualitative Methodology

For this study, I used a qualitative methodology because I sought to give voice to marginalized people living in Appalachian Ohio. Qualitative methodology provides the interviewing opportunity to hear peoples' stories in their own words. Qualitative methods also let me ask 'what' questions, like what did the experience mean for you? and 'how' questions like, how people view their experience in the *Digital Works* training program? Spending more time with respondents and probing for deeper meaning of their participation in the program brought forth rich detail that was used in analysis. This method of in-depth interviews follows what Strauss and Corbin (1998) define as the qualitative method:

> Any type of research that produces findings not arrived at by statistical procedures or other means of quantification. It [qualitative research] can refer to research about persons' lives, lived experiences, behaviors, emotions, and feelings as well as about organizational functioning, social movements, and cultural phenomena. (p. 10-11)

Qualitative research concepts helped guide the research because they aim "to provide rich or 'thick' descriptive accounts of the phenomenon under investigation" (Geertz, 1973, p. 76). People's perceptions, reactions and descriptions of a personal experience such as a computer training program are best captured and examined through description. Advantages of qualitative methods overall is that qualitative researchers "focus on depth rather than breadth, they care more about understanding specific situations, individuals, groups, or moments in time that are important or revealing" (Rubin & Rubin, 2012, p. 2).

Constructivist Grounded Theory

More specifically, I used the constructivist application with the grounded theory methodology (Charmaz, 2006) because it permitted me to recognize the need to maintain balance between objectivity and bias while conducting the research. In the constructivist approach to the grounded theory, the research participant and the researcher co-create data together through sharing stories, interpreting and analysis of transcripts, and member sharing of transcripts. I used qualitative in-depth interviews to gather data on how the participants perceived their experience in the *Digital Works* program. Interviewing and talking with participants allows the researcher to gather in-depth descriptions of an existing phenomena (Miles & Hubberman, 1994; Stake, 1995; and van Manen, 1990). I sought to understand what the experience in the *Digital Works* jobs training program meant for participants in relation to their lives. Qualitative interviewing is useful for understanding what meaning people made of their experiences (Denzin & Lincoln, 2000). A major strength of this approach is that it provided me the opportunity to collect data

that reflect the "human" side of an issue – the contradictions, the emotions, and the conflicts people experience, and then to co-create the meaning of what it is like to learn skills that enable participation in the digital world with interview participants.

What is Meaning-making

What is meaning-making and why is it important? Meaning-making is how we organize and make sense of society and our place in it. Experience does not just happen to individuals; it is not a separate occurrence that gets transferred to us from an external force. Experience needs meaning-making context for us to engage with it, and process what happens to us (Kegan, 1982). It's the fundamental core of one's personal identity and purposeful living (Okumu, 2013).

"Meaning-making is a constructive developmental epistemological paradigm that conceptualizes how individuals recognize their experiences in relation to their quest for a consistent self-identify and meaningful engagements with their environment" (Okumu, 2013, p. 13). We create the meaning-making contexts through our attention to those events, activities and experiences that we allow to become part of our lives. Our experiences and our identity help us organize meaning as we actively construct our view of what we experience. Meaning making changes with each new experience we have; with the different people and activities we encounter. This dynamic process of organizing meaning relative to our experiences is referred to as "developmental meaning-making" (Okumu, 2013, p. 14).

Qualitative research is characterized by "an interpretative paradigm, which emphasizes subjective experiences and the meanings they have" for a person (Starman,

2011, p. 30). To gather an "authentic" understanding of people's experiences using 'open-ended' questions seemed to be the best approach for this study (Silverman, 2011). Then taking those data and coding and categorizing them, and working interactively with participants, we co-constructed the meaning of the training experience for them through conversations and emails about the transcripts of the interviews. Qualitative research methods are also an effective tool for exploratory research. By using probing and open-ended questions, researchers can evoke responses that reflect the perspectives of participants. Topics for this dissertation's interviews were formulated to be broad enough so respondents could describe, in detail, their lived experience in the *Digital Works* training program. Those responses were categorized and interpreted so that themes emerged from the data. By striving for balance between objectivity and researcher bias and being guided by the participants' perspectives on what meaning they made of their computer training experiences, I was able to stay true to the participants' data. My role as the main research instrument for data collection and analysis, a component of qualitative research, ensured that the emergent knowledge is co-constructed (Hayes & Opeenheim, 1997).

Qualitative researchers follow the naturalistic approach to research, often guided by social constructivism that focuses on "how people perceive their worlds and how they interpret their experiences" (Rubin & Rubin, 2012, p. 3). This research project adheres to the thinking that "people construct their own realities based on their experiences and interpretations" (Rubin & Rubin, 2012, p. 3). According to Bryman (1988), qualitative approaches "consider reality as socially and psychologically constructed. The aim of

scientific investigation is to understand the behavior and the culture of the humans and their groups, from the point of view of those being studied" (p. 46). Constructivism researchers address the "process" of interaction among individuals, the meaning-making activity of the individual mind (Patton, 2002; Creswell, 2013). Individuals make sense of the world through personal meanings they assign to an experience (Patton, 2002). These meanings are varied and multiple prompting the researcher to look for the complexity of views rather than narrow the meanings into a few categories or ideas. Social constructionism, on the other hand, relies on a consensus among participants' views and experiences and how they construct an agreed upon truth about an idea or situation (Patton, 2002). These realities are negotiated socially and historically through their perceptions and impressions, and then interpreted for meaning by the researcher. In constructivist grounded theory the participants and the researcher co-create the meaning through sharing of stories, and feedback on the interpretation of the meaning by the participants. An individual's culture shapes the way he or she views the world. A social constructivist theoretical framework allows the theory or the pattern of meaning to develop from the data and the participants' views (Marshall & Rossman, 2011). The *Digital Works* training program provided a defined setting in which participants could gather and interact with each other and make meaning of their experience individually, and through interaction with others in the program.

Using a qualitative approach, gathering data from people's experiences offered the best way to understand lived experience. I interacted with participants to elicit impressions of their experience. Through probing questions and follow-up interviews I

was able to gather rich data of personal, interpersonal and structural details. For example, Carnation hot chocolate, home baked cookies and pies and other snacks were frequently shared at some of the training centers. People bond when sharing food and when engaged in a learning experience together. These small acts of sharing food initiated by the center's trainers showed how those gestures made participants feel included, how they contributed to participants' impressions of the training experience, and how it may have contributed to building bonds and community. Details like these, gathered from the in-depth interviews, provided several opportunities to explore more structural meanings for the participants. Sharing my analysis of interviews and my initial coding with participants, hearing their feedback and suggestions, allowed us to co-create meaning of the experience.

By studying how people experienced the computer training program, we may better understand the impact of public policy regarding government-funded training programs. By exploring multiple perspectives, the structural complexities of the training program are revealed. These personal stories assist with interpreting the lived experience as van Manen (1977) suggested, we must understand human life through experience, rather than just explanation. It is important to understand personal experiences of the phenomena—of a program designed to address the Digital Divide—to develop a foundation for a more fair and just society.

I acknowledge that the subjective views of the researcher play a vital part in the study results. I positioned myself in the research to acknowledge that my own personal, cultural and historical background shapes my research design. My experiences as a

professor, journalist and economic developer in the region gave me a breadth of knowledge about the people of Appalachian Ohio. I went into this research knowing of the need for jobs training programs to address the problems associated with the Digital Divide. I made an explanation of what I found with the intent to interpret or make sense of the meanings others have about the world (Merrigan & Huston, 2009). By assuming this position, I was better able to adhere to the qualitative approach of comprehending and attempting to reconstruct the personal perspectives, experiences and understandings of the participants engaged in the *Digital Works* computer training program. Listening to participants' feedback and incorporating it into the emerging categories and themes followed Charmaz's (2006) description of constructivist grounded theory.

In addition to understanding social settings and the meaning making, in this study, I used an interpretative approach. The worldview of qualitative research, that knowledge is a construction resulting from the interaction between individuals and their social world, is an appropriate way to approach understanding an experience of participants in a reality that is socially and psychologically constructed by them and their interaction with others. A constructivist grounded theory approach to the research also adds depth of understanding of individual experience in the computer training program and living in the Digital Divide and allows the data to be more concrete and more authoritative. This study provides an interpretative portrayal (Charmaz, 2006) of the participants as they embrace their computer training and how it made an impact on their lives and their communities. Thus, the research design used in this study ensured that I am immersed in data in such a way that the research process ground participants' experiences and narratives in the final

document (Okumu, 2013). This type of grounding assures that research participants are involved in the critical role in forming and reconstructing the final grounded theoretical ideas (Okumu, 2013) and to document participants' comments as authentically as possible.

Grounded theory has value in capturing what people consider of great significance in their lives including life adjustment and social challenges (Glaser, 1978; Glaser & Strauss, 1967; Strauss & Corbin, 1998). People must adjust to or adapt to social psychological processes such as illness, adjustment issues or life transitions (Glaser & Strauss, 1967; Quint, 1967; Corbin & Strauss, 1988). The meaning-making of participants in the *Digital Works* training program is an example of change in their lives that is worthy of study.

In qualitative research, the theory of what the experience means, comes "as a result of reflection, it enlightens practice" (van Manen, 1990, p. 15). Consequently, my research uses constructivist grounded theory to discover meaning-making of participants in a training program grounded in the data generated from interviews, categorizing, analysis and participant feedback. This approach allowed me to immerse myself in the experiences of the *Digital Works* computer training program participants which developed into personal interaction with them as they describe how they made meaning of their experiences and how that experience shaped their lifeview.

Historically, Appalachians have been ignored by politicians, exploited by industry moguls and society. Thus, it was important for me to elicit and listen to people's stories about their experience, listen for how they used language to describe their experience,

and listen for complexities of their lifeworld. By listening to numerous individuals talk about their experiences, I sought to understand how this group of Appalachian Ohioans perceived and made meaning of their training experience, while listening to the unique experience of each person. Then I coded, categorized, and analyzed ways that their experience connected or explained the common experience.

The constructivist grounded theory methodology guided me to go beyond only presenting an account of the phenomena being studied—the effects of the computer training program—and capture the grounded conceptualizations of the broader meaning-making dynamics that occurred during the research phase, so that I kept the participants' active presence throughout the research process through interpreting their stories and their perspectives (Kumbu, 2013). The memo writing process I used after every interview, coding session, reading of the literature, or meetings with members of my dissertation committee, helped me focus on keeping the participants' and their presence and perceptions at the forefront of the research.

Grounded Theory

Grounded theory has been a methodology at the center of much debate over its authenticity since it was first introduced by Glaser and Strauss (1967). This process has evolved since then through critiques of the methodology by both Glaser (1992) and Strauss (1987) of each other's work, and of others following this methodology (Strauss & Corbin, 1990) and their conceptual frameworks, epistemological and methodological practices (Babchuk, 1994). Glaser views grounded theory as a more hands-off (*laissez-faire*) type of "operation that is inherently flexible and guided primarily by informants

and their socially-constructed realities" (Babchuk, 1994, p. 19). He believed that the informants' world should emerge naturally from the analysis with little effort or detailed attention to process on the part of the researcher (Babchuk, 1994). Strauss seemed to be more concerned with producing a detailed description of the cultural scene without the researcher providing insights and meaning, and more focused on replicability, generalizability, precision, significance and verification, Glaser argued (1992). Glaser advocated more attention to coding and interpretation (1992). Adopting this type of methodology allowed me to build conceptual theories around issues of importance to people's life experiences (Glaser, 1978; Glaser & Strauss, 1967; Strauss & Corbin, 1998). These grounded theory issues of importance in research participants' lives emerged from the voices of the participants themselves and the interpretation of those voices through our co-construction process of meaning-making.

While different scholars use grounded theory differently, it is Charmaz's (2006) focus that informs this research and notes that grounded theory involves: sampling that is theoretical in nature, constant comparative analysis, use of memo's, coding, diagramming, identifying the core emerging themes, integrating emerging themes and their essential properties as well as formulating emerging grounded conceptualizations and theories (Okumu, 2013; Glaser & Strauss, 1967; McCann & Clark, 2003). This study also used the grounded theory methodology for analyzing the qualitative interview data, for coding and identifying emergent themes and patterns as well as for developing grounded theoretical conceptualizations. In this research process, the qualitative interviews and data were analyzed by constant comparison method, first on a

case-by-case basis, then a cross-case analysis, and finally to comparisons of different interpretations interpreted into codes and themes, all the while incorporating responses and feedback from the participants through member-sharing of results, and from the follow-up interviews I conducted.

Ethical Considerations

I applied for and received Institutional Review Board approval in 2015 to conduct interviews with *Digital Works* program participants, their trainers and administrators. Since I did not have access to the names of participants in the *Digital Works* training program, I had to work with the gatekeeper, the *Digital Works* central office and administrative staff to obtain the names and contact information. I signed a non-disclosure agreement with *Digital Works* ensuring I would not reveal participants' names without their permission. For the follow-up interviews, I renewed my application to the Institutional Review Board for approval of the revised interview protocol. That approval was granted in fall of 2016.

Informed consent. Prior to interviews, participants were given copies of the Informed Consent IRB forms to sign and given an explanation of the purpose of the study. They were informed they could stop the interview at any time and told their responses were anonymous. All names of the interviewees were kept anonymous. A code sheet was kept with a key of original names and the anonymous assignment of a code name or number, such as Sara or Ralph. This code sheet is kept in a password protected area of my computer and will be destroyed one year after the research project is completed.

Research Participants

This study focused on people living in a rural area and as members of culture-sharing groups with its collection of behavior patterns and beliefs that set standards for determining what is, what can be, how one feels about it, what to do about it, and how to go about that, as a case study defines groups (Goodenough, 1971). This group was selected because of their participation in *Digital Works* that was earlier identified as an effort to address the Digital Divide and unemployment in the region through training on computers. The following provides some of the characteristics of the people and the region selected for study: Appalachian Ohio is federally-designated as a region experiencing high poverty and unemployment rates, as well as low education achievement and widespread needs for basic infrastructure—water, sewer and roads (ARC.gov). While the region is diverse in geographic terrain (from rolling hills to mountains), the people share a culture of self-reliance and independence and other characteristics that the citizens identify as different from other regions. Sometimes residents are described as being distrustful of outsiders and rely heavily on family as the center of their lifeworld (Harrington, 1962; Cantrell-Gordon, 2010).

Much of the region experiences isolation and exclusion from society due to lack of access to online communication opportunities. Individuals participating in this study share similarities in geographical location, and have a sense of place, that is, they identify with the natural surroundings, the hills, wooded terrain with open spaces between homes, which can be comforting but can also exacerbate isolation and limit access to broadband service. Their access to media and educational opportunities is based on where they live.

Residents share cultural linkages through history, traditions and cultural norms. High levels of unemployment and poverty and low education attainment are definitive descriptors of the region. These similar characteristics make this region and the attempt to address unemployment well suited for a qualitative approach (Patton, 2002; Creswell, 2013). Residents have similar cultural linkages, but their individual lived experiences will inform how a program designed to address unemployment in a region, affected individuals, and what their individual lived experience meant in their lives.

The Appalachian region is bounded (Creswell, 2013) by geography and the federal designation for the area. Poverty rates, education levels, unemployment rates are used by the ARC to determine inclusion in this designation. The poverty rate and rural geography define the region and create challenges to accessing the Internet, media and developing computer literacy. This study focused on a sub-section of Appalachian Ohio, the seven counties of Ohio designated as distressed by the ARC: Adams, Athens, Meigs, Morgan, Noble, Pike and Vinton (ARC), as well as several at-risk counties, Scioto, Gallia, Perry and Jackson. These counties were selected for the study based on high poverty rates, low income and because many social change agents and their organizations work in these distressed and high-risk counties. These seven counties also include cities where *Digital Works* opened seven of its regional training centers. The ARC defines counties as "distressed," "at-risk," "transitional," "competitive," and "attainment" using an index based on county economic indicators of unemployment rate, per capita market income and poverty rate and ranked with other counties in the nation (ARC.gov). "Distressed" counties are the most economically depressed counties; they rank in the

worst 10 percent of the nation's counties. "At-risk" counties are those at risk of becoming economically distressed. They rank between the worst 10 percent and 25 percent of the nation's counties. "Transitional" counties are those transitioning between strong and weak economies, and rank between the worst 25 percent and the best 25 percent of the nation's counties. "Competitive" counties are those that are able to compete in the national economy but are not in the highest 10 percent of the nation's counties. Attainment counties are the economically strongest; they rank in the best 10 percent of the nation's counties (ARC.gov). The Appalachian Ohio region is home to marginalized people because of location, education, economics or geography. They struggle yet survive and their stories are important to study.

Recruitment of participants. I used a purposeful sampling method to select participants of the *Digital Works* training program to understand their personal experience. Patton (2002) explained that a purposeful sampling strategy approach enables the researcher to select individuals to study who have participated in a specific phenomenon or issue and who can provide 'information-rich' cases to study in-depth (p. 46). This sampling technique is consistent with grounded theory methodology outlined by Charmaz (2006).

I sought "first-order" narratives where the individual participants "tell stories about themselves and their experiences" (Creswell, 2013, p. 150) in the *Digital Works* program and of their experience while living in the Digital Divide with the aim of understanding the impact on their lives and communities. This research focused on participants' impressions of and experiences in computer and Internet trainings conducted

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by *Digital Works*, an extension program of *Connect Ohio's Every Citizen Online* program and how those trainings influenced opinions of living in the Digital Divide.

Participants were identified from a list gathered by *Digital Works* staff from the predetermined sample of people who took the *Digital Works* training program. The list was narrowed to include only the names of participants in the seven southern Appalachian Ohio counties where *Digital Works* had training centers. *Digital Works* staff initially contacted participants in the trainings via email, asking if they would be willing to be contacted for interviews. *Digital Works* staff entered the names of those who responded positively into an Excel spreadsheet, which *Digital Works* then provided to me. The *Digital Works* emails also suggested that participants could contact the researcher directly if they were interested in being interviewed. I sent a second email to all participants asking for times they were available to be interviewed. I contacted participants by email and phone to arrange interview times and places.

In addition to purposeful sampling, snowball method was also used by asking participants to recommend a friend, associate or family member to interview. Snowball sampling relies on recommendations or referrals from the purposefully selected interviewees (Patton, 2002, p. 194). By using this method, I was able to expand the sample size. While I could not pre-select interviewees, and their characteristics because I had to rely on interested volunteers who responded to the initial email request for an interview, I was fortunate that this response group represented a wide range in experiences, ages, race, gender, ethnic backgrounds and socio-economic backgrounds. This added variety and rich description of the *Digital Works* training program

experiences. At this point in the research process, I had very little prior knowledge of the individuals who took the training program or why, or the results of the program, so I do not believe there was any selection bias (George & Bennett, 2005, p. 24) in recruiting participants for the study.

Out of 507 people from the Appalachian Ohio region reported to have been trained by *Digital Works*, 35 agreed to be interviewed for the preliminary interview phase. (I reached two more for interviews in the follow-up phase). I interviewed a total of 37 people for this study. A breakdown of the figure shows two were male and 35 were female. The participants were between the ages of 18 and 75. After transcribing and coding the preliminary interviews, I shared the transcriptions with the interviewees, who gave feedback so that we could co-construct meaning. Then, I decided to conduct follow-up interviews to gather more detailed data. The follow-up interviews focused on the developing codes, categories and themes emerging from the data. In grounded theory, this research process is referred to as theoretical sampling (Glaser & Strauss, 1967). This process allowed me, as researcher to gather rich data and to expand and hone the emerging themes by seeking more data to confirm or counter those emerging themes (Okumu, 2013) with the feedback from research interviewees (Charmaz, 2006).

Biographies of interviewees. From the Appalachian Ohio counties listed above, I interviewed 35 people with the following characteristics. Of the initial 35 who agreed to be interviewed, 17 responded to the follow-up emails and phone requests. These 17 had taken the *Digital Works* training program. Brief biographies of those 17 interviewees are

provided for background and ease of navigating through the responses. Pseudonyms are used throughout.

1) **Jewell:** Living in rural Adams County this 57-year-old woman has a high school diploma, owned and managed a trucking business with her husband, but they had to shut it down because of the declining economy. They live alone in Winchester.

2) **Mary Ann:** This 41-year-old woman attended a community college but did not graduate. She lives outside Gallipolis and takes care of a husband with cancer and other illnesses, and a teenage son. She is the financial provider for the family through her on-demand call job. She has a "significant speech impediment" (a stutter) that had limited her job opportunities in the past.

3) **Beth:** This home schooled 27-year-old woman received her high school GED and was accepted to a two-year college. She works a temporary construction job and cleans vacation cabins in the Hocking Hills to earn money for college. She took the *Digital Works* training at the Hocking College pilot center set up for college students.

4) **Rachel:** is a 58-year-old woman living with her husband in Zanesville. She was recently laid off from a full-time job that required a 45-minute drive to work daily. She has a high school diploma.

5) **Ellen:** is a 45-year-old Chesapeake native, who has cared for her three younger brothers since her mother died when she was 20. The youngest brother lives with her, the middle brother is autistic and lives in a developmentally disabled services center. She takes him to doctors' appointments and is his care advocate. The other

brother, his twin, passed away in 1990 from a brain tumor. She was unemployed, and six hours shy of a bachelor's degree. She has a learning disability—dyslexia, that she works hard at overcoming but it has also limited her employment opportunities.

6) **Gayle:** After driving 85 miles each way to work in a mental health facility for 24 years, Gayle, a 66-year-old Carrolton woman was glad of her retirement in 2013. She has a bachelor's degree and worked as an occupational therapist. She lives alone.

7) **Sarah:** A reduction in the workforce put Sarah, a 70-year-old woman out of her job after 19 years in Medicare support. She commuted from Logan to Columbus, about 54 miles each way. She has a high school diploma and lives alone.

8) **Francis:** is a 64-year-old Portsmouth woman, who retired from the mental health field and working in Human Resources. She has an associate's degree and lives with her husband. Her computer experiences were limited prior to signing up for the *Digital Works* training.

9) **Mickie:** Even with an associate's degree from a community college, Mickie, a 42-year-old Peebles woman could not find a job for two years after completing college. She did not want to commute an hour to a larger city to a job as she and her husband share an unreliable car and she wants to be home for her minor-aged son.

10) **Jill:** is a 54-year-old native of Winchester, who commutes 98 miles round trip for a $10 an hour temp job. She has two felony convictions, which limits her job options. She attended college but did not graduate. She supplements her hourly pay with her deceased husband's Veteran's compensation.

11) **Eleanor:** This 60-year-old woman has five years of college education and returned to her native West Union town to be a caretaker for her elderly mother and seriously ill sister. She was out of the workforce for eight years before finding *Digital Works* was an option for her.

12) **Jackie:** Discovering she had cancer prompted this 35-year-old West Union woman to seek part-time employment with less stress and flexibility so she could go to her treatment sessions. She attended college for one year. She lives with her husband and four minor-aged children.

13) **Ruth:** is a 56-year-old Logan woman who attended but did not graduate college. She was working part-time as a retail cashier, then full-time in a customer service office, when she was laid off. She lives with her husband.

14) **Angela**: is a retired 73-year-old woman, who is active in social change issues and enjoys being around people, especially those working on social justice issues. She has a master's degree in social work. She and her husband share a home in Athens.

15) **Charley:** This 55-year-old man worked as a stockbroker in the insurance and financial planning industries for 30 years. He has a bachelor's degree and advanced professional training and licenses. He had "a mid-life crisis at 40,

divorced and fell in with the wrong woman and a cocaine lifestyle." He wrote some bad checks and served 22 months in prison. The felony convictions prevented him from getting a job. He lives alone in Logan.

16) **Emma:** is a 70-year-old retired woman who attended, but did not complete, college. She lives in Portsmouth with her husband. They have one son who moved from the area for a job.

17) **Becky:** is a woman in her early sixties, who manages a family farm in Albany with her husband, and helps her children grow their farm-related business, partly through using the Internet. She's not real interested in learning computers or the Internet. She still uses a landline for Internet connection, and only occasionally sells antiques online.

The other 18 interviewees consist of people I found through the snowball method who were interested in discussing their Digital Divide experiences. I also interviewed two trainers and four administrators of the *Digital Works* program.

Phase I: Preliminary Interviews

I conducted research in two different phases: preliminary phone interviews and follow-up face-to-face interviews. Phase one of the research process involved preliminary interviews of participants in the *Digital Works* training program, as well as in-depth interviews with trainers and administrators of the program. These were transcribed and shared with members for feedback and co-construction of meaning. Phase two of the research involved face-to-face follow-up in-depth interviews with participants which

were recorded, then transcribed, and shared with participants. Again, we co-constructed the meaning of their comments and my interpretation.

Qualitative Interviewing

To gather data on the meaning-making by participants in the *Digital Works* training program, I applied qualitative interviewing techniques for this study. A qualitative interview method is defined as a method that allows a researcher to enter "another person's perspective" (Patton, 2002, p. 341). It is also a "conversation that has a structure and a purpose" (Kvale, 1996, p.6). Interviewing goes beyond everyday conversations with people. It is a process that involves careful listening and questioning and has the goal of obtaining information or testing knowledge which is the phenomenology method of interviewing outlined by van Manen (1990). This is like the grounded theory method of gathering information in that both rely on the informants' perspective for data gathering, but grounded theory involves analysis and interpretation of the data and co-construction of meaning between the researcher and interviewees (Charmaz, 2006). The interviews I conducted were conversational with probing, follow-up questions to elicit more detailed responses (Charmaz, 2006).

Qualitative interviewing is relevant to this research design as it provides the right tool for answering the research question, which is aimed at collecting in-depth information from participants of the *Digital Works* program, how it made an impact on their lives, how they shared the experience, their meaning-making of the experience, and what it is like to live in the Digital Divide. The interviews were conducted with the aim of getting unique information held by the informant, to uncover a "thing" that a

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researcher was not able to observe and to collect "numerical aggregation of information" from different people (Stake, 2010, p.95). Interviews are also conducted with the purpose of getting understanding of the experiences of other people and what meaning they make of such experiences (Seidman, 1998). "Interviews seem central to making sense of our lives" (Silverman, 2011, p.54) and were the logical choice for my research. Researcher Bridget Byrne (2004) wrote:

> Qualitative interviewing is particularly useful as a research method for accessing individuals' attitudes and values—things that cannot necessarily be observed or accommodated in a formal questionnaire. Open-ended and flexible questions are likely to get a more considered response than closed questions and therefor provide better access to interviewees' views, interpretation of events, understandings, experiences and opinions… (qualitative interviewing) when done well is able to achieve a level of depth and complexity that is not available to other, particularly survey-based, approaches. (p. 182).

Data collected through this method include thick-rich descriptions and provide in-depth information, which is useful in discovering meaning about a phenomenon in the lives and experiences of people (Knox & Burkard, 2009). Patton and Cochran (2002) argued that interviews are different from everyday conversations in the sense that interviews follow a rigorous process to ensure reliability and validity in collecting information. The goal is to ensure that both the researcher and users of the findings are confident the findings reflect the goal of the research, rather than the bias of the researcher (Patton & Cochran, 2002). To achieve this, researchers find out information

from participants by posing neutral questions, engaging and listening attentively to responses, asking follow-up questions and using probe questions to clarify statements and elicit more information. It is also important that researchers do not lead participants or encourage them to provide answers that the researcher agrees or disagrees with (Mack, et al, 2005). I followed these methods while conducting my interviews.

Semi-structured in-depth interviews. Interviews in this research provided the opportunity to hear people's stories about their lives and their experiences as they interpreted them through the lens of their backgrounds, life in their communities and their educational and employment experiences. The qualitative approach focuses on a "naturalistic, contextual based and holistic understanding of the human being" (Gelo, Braakmann, & Benetka, 2008, p. 268). Hearing stories of previous computer experience and trainings throughout participants' high school years provided a point of contrast and comparison that gave them a way to express their feelings and ideas about their culture, geographic location and socio-economic perceptions as they relate to the Digital Divide.

Semi-structured interviews allow researchers to use an interview protocol of many predetermined questions to ask respondents questions in a systematic order. This structure allows the researcher to follow new leads, while still maintaining control of the interview (Berg, 2001; Turner, 2010). The major strength of this approach is that, while it allows a researcher to collect information that covers general areas of the topic, the researcher can also ask follow-up and probe questions based on responses of interviewees to pre-constructed questions. This qualitative study using techniques of open-ended interview questions helped me to elicit answers of "how" and "why" people chose to

participate in the *Digital Works* computer training program, and to hear, in their own words, their perceptions of the experience. The interview questions aimed at encouraging participants to discuss contextual conditions surrounding the experience of the training program.

Qualitative interviews helped me reconstruct the events at the training programs that I never experienced (Rubin & Rubin, 2012). The interviews were meant to create portraits of the complicated process of the computer training program, and then using constructivist grounded theory methods find patterns among the different participants' experiences. Studying lived experience can mean more insight into a phenomenon because, these patterns can help identify other issues or ideas because, "sometimes talking to those involved in a process or program can challenge long-held assumptions and help recast ineffective public policies" (Rubin & Rubin, 2012, p. 3). The interviews explored the experience and perceptions of participants in the training about its value and impact in their lives. The goal of the in-depth interviews was to understand the world from the perspectives of those participants: what was it like to not have computer skills; to not have confidence they could learn new skills; what was that experience like while they learned new abilities and to understand how that training made an impact on their lives? In-depth interviewing and discussions with participants also helped them to examine how their interactions with other participants during the trainings gave them a way to discuss their impressions and the impact on their lives.

It is imperative that the interview aims at being replicable, so that someone else could use the same topic guide to generate information that is similar; and systematic, to

ensure that the researcher is not picking interviewees or data that support a pre-existing notion they have about the answers (Rubin & Rubin, 2012). The goal of this study was "to garner complex, interpretive data" (Rubin & Rubin, 2012, p. 115) from my subjects consistent with the subjective-interpretative paradigm explained by Burrell and Morgan (1978). The stories and perceptions of participants of the *Digital Works* training program are important for understanding the value and effectiveness of that program for those people, as well as hearing their ideas for addressing the Digital Divide. By exploring and capturing multiple perspectives from participants, the complexities of the training program and its levels of impact could be analyzed. I could discover through coding, analysis and themes how the participants made meaning of this experience, and what importance that it had in their lives.

The approach selected for the interviews is what Rubin and Rubin (2012) described as "responsive interviewing" (p. 5), which involves selecting people to interview who are knowledgeable and have participated directly in a phenomenon, listening to what they say, then asking follow-up questions based on their answers (Charmaz, 2006). The technique for conducting responsive interviews involves the interviewer asking most of the questions, and the interviewee providing the answers, unlike the more two-sided style of ordinary conversations. In addition to active listening, through notes and tape recording, I kept a record of the conversations which were focused on one topic, explored as thoroughly as possible instead of jumping from one topic to another, as in ordinary conversation. The interviews utilize research questions to shape the conversation, where the questions ask, "why something happened, what it

means, or how a process or event unfolded" (Rubin & Rubin, 2012, p. 5). These questions focused on how participants understand their world before and after the training program. Responsive interviewing emphasized flexibility in the interview protocol design, which was necessary, as some of the questions answered by interviewees required changes based on the different responses, and the personalities of the people providing answers. Some were more forthcoming with details, others had to be coaxed, but the responsive interview structure permitted that flexibility and adjustments. As Rubin and Rubin (2012) explained, responsive interviewing encourages "building a relationship between researchers and conversational partners" (p. 10). I felt I had good rapport with my interviewees because they shared personal details with me, and we had comprehensive conversations about their experiences in the training program that impacted their personal lives. "Responsive interviewing assumes that people interview events and construct their own understanding of what happened, and that the researcher's job is to listen, balance, and analyze those constructions to understand how people see their worlds" (Rubin & Rubin, 2012, p. 10). Gathering these intimate details about the training experience through active listening gave me insightful data to help me analyze how people made meaning of the *Digital Works* training program and their experiences in the Digital Divide.

"Qualitative researchers are more likely to look at events as they unfold over time, looking at chains of causes and consequences and searching for patterns" (Rubin & Rubin, 2012, p. 6), which is why I sought information on more than just what happened,

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but how participants came to the training and how they utilized what they learned and what that meant to them.

      Interview protocols. Interview protocols were planned, with questions organized so they linked to one another to obtain information needed to complete a whole picture of the program and its impact and value in individuals' lives. I developed a detailed interview protocol with questions that were open-ended inquiries asking participants to share their experiences and perceptions of the training program and living in the Digital Divide. I sought to understand how they made meaning from this experience. For the preliminary interviews, I developed an interview protocol based on data I anticipated needing for the research, such as demographic information, what prompted them to participate in a *Digital Works* training program, and questions that would elicit their descriptions of their experiences. See Appendix B for preliminary participants' interview questions. The protocol was tested by peer graduate students who evaluated the protocol for evidence of researcher bias and questions that followed the goals of the study. Suggestions were included in revisions prior to using the protocol in interviews. Committee members gave feedback on the interview protocol as well. The preliminary interview protocol I used consisted of 15 questions for participants, 14 questions for administrators and 11 questions for the program trainers. The interview format for all participants began with introductory questions that allowed me to collect demographic information. Then I asked non-threatening, generic style questions which allowed participants to provide answers that described their experience. Follow-up and probe

questions were useful for getting more in-depth information from the participants and follow-up on the emerging codes and themes from the data.

For example, while I started the interviews to seek information about the *Digital Works* training program, such as what did participants learn? what and how they were taught, how did they feel about class size—mainly logistic questions, some participants responded to probe and follow-up questions, opting to share more personal information about their lives. Interviews therefore became more conversational and evolved around participants' experience and their feelings. Occasionally, I found myself empathizing with their personal stories. Such stories were also critical for appreciating both the learning and personal lived experience of participants with the *Digital Works* program. This fed my pedagogical desire to learn about the impact of living with the Digital Divide.

The study sought to develop "descriptions of the essences of these experiences" (Moustakas, 1994) and participants meaning-making process. The interview protocols were developed to elicit participants' stories and follow-up probe questions were designed to gather details and descriptions. I sought the thick, rich description Geertz (1973) described by asking questions about the environment of the training sessions, the mood, tone, the setting, the presence of other participants, and descriptions of other events that occurred during the trainings and other questions that addressed the research question guiding this study. The following provides a description of the interview questions I asked and the descriptions of what I sought from those questions.

Interview protocol description. Asking participants about their communities and sense of self in those communities helped capture information about their consciousness of sociopolitical influences in their lives. This baseline response provides a means to measure if they perceived any changes in how they view their communities after the computer training program. I asked about how they view aspects of their community in the digital world and if this view stimulates a desire to take any action toward improving digital access in their communities or getting more involved in community activities in general.

The interviews were kept conversational using open-ended questions, focusing on questions of information the participants can answer from what they know or the experience they had. Clarifying questions, follow-up questions and probe questions were used as well to gain information relative to the study. Along with "why" questions, alternatives were used, such as: What influenced you? What caused you to act (or not)? What contributed to (that view, that idea, that attitude, etc.)? What shaped that idea? (Castillo-Montoya, 2016).

Introductory questions put the respondents at ease by letting them provide narrative descriptions. Questions about their neighborhoods and communities are non-threatening and provided the respondents the opportunity to get comfortable describing personal experiences and impressions (Patton, 2015). These types of questions are also relevant because the community where respondents grew up and the culture surrounding them may shape their views of social relations, structures, and opportunities (Castillo-Montoya, 2016). Respondents' answers to these questions led me to ask additional

questions about their culture and communities and their view of themselves and their place in their community, as well as their perception of community needs. These questions and answers provided insights into their sociopolitical consciousness and how they understand the influence those forces have on obtaining broadband/Internet access.

Concluding questions offered a way to transition out of the interview experience. These types of questions provide the interviewees with a reflective, closing experience for the interview. For example, I asked, 'If you could give advice for administrators of the program, what that would include? What advice would you offer for future participants in the program? What message would you deliver to State Legislators who determine funding for this program?'

The open-ended questions written in a non-judgmental manner aimed at having participants describe experiences and feelings. I intended the questions to "promote a positive interaction, keep the flow of the conversation going, and stimulate the subjects to talk about their experiences and feelings" (Kvale & Brinkman, 2015, p. 157).

As I entered the field, I listened carefully for ways to improve the interview questions and tweaked them to align with participants' experiences, all of which are part of the iterative nature of qualitative research (Castillo-Montoya, 2016, p. 826). I created an interview protocol matrix to map the interview questions against the research questions to ensure they aligned. The original phone interviews were a pilot test to gauge the range of answers and areas respondents felt comfortable discussing. The preliminary interviews also provided a deeper understanding of the training program, how it flowed, initial responses from participants, trainer assessments, and administrators' overviews of

how they thought the program went. Codes and themes emerged from this information which helped with drafting follow-up interview questions.

Using the Interview Protocol as a research instrument helped guide the data collection as a map of the types of questions that needed to be asked yet left open the possibility of following a line of responses in a flexible manner. "Interview questions developed in the field can solicit rich data when they maintain congruence with any changes in research questions" (Jones et al., 2014).

I used this set of questions as my interview guide, using these questions as prompts to get interviewees talking about their experiences. For example, I asked if other people were in the training sessions with them and what that was like for them. Throughout the interviews I adjusted questions to evoke more personal responses. For example, when I asked, "What promoted you to participate in *Digital Works* training?" and the interviewee responded, "I needed a job," I followed up with probe questions, about their current job, how long they may have been out of work, and what type of work they did. Sometimes the questions were unstructured resulting in a more conversational approach to the interview.

I gathered basic demographic information—education level, age, number in household, and what type of Internet service they had at their homes now— using mostly closed-ended questions. Then, I asked participants how they learned of the *Digital Works* training program, and what prompted them to sign up to take the training. Using open-ended questions also seemed logical to me in this research project. In qualitative research, Silverman (2011) noted, "Authenticity rather than sample size is often the issue….The

aim is usually to gather an 'authentic' understanding of people's experiences and it is believed that open-ended questions are the most effective route towards this end" (p.44). Open-ended interviews overcome the inadequacies of survey research which uncovers numbers and quantities, but not the "why" of a research subject. The 'why' of people's personal stories became the impetus for the interviews because, "according to emotionalism, interviewees are viewed as experiencing subjects who actively construct their social worlds; the primary issue is to generate data which give an authentic insight into people's experiences; the main ways to achieve this are unstructured, open-ended interviews" (Silverman, 2011, p. 169). Participants seemed to appreciate this style of questions and the ability to share their personal stories and opinions. This type of interview process opens the way for researchers and interviewees to create and develop a foundational relationship that is enriching and empowering to both (Okumu, 2015). Researchers become part of the life experiences of the interviewees through this process. The bond will continue, as the two become part of each other's lives through the knowledge sharing and analysis process. In addition, many of the participants felt relieved and grateful that someone sought out their opinions on such a critical issue as the Digital Divide and its impact on jobs and community. For many, this was the first time they had ever been asked or interviewed on their life experiences of living in the Digital Divide. They reported feeling thankful that someone was listening to them and their concerns.

Main questions focused on the research question. I used probe questions for more information as "probes are expressions that encourage interviewees to keep talking on the subjects, providing examples and details" (Rubin & Rubin, 2012, p. 6).

Phase II: Follow-up Interviews

After analysis of the preliminary responses, I saw gaps where more information could provide additional insight into participants' meanings and their explanations of their experiences. I designed a follow-up protocol with questions that were more probing about respondents' original answers, to fill in gaps, to explain ideas better, and asking more probing "how" questions as to how this program had an impact on their lives. Some of the follow-up questions followed themes that emerged from analysis of the preliminary responses and allowed for testing and exploring those themes to refine or modify my interpretations. Follow-up questions asked interviewees to elaborate on key concepts, themes, ideas, or events" that they have mentioned in preliminary interviews to provide me with more depth (Rubin & Rubin, 2012, p. 6).In the follow-up interviews, I asked the follow-up participants how they reacted to my preliminary summary statements, my interpretations of the emerging themes and explored any areas they may have disagreed with my assessments. This gave me more information for coding and analysis of their interpretations of the training experience.

Qualitative research should reveal perceptions of participants, but also their interpretations of those experiences (Ritchie, 2008). I sensed that the interviewees had more to say about their training experience and how it impacted their lives. The follow-up interviews involved more questions about how the participants made meaning of their

experience. Dilthey (1985) described this as studying people's 'lived experiences.' Lived experiences involve our immediate, pre-reflective consciousness of life (Dilthey, 1985). I sought more depth from interviewees. I saw places where the stories could have been elaborated upon. I decided to conduct follow-up interviews with the 17 interviewees. I developed a more detailed follow-up interview protocol, using the preliminary interview protocol as a guide for designing the follow-up questions. I used emerging codes and themes to craft questions that would elicit more detailed responses from the participants and offer insight into meaning making processes and what was important in their lives. The follow-up question protocol is available as Appendix B. The follow-up interview protocol was approved by the IRB. Then, I sent an email and called all 17 of the initial interviewees, who all had agreed, during the initial phone interviews, that I could contact them with any follow-up questions. Of the 17, nine interviewees responded and agreed to follow-up interviews. These became the sample size for the follow-up interviews. I made arrangements with the nine interviewees, and met them at the public library, coffee shops or restaurants in their communities. Each of these interviews was recorded and then transcribed.

In deciding to conduct follow-up interviews, I sought more depth and detail from the interviewees, more meaning from what they had shared previously, and the opportunity to test my initial analysis of the original responses from interviewees. A deeper discussion of these themes and findings will occur in the next chapter, but after reviewing these initial findings I sought deeper meaning of the facts from participants. I wanted to add to the findings to probe for the deeper meanings in participants' lives, their

personal perceptions and lived experience and to explore how the information about the experience of the training program was disseminated throughout the Appalachian communities by these participants. After analyzing data from the initial 17 interviews, most conducted by phone, the data were insightful and suggested that there was more information or deeper meaning that could be learned from respondents, thus the need for follow-up interviews.

I wanted to know: What did hope mean to the participants? How did the program change their lives? How did the program impact their lives? How did the program stimulate participants to be more involved with their communities? How did the program help them to be more aware of the need for broadband access in their communities? Did the program help participants become more vocal about getting broadband access? In the follow-up interview phase, I used follow-up questions and prompts to illicit more detail and depth from specific interviewees, such as:

In our last interview, you mentioned that the *Digital Works* training program

--gave you hope

--gave you self-confidence

--gave you courage to be more involved in your community

--helped you find a job

--made you feel 'empowered'

Can you tell me more about that? What does ____mean to you?

What was occurring in your life when you first started taking the training course?

How did the course lead you to that description of it, and its impact on your life?

How long were you in college? What area of study did you pursue? What was college like for you? How did you reach the decision to keeping going, or stop attending?

To gain a deeper understanding of the meaning interviewees provided in the preliminary interviews, I conducted follow-up interviews that sought more clarity, description and precision in the meanings (Rubin & Rubin, 2012, p. 6). I aimed for "conversational partnerships" with the interviewees, where I showed respect for their experiences and their interpretations of their training, and emphasized that the interview was a "joint process of discovery" (Rubin & Rubin, 2012, p. 7), where we learned from each other. But I viewed the interviewee as an individual who had a distinct knowledge, experience and perspective different from the other participants. With carefully worded requests, I was able to convince all these participants to permit recorded interviews. I again promised anonymity, and to provide them a copy of the transcript of the interview when completed. That the interviewees agreed to follow-up interviews with me when requested indicated that trust in the relationship was built during our initial encounter, and they trusted me, the researcher, to protect and respect the intimate or sensitive details of their lives that they had shared previously. This level of trust led to a congenial and cooperative experience for the interviewee and myself where I tried to make them feel understood, respected, and accepted as being a trusted source of reliable information (Rubin & Rubin, 2012, p. 7). Appalachians as a culture generally are guarded in their conversations, whom they trust, how forthcoming they are with personal information, partly out of years of being disrespected, taken advantage of, and not listened to (Duncan,

1986). My experience in this process showed that gaining participant trust through listening and being respectful results in rich data.

The follow-up interviews more fully explored the experiences, the meaning-making and perceptions of participants in the training on its value and impact in their lives. The goal of the in-depth interviews was to understand the world from the perspectives of those participants: what was it like to not have computer skills, to not have confidence they could learn new skills, what was that experience like while they learned new abilities and to understand more fully what it is like to live with the Digital Divide.

Data Collection

For the preliminary interviews, only two participants agreed to face-to-face interviews. I interviewed these participants at a public library and a coffee shop near their homes. These interviews were recorded, and later transcribed. Public places for interviews had a lot of background noise and distractions and proved to be an inconvenience for some of the respondents. Additionally, 15 participants opted for phone interviews due to the severe winter weather when I was conducting research. A surprising number had transportation issues including unreliable or broken-down cars and did not want to travel. Additionally, because of unfamiliarity with the researcher, interviewees could have been hesitant for face-to-face interviews. Interviewing participants on their "home turf" or in their homes did not seem to be an appropriate option because some were hesitant at being interviewed by a stranger. Asking to come to their homes did not seem to be appropriate. After several attempts to meet in person, or at a public place, the

phone interviews became the option where respondents were most comfortable. Lindlof and Taylor (2011) discussed phone interviews as providing a way to reduce background distractions and noise of a public place. Phone interviews were also an option to create a personal and private connection with an interviewee if using a landline (Lindlof & Taylor, 2011, p. 189). Using their cell phones in the privacy of their homes seemed to make the interviewees feel more comfortable than traveling to be interviewed.

Mobile phones add a different dynamic to the interview. The respondent could be multi-tasking while responding to interview questions. I was fortunate in my series of phone interviews. Interviewees focused on our conversation, were not distracted by other tasks, and they spent the time I needed giving answers to my questions. The stories that they shared were important to them. While Lindlof and Taylor (2011) noted that phone interviews can be impersonal and a poor substitute for visual cues and clues to respondents' physical reactions and body language, my experience was that the interviewees really wanted to talk and share their impressions of their *Digital Works* training and their experience of living in the Digital Divide. Lindlof and Taylor (2011) argued that talking on the phone has its value in qualitative research if done well. Conducting face-to-face interviews is not always possible, but "a phone interview can be as intimate and engrossing, and ultimately just as good at getting full responses, as an in-person interview" (Lindlof & Taylor, 2011, p. 190). Participants may have felt freer to share their personal information because they did not expect to meet the researcher (Lindlof & Taylor, 2011, p. 190). In general, I found that many of the interviewees opened up to me and shared personal details of their lives and situations before, during

and after their participation in the *Digital Works* training program. With Lindlof and
Taylor's (2011) ideas in mind, I felt comfortable relying on phone interviews for
collecting data.

These open-ended types of questions prompted participants to share their personal
stories. I followed the interviewees' responses, occasionally having to rely on close-
ended questions to steer the interview back to my guide list of questions, which I used
only to fill in details at a point in their story where my data needs seemed relevant.

I wanted interviewees to be comfortable talking about their experiences with the
Digital Works training program. Ordering the topics in the interview seemed to help.
Opening topics were more generic, non-threatening questions, about their lives, family,
age, schooling and their computer training and experiences. The purpose was to get
participants talking, feeling comfortable and to understand the "discursive, conversational
style of data collection" (Ritchie, 2003, p. 112). These opening questions helped set a
context for later stages of the interviews and served as a guide for follow-up questions
during the preliminary interview stages.

I found throughout the project, in this preliminary interview stage, I had to adjust
my research strategies to gain cooperation from the interviewees. Many of the
preliminary interviews took place later in the evening, often at 10:30 p.m., after the
interviewees had completed shift work on the jobs they acquired after taking the *Digital
Works* training. They explained that their time limitations prevented them from meeting
in person to do interviews. Being new to this type of intensive research, I did not argue
with interviewees, or push too hard to try to convince them to meet in person. I tried to be

respectful of their time and privacy, and not be too insistent. In retrospect, I should have been more assertive with respondents in the preliminary interviews, to meet in person, or be recorded, for richer detail. This was another one of the reasons for conducting follow-up interviews. I would have liked to visit their homes, watch them take calls, observe a few training sessions, but the centers had closed by the time I conducted my interviews.

During the preliminary interview stage, many of the interviewees did not want to be recorded. I explained to them the need, in academic research for interviews and complete transcripts, but they were uncomfortable anyway. Refusal to be recorded surprised me and was an unanticipated turn. Not wanting to lose a source, I adjusted to their comfort levels, and focused on the goal of conducting "natural conversations." I took extensive notes and double-checked with sources via email transcripts after transcribing the interviews for verification of accurately capturing the information in the discussion. All returned and approved the transcripts, and many added additional thoughts and ideas as well. Stokes (2003) described interviewing as listening carefully to responses "to elicit interesting and spontaneous conversation" (p. 119) from interviewees.

Sometimes, the interviewees wanted to discuss the political situation in their towns that affected the *Digital Works* training program. I let them talk to explore their thoughts and feelings, and to gain comfort with me as an interviewer. This method proved beneficial in gathering data as highly personal information flowed out, making their personal stories even more poignant. After the first few interviews, I revised the questions to evoke more reflective responses, and adjusted the questions based on the information being shared and the flow of the conversation. I also used probe questions, as

well as follow-up questions that elicited more personal details and responses. Interviews averaged about a half-hour each, with more talkative and responsive interviewees responding to a constructed conversational approach, provided information for an hour, some as long as two hours.

In addition to participants, four administrators and two trainers in the *Digital Works* program were also recruited and interviewed for the study. For the preliminary interviews, in total I interviewed 17 participants, four administrators and two trainers (included in the participants' total) with the aim of identifying the extent to which the experiences of participants were shaped by their interactions with their trainers and the administrators.

The preliminary interviews gave important context for asking follow-up questions. Some of the participants shared intimate and sensitive details of their lives, and stories to accompany those private moments, but often I let the story flow without deep probing until I understood the story's broader lesson and context (Rubin & Rubin, 2012, p. 151). My examination involved listening to the people who participated in a program aimed at increasing computer skills and preparing them for jobs using computers. The preliminary interviews took place while people were still in the training program, and then a follow-up interview one year after the program closed. Interviewees were asked to discuss how their life changed as a result of participating in the training program and what they are doing now. The preliminary interviews provided a good overview of the training program from a variety of participants, and I received adequate descriptions of the setting, the overall training environment, the trainers' influence, and information

about the impact on the lives of participants. It was this probing question that needed more depth of personal understanding, so I sought follow-up interviews seeking more detail on their lived experience and how they made meaning of the experience.

In qualitative research, the goal is to understand smaller groups of participants and their personal frames of reference. The researcher must be able to relate to the interviewees and develop empathy, which is "an ability to understand the perspectives and feelings of others, especially with those whom we disagree, or whose life experiences are radically different from our own, requires that we see the world as others see it" (Smith, Nowack & Berenstein, 2017, p. A-25). This was a goal of the in-depth interviews: to understand how people in Appalachian Ohio view the world through the lens of living in the Digital Divide.

I focused on sensitivity to the lived experience of the participants during the interviews (van Manen, 1984). Using van Manen's description of *geist* (mind, thoughts, consciousness, values, feelings, emotions, actions and purposes), which find "their objectifications in languages, beliefs, arts, and institutions," I was able to gather information about the lifeworld of the participants (1984, p. 3). Throughout the interviews I aimed at appreciating participants' perceptions and sought to compare those to my guiding research questions. I asked respondents to provide details of their lived experience in the *Digital Works* training program, and immediately after it. Follow-up interviews also sought information from respondents that compared their lives before, during and after the training program and questions about their futures when the program ended. I also asked them to share stories about what they are doing now in their lives.

These answers were compared with the interviews conducted previously. I sought to become more fully aware of what the participants in the program learned about themselves in the process and how their meaning making occurred. I sought facts, but also the meaning of those facts found in the research process.

Bananas, tacos and hugs: reflexive comments on data collection. Throughout the interviews, I found myself becoming close with the interviewees, empathizing with their lives. I felt for the interviewees and the struggles they were facing. For those who were thriving, we laughed about their successes and plans they had with the new-found freedom and comfort. It was clear that constructivist grounded theory research was the correct path for understanding more deeply the issues of the Digital Divide in the Appalachian Ohio region. The interviewees provided feedback and comments on my interpretations of their comments, and these were incorporated into further analysis and analysis for meaning-making.

As I was leaving one woman's house deep in the country, she insisted I take bananas, dates and strawberries with me. We had spent the last two hours together and had a unique connection over issues of politics that were now her passion. We had some off-topic discussions but managed to bring the conversation back to the issue of computer access as a way of acquiring information for making sensible political decisions. She walked me to my car, and then spontaneously, gave me a big hug, which at first startled me, but which I returned. It felt right and normal that a woman I had talked to on the phone for an hour and now met in person for two hours that we should bond in a way that warranted a spontaneous hug. She had told me intimate details of her life and understood

that I would respect her as a source and utilize her information to understand the meaning of the *Digital Works* training program to Appalachian Ohio participants.

At another interview I met a gentleman at a local taco place. He no longer owned a car but rode his bicycle everywhere. We talked for more than two hours while nibbling on tacos. The private details of his life that he shared both amazed me and gave me insight into the type of life he had been living prior to the *Digital Works* training. His past inspired his future: he has started a program that helps prisoners acclimate back into a community once released. His story was so compelling that I felt the urge to offer my writing assistance for his program once my dissertation was completed. While interviewing a woman with a learning disability, I observed her autistic brother, whom she had to bring with her to the restaurant. She was tuned into his movements, mood and thoughts in an uncanny way. As she told me her story of being his caregiver since she was 20, I saw a determined, focused and motivated young woman, not someone who let others' definitions of her define her. When she talked about her dream of starting a blog for others dealing with special needs people, I felt a desire to help her. Later, after the interview, I found a book on blogging, and mailed it to her. Perhaps the most striking interview was with a young woman who was the caregiver for her terminally ill husband, and the sole provider for her family that included a teenage son who also had a slight learning disability and health issues. Her story of relying on five foodbanks, picking up aluminum cans to sell for money, and the loss of her eldest son to diabetes complications tugged at my heart. The bills and obstacles she navigated through would have sunk other

people, but she managed to keep a positive attitude and express gratefulness for the opportunity the *Digital Works* training provided her.

Other data gathered: observations, field notes, website, quarterly and annual reports. No participant observations in the training facilities were conducted in the first phase of the research. During the data collection phase, all but one of the training centers in southeastern Ohio was closed due to funding issues. The Gallipolis facility remained open, but none of my interview participants were still utilizing that facility at the time of the interviews. They had already completed their training and were able to work from their homes. In the follow-up interview phase, I was able to visit the Gallipolis training facility, spend time doing observations of people making phone calls on the jobs for which they had been trained, and I observed the Center in full operation and the interactions of participants with the facilitator. The center's facilitator was onsite, so I conducted an in-depth, open-ended interview with her.

As I was conducting the preliminary interviews, participants got word, some just the day of our interview, that the training center in their community was closing. This news resulted in a shift in the conversation with the participants and revealed that the closings were traumatic for them.

Administrators: Data Collection

To add another layer of meaning and comparison of the impact of the *Digital Works* program on people's lives in Appalachian Ohio, I interviewed the people responsible for the planning, implementation and management of the program. Each of the four administrators of *Connect Ohio* and *Digital Works* was solicited via email and

phone and interviewed in two-hour long, face-to-face interview sessions in their

Columbus, Ohio office. Additional information from administrators came through

follow-up questions, and via email and phone. I gave administrators the IRB consent

forms to sign after they received an explanation of the purpose of the research study.

They were informed that their responses would be anonymous, and they could stop the

interview at any time. I conducted interviews with managers and administrators of

Digital Works and *Connect Ohio* to gather their perceptions of how the program operated,

and if they had ideas for improvements or changes for subsequent programs, if funding

were to continue. Each of these administrators had distinctly different areas of

responsibility, and often was not involved in the day-to-day operations of the other

programs. They did communicate with each other on planning and assessment of each

program, but not on daily operations. The interview protocol I established was used to

reflect interview questions. The questions were aimed at understanding their involvement

and assessment of the *Digital Works* program. They were different questions than what

was asked of participants. These interviews were digitally recorded, and then transcribed.

See Appendix C for interview protocol with *Connect Ohio* and *Digital Works*

administrators. Their names were kept anonymous and were replaced with pseudonyms.

It is important to note here that administrators and managers had been working

with me during the months I was developing this research project. They provided reports

and data, such as every quarterly report of the *Connect Ohio* and *Digital Works* programs

and answered questions via email and phone. By the time of the one-on-one interviews,

decisions had been made by these administrators to close all the *Digital Works* centers in

Appalachian Ohio except for the one in Gallipolis. Funding for *Connect Ohio* programs

had also expired. Responses from administrators shifted from descriptions of what the

program involved and who participated, to comments of how they hoped to continue the

program's funding.

Trainers: Data Collection

       I interviewed four trainers, two as trainers/participants as they were hired from the

ranks of participant and promoted to be trainers. Prior to the interviews, the Informed

Consent Form was explained, and sent via email for signature and returned via email.

These interviews occurred over the phone and in person and lasted from 45 minutes to

two hours each. See Appendix D for interview protocol with trainers. These questions

were used as a guide to steer the interviews. Trainers, who also were once participants in

the training program themselves, but worked their way into paid positions, shared their

perceptions from both perspectives. Their names were kept anonymous and they were

referred to by pseudonyms. Interviews were recorded and transcribed. A separate coding

sheet with non-identifying pseudonyms was used to keep track of trainers' interviews.

Only four trainers participated in the study. Others on the *Digital Works*-provided list had

apparently moved on and were no longer using the program-assigned   e-mail address

when the facilities closed, and their jobs were terminated. The connectohio.org e-mails of

trainers bounced back to me. In the follow-up interview phase, one of the previous

trainers agreed to be interviewed, and another trainer/facilitator finally responded to my

email and phone messages and was able to be interviewed.

In most of the participant interviews, I felt I had established a personal relationship with the people, as is suggested with qualitative interviews (van Manen, 1990). I believed I tapped into their ability to share their lived experience with me. Every interview provided me with an opportunity to know a person, and to understand them on a deeper, personal level. I felt that I was following van Manen's (1990) guidelines for lived experience interviewing, that of becoming oriented to the person, remaining true to the person. I thought I was practicing subjectivity which van Manen (1990) described as "meaning that one needs to be as perceptive, insightful, and discerning as one can be in order to show or disclose the object in its full richness and in its greatest depth" (p. 20). Subjectivity means that we are strong in our orientation to the object of study in a unique and personal way, while avoiding the danger of becoming arbitrary, self-indulgent, or of getting captivated and carried away by our un-reflected preconceptions (van Manen, 1990, p. 20). I followed these guidelines while conducting my research of gathering people's impressions of their training experience.

Subtle realism Hammersley (1992) explained means that the social world does exist independently of individual subjective understanding, but that it is only accessible to us via the respondents' interpretations, which then may be further interpreted by the researcher (Ritchie, 2008, p. 20). Personal interpretations are important in terms of study participants' perspectives of reality, and in terms of researchers' understanding and portrayal of study participants' views (Ritchie, 2008, p. 20). Interpretivism, understanding people's perspectives in the context of the conditions and circumstances in their lives, added to the goal of this work. Obtaining thick description and as much detail

as possible about their lives prior to, during and after the computer training program helped gauge its impact. This type of qualitative research helps understand why phenomena occur, and what influences the attitude or behavior, and allows for identifying what meanings have for an experience through the associations that occur in the participants' thinking or acting. This is relevant to the study of how people reacted to a government-funded computer training program and their perspectives on living in the Digital Divide.

Constructivist Grounded Theory: Coding Process

This study used constructivist grounded theory for data analysis. To understand meaning making of the interview data collected, I used hand coding of the transcripts since I did not have access to the NVIVO qualitative research software. Hand coding allowed me to be closer and more intimate with the data (Charmaz, 2006). I set up files with descriptive information about each participant using the pseudonym I assigned them prior to coding. I put the names and demographic data in a chart for easier access and constant comparisons. I placed chunks of relevant text into boxes in the chart based on an emerging concept from the interview data. This chart provided the opportunity to store data, color-code it, and see developing and integrating emerging grounded concepts consistent with the grounded theory research design.

Coding, as Charmaz (2006) describes, attaches labels of meaning to segments of text from the transcribed interview data. Through this coding process, and my memos of each interview and other relevant thoughts and ideas that occurred to me as the research progressed, I kept track of occurrences in the research process. I identified and defined

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the research processes I used, how the research flowed, and tracked research participants' feedback and thoughts. Another diagram captured cross-case data with links to each case and data that seemed to form categories consistent with grounded theory methods (Corbin & Strauss, 2008).

When coding created similar responses of previously coded information, "theoretical saturation" (Glaser & Strauss, 1967. p. 61) occurred. Emerging issues and thematic relationships emerged which member checking, follow-up interviews and further analysis clarified and elaborated upon. In grounded theory, coding is conceptual (Okumu, 2013). Glaser (1978) explained that "substantive codes conceptualize the empirical substance of the area of research. Theoretical codes conceptualize how the substantive codes may relate to each other as hypothesis to be integrated into theory" (p. 55). Using interview data, I used open coding to seek the categories and their properties as they emerged by reading the data. As I analyzed the participants' responses, I saw categories emerge naturally from the data of interviewee experiences they shared. The goal of this analytic exercise was to develop conceptual codes, not just facts and information from the interview data.

True to the grounded theory research paradigm used in this study, the open coding process followed three guiding questions recommended by Glaser (1978). He suggested examining the concepts or ideas that the data were attempting to reveal; delineating what categories each experience presented and exploring emerging psychosocial issues present in each participants' story in relation to the experience of participating in a computer training program. This open coding process permitted me to explore the major

developmental meaning-making dynamics of the Appalachian Ohioans participating in a computer training program that had ramifications in many aspects of their lives and how they processed that experience.

I examined each case-by-case example as people transitioned from being on the wrong side of the Digital Divide, to actively participating in the digital world, seeking the emerging categories of the experience as the participants shared, or tracking the properties of already established themes and categories (Glaser, 1992). The goal in this phase of analysis was to be clear on the emerging themes and categories that were relevant to the meaning-making dynamics of the Appalachian Ohioans transitioning as a result of participating in the *Digital Works* computer training.

Open coding helped me identify and develop concepts found in the interview data, research memos and member feedback. I kept member characteristics in a separate area of the category chart. I broke the transcribed interviews into categories, or meaning units, where the information indicated a concept or idea. Meaning units in this study refers to sentences, paragraphs, or fragments of paragraphs that constitute a unit of meaning, i.e., "content shifts such as different situations, thoughts, and feelings" (Bachelor, 1995, p. 325). I paid attention to words participants used to be true to their intended meanings.

Once I had meaning units identified, then I grouped them into categories, known as coding in grounded theory (Glaser & Strauss, 1967). I aligned the text by categories or subcategories, if necessary as I worked through coding of each interview transcript. I analyzed the relationships between the categories and subcategories which Glaser and

Strauss (1967) called selective coding. I examined the connections between the categories based on the meaning. These meanings formed another higher tier in the outline chart. These more prominent meanings served like an umbrella heading for ideas that fit that category. These formed that basis of what is referred to as theoretical coding (Charmaz, 2006). The analysis become informed by the emergent findings as well as the interview data. At this point, it was important to examine the relationships between these concepts in each case, and then across all cases (Glaser, 1978; Strauss & Corbin, 1998).

Examining data from each participant and the cross-case analysis enabled me to use the thick, rich detail that qualitative interviewing generates to begin developing grounded conceptualizations. Each participant's interview revealed their own emerging themes which I analyzed for cross-cases. I would color-code connections and categorize them into like-clusters. Analyzing for similar concepts or ideas in a text (Glaser, 1978; Strauss & Corbin, 1998; Charmaz, 2006) is called theoretical coding, which in grounded theory is the process of forming a focused coherent whole, or a model, out of categories and their relationships (Okumu, 2013). I examined the data again looking for responses that were different from or elaborated on the categories already identified. Each new viewpoint would add depth to the meanings already collected.

Participants' Responses

In the constructivist grounded theory design used in this research I collected data then analyzed it repeatedly (Charmaz, 2006). Then I analyzed it again in comparison to other data and other interviews collected.

After I transcribed the in-depth preliminary interviews, I coded for categories.

Then themes, and then re-coded for themes and patterns in how participants described the *Digital Works* trainings they received. Data were analyzed to discover themes related to participants' experience with the *Digital Works* trainings. I sought insight into their lived experience and how they made meaning of that experience through hearing their own stories. Using thematic analysis, I read and re-read transcripts several times. I identified phrases, words and statements used by participants to describe their experiences. These were quoted, and then categorized into groups. From these groupings, I identified themes. Creswell (2013) described coding for researchers as building "detailed descriptions, developing themes or dimensions, and providing an interpretation in light of their own views or views of perspectives in the literature" (p. 184). The process of coding involves aggregating the text into small categories of information, finding evidence for the code from the text, and assigning a label to that code (Marshall & Rossman, 2011). In this research, primary codes were identified first, and then broken down into smaller categories. These categories were then analyzed for primary themes and subthemes. With each interview, if a new theme or issue emerged, I would return to the first transcribed interviews to double-check if that theme was present in those transcripts. When the themes from each transcript began to be similar, not revealing new categories, I believed the data collection and analysis were saturated and complete as Glaser and Strauss (1967) described, I placed the themes and sub-themes in a format where they could be discussed using examples from the data to explain them. The constructivist grounded theory research design in this study was to ground findings in my transcribed interviews and the interpretation of the participants' experiences and use those for creating a narrative

description of their experiences. Then in the narrative discussion, the primary themes, informed by the sub-themes, explain the meaning of the participants' experiences in the *Digital Works* training program.

My preliminary questions ended up serving as a check list for important information I needed to acquire. I used those questions, and the subsequent follow-up check list as a guide for covering key issues: causes of the respondents' feelings, consequences to them and their communities for their participation in the training program, and the subsequent impact on their lives. Follow-up interviews helped gather more details about stories the respondents tell and "hint at possible conflict, a contradiction, frustration or tension or a turning point" (Rubin & Rubin, 2012, p. 154).

Several of the stories shared in the preliminary interviews indicated more details would explain better the respondent's life before and after the training program. Follow-up questions also illuminated the need for the program for the participants after it was shut down due to lack of funding. These types of questions led to answers that responded to the research inquiry of awareness of the social and political issues influencing funding for these types of training programs and the availability of broadband in the Appalachian Ohio region. These transcripts were then analyzed and coded for categories. I read and re-read the transcripts dozens of time to analyze and recode with themes that emerged. This new data was compared to the original interview data looking for interrelations, connections and deeper meanings participants attached to their computer training experience and living with the Digital Divide. I did not discover contradictions in responses, or information that challenged my own preconceptions of the training

program. Some respondents said the training program gave them courage to be more involved in their communities and I thought this was an important theme to follow-up. This theme that the program made the participants feel empowered to participate in a community activity or group prompted a line of follow-up questioning in follow-up interviews. More clarity from the respondents refined my analysis and summary statements about the themes (Rubin & Rubin, 2012).

The findings of these interviews will be discussed in the next chapter, Findings and Discussion. I used personal reflection while developing codes and themes to understand how participants make meaning of their experiences in the *Digital Works* training program, and in living with the Digital Divide in Appalachian Ohio. I remained sensitive to the uniqueness of each person and their unique experience. Coding occurred around understanding how people construct social order and make sense of their social world (Garfinkel, 1967; Silverman, 1972) and how people's life stories help in understanding experiences and social constructions (Plummer, 2001; Thompson, 2000; van Manen, 1990). Constructivism studies the "multiple constructed realities through the shared investigation by researchers and participants of meanings and explanations" (Ritchie, 2008, p. 12). Through the interviews, participants shared the meanings they attached to their experiences and the impact on their lives. The ontological position for this research is that of idealism, which asserts that reality is only knowable through the human mind and through socially constructed meanings (Ritchie, 2008, p. 11). I practiced 'empathic neutrality', a position that recognizes research cannot be value free and that assumptions were made transparent (Ritchie, 2008, p. 13). The epistemology, the way of

knowing and learning about the social world, used social constructivism as the philosophical basis for this study. I developed questions that were as neutral as possible, but also recognized that there is an exchange of ideas between the researcher and participant and that needed to be explained in the analysis process. The exchange between researcher and participants aims for a truth about reality; in this case the 'independent reality' was negotiated in a consensual, rather than absolute way between researcher and participant (Ritchie, 2008, p. 14). This led to the idea that subjective realities can have different meaning for different people. Assessing the results of the interviews occurred using inductive processes, by looking for patterns and associations and "using evidence as the genesis of a conclusion" (Ritchie, 2008, p. 14). Understanding participants' perceptions came from listening, analyzing the rich description and seeking emergent concepts and theories (Ritchie, 2008, p. 14). These interpretations of participants' lived experiences will be discussed in the next section.

Findings of Interviews

Findings of the study were used to describe the emerging themes. Findings are presented in three different sections: that of the participants and their lived experience; and the assessment of the program from administrators and the trainers.

After I performed the analysis of the preliminary interviews, several themes emerged. First, I separated responses into categories that emerged from information of how participants learned of the *Digital Works* training program, what prompted them to participate, and their experiences in the trainings. This is separated into the category: learning experiences. Another category is personal experiences, what kinds of differences

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the training program had in participants' lives. Then, a category of how they shared their experience emerged: Did they talk with friends, family, co-workers, or neighbors? I categorized for sharing of lived experiences as well. Probing deeper in my analysis of the data from the transcripts, these categories were re-grouped and coded into themes. The preliminary themes were used in examining data from the follow-up interviews and will be discussed in-depth in the next chapter.

Chapter 4: Findings

To outsiders, urban dwellers or citizens in more populated areas, the idea of someone not having access to the Internet, or limited knowledge of how to use a computer, seems foreign and out-of-place in the modern 21st century. However, to those living in rural areas such as Appalachian Ohio not having computer skills or access to the Internet are realities. Citizens of this region shared for this study their lived experience of what it is like participating in the *Digital Works* program and living in the Digital Divide. For the participants, the training program meant self-empowerment, hope and community building through the flexibility, control of their lives, having options, self-confidence, peace of mind, courage and freedom the program gave them.

In the following section, each case details personal meaning-making as the 17 interview participants shared.

Individual Meaning Making

Mary Ann: Confidence, peace of mind, overcoming challenges. Mary Ann, a 41-year-old woman who lives near the Gallipolis training center had only two years of college, takes care of her husband who has cancer and a 15-year-old son who also has health issues. Mary Ann became the caregiver and the provider for her family. For many months, she gathered aluminum cans from alongside the roadside, which she converted to cash at recycling centers. She and her husband, and two sons—one passed away from his illness—lived in a trailer on her parents' property and had to carry water to their home. When her husband got sick, she said, "I knew I must be the one to get a job. I needed a place where I could support my child. I'm the caregiver to all three in my household."

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Her husband's illness and the need to care for her 15-year-old son, meant she needed to work flexible hours close to home. *Digital Works* allowed her to fulfill these responsibilities. She said, "I wanted to learn a new trade; I wanted to get a job, and the training helped me do that." The training was empowering for her and the confidence she gained in the training process also helped her in another way, and became a meaning-making opportunity for her: "I have a speech impediment and I knew I had to work harder, which I did."

The training program and subsequent job gave Mary Ann much needed serenity and confidence that her family would be okay and was another meaning-making milestone for her.

The extra money is always nice; it helped me; eased the burden of not knowing what happens to me or my husband. It helped prepare me for my future; I had assurance I can support my child. It helped me look forward for my future, and to set up goals. I enjoy my job a lot; I'm happy; I have peace of mind I can get through these tough times. (Mary Ann).

This meaning-making opportunity for Mary Ann gave her more confidence to address the challenges she faced. "It helped me revamp myself. I was out of the workforce for so long" (Mary Ann).

The experience in the *Digital Works* training program helped Mary Ann reconnect with her community. "It was like a family" (Mary Ann). That connection gave her confidence and a sense of belonging to her community and became an important resource for her to reach out for assistance she needed with her family.

An emerging theme from respondents' interviews was the importance of the trainers in the experience and meaning-making for participants. Trainees praised the help they received and the trainers who ran the Centers.

The trainer at Gallipolis was singled out by Mary Ann. She "helped me with my speech impediment, with the scripts; she put in hours with me. I wouldn't find that kind of help elsewhere. She didn't have to help me, but that's the type of person she is" (Mary Ann). Further elaborating on her experience with the trainer:

> I had never done this before; my experience was always in retail, face-to-face, not over the phone. I take orders from infomercials; I upsell other offers, try to get an upsell; I'm not that type, I'm not an aggressive salesperson. I had problems with rebuttals, trying to change their mind to make a sale; they {the employing companies} don't really cover that in the course work, but they expect it of us. Some companies expect it, she {the trainer} had to work with me cause I didn't use rebuttals; I got in trouble. {She} took time to work with me on rebuttals (Mary Ann).

The flexibility of the training program meant Mary Ann could have some control in her life. "It helped ease the burden of not knowing what happens to me or my husband. It helped prepare me for my future and gave me assurance I can support my child" (Mary Ann).

For Mary Ann, the training program stimulated in her a desire to learn and achieve more. "There was a lot of information in the training; customer service was most of the course work; we worked at our own pace on video modules over 8 weeks" (Mary

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Ann). However, the positiveness Mary Ann gained from the training program was offset by the poor Internet service at her home, limiting her abilities to work from home with the flexible hours. "We used the facility because we live in a rural area and can't get Internet. Only a few people in my area have the Internet; my mom lives one-half mile down the road, and she can't get the Internet" (Mary Ann).

When her husband was diagnosed with cancer, and her son developed severe diabetes, Mary Ann was feeling overwhelmed and unsure of how to navigate through these life challenges until she began participating in the *Digital Works* training program. "At this point in time in my life, I thought I was drowning; it was a miracle" (Mary Ann).

Jewell: Job, self-confidence. Jewell is a 57-year-old trainee who has a high school diploma but did not attend college. For her, the *Digital Works* training program as an opportunity for a job in her low employment community when her and her husband's trucking business had to close because they could not make ends meet. "Here in Adams County, there are no jobs; you could work at a McDonald's but there you even have to be family to make it. There is very little economy out here" (Jewell). She felt that her low skills from only graduating high school would be a barrier to employment. "I didn't have much computer skills, very basic skills when I started" (Jewell). She had to come to the Center to work because her home Internet was inadequate, which was a point of frustration for her. "I took *Digital Works* because of the idea I was able to work from home; I like to be at home" (Jewell).

The meaning-making opportunity for Jewell was that she completed the training and secured a job which she liked for the flexibility. She even recruited her husband to take the training right before the Center in her area closed.

Beth: Flexibility, connections. Beth is a 27-year-old non-traditional college student who has a GED from home schooling and attends a four-year college near her home. She lives with her parents and works two jobs to pay for her schooling. She saw *Digital Works* training as a way to have more flexibility in her work time so she could attend classes. The meaning-making opportunity Beth had from *Digital Works* training was that it gave her career options, and flexibility. "In case in my degree field, if I don't like it, or there aren't any jobs, I know I can do what *Digital Works* taught me" (Beth). This safety net made her college experience less stressful because she knew she could find work when she graduated. She was working two jobs during school and the training program eased that requirement; she could work "after I studied, or when I wanted a break" (Beth). She felt a bond with others taking the program and found a connection with other participants. "I lost my job and lost my family in Logan when it closed" (Beth). The training program was set up on her college campus but was not implemented well. "Sometimes we could not get into the lab because it was locked, or the computers would not work, and we could not get someone there to fix them" (Beth). This caused her and her trainee associates, while they appreciated the program, to get frustrated with it and not recommend it to others. "The impact in my life was positive; even if it does not lead to a customer service career it definitely helped with my customer service skills and how to interact with people" (Beth).

Rachel: Personal accomplishment. Rachel is a 58-year-old who graduated high school but did not attend college. She was hesitant to participate in *Digital Works* at first. "I saw an ad about *Digital Works*, but I was unsure about it" (Rachel). But the training was close to home. "I drive 45 minutes to work, so I tried it. I would much rather be working from home" (Rachel). Her confidence in the program did not wane, but she had the chance for a full-time job and left the program. "I took the training, halfway through. I wish I would have finished it" (Rachel). Getting to know others in the program may have helped Rachel complete it. "No one I knew took it with me, but I did give support to others; I hope they keep doing it; it's a good thing; it helped people and it's not hard" (Rachel). As a recent retiree from her job, Rachel started the program to keep active. "I started because I was not working and had nothing to do" (Rachel). For Rachel, her meaning-making came from knowing she could accomplish with ease the training modules and have something of value and useful in her life. The environment in the Centers was appreciated as well, as having the opportunity to work with others. "The setting was awesome; they even had snacks for us, coffee, drinks; It was very supportive. A lot of people are shy; for me, it was good to be around people" (Rachel).

Ellen: Flexibility, control of life. Ellen is a 45-year-old woman who attended college but did not graduate. She has severe dyslexia and has been diagnosed as having a learning disability all her life. However, she does not let that diagnosis interfere with her training or responsibilities, or her dreams. She is the caregiver for her two brothers, one who is institutionalized, and the other has severe autism, so she must be available for him. "My mom died when I was 20, so I had to take care of my three brothers" (Ellen).

Her youngest brother lives with her; the other brother is severely autistic and lives in an assisted care facility, but she must be nearby and help with doctor and other appointments, as well as check on him regularly because he tends to swallow things like gloves or batteries. His twin brother died of a brain tumor. These family responsibilities, along with her own learning disability of extreme dyslexia, and arthritis, made it imperative she find flexible work. "I can make money, only work one job, and work that from home; I'm not limited by the hours I can work so have more flexibility to take my brothers to their doctor's appointments. I had to be there for them" (Ellen). The training program offered her opportunity.

> Pre-training was only through an assessment questionnaire to see what I knew. I only knew some things, but I had experience with a computer: cut/paste; holding a mouse and click—that was hard for me at first because of my arthritis, I didn't know how to do it. I didn't know Excel or Microsoft Word; the unemployment office had classes for free, I felt I needed to know more (Ellen).

> For Ellen, a meaning-making opportunity came when she had to struggle to learn the information, but a trainer helped her. At first, the trainer in Portsmouth "was hesitant because of my learning disability; I know my limits and what I have to do to get it right. I learned the information; I have to learn differently than other people; this was my first session; I was like a fish out of water, a little. I learned and she was amazed" (Ellen). She's determined to succeed, as well. "I struggle with some of the software and log-ins, and the upsell parts; but I'm working at those areas" (Ellen).

For Ellen, like others, the meaning-making from the *Digital Works* program was it gave her flexibility and control of her life.

> This training got me a job. Before…, I had to work 40 hours a week, now that's down to 20 hours a week, with no holiday pay, so I had to have more than one job. Now, I can make more money from home; I'm not limited by hours I can work, so I can make more money, and have more flexibility to take my brothers to their doctor's appointments. I had to be there for them. If I was committed to work, I could just un-commit if something came up; the flexibility gave me more of the freedom I've always wanted. (Ellen).

The training also provided a place for Ellen to meet others in her community and build bonds with them. "Other folks in the trainings helped each other when there was a problem" (Ellen). The face-to-face connections seemed more important to Ellen than using the Internet and reaching out to people online. However, some of the older participants, after the training, were still hesitant to trust or use the Internet.

> I still have not tried Facebook or LinkedIn; I'm a private person and I don't want to be public with my personal life. I still have to get comfortable with that. I don't put my personal stuff out there; we don't need to go on the World Wide Web and let everyone know our business. I'll talk to people in forums about business-related things only; business and personal stuff (should be separate). I may eventually do it, but I'll still keep my personal stuff away from Facebook. (Ellen)

Another meaning-making opportunity for Ellen was that the training program provided her the flexibility she needed, and a job opportunity that she could accomplish

along with her family responsibilities and her own dyslexia. The program gave her confidence and determination to be more in charge of her life. She plans someday to start a blog about caring for disabled people.

Gayle: Expanded worldview, hope. Gayle, a 66-year-old retiree, has a bachelor's degree in physical therapy and sought to keep active after her retirement and supplement her income when she signed up for the *Digital Works* training program. She drove 81 miles to work each way for 24 years, when that job was eliminated due to budget cuts, she retired and investigated *Digital Works*. When she began participation, her computer skills were limited. "I just had email experience; that was about the limit of what I could do. I could surf the Internet to find educational things, other than that I didn't know much" (Gayle). Her meaning-making of the experience was that she was able to personally succeed at training and tasks she previously was unsure she could master. This personal accomplishment from participating in the training program made a big difference in her life and self-image.

> "I felt so good to be part of the training; it gave me hope" (Gayle). She credits the trainer in the Carrolton County facility for the success people felt by participating. The trainer in Carrolton County was described as "exceptional. She made everyone feel at ease; gave them confidence; she was there for them to fit that person's schedule; she knew the computer system well; she'd fix it anytime it was down I felt comfortable with our trainer ; she gave me a lot of confidence which I didn't have; I'm a shy person; it's funny, I could help a lot with handicapped people but I couldn't help myself" (Gayle). In addition, the training program gave

her, as a retiree, a renewed purpose, a sense of still being vital. "I did not want to get stale….I was open to anything. Anything to keep my mind going and me busy and meeting new people. I finally retired, but I needed to settle and still be vital" (Gayle).

The flexibility of the training and work hours was attractive to her and gave her a sense of control on her life. "I saw an article in the newspaper about *Digital Works* coming to Carrolton. I went to the office and investigated; they told me I could work from home and set my own hours" (Gayle). The option of working for herself on her own terms was empowering for Gayle. "I benefitted a lot from it. They taught me specific training on how to be a call center employee, which is what I wanted. It was a dream comes true. I wanted to work from home and that was my training" (Gayle). The opportunity also expanded Gayle's worldview.

It enriched my life; I felt I had a rich life prior to (the trainings). Now it's happening in my house in a corn field. I'm still there using, what I learned in the training. I started …in August, one year, and I'm still with them. We are paid talk time, not big pay, not near what I was used to getting, but I don't care. I like it. I'm talking from a little corn field, I 'm talking to people from Hawaii, New York and Tennessee, I love Tennessee accents. I take calls from all states. It's fantastic. I wonder who I'll talk to next (Gayle).

The training program also helped Gayle reconnect with her community. "I became friends with others taking the trainings. I met a lot of people I never knew. I became friends with others taking the trainings. We'd share fruit and food. My job

previously was 60-90 minutes from my home, so I had lost a lot of contact with the locals. I was fully engaged in working. This (training) opened a lot of social opportunities for me" (Gayle).

She saw the impact on her community too. "*Digital Works* was terrific for Carrollton County. What I thought was strange, people from other counties were traveling to learn and work for money; a significant number of people out there really do want to work!" (Gayle).

When *Digital Works* closed in her county, Gayle said the impact was significant for her and for the community indicating the meaning-making connection she and others had to the program.

> I hate that they're not still there. {The Center} closed in July of last year. That's unfortunate because they were helping so many people who couldn't work standard jobs. It broke my heart. The handicapped were engaging in learning and making money; it was all taken away from them when *Digital Works* had to leave. I worked with handicapped people and that just broke my heart (Gayle).

She spoke of the additional consequences of the closing of the program.

> A lot of people were starting to benefit from it; it was sad. Regular officials, commissioners, just don't have the same mindset that I have; I see how it benefited the little people, the underserved; it was improving their self-esteem, giving them hope that they could make their lives better (Gayle).

Sarah: Sense of belonging, community connections. Sarah is a 70-year-old retiree who lives alone but found many benefits of participating in the *Digital Works*

training program. The trainings offered her a sense of belonging. "They were like family, truly. I liked the social and comradery" (Sarah). The trainings also gave her "mental stimulation and socialization" (Sarah). The training offered the opportunity to build social capital with others in the community. "We used to have potlucks at the facility. We had a Christmas party and one time we went on an outing at Lake Hope and some camped" (Sarah). The flexibility of the schedule gives her time to be more involved with her community, especially youth groups at her church. The guidance and patience offered by the trainers at the facility made a difference to participants in their meaning-making of the program. Sarah described the Logan trainer as "pleasant and patient," and like family: "When I met her, I felt like she was my long-lost sister" (Sarah).

The economic stability from a job, gave her control of her life, and inspired her to get involved in her community. "I drove to Columbus for 19 years, that's why I wanted to work at home. Now, I have a church group, and a youth group, and my Good News Club" (Sarah).

A testament to her belief that the program had meaning and value to her community, Sarah was critical of the decision to shut it down.

Legislators didn't give *Digital Works* a long enough trial or establish it so it could work at a higher level. They've gone into Columbus, but it was originally started for smaller communities with no broadband and what about the people down here? Some folks are not tech savvy. {Our trainer} had to learn what everyone needed. She was creating that program and opening other places. This was in the

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making as it grew. There is nothing that has ever grown in just two years. It needed more time. (Sarah)

Francis: Self-confidence, self-efficacy. Francis is a 64-year-old retiree from Scioto County. She has an associate degree. She is an outgoing, energetic woman, who saw an opportunity in *Digital Works* but proceeded cautiously. "I followed a friend to the office. There were people in the class, so I asked questions about the program. The facilitator explained it to me. I had never heard of it before. I was a skeptic, so I did a little of my own research on it" (Francis). Trust in another person is what drew her into the program. "A friend told me about it, but I wasn't convinced. At a luncheon, I ran into a lady who told me she made $372; she showed me her invoice and made a believer out of me. Without that lady showing me her money and invoice, I wouldn't have gone {to the trainings}" (Francis). The program gave her options and control of her life. "I could spend {money} and not have to worry about spending my retirement" (Francis). "I wanted to earn extra money. When I retired my income was low. I had a few medical bills that insurance didn't pay for and I didn't want to give them {the doctors} my retirement money" (Francis).

Meaning-making about the program for Francis came from how she felt about herself after completing the training through her own effort and perseverance. "I felt lucky for what it did for me. It made me feel really, really good; exhausted and stressed, but the thing was, *I* did it" (Francis).

Francis was learning about herself and finding her capacity to succeed, and to help others and this was meaning-making for her. "I loved the capability to go to a call

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center when I wanted to get out and be with other people, and to talk and get help. The new students who were frustrated, others had encouraged me, so I encouraged them. I told them how it is possible to finish" (Francis). She transferred this belief in success to her outlook for the region. "We thought it was wonderful program, excellent in a community where no one has a job" (Francis). More telling are her comments on the impact of the training program on her view of the Appalachian Ohio region.

> I work at the Alcohol Drugs and Mental Health Board. When low income people are down on themselves, first thing they try to feel good, is they go to drugs. My son is 24. He left home, tried college, then got married and lives in Columbus. My neighborhood is bad. He looked at the empty house next door for five years. Every morning he had to wake up and look at that house. He was depressed; he felt there was no hope for him. Now he has a high paying job in Hilliard. Before that, he was so depressed at what he was seeing every day, he started to feel there was no hope for him. The training program would have helped a lot of people. It would boost a lot (of people) out of minimum wage, low wage jobs. (Francis).

The connection to the program was strong and helped build a sense of belonging for Francis. "If the facilitator was working with a small group, we could help the other people. We were like a close-knit family" (Francis).

Mickie: No longer discouraged. Mickie, a 42-year-old living in Peebles with her three sons, has an associate's degree but has struggled to find a job in her community. "When I graduated with my degree, two years after I got it, I couldn't find work. My degree in applied business was useless unless I wanted to drive to Cincinnati or

Columbus" (Mickie). She needed to be home near her children, so the opportunity *Digital Works* presented gave her options and control of her life. "I get to set my own hours. I work whenever I want. It's a luxury. I felt much better that I had a job. I can work on my own hours and convenience. I was extremely discouraged beforehand" (Mickie).

The training experience was meaning-making for Mickie. "Overall, the experience was really good, helpful and interesting. I learned about myself and I had a job. I would recommend it to others" (Mickie).

Losing the facility in Peebles was devastating to Mickie because of the poor Internet service at her home. "I just got an email that the shop over there in Peebles is going to close. I have to go to the facility to do the calls. I can't drive to Gallipolis or Columbus. I hope we can keep the facility" (Mickie).

Jill: Pathway to a better life. Jill is a 54-year-old woman who attended but did not graduate college. She's had a challenging life getting involved with the "wrong crowd" and ending up with a felony conviction for drug trafficking. When she emerged from prison, she learned of the *Digital Works* training program, and thought it was an opportunity for her because she had some computer training. "I learned computer programming training on track-80s from Radio Shack. They are so obsolete. I went to college, worked as a stripper and when I came back, didn't know how to turn on a computer. Now I love computers. I know how to fix them. I learned from tech support" (Jill).

The training program gave Jill a pathway to a better lifestyle, but she believed her felony conviction would hold her back from acquiring a job. She took a part-time

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position packing boxes, but she must drive 45-minutes each way for the position. She is hoping the *Digital Works* training will help her get a better job. "Eventually I'll go into customer service to take the pressure off myself. Nothing's stopping me but the felonies" (Jill). The meaning-making she gained from the trainings is that they gave her confidence she can apply her other computer skills to do tech service calls.

Eleanor: Community, connections to help others. Eleanor is a 60-year-old woman who returned to her West Union home to care for her aging mother and ill sister. She has a Master's in Math and worked for several years as a successful sales and stockbroker in Chicago. She viewed the *Digital Works* training program as an opportunity to have a break outside the home from her caregiving responsibilities. "I needed a job that got me out of the home, so I could keep my sanity. I'm a caretaker for my mom and my sister and I needed relief from that stress at home. I got into it to get away from the negativity of illness and the elderly" (Eleanor). Her skills on computers permitted her to advance rapidly in the program to the position of trainer. Here she learned more about *Digital Works* and the low employment problem in Appalachian Ohio. Eleanor is a vocal advocate for improving job opportunities in the region, especially ones that do not involve deadening factory work.

> Ohio Means Jobs {the state's employment agency} would send people to a
> factory job that was either physically or mentally for younger folks with no career
> path. That was a shame to see them get hooked into the factory life so early, when
> they could have learned programming and get paid better. It breaks your heart.

Programming is not too hard. They could teach themselves if it were online (Eleanor).

Eleanor was surprised at the lack of opportunity for employment in the region, and equally as concerned that people did not stick with the training program. "Some drop-out because they don't get a lot of support from home; they don't have anyone saying anything good or supportive to them; maybe they've not gotten that elsewhere in their lives, or it's not a value for them (to be supportive)" (Eleanor). She made it her mission to be supportive of the women attempting to improve their lives by taking the training program. Empathy with participants and their situations was important, and sometimes challenging. "There's a lot of psychology need in the program; I tried to help them" (Eleanor). "You have to bring the work ethic; one trainee was an alcoholic with drug problem who was also bi-polar, but not taking her meds, I told her, 'I can't help you.' A lot of people are on anxiety meds in this area because no one taught them to have the capacity to handle stress; they have to make a plan" (Eleanor).

She made some observations about participants. "So many have such low self-esteem in this area, I had to convince them they could do it if they applied themselves. 30% of the training was trying to build up people's self-esteem. I taught them or allowed them to make a decision" (Eleanor). She also noticed that many of the women who take the trainings do not have much support at home. "Their husbands do not believe in them, or don't work. The husbands get negative and say, 'you can't do this.' Too many tell them what they can't do; they hate change or are jealous. It's a cultural thing" (Eleanor).

A meaning-making opportunity for Eleanor came when she realized she could connect with people in her community and use her skills and talents to help them achieve success in the training program, and in turn, in their lives. Some of the participants themselves were not comfortable with change or a challenge; "they just needed help. Some were trying to be self-sufficient; one supports her family; one wants a change and a different job; one drove up from West Union, 40 miles because she didn't want to be on the waiting list; another drove up and was never late. Nothing keeps them down. I respect them and will help them go for other jobs" (Eleanor). She found value and meaning in that she could help others.

Jackie: Options equal freedom. Jackie is a 35-year-old mother of four who has one year of college. She struggled to keep up her family when she developed cancer. The *Digital Works* training program gave her options. "I had health problems. It helped with the cancer treatments being able to work from home; it was very helpful to me. I just needed to have less stress, but a job" (Jackie). For Jackie, the experience of freedom and options was a critical meaning-making dynamic for her as she progressed through the training program. "We completed the course in November; graduated to a job. It felt good. What I really liked about the program was that it was different. I've seen other programs that didn't even talk about job placement. *Digital Works* did the training for a job" (Jackie). The experience changed her outlook of herself and had a transformative meaning for her life. "My attitude changed and made me receptive to opportunities, and I can now see the upside in everything. Before the trainings I was discouraged" (Jackie).

The training experience gave her more control of her life. "It's given me another outlet for income. When I can better plan family events and not be worried about doctors' appointments conflicting with my work schedule. I can be with my kids, make supper and go back to work" (Jackie).

The disappointment at losing the *Digital Works* training program in her area is real and discouraging. "I told my general manager at work. She's older and ready to retire. She wanted a job that's easier on her and so she can be more involved with her grandsons. I recommended it to my cousins, they signed up, but now it's gone" (Jackie). The closing also left her wondering why. "It's very sad it's closing. I was surprised that the program was closing; shocked. We had a good set-up, 100% job placement and a cumulative effect for a smaller group over a longer period of time" (Jackie). The closing of the training centers that were helping respondents reminded them that once again they were again facing the life of poverty that they were struggling to escape. "Living in a rural area, seems as if you want a decent job you have to drive 1-2 hours; it opened another wall of opportunities for me. It's cheaper to live out here, but the jobs are not as plentiful. There is not a huge manufacturing base" (Jackie). Jackie, like others, looks for answers. "*Digital Works* was an in-depth, awesome program. I'm sad it's closing I hoped it would expand and offer classes with seniors, teach to overcome illiteracy and teach computer literacy, but the government doesn't listen to us" (Jackie).

Ruth: Independence, renewed personal relationships. Ruth is a 57-year-old who attended but did not graduate college. She has had several different types of service jobs in her area, and appreciated the opportunity *Digital Works* provided her, especially

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the chance to rekindle her relationship with her husband. "I can set my own schedule, so I can go with my husband out of town for his job or take mother-in-law to the doctor. I work it like a regular job, I like it" (Ruth).

The program gave her options in her life.

I really like it. It's a big help for us financially to be able to do it. My husband makes enough to take care of the bills. My money helped us buy a second car and get extras for the home, and to take a vacation with the 10 grandkids (we have 14), and our two sons. The money has given us more freedom than we normally had, helps out so he doesn't have to worry or work so hard (Ruth).

A meaning-making milestone for Ruth was the independence the training program gave her. "The opportunity it's given me and the things we are able to do. *Digital Works* made me feel wonderful" (Ruth).

Ruth recognizes that the program has value to her region. "Southern Ohio and Logan are not a very business-booming area. Now, I can average $15-$17/hour at home. It really helped a lot of people in this region" (Ruth). In addition, another meaning-making experience for Ruth was the opportunity to meet new people in her community.

In Logan, it was a lot like a family atmosphere, whether you were in the same class with others. One time a month we had get-togethers, potlucks with our families invited and with others in the program. You got to know them. When new folks came in, we mentored them. There was a lot of mentoring with the program, and a lot of support. I didn't go there to work much, but I did just stop in (Ruth).

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The opportunity to connect with other participants strengthened Ruth's sense of community, and that there were people to help her be successful. "Being a close group helped us all support each other and get each other through it. Even at home, I could call or text and would get help" (Ruth). "We were pretty close in the Logan group; both classes before and behind me. I'm still in contact with them" (Ruth). She believed those connections helped people, including herself, become more confident in their skills.

"They helped with resumes and interview skills. I grew to be confident when looking for a job" (Ruth). The connections made at the training program strengthened community ties. "Logan was definitely like a family. It was like a divorce, all the children that have gone through the program. It's a shame it closed. Legislators need to know what they are losing here. It was a very good opportunity for a lot of people. For me, I hadn't worked in years. It was wonderful and should be brought back to life" (Ruth).

Ruth believes the trainer at the Logan facility was one of the main reasons for its success, and her own connection to the program. "She was absolutely awesome; she'd do anything in her power to help us succeed at this; if you had questions you could call her at home" (Ruth). The comfort level of the training facility, the people, and the confidence she gained helped Ruth save up enough of her earnings to buy a second car. "My husband couldn't believe I paid for the car by myself, without his help. That was a wonderful feeling" (Ruth).

Angela: End to isolation, connections. Angela is a 73-year-old retiree, who has a master's degree. She participated in the *Digital Works* training program to learn computers and stay relevant as technology grew and changed society. Her driving force

and meaning-making dynamic was that she wanted to communicate more with people and reduce some of her isolation since retirement. "I crave people; I like to be involved; my husband is more of a homebody, he's happy with his books and computer; I crave social networks. Email made a difference in the quality of my life. The Internet is a good tool of encouragement and being in touch. There are too many lonely people; I can communicate with them; email made it easier—it saves time, and I can be a communicator and a part of their lives" (Angela).

In addition to significantly improving her computer skills, Angela appreciated the way the trainings helped her meet and talk with people. She is passionate and works tirelessly on single-payer health insurance plan. "The Internet is very important to me in terms of social change and being able to be in touch with various streams of people who are involved in the work" (Angela). Using the Internet as a social tool is new for her "Email has a profound nurturing effect for me" (Angela). She is a passionate social activist who uses the Internet for research on social issues, especially single-payer, and who enjoys how she has been able to plan events for her girlfriends, be in touch with an ailing cousin while he was alive, and get reacquainted with a group of orphans she taught and lived with as a 19-year-old Philadelphia college student. She's also thrilled she learned how to use Twitter. "I put out two or three Tweets and 200 of my Facebook friends saw it" (Angela). Another meaning-making dynamic her Angela was that just a few years before, she knew little about computers. "I was afraid of breaking it, or doing the wrong thing, or hitting the wrong key and it would explode" (Angela).

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The Internet opened many possibilities to her for communicating about one of her social passions: single-payer health care. "I believe health care is a human right…. It feels good to be contacting other knowledgeable people; it's easier to contact them and ask them to be resources for the educational DVD about single-payer health care" she is co-producing (Angela). She seems surprised and excited at the speed with which people communicate; she's old school, would send a letter in the mail and wait for an answer.

Another meaning-making dynamic for Angela is that she keeps in touch with her children, grandchildren, collects recipes, was able to reconnect with her childhood Girl Scout troop members, as well as trace and research her family history, much of which was lost during the Holocaust. "I delight in the way the Internet enables me to have a rich life without leaving the house; it brings such joy" (Angela).

Although the *Digital* Works training revealed the possibilities of the Internet for her, Angela's response from the interview typifies an emerging theme for senior citizens: Angela said she is still unsure of using the Internet. "I'm having the internal debate on whether to post personal information. I am still dancing about the Facebook idea. My friend taught me about Twitter. I realized, if I want to communicate better about the things I believe in and work for, I had better learn how. It's a challenge" (Angela).

Charley: Second chance at life. Charley is a 55-year-old with a bachelor's degree and years of professional business experience. A mid-life crisis at 40 brought on a divorce for this Logan resident. "I fell in with the wrong woman, which led to the cocaine lifestyle and within two years" his wealth accumulated from being a top insurance salesman and financial planner "it was all gone. I wrote some bad checks and spent 22

months in prison. I learned the faith walk at the prison chapel; I heard the gospel like I'd never heard it before. Now I'm a Rotarian and go to church. I was saved by grace through God. I didn't realize it, but it opened my heart, and I found an inner peace that I was missing" (Charley). The felony cost him his insurance and securities licenses and prompted him to sign up for *Digital Works* trainings and was the meaning-making moment for Charley: he could get his life back and become part of the community.

The training facility was good for the Logan community. "Hocking County is a real have/have not community. Something like this would have helped people work from home" (Charley). The *Digital Works* program helped him through the interview and hiring process, and the type of customer service job he received, the ten-year old felony charge no longer mattered.

For Charley, however, the training program and the self-learning modules were not entirely useful for him. His perception was that his experience with computers or previous work experience placed him ahead of the training that was offered. "I didn't learn much new in the trainings, but I did learn how to work with *Digital Works* resources, and how to find another work at home opportunity" (Charley). Consequently, Charley now works for other companies affiliated with *Digital Works* in a consultant and trouble-shooting capacity. The program led him to this new job. He sees the value of the training program to his community.

"Hocking County is a real have/have not community. Something like this would have helped people work from home. It's been of value. It was a nice feature what they had for the community. It was sad to see the office (Logan) close. The office provided

some social opportunities" (Charley). The meaning-making opportunity for Charley, was that despite his past mistakes, he was able to participate in the training, and have a second chance at a new life, earning money. It gave him hope, and a renewed outlook on his life to the point that he became dedicated to helping newly released prisoners restart their lives, with his organization, Prison Ministries. His renewed hope inspired him to want to give back to his community.

Emma: Staying vital. Emma is a 70-year-old retiree and high school graduate who also wanted to stay vital by continuing to learn. The opportunity to learn new skills, hone old ones, be around other people learning at the same time, and the socialization and sense of accomplishment were life changing and meaning-making for Emma. "I am a better me. I am more independent" (Emma). She now substitutes at a local school as a teacher aide, a position she would not have considered prior to the training program because of her shyness. A meaning-making opportunity for her was that the program helped her connect with others. "There were 10-12 others in the training at a time, depending on the room and computers. We became friends, which was the whole point. Now, if there's a problem, I feel I am comfortable with any of those people, and asking them for help, even the trainer. It all was a good support system" (Emma).

When Emma decided she wanted to work again, the flexibility and the idea of being her own boss appealed to her. She knew very little about computers when she signed up with *Digital Works*. "Each aspect of training was different There were quizzes we needed to pass by 80% before going on to the next function. The training took me 6 weeks. Some of the training, people fresh out of high school may catch on quicker. That's

just typical for my age group" (Emma). The training and subsequent job are beneficial to her. "It fits into my lifestyle; keeps you busy. You are as successful as you want to be, it's up to you, you get out what you put in" (Emma). She wanted to be comfortable working with computers, working alone and go forward "without someone holding my hand. I'm trying to be self-sufficient" (Emma). It was meaning-making for her when she graduated the training program and was able to work from home at a flexible job. She knew her limited computer skills meant she would have to work harder at learning, but she was able to accomplish completion of the training. "I learned a lot about computers. Before I only knew how to do e-mail. I wasn't really comfortable with apps" (Emma).

The training program gave her confidence and reinforced her desire to connect with her community. "I like being around people" (Emma said) adding that the *Digital Works* program helped her meet people in her community, a meaning-making dynamic for her. She recognized the value of the training program for her town. "The people at *Digital Works* probably helped the whole town, it helped a lot in our town" (Emma).

Becky: Digital Divide problematic. Becky is a 60-year-old woman, who manages a family farm with her husband, and helps her children grow their farm-related business, partly through using the Internet. She's not real interested in learning computers or the Internet. She still uses a landline for Internet connection, and only occasionally sells antiques online. She was recruited through the snowball effect of finding sources and wanted to discuss the Digital Divide in the region. She said living in the country, about 12 miles west from the hub of Athens, receiving good Internet signal is problematic and creates problems for her children's business. While she did not participate in the

Digital Works training program, she said she has seen the positive impact of it in the lives of friends who took the training. She said she believes having more people in the region interested in learning computers and the Internet could stimulate demand for service in the more isolated, rural areas.

Categories that Defined the Themes

Many of the participants in the *Digital Works* training program typified the results of not having computer training or access to high speed Internet. Most of the participants interviewed were unemployed or retired and wanting to reenter the workforce. Others believed they were unemployable because of felony convictions, or their own limited skills. Few had heard of the *Digital Works* opportunity through the normal marketing methods of fliers or PSAs prior to signing up, and most learned of the opportunity to work from home through friends and encounters with others taking the trainings. Once completed, the trainings paved the way for participants to get jobs through the companies working with *Digital Works* in developing the trainings. These jobs mostly involved in-bound phone calls from those companies' customers—answering questions, taking orders, or correcting problems with orders. The companies required high speed broadband access on the phone lines used for the jobs so that information did not get dropped, or transmitted improperly. *Digital Works* reps were often taking credit card and other personal information over the phone which required good Internet access. Exploring further the participants' responses to their experiences in the *Digital Works* trainings reveals the life-changing impact this program had on individuals in the Appalachian Ohio region. Individual descriptions of what impact the program had on

their lives supports the overall essence of the experience as van Manen (1990) suggested qualitative researchers strive for while coding, reflecting and interpreting respondents' comments. The next section explores the findings, the categories that emerged and developed themes of the research.

Rich and meaningful data informs the research question,

What was the existential meaning of the *Digital Works* computer training program in the lives of Appalachian Ohio participants?

Family first. A dominant category that emerged was that family and being a caregiver for their families was important to the participants. Family was the most compelling reason why people participated in the *Digital Works* training program. Either the training offered them opportunity, or it offered a path out of their current life situation. For example, one participant, Mary Ann shared that her family was facing financial difficulties because of mounting medical bills and she was the only income provider. For Mary Ann, the *Digital Works* program provided a way for her to care for her family.

Knowing she had options in her life helped Mary Ann believe she could find a job that enabled her to earn enough to keep up with her husband's medical bills and pay for household expenses. When she found the *Digital Works* training opportunity and subsequent job, Mary Ann felt relief that her tough situation could change. She felt empowered she could control her life.

The first step to personal empowerment for some participants began with a personal decision to improve their lives and those of their families. Their statements

indicated family is important to this group of Appalachian people. These participants said their participation in the training program and the way it helped them address the challenges that affected their families gave them comfort and eased their minds. Mary Ann lives near the Gallipolis training center and had only attended two years of college. Her limited education, and rural location limited her options for jobs. Mary Ann is a driven caregiver and the provider for her family. According to her, "I knew I must be the one to get a job. I needed a place where I could support my child." This meant working flexible hours close to home. *Digital Works* allowed her to fulfill these responsibilities. She said, "I wanted to learn a new trade; I wanted to get a job, and the training helped me do that" (Mary Ann). She gained confidence from the training process that also helped her in another way: "I have a speech impediment and I knew I had to work harder, which I did" (Mary Ann). She felt empowered after completing the training, and because she did not let her speech impediment interfere. To her, self-empowerment meant completion of a difficult challenge, and that she could provide for her family.

Some of the participants said their decision to take the training revolved around personal issues, and issues that affected their families. It was significant that of the 17 participants interviewed, nearly all were working through some kind of challenge, such as poverty, unemployment, illness, or, long-distance travel to a job that kept them from their family and home.

It was a similar story for Ellen, a 45-year-old Chesapeake resident. Like Mary Ann, Ellen is both a caregiver and provider for her family. She told of her family

responsibilities to care for her disabled brothers and discussed how *Digital Works* gave

here confidence she could fulfill her obligations.

These family responsibilities, along with her own learning disability of extreme

dyslexia, and arthritis, made it imperative she find flexible work. When she learned about

Digital Works at the unemployment office, she jumped at the chance to learn. Ellen said

apart from providing her with the skills to deal with her personal challenges, the training

program allowed her to take care of her brothers, "I can make money, only work one job,

and work that from home; I'm not limited by the hours I can work so I have more

flexibility to take my brothers to their doctor's appointments. I had to be there for them!"

(Ellen).

Family obligations also drew other people to return home to care for elderly

parents, but when they got into their Appalachian communities, they were amazed at the

lack of employment choices in the area. Returning from Chicago to her West Union town

to care for her ailing mother and seriously ill sister, Eleanor, a 60-year-old stockbroker

with a Master's in Math, was surprised at how few job opportunities there were for her.

She saw an ad in the local paper about *Digital Works* and decided to sign up and get a job

as a PC tech-support person, to relieve some of the stress as a caretaker. The flexibility

enabled Eleanor to go to doctors' appointments with her mom and sister, and still have a

personal outlet for learning and employment. The *Digital Works* training gave her control

over her life in a situation where there is little control possible.

For Jackie, a 35-year-old West Union resident, *Digital Works* training offered her

a way to have a job with less stress while managing her recent cancer diagnosis.

Flexibility for Jackie meant, "I can schedule my hours in blocks which works well with doctor appointments and everything else in my life" (Jackie). The trainings gave her the opportunity to be with her family, she explained.

The power of learning, peace of mind, hope. A life-altering experience, which usually took away hope, motivated other people to participate in the training program. Of the 17 interviewees, only one was not experiencing a life-altering situation prior to taking the computer training program. For the other 16, they had challenging personal circumstances that led them to sign up for the trainings. Several participants had family obligations such as seriously ill or aging relatives that necessitated finding jobs that were flexible. Mary Ann recounted that her family's medical issues required that she get a job, but that job's income put her over the income limits for cash and medical assistance, which was suddenly taken away. Mary Ann related her dilemma,

> To me, if they would help the people that was bettering theirselves, [sic]…at least say you have six months, and then we're going to do this and this, so you can build up to that, but when they take it like that,…within the next month, you're still running in the negative, because…it hurts families like me. And my family has always been the one that's been in that crack, the no-man zone, is what we call it.

Mary Ann was looking for other employment opportunities when she first heard of *Digital Works* from a friend. She shared, "I was looking for something for me…. I've done odd jobs, I've sold scrap to make ends meet sometimes, I still walk along the (highway), looking for aluminum cans, once in a while, when I definitely need the gas

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money" (Mary Ann). She completed the *Digital Works* training program and found a job with enough flexibility to take her husband to his doctor's appointments. The flexibility meant she could control her work hours and her income level. *Digital Works*, for this family, and several of the other participants' families, gave them options, which Mary Ann equated to having hope for a better future. Hope emerged as a strong category that several participants discussed.

When 66-year-old Gayle's job was eliminated due to budget cuts, she retired and investigated *Digital Works*: "I just wanted to try something new; I didn't want to be stale, I wanted to keep learning" (Gayle). Working from home, with flexible hours and working for herself, "was a dream come true" (Gayle). As a new retiree who had driven 81 miles to work each way for 24 years, she did not know many folks in her community, she said, "I became friends with others taking the trainings….I felt so good to be part of the training; it gave me hope" (Gayle). The trainings "enriched my life; I felt I had a rich life prior to the trainings; now it's happening in my house in a corn field" (Gayle). For Gayle, the computer training program gave her control over her life and options for earning money and staying vital.

Overcoming discomfort, challenging oneself. The training for some participants also meant stepping out of their comfort zones and taking up new challenges. The individuals in this group had limited computer skills prior to the training so their confidence in themselves was low and uncertain. Some of them said right before the program started, and in the first day of the program, they experienced a variety of feelings, from anxiety, nervousness to a total lack of confidence in themselves or their

computer skills. Their computer literacy level affected their perception of themselves and how they would do in the program. This was particularly so for a few of the older participants who had no basic computer skills. One of them, Francis, said, "Before I only knew how to do e-mail. I wasn't really comfortable with the apps." Another participant, Angela, a 73-year-old woman, recalled being terrified at the prospect of using computers, "I was afraid of breaking it, or doing the wrong thing, or hitting the wrong key and it would explode" (Angela). But both stayed with the program, mastered the lessons and gained personal confidence in their comfort with computers. They became more comfortable using the Internet to the point that, now, they regularly use it for social contact and pursuing personal interests and passions.

Other participants suffered job loss through lay-offs or retirement which meant they had to find work to pay bills or supplement their incomes. For those with personal illness they too needed flexibility for medical appointments, and to pay their medical expenses. Personal handicaps or disabilities had previously prevented some participants from acquiring good paying jobs. Personal challenges with the law limited a few participants' eligibility for jobs as well. These reasons motivated people to participate in the training program. Many of these participants did not have confidence in themselves, or their abilities in working with computers, but life situations and responsibilities forced them to enter the training program and they found that challenging themselves helped them overcome these setbacks.

Participants especially appreciated the ability to learn how to use a computer and gain valuable job skills. This supported the theme of self-empowerment. They had little

confidence in their skills, as Jewell described, "I didn't have much computer skills, very basic skills when I started." This 57-year-old respondent graduated high school but did not pursue college. She and her husband ran a trucking business they had to close when they could not make ends meet (Jewell). The *Digital Works* training program offered Jewell the opportunity to learn new skills, and to get a job in her rural community. She shared, "here in Adams County, there are no jobs; you could work at a McDonald's but there you even have to be family to make it. There is very little economy out here" (Jewell).

More than a job: improved self-image. Another category that developed was that the Digital Works training did more for them than just help them find jobs. The opportunity to learn new skills, hone existing ones, to be around other people learning at the same time, and the socializing and sense of accomplishment were life changing. "I am a better me. I am more independent," said Emma, who attended but did not complete college (Emma). Mary Ann shared that, "It helped me revamp myself. I was out of the workforce for so long" (Mary Ann). For a trainee, Mickie, who had a two-year college degree, but no job, *Digital Works* provided her with options. The training gave Mickie confidence she could change her life situation. She explained, "I felt much better that I had a job. I can work on my own hours and convenience; I was extremely discouraged beforehand. I plan to stick with it and LiveOps; the trainer showed me other opportunities. I learned about myself, and I had a job" (Mickie). This supports the theme of improved self-image.

Economic empowerment. Most of the study participants said the training they received at *Digital Works* made the difference not only in their personal lives but also economically, which emerged as a category. They reported being economically stabilized by the program, which resulted in a theme of economic empowerment. One participant was described by an administrator as being "one prescription away from losing her house" (Shelia), but the training program gave her flexibility and the capacity to work from home. For some participants, the training helped them obtain a regular nine-to-five job, while for others, the flexibility of hours and financial security was worth the time spent during the training. Three participants described the following experiences:

This training got me a job. Before…. I had to work 40 hours a week, now that's down to 20 hours a week, with no holiday pay, so I had to have more than one job. Now, I can make more money from home; I'm not limited by hours I can work, so I can make more money, and have more flexibility to take my brothers to their doctors' appointments. I had to be there for them. If I was committed to work, I could just un-commit if something came up; the flexibility gave me more of the freedom I've always wanted. (Ellen)

I really like it. It's a big help for us financially to be able to do it. My husband makes enough to take care of the bills. My money helped us buy a second car and get extras for the home, and to take a vacation with the 10 grandkids (we have 14), and our two sons. The money has given us more freedom than we normally had, [it] helps out so he doesn't have to worry or work so hard. (Ruth)

I needed a flexible work schedule because of school; with my temp construction job it may or may not be flexible or even [have] work. I like to work from home; I work evenings after my homework is done. I wanted to learn customer service/good telephone skills and to work in customer service. (Beth)

Even at minimum wage or slightly above, participants felt the job training was adequate to make a decent living, and to provide for their families, giving them a sense of self-worth and value. Rural areas with low employment seemed to exacerbate the need for jobs, Mary Ann explained, "The extra security is good in this area… (having) a job helps." That security took a lot of worry off her mind and supports the theme of economic empowerment.

A path out of personal problems from bad life choices. The training program helped people through challenging personal situations. For some participants, bad choices earlier in their lives limited their job opportunities because of their felony records, but *Digital Works* opened an avenue of options for them. Charley's midlife crisis resulted in jail time and a spiritual epiphany that prompted him to become active in his new community. In a follow-up interview, Charley explained that going to prison probably "saved my life. I learned the faith walk at the prison chapel; I heard the gospel like I'd never heard it before. Now I'm a Rotarian and go to church. I was saved by grace through God. I didn't realize it, but it opened my heart, and I found an inner peace that I was missing" (Charley). The felony cost him his insurance and securities licenses and prompted him to sign up for *Digital Works* trainings. The program helped him through

the interview and hiring process, and for the type of customer service job he received, the 10-year-old felony charge no longer mattered. He is still employed through the company that he connected with immediately after completing the training and appreciates the stability in his life that a steady paycheck brings

Having two, 12-year-old felony convictions on her record, made 54-year-old Adams County resident Jill hesitant to sign up for the *Digital Works* trainings. She completed the trainings but did not apply for the customer service jobs because of her record, but said the trainings gave her confidence she can apply her other computer skills to do technical service calls. Jill expressed her self-assurance as she explained, "I attended college, worked as a stripper, came back home, and didn't know how to turn on a computer; now I love computers; I know how to fix them. Eventually I'll go into customer service to take the pressure off myself. Nothing's stopping me but the felonies" (Jill).

The Gallipolis trainer shared the story of another participant, a former nurse, lost her job through bad choices, and could not be an RN anymore. After taking the *Digital Works* training program, she utilized her knowledge of the medical field, to do triage and appointment setting online for a physician. In this job, she can stay in the area and work from home, despite her criminal record. Even for those with criminal records, the training program offered them an opportunity to start a new life. This supports the theme of new beginnings.

Digital Works improved senior citizens' self-perceptions. For older adults, retirees and senior citizens, a category that emerged from the data was that the *Digital*

Works program gave them flexibility, but it gave them a sense of still being vital. The improved self-image seniors gained through the *Digital Works* training program made them feel more part of the digital communication society. Gayle, a 66-year-old retiree said, "I did not want to get stale." For Sarah, her experience with the *Digital Works* trainings gave her "mental stimulation and socialization."

Flexibility meant time to be with family and pursue personal and community interests. Participants reported that having time that they controlled, was important to them. Enhanced computer training and skills, and the ability to use and navigate the Internet, helped them parlay these new skills into social action. They felt empowered to effect change in their communities. The economic stability from a job, gave them control of their lives, and inspired many senior citizens to get involved in their communities. The flexibility that the *Digital Works* training provided and the subsequent job, and flexibility to work at home were unprecedented options for senior citizens. Retiree Gayle said, "I drove to Columbus for 19 years, that's why I wanted to work at home. Now, I have a church group, and a youth group, and my Good News Club" (Gayle). Gayle was able to arrange her schedule to give her time to be a community leader which she never had time to do as a commuter.

Another senior citizen, Francis, described how the training program gave her freedom to be involved with her community: "I wanted to work my own hours, so I could go out and do things. I am learning how to set up an organization on my own time" (Francis). She is bringing the National Senior Olympics to her Portsmouth community using the computer and Internet skills she learned through *Digital Works* training.

Another senior citizen Emma decided to substitute as a teacher's aide in the local public school, another participant, Charley, started a 4-H club in his rural community, and another, Sarah, volunteers with youth groups whenever possible. "I like being around people," she said, adding that the *Digital Works* program helped her meet people in her community. Flexibility is important to the participants and gave them a sense of power, which they get to choose and make decisions about their lives, as Chamberlin (1997) discussed. Most participants appreciated that they could have a job with flexible hours, so they could attend to their families. Flexibility to participants meant they could control their time away from families, a category connected to the theme of the importance of family to people in the region. If they had high speed Internet at their homes, that would give more flexibility to work from home. Without this high speed, they had to leave home and find a place to work.

Interpersonal relationships strengthened. Apart from helping to facilitate interpersonal relationships among participants and between them and the trainers, *Digital Works* also helped some participants to build stronger relationships with members of their families. For example, Angela is retired, an Athens resident with a master's degree in Social Work. For her, working from home means she gets to spend more time with her family. She elaborated,

 I crave people; I like to be involved; my husband is more of homebody, he's happy with his books and computer; I crave social networks. Email made a difference in the quality of my life. The Internet is a good tool of encouragement and being in touch. There are too many lonely people; I can communicate with

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them; email made it easier—it saves time, and I can be a communicator and a part of their lives. (Angela)

She keeps in touch with her children, grandchildren, collects recipes, and was able to reconnect with her childhood Girl Scout troop members, as well as trace and research her family history, much of which was lost during the Holocaust. "I delight in the way the Internet enables me to have a rich life without leaving the house; it brings such joy" (Angela).

Theme Identification

Themes emerged from the categories and findings in the interview data and address the first page of the research question 1: How did participants make meaning of the *Digital Works* computer training program? The main theme that evolved from the research data was that the *Digital Works* program helped people discover self-empowerment.

Self-empowerment. Chamberlin (1997) defines self-empowerment as:

having decision-making power; having access to information and resources; having a range of options from which to make choices; assertiveness; a feeling that the individual can make a difference (being hopeful); learning to think critically; unlearning the conditioning; seeing things differently; learning to redefine who we are (speaking in our own voice) and learning to redefine what we can do. (p. 44).

Self-empowerment according to Chamberlin (1997) also allows people to redefine and challenge how others perceive their competency and ability to experience personal

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growth. With this definition, the theme of self-empowerment as presented in this finding encapsulates the personal and learning experiences of the participants. Their lived experience shows how participants explained the impact of the training program in their lives. The categories that informed the research question include: family first, the power of learning, challenging oneself, improved self-image, building trust, self-confidence, hope, courage, and self-empowerment. Jackie felt that she had control of her life through her flexible schedule, which is a component of self-empowerment that Chamberlin (1997) identified.

The participants' personal stories and the changes they experienced as a result of the *Digital Works* training opportunities, showed they no longer felt crippled by their life's struggles. Once they took the computer training and found they could have immediate employment, their attitudes changed, and they felt hope and empowered, that their own effort helped create this change. They 'relearned' how to view themselves and their life situation and learned they could control their own outcomes. As Chamberlin (1997) noted, "part of the empowerment process includes reclaiming one's sense of competence" (p.45).

Participants described that their empowerment also came from the knowledge that they completed and succeeded at the training program through their own effort and perseverance. One participant said, "I felt lucky for what it did for me. It made me feel really, really good; exhausted and stressed, but the thing was, *I* did it" (Francis). The training program was a positive experience for Jackie, who shared, "We completed the course in November; I graduated to a job. It felt good. What I really liked about the

program was that it was different. I've seen other programs that didn't even talk about job placement. *Digital Works* did the training for a job" (Jackie). Another participant described the experience, "The opportunity it's given me and the things we are able to do. *Digital Works* made me feel wonderful" (Ruth).

Sense of belonging. The settings for *Digital Works* trainings, at facilities throughout Appalachian Ohio, provided the participants a sense belonging to a group and that they were not alone in the changes they were undergoing—learning new skills, learning about themselves and their own capacity to succeed. Empowerment involves "experiencing a sense of connectedness with other people" (Chamberlin, 1997, p. 45) instead of just as an individual. Participants' mastery of the *Digital Works* training modules gave them personal control and the capacity to see that as a positive personal change in their lives. Helping people feel empowered, and good about themselves gave citizens agency. This has value for Appalachian Ohio as citizens parlayed this empowered feeling to contribute to their communities. Having options proved to be an empowering feeling for these participants.

The participants actively changed others' perceptions of their competencies and their capacity to act (Chamberlin, 1997), and earned respect of others, which in turn, increases self-respect and self-confidence, and continues to change outsider's perceptions of the person. The training program had a cumulative effect of improving individuals' perceptions of themselves and their ability to change and take action within their community. Consequently, participants saw their training as a first step in their personal growth and their personal capacity to keep learning. People who have a "devalued social

status" (Chamberlin, 1997, p. 46), even if it is a self-perception, from living in poverty, being unemployed, or having a criminal record often have low self-esteem or low self-confidence, but can learn, through job training opportunities, self-empowerment, and then be contributing members to their communities.

Expanding worldviews and social participation. The learning experience of the participants was also enhanced by new computer skills and knowledge they acquired from the training and developed into a category that supported the theme of self-empowerment. The skills opened windows of opportunity for participants as they understood better how to access and utilize the Internet. This led them to being exposed to other ideas and information. Angela, a 73-year-old retiree became actively involved in the single-payer insurance campaign after she took the *Digital Works* training. She shared, "The Internet is very important to me in terms of social change and being able to be in touch with various streams of people who are involved in the work." Prior to the training, Angela only had limited knowledge of how to use the Internet and computers. Learning how to use the Internet was inspiring for her and her passion about single payer insurance. Now, she was able to share and organize campaigns around this issue more easily because of her newfound ease with technology. She later added, "Email had a profound nurturing effect for me" (Angela). Like Angela, some senior citizens said the training program gave them a valuable tool—knowledge of the Internet—to be able to pursue their interests in social causes. While the Internet opened many possibilities for them to communicate about social issues, it also gave them a new platform to interact with their friends and build new social networks.

Gayle, the 66-year-old Carrolton woman who worked as an occupational therapist said having access to the Internet and *Digital Works* training has enriched her life:

I'm still there [at the *Digital Works* training center] using what I learned in the training. I started …in August, one year, and I'm still with them. We are paid talk time, not big pay, not near what I was used to getting, but I don't care. I like it. I'm talking from a little corn field, I'm talking to people from Hawaii, New York and Tennessee, I love Tennessee accents. I take calls from all states. It's fantastic. I wonder who I'll talk to next. (Gayle)

Some participants said the *Digital Works* training program's website also helped to improve their learning experience and by extension, enhanced their level of self-empowerment. The website offered numerous online training modules in a variety of areas, from additional Microsoft Office lessons to Excel, HTML programming to training on starting a business. This wealth of additional learning opportunities at no charge to participants was available whenever they chose to use it. Participants used this valuable resource to continue their learning that was stimulated by the *Digital Works* training. Many respondents described taking the additional training modules on their own. One respondent explained, "There was a lot of information in the training; customer service was most of the course work; we worked at our own pace on video modules over eight weeks." Another participant Beth, said, "We learned customer service skills; resume tips, how to write and gear it to a job you're going for; how to word things so they understand your skillset; how you ask and answer questions when being interviewed. It was informative; I liked it" (Beth). This activity is indicative of a self-empowerment

parameter proposed by Chamberlin (1997) that growth and change are never ending and self-initiated.

Overall, the perception among the participants is that the training they received at *Digital Works* made a difference in their lives. The training helped to shape their learning experiences by building their self-confidence and skills. Self-empowerment for the participants also meant they could have control over their lives. Participants described their experiences in the *Digital Works* training program in personal terms and in terms of the learning experience. When they discussed personal experiences, they talked about how the program impacted their personal lives. When they discussed the learning experience itself, they explained how the program gave them skills to use computers and the Internet that later enabled them to acquire jobs. This learning experience bridged the personal experience as well. For many, the main reason for participating in *Digital Works* training was to learn skills that would result in a job, which in turn would improve their personal lives.

Generally, the participants interviewed for this research presented themselves as resilient and determined to improve their lives. Many are willing to work hard at overcoming personal obstacles, such as personal learning disabilities or handicaps, as well as criminal records. They live with the loss of jobs, unemployment, and at poverty level in a rural area. However, the participants were empowered by the feeling of not having to worry about a paycheck, bill payments, or transportation to and from work.

For most participants, the *Digital Works* training program offered a new set of skills and the opportunity to work from home, easing some of the complications in their

lives. There was also a sense of accomplishment that came from the knowledge that they completed and succeeded at the training program through their own effort and perseverance. Participant Francis said, "I felt lucky for what it did for me. It made me feel really, really good; exhausted and stressed, but the thing was, *I* did it" (Francis). For this participant and others like her, completing the training also meant the promise of a better future. This is what self-empowerment meant to these participants.

Program structure reinforced confidence to succeed. These categories addressed the second part of the research question (b), how the training enabled participants to find their place in their communities? For those with computer skills, the training experience was easier, and it provided other value. For Emma, a 70-year-old participant from Portsmouth, who attended but did not complete college, said she was not anxious about participating in the training program. She wanted to be comfortable working with computers, working alone and go forward "without someone holding my hand. I'm trying to be self-sufficient" (Emma).

Other participants of the *Digital Works* training program had a similar experience. For example, 27-year-old April and Mary Ann, had basic computer skills, which proved very useful during the training. According to April, "It was less of a learning curve for me. My dad was in computer engineering and programming. As technology changed, I kept up," she said, adding, "I always worked in an office (so I knew most of what was taught). It was more etiquette that was quite helpful. I do know computers, so I didn't have to do a lot." For Mary Ann, the training provided her the opportunity to hone her skills: "Before the trainings, I went to Joint Vocational School, did some programming

there in the '90s. Since I worked in computer programming while my son was sick for a number of years and I home-schooled my own kids. I used computers and the Internet; I was around them a lot in my life. I'm comfortable with computers. I had knowledge of emails" (Mary Ann). For Mary Ann and April, the *Digital Works* training program reinforced what they had learned previously and gave them confidence to apply for jobs that they would not have considered without the training.

Trust in others brought them to the program. Another category that I identified is that trust is important in Appalachian Ohio, and trust in a friend or family member was a necessary component for people being willing to try the training program. While some participants were hesitant to participate because of lack of confidence in themselves and their computer skills, others were skeptical because they were unaware of the program or did not trust a government program enough to understand its benefits to them. The limited promotional activities, reliance on public service announcements and fliers in libraries, according to participants interviewed, were not enough to make them aware of what *Digital Works* offered or how it would benefit them. In response to the question asking how they learned of the program, one participant said, "I saw an ad about *Digital Works*, but I was unsure about it." Another responded, "I never saw any ads or other information about it, so I researched it online." A third, Francis, described her experience as, "I followed a friend to the office. There were people in the class, so I asked questions about the program. The facilitator explained it to me. I had never heard of it before. I was a skeptic, so I did a little of my own research on it." Each of these participants relied on personal contacts before making the decision to participate in the

training sessions. Advertisements, fliers or newspaper articles were inadequate to persuade some people to participate. They needed a personal recommendation or endorsement, indicative of the trust issues in the Appalachian Ohio culture. Some read fliers, but that was not enough for trust in the program, they had to investigate for themselves. It was not until another person, family or acquaintance talked about the program; did they decide to participate. Trust in other people is what drew them to the program and the realization that people were getting jobs as a result of participating in the training program. Two participants said:

> A couple of friends have done *Digital Works,* a couple of years ago; one works in an insurance company now, she worked her way up; another friend told me to take the training to get good phone skills and relations with clients. (Beth)

> A friend told me about it, but I wasn't convinced. At a luncheon, I ran into a lady who told me she made $372; she showed me her invoice and made a believer out of me. Without that lady showing me her money and invoice, I wouldn't have gone [to the trainings]. (Francis)

These responses reveal a theme that the *Digital Works* program built trust among Appalachian Ohio citizens and stimulated community building.

Impact in Appalachian Communities

The impact of the *Digital Works* program in Appalachian Ohio is measurable Ruth, a Logan trainee remarked, "Southern Ohio and Logan are not a very business-booming area. I can average $15-$17 an hour at home. Sure, I pay my own taxes, but I

have no overhead, I don't have to drive, there's no wear and tear on my car" (Ruth). This sentiment was echoed by participant Myra, who was quickly promoted to facilitator at her Center. Getting paid a little more than minimum wage, in Gallipolis, seems adequate, "In this area, it's not that bad. Around here, it's mostly minimum wage, so $10 an hour is not too bad. In this area, the rent's not too bad. You save so much money on gas, buying tires, changing the oil in your car, paying for babysitters, eating food out while you work" (Myra). The lower wages for the opportunity to work from home appealed to many of the trainees. The fact that they had jobs with flexible hours that they could control meant participants could be more involved in their communities. The networks and connections they made in the trainings helped them move forward with confidence to other community organizations and activities.

The positive impact of the program on the Appalachian Ohio community emerged as a finding from administrators, trainers, and trainees. The trainees' perceptions about *Digital Works'* impact on rural communities was corroborated by the program administrators, who gave several examples where the *Digital Works* program was having a positive impact on the state and its unemployment levels. Administrator Shelia suggested,

> Legislators should consider that the *Digital Works* program is helping individuals. It's producing outcomes, producing paychecks with just four to five weeks of training; what other programs are doing that? The real question is why wouldn't they fund this? If it's not funded, it could be considered ahead of its time. On-

demand, virtual services (industry) is growing. Politicians and legislators…sometimes it takes them time to catch up.

Another administrator, Emily, argued that the project was a life saver, "It's a valuable program for our state; I have proof that it saves lives, and that speaks volumes." Administrator Shelia, agreed with her, noting,

> The strength of the *Digital Works* program is that it helps individuals. This focus often does not meet funder performance metrics; funders want to see bigger results, and as a taxpayer, I can understand that. The state appropriation allowed us to help individuals, but it didn't fit into any funding mechanism. There are huge walls to hurdle, but I'm optimistic the program will continue. A lot depends on state appropriations. (Shelia)

Administrator Emily witnessed the community building outcome from the program. Many of the trainees were "not social media savvy, they were not comfortable with online communication," but with the *Digital Works* monthly Think Tank meetings "they can now be online 24/7 with their peers. Other *Digital Works* peers who have experience with the employers are helpful to the people just starting" (Emily). This personal connection helped build more community connections.

Interpersonal relationships improve community building. Participants discussed that interpersonal relationships improved with the *Digital Works* training. These descriptions captured participants' intense feelings about their newfound friendships, companionship and camaraderie, which was facilitated by the training program. The *Digital Works* training program provided a platform for networking and

building relationships for rural participants, especially retirees, senior citizens, or those recently returned to the Appalachian Ohio region. For some participants, the training program was more than learning about computers, it meant being around other people, and learning how to connect with other people who lived elsewhere. These connections were particularly true for some elderly participants who said they found friendship with other participants at the training facilities. This new opportunity to interact helped the senior citizens feel less isolated and gave them a sense of purpose and belonging. They found a new way to communicate and connect with friends and family through learning how to use a computer and e-mail. One such story was shared by Ruth, a 57-year-old Logan resident who said getting to know other people in her community was a big benefit of the *Digital Works* trainings as, "we were pretty close in the Logan group; both classes before and behind me."

Facilitators and trainers important factor for a positive experience. Another important category that emerged is that program trainers and administrators helped shape both learning and personal experiences of participants and was a key meaning-making element. The structure of the program showed how the trainers impacted the lived experience of the participants. All study participants identified the trainers as helping to build their confidence. For example, Mary Ann said:

> Our trainer was a really good person. She goes out of her way to give you what
> you need; she'd get it for you, or find info where you could get it, like headsets;
> she was helpful and knowledgeable in where to get them. I also have a speech

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impediment that comes out on scripts; she helped me get more comfortable with scripts. She did not have to work with me, but that's the type of person she is.

Also, in response to questions about their trainers, some participants made comments like, "everyone who came in was comfortable with her. She was exceptional; she made everyone feel at ease; gave them confidence" (Francis). Mickie said, "[Our trainer] was awesome, thorough, and professional. She had her own health issues but that didn't affect her work." Most of the participants said the friendly and professional way the trainers interacted with them helped to make their learning experience both interesting and engaging. Additionally, most of them were happy with the training centers, which they described as "welcoming" and spaces where they felt they could learn. One of them said by offering them coffee, snacks and drinks, the program ensured that all the participants were comfortable. For another participant, the capability of the call center trainers made it possible for the program to engage with its students with ease.

Some participants also remarked that the trainers shaped their learning experiences by being engaging and attentive to the individual needs of their students and by being open to working with everyone. One participant Ruth, said, "We were in a room with at least six others, if we had a question, it was answered individually." Another participant, Ellen, who has dyslexia explained,

When I went to *Digital Works,* she [the trainer] was hesitant at first because of my learning disability; I know my limits and what I have to do to get it right. I learned the information. I have to learn differently than other people; this was my first

session; I was like a fish out of water, a little, but I learned, I did the work, and she was amazed.

Ellen said the relationship with the trainer and other participants also helped her develop stronger personal bonds and improved her personal confidence.

Trainees praised the help they received from the trainers who ran the Centers. The trainer in Carrolton County was described as, exceptional. She made everyone feel at ease; gave them confidence; she was there for them to fit that person's schedule; she knew the computer system well; she'd fix it anytime it was down I felt comfortable with our trainer; she gave me a lot of confidence which I didn't have; I'm a shy person; it's funny, I could help a lot with handicapped people, but I couldn't help myself. (Gayle)

Retiree Sarah described the Logan trainer as "pleasant and patient," and like family: "When I met her, I felt like she was my long-lost sister" (Sarah). "She was absolutely awesome; she'd do anything in her power to help us succeed at this; if you had questions you could call her at home" reported trainee Ruth. The Logan group got together frequently, had potlucks with families invited and welcoming events to new trainees. "We mentored them; there was a lot of mentoring in the program, a lot of support; we'd get to know them. I didn't go there to work much, but I'd stop in. It was a lot like a family atmosphere" (Sarah). "When the Logan office closed down, a bunch of us went in and had a farewell to *Digital Works* in Logan. It was sad" (Sarah). The connection among the trainees was nurtured by the trainers and resulted in personal bonding among the citizens, which led to community building.

Community building and civic engagement. An additional category initially interpreted from the data is the perception by study participants that the *Digital Works* program had a positive effect on the community. Most of them said participating in the program gave them the confidence in themselves which translated to courage. This grew to the desire to be involved with their communities again. With fewer worries about money and finances, some said they felt they could participate in community activities and be active in social issues. For instance, participants were aware of two of the bigger challenges their communities and the Appalachian region faced—unemployment and poverty—because they live with those challenges. They believe that the *Digital Works* training program gave them an opportunity to gain personal hope, as well as renewed hope for the region. Participant Charley said the program helped to provide jobs for people in rural areas where unemployment is very high. He said, "Southern Ohio and Logan are not a very business-booming area. Now, I can average $15-$17/hour at home. It really helped a lot of people in this region" (Charley). Two other participants shared personal stories to support this point. As 66-year-old, Gayle said:

> *Digital Works* was terrific for Carrollton County. What I thought was strange, people from other counties were traveling [here] to learn and work for money; a significant number of people out there really do want to work!

Another participant, Francis, a 64-year-old woman, who retired from a mental health job said the training program could give people hope for the region. She shared a personal observation, noting,

I work at the Alcohol Drugs and Mental Health Board. When low income people are down on themselves, first thing they try to feel good, is they go to drugs. My son is 24. He left home, tried college, then got married and lives in Columbus. My neighborhood is bad. He looked at the empty house next door for five years. Every morning he had to wake up and look at that house. He was depressed; he felt there was no hope for him here. Now he has a high paying job in Hilliard. Before that, he was so depressed at what he was seeing every day, he started to feel there was no hope for him. The training program would have helped a lot of people. It would boost a lot (of people) out of minimum wage, low wage jobs.

The impact of *Digital Works* went beyond training people just to work taking customer service calls. These programs reinvigorated rural areas of Appalachian Ohio. The program fostered community connections in a way that participants were able to become strong support systems for each other. The participants suggested that apart from becoming friends, everybody was willing to step in and assist if any one needed help. "It was like a family" observed Mary Ann.

That connection gave Mary Ann confidence and a sense of belonging to her community and made connections for others. For 70-year-old retiree Sarah, who lives alone, the trainings offered her a sense of belonging. "They were like family, truly. I liked the social and comradery" (Sarah). These bonds and social connections were the basis for the formation of social capital in these rural communities. Another participant Francis stated, "Being a close group helped us all support each other and get each other through it. Even at home, I could call or text and would get help."

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For a recently retired worker, Gayle, the *Digital Works* trainings and working from the Center meant reconnecting with her community. Gayle noted, "We made lots of friends; I met a lot of people I never knew. We'd share fruit and food. My job was 60-90 minutes from my home before this; I had lost a lot of contact with the locals; I was fully engaged in working; this [training] opened a lot of social opportunities for me."

Community building, networks and connections. Most participants mentioned how they enjoyed the feeling of family at the training centers, and how they would often have potlucks, small celebrations of progress or graduations. Participants felt a bond with each other and the place where they worked, as Francis noted, "We were like a close-knit family. We helped each other." These bonds helped everyone connect and form a network, an important component of community building and meaning-making**.**

The following discusses how broadband Internet service seemed to impact the positive results participants wanted to share about their *Digital Works* training experience. It seems to intertwine with all the themes: without good Internet service, the gains from the experience were diminished as people struggled to make the connections needed to keep the jobs and did not have the opportunities they perceived were possible.

Internet Service in the Appalachian Ohio Region

All respondents wanted to discuss the quality of the Internet service at their homes, which because so many were so interested, became a category worthy of mentioning. The program stimulated more awareness of the need for better broadband service in the region. Consistently participants said that the lack of high-speed Internet at their homes required that they travel to the *Digital Works* training centers to participate in

their employment opportunities. However, while this study was conducted, all the training centers in Appalachian Ohio were closed, except for the one in Gallipolis. Respondents were told they could travel to the Columbus Center, or the one in Gallipolis to access the high-speed Internet service there. For people who trained at the West Union facility in Adams County, that round trip would be five hours, a prohibitive amount of time given their other responsibilities and the cost of commuting versus what they would be paid in the customer service jobs.

"We used the facility because we live in a rural area and can't get Internet. Only a few people in my area have the Internet. My mom lives one-half mile down the road, and she can't get the Internet" (Mary Ann).

A West Union trainee, Mickie, took the *Digital Works* training after receiving her associate degree from a community college, but could not find work in that field for two years. She did not want to drive an hour to Columbus or Cincinnati for a job. After her training, she would work at the West Union facility "but only on weekends, cause our vehicle is down, the transmission is out; I have to share the car and drive to the office because there's not broadband at my house" (Mickie). At her home, she must use DishNet satellite to gain access, but "it's very expensive and it's awful. I have to stand by the back door, in the kitchen to get service. The best place is to the left of the fridge" (Mickie). The companies that employ *Digital Works* graduates require land lines that are dedicated to their calls but are often expensive for people living on low incomes. High speed access means calls do not drop, providing better customer service, but broadband is

often unavailable or too costly. Those are the reasons why the training centers with the better Internet service were so valuable to the participants.

Trainers' Perspective

Digital Works trainers who were interviewed for this study agreed that their own passion and commitment made it easier for participants to adapt to the program. They acknowledged the important role that the program played in the lives of rural citizens in Appalachian Ohio. Trainer Eleanor expressed satisfaction in seeing how the program helped to improve the participants' self-confidence and trust in their abilities. Trainers served as coaches to the participants helping to instill confidence and self-assurance. They also helped them to overcome cultural stereotypes of women not working outside the home and helped them adjust to change.

The trainers had empathy with participants and understood the challenges they faced in their personal lives, like needing a job, and this concern helped the participants feel more connected with the program, and thus more willing to stick with it to completion. Eleanor's empathy and willingness to help others made her program well attended and successful.

The trainers seemed to take personal interest in their trainees. Trainer Myra explained, "I get to help a lot of people, not just them but their families. I get to know them" (Myra). She shared the story of one trainee who, at a lunch break, pulled out a sandwich made from moldy bread because she and her mother could only afford day old food. This trainee now has a job, and she can "buy food that's not moldy" (Myra). For Myra, helping people is the best part of her job.

It just makes me angry, the thought of how many people's gone [sic] hungry cause they don't have a job…. with this *Digital Works*, I get to help people, and I didn't have to go to college to be a social worker. I get to help people every day get a job. It amazes me to see, that the time they come in at the beginning, they are just so heartbroken, and it just breaks my heart. And then, to see them after they get a job, or even the offer of a job, they're like smiling, and there's hope in their eyes. It's just an amazing feeling to be able to put that hope in someone's eyes. I would never have gotten to do that if it weren't for *Digital Works*. I just love this job. (Myra)

This hope, Myra said, comes from being able to support and feed their families without government help, which often embarrasses them. Myra observed, "They don't want to take help, but they have to. They want to work, so they can get off that help and feel good about theirselves (sic)." Recent layoffs from Gallipolis' largest employers increased the number of trainees, to the capacity of eight per week, in addition to the eight who come in daily to work at their jobs. The Gallipolis facility seems to be successful in helping people, Myra stated, "We've been able to get a lot of people jobs that they couldn't get before, and they got off cash assistance, and food stamps" (Myra). *Digital Works* now has 65 different companies it has formed relationships with for employee trainees from the program, increasing their options for jobs. Hope helped participants believe they could improve their lives. Hope emerged as a strong theme for how participants viewed the training program.

Administrators' Perspectives: it's Life-changing

Program administrators supported the views of trainers about the impact of the program on individual residents of Appalachian Ohio region. The administrators noted that while most of the participants were economically disadvantaged, the program afforded them the opportunity to be trained and enabled to get a job. One of the administrators, Edward, shared a success story about Sue, one of the trainees who was homeless, but encouraged by her participation in the *Digital Works* training to make positive changes in her life. She progressed so much in the program that she was able to move out of the homeless shelter and became a success story for the program. During a grand opening ceremony in Gallipolis, Sue spoke before the crowd, telling them that her 'kids have bedrooms for the first time in three years.' She answered calls for Cheryl's Cookies, worked 60 hours per week. She wanted out of that shelter. Sue is one in a million" (Edward). Sue graduated to more complicated service calls with U-Haul and was promoted to work for Allstate as their first point-person when a customer calls with a claim because of her "calming presence when a client suffers a claim" (Edward). These skills she learned through her *Digital Works* training.

Another administrator Shelia described *Digital Works* as "life-changing for people." She recalled the story of another trainer, who prior to the training program was unemployed for three years but moved up to making enough money to take care of his family. Shelia observed that the flexible and convenient nature of the program allows individuals to earn income while working at home.

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Not Everyone Liked the Training, and the Internet

While not necessarily themes, these comments seemed relevant to include in the meaning making discussion of *Digital Works.* Unlike Angela, there were a few senior participants who struggled with the training and the technology. One of them, Sarah, a 70-year-old woman said she found it difficult to complete the training within the time stipulated: "each aspect of training was different There were quizzes we needed to pass by 80% before going on to the next function. The training took me 6 weeks. Some of the training, people fresh out of high school, may catch on quicker. That's just typical for my age group." Some of the older participants admitted being late adopters, who are either hesitant to trust or adapt the new innovation or technology. One of the seniors Becky, said: "I don't pay bills online; I don't trust online enough." Her views about technology were also expressed by two other seniors:

> I still have not tried Facebook or LinkedIn; I'm a private person and I don't want to be public with my personal life. I still have to get comfortable with that. I don't put my personal stuff out there; we don't need to go on the World Wide Web and let everyone know our business. I'll talk to people in forums about business-related things only; business and personal stuff (should be separate). I may eventually do it, but I'll still keep my personal stuff away from Facebook. (Sarah)

> I'm having the internal debate on whether to post personal information. I am still dancing about the Facebook idea. My friend taught me about Twitter. I realized if

I want to communicate better about the things I believe in and work for, I had better learn how. It's a challenge. (Gayle)

Loss of Centers Seen as Affront to Rural Appalachia

When the facilities were shut down during this study, the participants' perceptions of the program's impact were reflected in their reactions to the closings. This sense of loss fuels another category under the community building theme, that the participants' lived experience of the training program was personal and meaningful. Some of them expressed strong emotional sentiments at the loss of a place and the training that could improve their lives. Beth, one of the younger participants who is working her way through college at *Digital Works* said, "I lost my job and lost my family in Logan when it closed" (Beth). Gayle expressed shock that the program was closing: "we had a good set-up, 100% job placement and a cumulative effect for a smaller group over a longer period of time."

These emotional connections could be the reason there is such anger, disappointment and sadness at the closing of the rural centers and suspension of the trainings. Nearly every interviewee used the words, "It's sad" when discussing the loss of their *Digital Works* center. Charley, said he was sad that the center located in his Logan community was closing because, he observed, "Hocking County is a real have/have-not community. Something like this would have helped people work from home. It's been of value. It was a nice feature what they had for the community" (Charley). For Charley, the sense of sadness was also personal. While his past felony convictions prevented him from getting a job, *Digital Works* opened another chance for him to work.

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A retiree, Rachel, was equally upset that the center near her closed:

I hate that they're not still there. [The Center] closed in July of last year. That's unfortunate because they were helping so many people who couldn't work standard jobs. It broke my heart. The handicapped were engaging in learning and making money; it was all taken away from them when *Digital Works* had to leave.

I worked with handicapped people and that just broke my heart. (Rachel)

Working with people with challenges made her appreciate that *Digital Works* gave the opportunity for people to take control of their lives. The closing of the training centers was in her view, a sad development.

The disappointment these rural citizens felt nearly negates the sense they developed that breaking out of poverty is possible with hard work and effort. An older woman from West Union commented, "Now, I'm confused as to what's going on and our future. Seems all doom and gloom now for us displaced workers." A few respondents expressed sadness and frustration that the training centers near them were closing. One participant remarked, "People are confused. It's sad." Their personal connections to the training program made them feel that once again, rural areas are left behind. The closing of the facilities that were helping respondents reminded them that they were again facing the poverty life that they were trying to escape. Eleanor, from West Union, observed, "Living in a rural area, seems as if you want a decent job you have to drive 1-2 hours; it opened another wall of opportunities for me. It's cheaper to live out here, but the jobs are not as plentiful. There is not a huge manufacturing base."

The sudden removal of the *Digital Works* program, that had become a tool that participants saw as important for them to feel empowered, triggered frustration and disappointment. While decrying the sudden closure of the program, Gayle, the 66-year old woman from Carrollton stated that it was unfortunate that some county commissioners underestimated the impact of the program on rural residents. She shared:

> I see how it benefitted the little people, the underserved; it was improving their self-esteem, giving them hope they could make their lives better. The Commissioners should be more aware that this county needs some jobs; we're in a cornfield here. They just have a different attitude than I do; they are not understanding that the program was helping different people. (Gayle)

Gayle sighed and ended her statement solemnly, "I pray that *Digital Works* will come back!"

Like Gayle, 70-year-old Emma from Portsmouth and 43-year-old Ellen from Chesapeake believe the legislators and the state employment agency in Columbus did not do enough to ensure sustainability of the program. Emma argued that the trial period set for the program was too short to make any impact:

> Legislators didn't give *Digital Works* a long enough trial or establish it so it could work at a higher level. They've gone into Columbus, but it was originally started for smaller communities with no broadband. What about the people down here? Some folks are not tech savvy. [Our trainer] had to learn what everyone needed. She was creating that program and opening other places. This was in the making

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as it grew. There is nothing that has ever grown in just two years. It needed more

time. (Emma)

Ellen also lamented that since digital training is hard, the short trial period did not allow

younger people in the communities to acquire the skills needed to get higher paying jobs:

"Programming is not too hard. They could teach themselves if it were online." (Ellen)

While responding to concerns raised by the trainees about the closing of most

Digital Works facilities, some of the administrators observed that the program was more

effective in communities with more local support and effort to implement the training

program. They noted that programs with the most community support prospered and

those without the community's backing were not sustainable and were therefore among

the first to be closed when funding stopped. One of the administrators, Shelia noted, "It

mattered a lot what the community wanted; people would reach out to us and host

meetings where they said they would take care of some of the resources. A community

chairperson would bring us a site; a lot depended on a community to get a site." She said

the cooperation from the communities increased the level of participation among

individuals. For communities where the enthusiasm was missing, *Digital Works* found it

difficult to sustain the program. The administrator Shelia explained:

> A couple of the closures were really difficult if all the community's players are
>
> involved. In some communities there just wasn't the community demand; Logan,
>
> Portsmouth, West Union had waiting lists, there was demand there, just not
>
> sustainable funding to continue it. Funding is mechanical, truly based on
>
> community demand. Essentially, it's good work. (Shelia)

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The training and jobs goals established with the Carrollton County commissioners were unrealistic for a first-time program, said respondent Gayle. She said that the county's biggest employer only has 90 total employees, so trying to create 50 new jobs "was too high" (Gayle).

Another retired respondent, Sarah, challenged funders to look at the *Digital Works* program more carefully. She said the social service agency focus in this region is to get people off government assistance. "It seems that *Digital Works* would be sensible to support" (Sarah).

Another administrator, Edward, remarked about the loss of opportunity to bring in broadband to the region: "I can't tell you that [imaginary] Johnny will get to be president if broadband is there, but I can tell you that without broadband, it's for sure he won't" (Edward).

News that the West Union facility was closing, upset one the participants there whose car is not reliable enough to make a daily trip back and forth to the Columbus training center, and who cannot get high speed Internet at her Peebles home. "I have to do the facility to do the job; I hope we can keep it" (Mickie).

Lynchburg closed, said trainer Eleanor, even though it was having a big impact in the area. "A lot of women are angered it closed" (Eleanor). "There's just not the population here to sustain it; they didn't have the drive and intellectual curiosity" (Eleanor). Some trainees need more "institutionalized-type of work—they want the check, to punch in/out. It takes a lot of discipline to work at home; there's so many distractions—a closet that needs cleaned out, etc. There is not oversight or anyone to

orchestrate your workday. While in a work environment there's peer pressure, camaraderie and a paycheck" (Eleanor).

Another trainee, Jackie, who appreciated the flexibility of working at home said she had wanted the program to expand to help inmates find employment, as well as offer classes for seniors and expand teaching to deal with illiteracy and computer literacy. "But the government doesn't listen to us" (Jackie).

Logan participants appreciated the *Digital Works* program for the impact it had on that community. "It really helped a lot of people in this region; a lot of people don't have jobs, and this helped. It's a shame it closed. Legislators need to know what they are losing here; it was a very good opportunity for a lot of people. For me, I hadn't worked in years. It was wonderful, and it should be brought back to life" (Ruth).

For these respondents, the *Digital Works* program was seen as valuable and had a positive impact on their lives and for their communities. Their personal connections to the program came from the opportunity to make new friends, network, to learn new skills that quickly led to jobs. The flexibility of these jobs, that gave them control of their lives made them feel like they lost something significant when the centers closed.

Summary of Themes

The following section summarizes themes that emerged from the interview data with participants in the *Digital Works* training program. The *Digital Works* training program and its attempt to address the Digital Divide is a story of expectations and hopes. Participants viewed the program through the lens of possibility. Their comments, formed

into categories in this chapter, once analyzed and interpreted resulted in the themes of hope, self-empowerment and community building.

The theme of self-empowerment to participants was described through their personal experiences. When people who are normally downtrodden from poverty, unemployment, environmental degradation, low education and limited options, get an opportunity for improved living conditions and life options, they blossom. When people have hope, and believe they have options, they feel empowered. Participants in the *Digital Works* training program gained a personal sense of accomplishment, that they could complete the learning and difficult tasks, which built self-esteem, which was a form of self-growth, a new way of knowing the self in the world. Learning new skills gave confidence, and a sense of personal accomplishment. Each of the categories of hope, self-confidence, and courage is a component of what self-empowerment meant to the participants. The training program gave them flexibility, control of their lives, which led to freedom and peace of mind.

Participants gained confidence that the skills they learned would always be useful and that jobs would be available to them. Participants had the security of knowing that if the new enterprises they pursued did not work out as planned; they would always have the skills to return to jobs acquired through the *Digital Works* training. This self-assurance of a more certain future was empowering as they attempted new undertakings. People gained self-confidence which enabled participants to apply for jobs they previously did not believe they could acquire. Hope for many of the participants meant they had a job so they could take care of their families, addressing an important cultural

characteristic. Participants reported that having flexibility, to care for families, or just being able to make a choice or decision themselves was empowering for them and supports Chamberlin's (1990) definition of self-empowerment—having control of your life. To some participants, flexibility equaled control of their lives and the freedom to make their own choices. Control of your life means you are making decisions, not having to be told how to run your life; you decide when to work, and for how long. This sense of control is essential in the Appalachian Ohio region amid the culture of self-sufficiency and independence. People in the region are fiercely independent and value highly being able to care for themselves and their families. All these components, I interpreted to the theme meaning *Digital Works* helped develop self-empowerment for these participants.

Several participants reported that the training program helped them overcome adversity in their lives. Living in poverty can be considered an adverse situation, but with the hope *Digital Works* provided, participants believed there were options for them, and that their situation could be overcome. They reported that the skills they learned in the training program gave them economic empowerment through peace of mind of not having to worry about earning money. They gained control of their lives, a new view of themselves in the community and a new view of their futures. This changing belief system resulted in the theme of *Digital Works* gave hope to participants.

Participants became more self-assured about their personal lives, more willing to take risks about their private lives, and self-image. Participants felt they could speak up for themselves, and their families when needed. This confidence led to more courage, so they were less afraid to participate in community events and organizations. They had

confidence that they could speak up at public meetings, start new organizations, and become community leaders by starting youth groups, church groups or volunteer with other community organizations. One woman was so self-confident that she started and ran the National Senior Olympics in her hometown. Another, deciding her community needed better broadband service, decided to meet with her county commissioners, and start a grassroots movement for better Internet access. Participants reported that they saw the training program as a pathway out of their current situation, which gave them hope. This confidence and participation strengthened participants' communities. This idea supports the theme of community building.

Digital Works provided a place for people to build trust and networks, and to have a support system. People felt safe, comfortable and accepted, not judged at the training centers. The socializing provided personal confidence, especially important for senior citizens, as a way to end their isolation and give them a feeling of still being vital. The comradery offered friendship and a sense of belonging, an important ingredient for building social capital. The ability to be part of a network, make friends, have a support system and feel part of a community, resulted in the theme of community building.

With all this impact in personal lives, participants were still stymied by the lack of broadband access. They would make progress in their personal lives, their belief system about their futures, yet, when they tried to improve their lives, they were still limited by the progress they could make because they did not have access to broadband. Access to broadband and the Internet would open opportunities for them, combined with their newfound skills and confidence, meant participants could find employment that was

rewarding, paid enough to be self-sufficient and take care of expenses, and give them

much-valued flexibility so they could tend to personal and family obligations. The

newfound personal efficacy and self-empowerment led citizens to take action in trying to

get better broadband access into the region. The meaning of the lived experience of the

participants in the *Digital Works* training program will be explored further in the

discussion chapter next.

Chapter 5: Digital Works Means Hope, Empowerment to Participants

For the participants, the meaning of the *Digital Works* training program was a time of personal growth. They entered the program filled with self-doubt, low confidence, skeptical and unsure of what the program could do for them. As they progressed through the training, it became a time of learning about themselves, awakening to their capabilities and potential, where they gained confidence and courage as a result their effort. The program became a time of bonding with other participants and members of their communities where they found new relationships with others who shared in the program. Trainers became mentors and participants gained confidence. The flexibility of the program, and subsequent job, gave them a sense of control of their lives, which was an emancipating feeling. As their economic stability grew, they experienced peace of mind, stability and freedom. The training program gave participants hope because they felt empowered.

Participants in the *Digital Works* training program gained more than economic stability and opportunities. The impact in participants' lives addressed physical, emotional, financial, and social needs. For participants the *Digital Works* program meant self-empowerment that emerged from flexibility and control of their lives, economic empowerment that gave them peace of mind, new self-view, self-confidence, courage, freedom, and the opportunity for community building. Most of all, the training program gave participants hope. To many, the experience was transformative.

After analyzing the findings, three dominant themes emerged: that participants gained self-empowerment from their experiences in the *Digital Works* training program;

the program gave them hope; and, the program contributed to community building in the Appalachian Ohio region. Each theme and what it meant for the people of Appalachian Ohio will be discussed in this chapter.

Experiencing Empowerment

Participants experienced empowerment in myriad ways. They reported experiencing self-empowerment through the training that gave them hope, flexibility, control, self-confidence, peace of mind, courage, and freedom. Each of these themes intertwined with the others, one component being essential for the next building block to occur. The themes are like the ingredients in a cake, all are essential and must work together to create the feeling of self-empowerment that *Digital Works* gave participants.

The idea that the trainings provided them with options and control in their lives, which gave them hope, seemed to be the essence of the lived experience for participants. Ellen, a caregiver for her developmentally challenged brothers said, "It was empowering for me; we struggled for the longest time." She, like others in the program, came to believe in themselves and their capabilities. Belief in your capacity gives you strength. With that strength, you believe you can take advantage of options, which in turn create more confidence, more willingness to try, and more ways to discover ways to succeed. With each success comes more confidence. The increased self-confidence builds into courage. Participants became more willing to try harder things, pushing themselves beyond their comfort zones. A harder training session or willingness to speak up at a public meeting results in more confidence. Increased willingness to get involved strengthens communities. Stronger communities mean a stronger democracy, which leads

to a more just and fair society. This should be our goal as rational, moral humans—we should want to care for each other. Therefore, the *Digital Works* training program was beneficial to the Appalachian Ohio region. It helped individuals improve the quality of their lives, which in turn led to improvement in the communities of the region.

Some participants had hit rock bottom, and all their employment options seemed to have run out. For people in Appalachian Ohio, where unemployment is 8.5 % (Ohio Labor Market, 2015), having opportunities for jobs is empowering. When people have options, which give them hope, they realize they can break out of the cycle of poverty. The participants' experiences helped define the theme of self-empowerment. Having a job helped people meet their basic needs, and move on to higher aspirations (Maslow, 1943). Being able to be self-sufficient brought people an independence they had not known before.

The experience of the training program gave people confidence that they could accomplish something new, difficult and challenging for them. *Digital Works* became an outlet for participants like Mary Ann, because to her, it was "my me time. It was a different role, but it was a life, a work life. It built my self-confidence because I was doing a job…and I was interacting with people that was [sic] away from my life. My family life." Mary Ann was exercising one of the five components of empowerment, "recognizing oneself" that Breton (2008) argued must be present for the disempowered to become empowered. Other participants were able to overcome fear or discomfort with computers and navigating the Internet. Self-empowerment for them meant stepping out of their comfort zones and learning something new, and then "being recognized as

competent" (Breton, 2008, p. 22) for their personal achievement. Participants felt they accomplished something important by mastering the training program themselves. "I felt lucky for what it did for me. It made me feel really, really, good; exhausted and stressed but the thing was, I did it" (Francis). These new skills and competencies were recognized and celebrated by the group of other participants in the training centers and the trainers. The participants actively changed others' perceptions of their competencies and their capacity to act (Chamberlin, 1997). They earned respect of others, which in turn, increases self-respect and self-confidence, and continues to change outsiders' perceptions of the person. The training program had a cumulative effect of improving individuals' perceptions of themselves. As Mary Ann shared, "It gave me confidence, 'cause you lose that when you become a mom; you give it to everyone else in your family. It gave me confidence to do what I had to do, when I had to." Eleanor said that normally she is a loner, and shy around other people, but that participating in the program "gave me my confidence back."

Ruth shared, "Had it not been for this program, I wouldn't be where I am right now. I'm sure I would be working a job outside of home, I wouldn't be taking care of myself." She explained that when she worked regular 9 to 5 jobs, she dedicated all her time to the job, not to tending to her health that includes diabetes. Caring for others is a typical characteristic of women in Appalachia and the *Digital Works* program gave these women flexibility to care for others, as well as a job where they could take time to care for themselves.

For Appalachian Ohioans, the *Digital Works* training meant self-confidence, and a feeling of personal accomplishment. The other components of empowerment, according to Breton (2008) are "social action, political awareness, the right to say, and to 'have a say,' and the use of power" (p. 22). These components were reflected in the lived experience of participants.

The training experience also gave people flexibility and freedom to choose their jobs and to set their own schedules. This freedom led to a feeling of being in control of their lives, which one respondent explained was liberating. Ellen explained, "The biggest impact was independence. You have independence for your own schedule. Just being your own boss; you're not fighting over someone for your schedule to come out." With this sense of being in control, they felt empowered, in charge of their lives, and for some, for the first time in their lives. This feeling gave them courage and helped them develop confidence in themselves. That courage and confidence led to citizens participating in community events and organizations, which in turn strengthened the community.

Historically, Appalachians have not had control of their lives. In her book, *Persistent Poverty in Appalachia: Scarce Work and Rigid Stratification,* Cynthia Duncan (1992) explained, that the coal mining industry set the stage for economic and social control over people, with those who owned the coal mines, also dictating wages, living and working conditions, and the social structures of who gets jobs and who does not, and how community resources are used. Duncan focusing on how the coal industry created a culture of oppression and low expectations, wrote,

The early history of social relationships in the coal industry established the setting

for today's rigidly stratified and tightly controlled Appalachian communities.

Today the continued scarcity and volatility of work perpetuate a local

sociopolitical system in which the arbitrary power of the elite over the few

opportunities that exist creates a social context that blocks poor people's mobility

out of poverty. (Duncan, 1986, p. 114)

The historical context of the coal industry, and other extraction industries like timber and

clay, is important to mention in relation to *Digital Works* training program because it

gave people skills for mobility out of poverty that the industries had created. The training

program gave participants stability, and peace of mind, the ability to plan their lives,

economic stability, and capacity to reduce uncertainty in their lives. *Digital Works* gave

participants a way to gain their own power back, power to overcome cultural norms

which supports the theme of self-empowerment.

Improvements in self-view. The analysis of the interview data suggests that

learning to use computers and navigate the Internet was meaningful in participants'

learning experiences and it helped change their attitudes about their futures. The training

had personal, transformative meaning for some. Knowing they had options provided

strength, a sense of security and peace of mind. The participants also believed they could

participate equally in society with other citizens, thus giving them power, as McLeod and

Perse (1994) described. Having confidence to access information meant participants were

not excluded from social resources, and they did not feel like there was as much

inequality in social power (McLeod & Perse, 1994). They were able to become community advocates.

Participants saw their training as a first step in their personal capacity to keep learning and move toward self-sufficiency. The *Digital Works* training bolstered participants' self-sufficiency and self-efficacy. Since they were given a chance to succeed, these participants found the inner strength to complete the trainings, and they did succeed. The participants overcame the stigma of being poor, unemployed, or unemployable (Duncan, 1986). This finding contradicts popular myths that people in rural areas do not want to work or to succeed. Many of the interviewees had a high school diploma but did not complete college. This belief that "dropping out" was a sign of failure haunted some as they took a job just to have a job, even if that job was not fulfilling. Completing the *Digital Works* training gave them a sense of accomplishment. Participants redefined themselves as no longer a drop out or unemployed, or a convicted felon, but as a successful, employable person with skills and confidence. This attitude adjustment is powerful for the citizens of Appalachian Ohio who have a history of people resigning themselves to living in poverty (Duncan, 1998).

Several interviewees spoke of seeing their lives differently and having the ability to interact with others with confidence. Eleanor reported that the program "gave me my confidence back" since she had been out of the workforce for so long. She believed in the *Digital Works* training so much, that she took it upon herself to speak to the nearby Chamber of Commerce to set up additional training sessions for businesses in Adams County. Preferring to keep to herself, Eleanor said she would not have done this kind of

public speaking were it not for having her confidence in herself restored because of her experience with *Digital Works.*

Interviewees reported no longer feeling downtrodden by poverty, unemployment, lack of education, and living in Appalachian Ohio. All these individuals represent examples of what it meant to have control of their lives. For Ruth,

> The number one thing for me is the flexibility, and that I control it. Sometimes you feel like your job controls you. I feel like I control it. I can do it my way, and wish it was around when I was younger. I really do. I say that a lot where was this job when my kids were at home?

The *Digital Works* training program and the subsequent jobs provided them relief from the burden of living in poverty and a peace of mind that they could manage their personal situations. For people in Appalachian Ohio, having this option meant personal power and a better future. Contrast this strength with where their lives were previously. As Duncan (1998) observed,

> Poor Appalachians live precarious lives in unstable, unpredictable communities, vulnerable to individual setbacks such as a job loss, illness of a family member, or even a broken-down car, as well as to the pervasive arbitrary control of those in power. They become trapped in poverty because there are few opportunities for steady work and income in their communities and few opportunities to find work elsewhere. They piece together a livelihood with intermittent work, help from family members, and various public assistance programs that can supplement too

few hours of work and too low wages. They have little control over their lives. (p. 112).

For the Appalachians who participated in the *Digital Works* program, that meant control over their lives and they had agency. This matters in the Appalachian Ohio region because people were living as more fulfilled humans as Britz (2008) and Rawls (1971), argued is important for a more just society where people should be able to live up to their fullest potential. Control and choice gives people resilience (Richardson, 2002), which is what is needed to be stronger for their families and for their communities.

The confidence in using their skills to navigate the Internet, made many of the participants feel empowered. They gained the skills to gather information themselves, and acquire jobs, which gave them economic empowerment. This has value in the region's 32 counties, where 17.8 percent of the citizens live in poverty according to the February 2016 Ohio Poverty Report (Ohio Development Services Agency, 2016).

Senior citizens and the end of isolation. For senior citizens, taking the training reinvigorated their lives. They felt involved in the digital communication sphere; they had a sense of belonging to their community; and it gave them an opportunity to socialize, connect with others and to build networks. Seniors reported they felt they were no longer left out or left behind society and the program gave them a sense of still being vital. A 66-year-old participant said, "I did not want to get stale" (Gayle). This also informed the theme of self-empowerment. Having skills to get connected to the Internet helps address the "gray divide," which is senior citizens not using the Internet (Juznie, Blazi, Mercun & Plestenjak, 2006; Kiel, 2009). Interpersonal communication, interaction,

and elevated use of mental stimulation that come with Internet and computer use, are shown to contribute to anti-aging psychological processes (Wright, 2000), which means senior citizens who learn the skills provided by *Digital Works* could live fuller, more meaningful lives because of the connections they obtained.

Senior citizens discovered a new way to "be." The elderly found a new way to communicate and connect with friends and family through learning how to use a computer and e-mail. They also found friendship, companions and camaraderie at the training facilities. This new opportunity to socialize helped the senior citizens feel less isolated and gave them a sense of purpose and belonging. For some, the training program was more than learning about computers, it meant being around other people, and learning how to reach other people who lived elsewhere, which Kiel (2009) suggested is a way to address isolation, and help seniors keep mentally active and independent. Shapira and Barak (2007) found that learning how to use computers at an older age improved seniors' well-being and personal sense of empowerment as well as life satisfaction. These attributes enhanced life for senior citizens in Appalachian Ohio and helped them feel more a part of their communities. More citizen involvement meant better opportunities for community building.

For a few senior citizens, the training program provided them a valuable tool—knowledge of the Internet—to be able to pursue their interests in social causes. The newfound Internet skills and using the computer to work for social change reinvigorated the life of senior citizens. Socializing while learning how to use the Internet changed other retirees' lives. Participating in an online social or political cause can contribute the

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feeling of self-worth (Shapira & Barak, 2007), thus enhancing the quality of life for senior citizens.

The training program enabled senior citizens to continue to learn. They felt they were still relevant. This seemed to be more important to them than the job. Literature suggests that senior citizens need or want to learn about the Internet, and how to use it, but are often afraid, fearful, wary, uncomfortable, or unable to learn (Wright, 2000; Juznic, Blaze, Mercun & Plestenjak, 2006). This finding corroborates what Xie and Jaeger (2008) found that computer training for senior citizens was vital for their social and psychological well-being. The experience of being in a social group had more meaning for several of the senior citizens than the actual training lessons. This category informed the theme of self-empowerment and contributes to community building.

Socializing for senior citizens seemed more important than the training as now, post-training, and several senior citizens reported they do very little with the Internet except to socialize, check emails or Facebook. Several also reported that they do not even participate as much in the job they acquired as a result of the training, preferring instead to be involved with friends, family and their communities. The older citizens seemed to gain more confidence which encouraged greater involvement with their communities. Those participants who had family obligations gained confidence to manage their lives but could not dedicate as much time to community issues as retirees, thus the elderly became a viable and available corps of volunteers ready to help with community issues. Engaged citizens, ready to be involved with community organizations give vitality to the Appalachian Ohio region.

Involved Citizens

Enhanced computer training and skills, and the ability to use and navigate the Internet, helped participants parlay these new skills into social action. Breton (2008) identified social action as another component of empowerment. These citizens felt empowered to effect change in their communities. The economic stability from a job gave them control of their lives and inspired many to get involved in their communities. One retiree said, "I drove to Columbus for 19 years, that's why I wanted to work at home. Now, I have a church group, and a youth group, and my Good News Club" (Sarah). Sarah used what she learned in *Digital Works*, and the personal skills she gained to be part of her community and start these social groups. Another senior citizen, Francis, described how the training program gave her freedom to be involved with her community: "I wanted to work my own hours, so I could go out and do things. I am learning how to set up an organization on my own time." She is bringing the National Senior Olympics to her Portsmouth community using the computer and Internet skills she learned through *Digital Works* training. Another senior citizen Emma, decided to substitute as a teacher's aide in the local public school. Another, Charley, started a 4-H club and a prison ministry in his rural community, and another volunteers whenever possible, because Angela shared, "I like being around people." She added that the *Digital Works* program helped her meet people in her community. In these groups, *Digital Works* helped build community and networks for senior citizens. This is important for Appalachian Ohio because senior citizens have wisdom, expertise and are a living history of a community's heritage, all important traits that help build community connections. This citizen involvement sparked

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by *Digital Works*, is part of the theme of community building that the program stimulated.

Making Meaning of the Digital Works Training

Meaning emerged for participants in the *Digital Works* training program from the self-empowerment they felt. Participants in this study compared this experience with previous courses or training opportunities, most through work or school related. They shared this experience with others, through networking opportunities, personal contact and interaction, and this helped create meaning as described by social constructivist literature of Bryman (1998).

Bringing about personal change for participants felt so empowering that they wanted to share that feeling with others in their communities. Participants reported they no longer felt inferior, but instead felt they had enough knowledge to be part of a conversation, that the skills they learned increased their confidence for interaction with others. One retiree, Ruth, used the *Digital Works* training and the subsequent job she acquired to supplement her retirement income. She said she felt so confident in herself, that she started her own non-profit organization to help her community's teenagers and senior citizens attend church meetings. A Logan participant, Charley, got more involved in the community Rotary Club, and started a prison ministry. A Portsmouth retiree, Francis, got confidence to speak to experienced funders as she started a non-profit organization to bring the National Senior Olympics to her city in the fall. An Athens retiree, Angela, became a statewide spokesperson for the campaign for single-payer health care because she could now use the Internet. They all attribute their new-found

community involvement to the capacity to use computers and the Internet with ease and confidence. They could interact with others interested in their social cause, as well as find information relevant to the issue. When citizens get involved in their communities, social capital is built which Cimdins, Skinkis and Usca (2015) detailed as "mutual connections among individuals or groups in society" (p. 186). Civic participation in social organizations and processes is key to social capital formation, which is an important component that *Digital Works* stimulated in the Appalachian Ohio region. Citizens participate when they feel their ideas are valued and listened to, and when they have time, energy and resources to contribute to programs that benefit everyone (Foster-Fishman, Collins & Pierce, 2013). This is one of the values of *Digital Works* to citizens of Appalachian Ohio and it is another way citizens described self-empowerment.

Trainers: a vital part of making connections. Employees of the technology training centers mattered to the participants. Trainers saw themselves as leaders who must facilitate the changes needed to make the trainees feel legitimate. A passion for helping others succeed took form through flexibility, their patience to help others and through their coaching. Trainers had experienced the frustration of not knowing computers or the Internet well and feeling left out, which resulted in the desire to change that for new participants to the program. Trainers wanted to provide participants with a positive, encouraging experience that was different than their experience of being unemployed, low income, or feeling downtrodden.

Trainers viewed computer training as a way for trainees to gain valuable knowledge that will help them make changes in their lives. While trainers attended to the

classroom environment, and the physical and psychological atmosphere, they also attended to emotional needs of the participants. Several participants report trainers taking extra time to help with resumes, receiving follow-up phone calls after job interviews, and coaching them through certification tests. Trainers celebrated participants' achievements with social get-togethers, posting certificates of completion publicly on center walls as well as hosting graduation ceremonies, and other public recognition of the participants' achievements. Positive reinforcement meant more than a picture on the wall, or being recognized for these citizens of Appalachian Ohio; it helped participants see themselves as competent, a component of self-empowerment (Chamberlin, 1997), and served as an incentive for them to believe in themselves and that too they could achieve success. This attitude is important in Appalachian Ohio where people have been characterized by authors through the years, as resigned to living in poverty, dependent on welfare and lazy (Caudill, 1963; Weller, 1965; and Fetterman, 1967). *Digital Works* provided an opportunity for people of the region to see themselves differently, instead of as a people with a "broken spirit" (Duncan, 1992, p. 112).

Trainers were not judgmental about the participants and their skill levels or backgrounds but accepting of their differences in age, gender and experience, which helped them to assimilate into the training/learning culture. Trainers accepted their trainees as they came to the program and established high expectations that they can succeed; they did not see participants as 'deficient'. They worked to create community among the participants. Participants discussed their lived experience of being coached by supportive trainers as crucial for their success in the training program.

Trainers were a valuable asset to the success of the program. For managers of these centers, it matters who is hired to serve as a trainer. Appalachians need trainers who are willing to be involved with participants especially in Appalachian Ohio where trust is the key to progress or change. Appalachian people need to be "met" where they are, and when looking at Appalachian citizens and how to connect with these rural citizens, gaining their trust and caring, helps with citizen buy-in on government programs. The example of sharing of food was seen by participants as the trainers caring for them. Participants, with their life struggles, were grateful for the trainers who served as coaches and encouragers.

Community building and social capital. The family atmosphere, supportive environment and opportunity to network with others in the community that occurred during the *Digital Works* training, stimulated social capital and encouraged community building. Social capital only forms when citizens come together, learn to trust one another, and develop connections and bonds or ties where discussions about community issues can occur. The acquisition of skills from the *Digital Works* training program seems to have had as much effect on peoples' lives in reconnecting them with their communities as it did on helping them gain economic stability. This socializing and reconnection with community has greater implications for rural communities. Participating in the *Digital Works* training program helped citizens make personal connections that they did not have before. These new networks enabled the community to connect in more interpersonal ways. The potlucks, family get-togethers, celebrations of graduations and certifications held at the *Digital Works* Centers helped develop these community connections. This

sparked participants' interest in their new friendships and stimulated more involvement in their communities.

Community building is the process of building relationships that join "community members around a common purpose, identity, and a sense of belonging which may lead to social or community capital" (Animating Democracy, 2014). Social capital is built through social change work. It is "the collective value of all social networks [who people know] and the inclinations to do things for each other that arise from these networks, the norms of reciprocity" (Animating Democracy, 2014). Trust, reciprocity, information, and cooperation all bond and connect people and help sustain groups with similar interests, such as members of a town, or a social service organization. One of the significant benefits of the *Digital Works* program is the reinvigoration of community social capital, a necessary ingredient for building community and entrepreneurship, which can in turn stimulate social networks for creating avenues for social changes and problem solving. This is an important development since the training centers have closed. It is apparent that citizens and their communities will have to find their own resources to continue the training program and to locate resources for addressing the Digital Divide.

Hope Empowers

Participation in the *Digital Works* training program gave people hope. Being in control of your life makes you feel empowered. This feeling gives you strength, confidence and courage. A sense of accomplishment and meeting a challenge leads to the feeling of self-empowerment. Courage rises from personal achievement. Individual success leads to a sense of possibility for a different future. For many of the respondents,

completing the training did more for them than just help them find a job. It gave them hope.

For many, the Internet training skills gained in the *Digital Works* program opened a window to the world for them. With their training skills, they could more easily access news and information, exposing them to other ideas, and experiences outside their own world. The experience of the training program made them more aware of their computer and Internet needs, and more willing to speak up for increased broadband access in their community. Participants realized they needed quality Internet speeds to maintain their jobs. Several were inspired to act on this need and speak to politicians and lobby service providers.

Those participants who had family obligations gained confidence to manage their lives and meant that they could make their own decisions about work; they knew when their paychecks were coming and for how much money. The feeling of security was liberating:

> This training got me a job. Before…. I had to work 40 hours a week, now that's down to 20 hours a week, with no holiday pay, so I had to have more than one job. Now, I can make more money from home…the flexibility gave me more of the freedom I've always wanted (Ellen).

Participants were empowered by the feeling of not having to worry about a paycheck, bill payments, or transportation to and from work. They knew they could balance their own lives. This personal strength translated into willingness to help in their communities. Employment created as a result of *Digital Works* enabled the people to move up the

Hierarchy of Needs to pursue self-fulfillment in ways that provided more self-esteem through respect from work, groups, family and friends. This in turn gave participants the option of reaching "transcendence," the ability to help others achieve self-actualization (Maslow, 1943). This equated to the more just society Rawls and Britz advocated, where everyone can achieve their fullest potential.

Interpretations, Observations and Implications for Policy

My observations, based on what participants had to say about the program, are interpretations of the study. My research findings have important government policy implications. If we, as a society, decide to invest in individuals, society will see the benefits. People who have a "devalued social status" (Chamberlin, 1997, p. 46), even if it is a self-perception from living in poverty, being unemployed, or having a criminal record, often have low self-esteem or low self-confidence. But individuals who gain self-empowerment through job training opportunities, who overcame their personal and economic challenges, find confidence and can then be contributing members to their communities. Participants joined other community service organizations like Rotary, started youth 4-H groups and church groups, as well as organized events for seniors and other citizens. When citizens participate in civic groups, connections and networks form, which are important ingredients for forming social capital which must be present for community problem solving to occur.

The citizens who participated in the *Digital Works* training program acquired viable job skills and they gained more than just economic stability: they discovered self-empowerment that helped them reconnect with their communities. The *Digital Works*

training program stimulated citizens' interest in self-governing and created a platform for community development. This is a good starting point for addressing Appalachia's challenges. Employed citizens with good jobs that give them control of their lives and build self-esteem, are more apt to be involved in regional revitalization.

The *Digital Works* training program presented an opportunity for community development and building social capital. Connections among friends and family create the bonds that build community. Strong, healthy relationships strengthen those bonds and help "strangers who have compassion to others in need, rather than indifference or contempt" (Jason, 2013, p.1). When those bonds weaken, a lack of connection within our communities and society occurs, and can have significant negative consequences, as Jason (2013) described, "in a society that increasingly values individualism and success, we are taught to compete with one another rather than to appreciate our interdependence and importance of community identity" (p. 1).

Economic challenges and issues like the Digital Divide cause inequalities between the rich and poor, creating ever-growing gaps that disenfranchise citizens. This hurts society as Jason (2013) explained, "As the gap widens, so does our sense of a separate self, further straining societal cohesiveness and our connections with others" (p. 1). When our social institutions struggle to provide services and programs with reduced budgets, the safety nets for the most vulnerable disappear. This creates frustration, which builds among citizens and within communities when people cannot afford education or cannot find decent jobs to support their families. Frustrated citizens retreat to places and networks where they are comfortable; they have little time for getting involved in solving

society's problems, they are more concerned with personal survival. These kinds of disconnects isolate citizens from each other and their communities, and community decision making. Thus, the value of *Digital Works* for people in the region, was as a connector to lived experience that gave them skills and power to be involved in their communities. The impact of *Digital Works* went beyond training people just to work taking customer service calls. These programs reinvigorated rural areas of Appalachian Ohio.

When people can overcome adversity or skepticism, they feel they have options. With those options available to them, and because of their own effort they become empowered, they learn to believe in themselves and their ability to accomplish goals. Empowered people feel enabled to get involved. With their own life under control, or more manageable, they gain confidence. With confidence, comes willingness to attend public meetings, or participate in social organizations and discuss issues of importance to the community. People having newfound skills to access the Internet and gather their own information gained citizenship skills that were useful in navigating community involvement.

Still hopeful. During this study, *Digital Works* facilities closed in several communities, but as of this writing, the trainees and administrators are hopeful that there is still a future for the program. Most of the administrators acknowledged that working with local communities to expand broadband is essential to its success. They suggest that collaborations between communities and *Digital Works* can ensure sustainability of the program and by extension, promote job creation. Similarly, finding the right funding

model that provides return on investment for Internet service providers is important. One way this could be achieved is through the introduction of publicly owned broadband service into the communities. An example of community-public partnership is the effort that citizens of Gallipolis put forth, along with *Connect Ohio*, to save 80 jobs by working to get broadband service into the town. An administrator Shelia, explained that,

> In a lower-income population area, that's a lot of jobs. The company told the community if they had the requisite broadband, people could continue to work as remote employees. *Connect Ohio* surveyed the service available, worked with a local provider, which enhanced its presence and Gallipolis was able to keep those jobs. (Shelia)

In order to replicate this success in other communities, another administrator, Shelia, suggested that carriers need to know who and how many people in an area will sign up for the service, how much pre-deployment work the community will do (digging trenches, laying conduit, permitting and zoning, and right-of-way access on private property), and the quality of the customers (likely to pay monthly service fees). *Connect Ohio* maps areas of broadband access and adoption and areas of need for broadband. This network of involved and engaged community members, along with the leadership from *Connect Ohio/Digital Works* could be a catalyst for getting communities together to solve the Digital Divide and broadband access issues.

This study found that the participants wanted to be mentors, to show others it is possible to progress, advance, and improve their own lives. Despite the deep disappointment of losing the Centers and the trainings, the participants want to fight for

the program now. While they feel confident in finding other jobs, they want to see the *Digital Works* jobs training opportunity continue so others in their communities can reap the benefits of the program just as they did. Participants, who now have time and economic stability, are empowered to get involved in their own communities and help others achieve success. To fully assess the government programs aimed at addressing the Digital Divide, (and any other government programs) we need to look at the impact on individual lives, not just the numbers of participants. Changes that occur in peoples' lives ultimately benefit communities. Empowered people feel they can get involved in community affairs, thus strengthening community and problem-solving capacity which in turn strengthens democracy.

Participants said their lived experience was positive and helpful in improving the quality of their lives, and for some, life changing. Respondents' deeply personal life stories chronicled the tangible impacts that a government-funded program had on people in the rural Appalachian Ohio region. Respondents came to *Digital Works* with different backgrounds and needs, but all found use and value in their lives for the training program.

The participant interviews revealed a resilient people who are determined to improve their lives and willing to work hard at overcoming obstacles, such as personal learning disabilities, loss of jobs, living in rural poverty and surviving in the Digital Divide. Participation on the training program stimulated participants' desire to learn more and to master the lessons they were being taught. Motivated participants in the *Digital Works* program, when they had access to the Internet, utilized online resources, such as

YouTube videos and taught themselves, reinforcing what they learned in the training classes. They relied on and worked with other people in the trainings and they made new connections within their communities. This research project shows instances where access to the Internet and computer training are crucial to this region for giving citizens hope, a sense of self-worth, self-esteem, goals and the capacity to reach them. The training program through *Digital Works* gave participants economic empowerment that helped ease some of the complications in their lives.

The participants described self-empowerment through accounts of self-awareness, how the program helped them gain control over their lives, how it built their self-esteem, personal confidence, and gave them skills to communicate better all resulting in them becoming more self-sufficient. They overcame personal struggles or disabilities to participate in the training program. The descriptions of their personal experiences and the changes that occurred in their lives as a result of the training program revealed that the *Digital Works* training program gave them hope.

These participants were determined to improve their own lives. The government boost through *Digital Works* helped get them started and get resources such as technology, computers and trainers where they were needed. The *Digital Works* training program provided tangible results of improved job training which boosted self-confidence in participants.

Better citizens. The impact of *Digital Works* went beyond training people just to take customer service calls. Participants were inspired to be better citizens, and to develop an interpreted construction of citizenship. These programs reinvigorated rural

areas of Appalachian Ohio. The participants developed close bonds with others in their classes as well as the trainers and had a personal connection to the program. These emotional connections could be the reason there is such anger, disappointment and sadness at the closing of the rural facility centers and suspension of the trainings. The disappointment these rural citizens feel nearly negates the idea they developed that breaking out of poverty is possible with hard work and effort. Their personal connections to the training program made them feel that once again rural areas are left behind. However, the skills they did develop, and their sense of empowerment, gave them awareness that they are not as powerless as they originally believed. This renewed community connection and citizen empowerment could be utilized to build community capacity for community problem solving. In addition, these new community connections could mean that citizens in rural areas will have to rely on their community and other networks to keep the program operating and resolve Digital Divide issues.

Recommendations

The *Digital Works* program was established with a two-year $1.5 million grant agreement with the Ohio Development Services Agency (DSA). The goal was to bring high-demand technology-based jobs to Ohio communities by "addressing skill gaps and leveraging broadband technology for customer relationship management outsourcing and advanced remote IT positions" (Johnson, 2016). According to the fourth quarter report to the DSA, *Digital Works* connected 550 Ohioans (from all over the state) with its 55 partner employers. If indeed, the program was to increase the availability of broadband in the region, as its website states, then *Digital Works/Connect Ohio* could have been more

assertive with service providers once they got participants into the program. Administrators could have been clearer with participants that one of the goals was to increase broadband availability in the region and encouraged more of them to be more vocal with the demand for better service.

Funding. Initial analysis of the *Digital Works* budget suggests that the program was not set up to be sustainable as there are no revenue streams other than the original grant funding. The training service was provided free to participants with no provisions for funding once government money ran out. A recommendation would be to focus more on building current corporate relationships so that *Digital Works* can charge for the employee-vetting and training services that it presently provides free to corporations all over the country. Currently, *Digital Works* provides curriculum customization for employer-centered training free to its employers. Long-term planning could focus on turning this service into a revenue stream of support for *Digital Works*, and thus wean the program off government grants. A more robust public-private partnership would add stability to the program.

Costs for managing training facilities in southern Ohio did not appear to be markedly different from market rates for overhead. A few of the training centers did not pay for office space since they were able to use available space within other social agencies. The partnerships established with local communities and other social service agencies should continue to be developed. These partnerships could result in less expensive or free office/center space. Another suggestion from participants was to increase transparency about how grant money was spent, explaining priorities and

expenditures. If the program were to continue, participants wanted to know that the program is sustainable so that they do not get their hopes up, and then have the program taken away, again.

Outreach, marketing and recruiting. Most interviewees reported that they did not feel the *Digital Works* program was marketed well enough. According to quarterly reports, *Digital Works* used fliers and word of mouth to reach potential participants along with some PSAs and press releases to statewide media outlets. Respondents indicated that it took a one-on-one discussion with a person they trusted before they were comfortable signing up for the program. When planning future marketing, *Digital Works,* or other similar program coordinators should take this response into consideration.

Potential participants in the training programs had to visit *Digital Works'* website to enroll. This process could have been an immediate detriment for recruits since the program was aimed at teaching people how to use the Internet and computers. This process perhaps wrongly assumed potential participants already had some computer and Internet skills. One of the ways to attract more participants would be to engage in more public speaking opportunities with targeted audiences—senior citizens, the unemployed at Jobs and Family Services centers, public meetings, and libraries. *Digital Works* administrators could work more with local Community Action Agencies which have been operating in the targeted regions for years and have intimate knowledge of the region's citizens and their needs. These organizations have built up trust throughout the region and could be used to reach more participants. Past participants could be encouraged to speak about the program at public gatherings at a place people already trust.

Digital Works communicated with active participants via an E-newsletter, online blogs, its website, online videos, social media accounts on Twitter and Facebook, an online Think Tank and press releases highlighting "major organizational announcements" (Johnson, 2016). While these are worthy undertakings, the general public, especially those not yet computer savvy or involved with the program, would have missed all these types of communications in the initial recruiting and marketing stages of the program. The target audience for *Digital Works* trainings—people who are not comfortable with the Internet and computers, could be better reached using additional, non-Internet based methods. More outreach into communities, using established community organizations to increase awareness of the program and help with recruiting, could be implemented. More traditional forms of communication that do not require using computers and technology would be more likely to reach the target audience of those who need Internet, computer and jobs training. Recruiting fairs could include a presentation about the *Digital Works* program and enroll interested individuals in person instead of directing them to a website, where, if they are not familiar with computers and the Internet, they could not or would not enroll. Past participants could also be ambassadors for the program. Many reported that they recruited friends and family to participate in the trainings any time they had the opportunity. This 'free' marketing resource could be developed more and utilized in rural communities. Local ambassadors for *Digital Works* have access to community social networks that outsiders may not have.

Respondents reported that messages they did receive about what *Digital Works* offered were often unclear. For a new program, and because there are so many 'work-at-

home scams' on the Internet, the novelty of the *Digital Works* program needs to be explained and branded better to potential participants. Many respondents said at first, they were "very skeptical" of the program and what it was proposing.

More outreach to legislators and potential funders to continue to explain the program's impact in individual people's lives may help with funding. Personal stories about the benefits and impact of the *Digital Works* program in individuals' lives would provide valuable information for funders that would complement quantitative data about the numbers of participants.

Training. Respondents said they appreciated the *Digital Works* training they received because it led to employment for them. Upon closer examination, the trainings involved job-specific instruction that taught participants the skills necessary to fulfill only one type of job. Participants received training on how to be customer service representatives who answered in-coming phone calls for national companies and call centers; however, this is not the only type of legitimate work-from-home opportunity that exists. On the surface, this opportunity worked well for respondents who needed flexibility, the capability to work from home and who had only entry-level skills. The training, however, did not establish that the participants develop careers from entry-level customer service jobs. Trainers and administrators acknowledged that customer-service call work is not necessarily for everyone. The trainings could be enhanced so participants can learn a broader range of job skills, such as how to use Excel, Access, and the Microsoft Word programs. In the future, some investment could be made on training citizens to troubleshoot computers, code, develop websites and a larger variety of higher

paying technology-related jobs. Entry-level pay is not adequate for people. There needs to be a career path possible that allows trainees to capitalize on skills and expand beyond entry-level jobs, which would mean greater long-term employment. The impact in the Appalachian Ohio region would be more sustainable.

In addition, the self-help part of *Digital Works* training on its website may not be adequate for those just learning how to use computers. Sending people to the Internet to sign up for Internet training seemed contradictive. More local, hands-on training may help people get started easier.

Among the respondents there still appears to be some level of Internet illiteracy. They understand how to use computers and navigate through employer-provided customer service screens and scripts. However, when it comes to assessing information on the Internet for their daily lives, they struggle with evaluating the value, trustworthiness and usefulness of the information they find. One respondent reported buying a web virus protector because a pop-up program said that she had a virus. Now she pays $30 per month for a 'service' that was just a phishing scam. Several other respondents reported a hesitancy to use social media (Mary Ann, Angela) and still have a distrust of putting personal information on the Internet. Awareness of and comfort with social media and the Internet, are essential to participation in today's online world and important for democracy. If the *Digital Works* trainings could include segments on how to do research on the Internet, how to evaluate information, how participants can protect themselves if using social media, and how to detect scams, the trainings could add value to the citizens' communication and citizenship skills.

If the program were to continue, *Digital Works* would have to address the fact that respondents need continued support services and financial assistance or micro-loans to get the equipment and necessary Internet service and broadband access. One interviewee said she will use her tax refund to get a printer, another is saving her paychecks to purchase the necessary headsets, and others reported needing home computers. The most expensive cost for most participants is for the dedicated landline required for taking customer service calls. Very few of the respondents make enough money taking calls to afford these lines, which is why they had to rely on the training centers for access. Now that the centers are closed, these respondents said they are worried about how they will afford these extra expenses and if they can afford to keep these jobs. The work-at-home call industry requires broadband service for the representatives. Many of the respondents said they could not get broadband service at their homes, or they could not afford it. They traveled to and relied upon the training centers for broadband access. *Digital Works* needs to consider these expenses when developing future proposals to state legislators or funders for support. Broadband costs are still prohibitive for many, if it is even available. One way to help pay for this equipment and high speed Internet service could be to barter for the equipment with employers in exchange for so many hours of employee training.

Broadband internet service. Although respondents spoke positively about their training experience, they often used the interviews as a place where they could vent about the inadequate Internet service in the Appalachian Ohio region. The lack of broadband hindered them from getting or keeping customer service jobs that require good Internet connections. Interviewees said that it seems almost futile to take trainings they cannot

really use and expressed frustration at the poor quality of broadband in the region. A suggestion is to continue to lobby for and utilize state and federal funds to encourage more deployment of broadband in the Appalachian Ohio region. Another suggestion is to parlay all participants in the *Digital Works* training program, and their family and friends, and utilize that people-power to lobby legislators to keep the program going. In addition, the lobbying effort could conduct a campaign aimed at service providers to show need for improved broadband service in this region.

In January 2016, *Digital Works* signed a nationwide agreement with Alliance Professional Services LLC to provide client services under the Social Security Administration's "Ticket to Work Program" (www.digitalworksjobs.com). This agreement will help the program continue and will help those clients eligible for that program. This agreement though, does not address the current participants' needs and how to keep their training and support sustainable.

More attention needs to be paid to the issue of making broadband access available to all citizens. Calderaro (2009) wrote,

> we will achieve a real overcoming of the Digital Divide only when all the world's geographical areas have not just access to information as has been claimed until now, but also the possibility to contribute at the same level as in other parts of the world, according to real local needs and cultural specificities. Only when this condition is satisfied, will we be able to realistically address the challenges of the Digital Divide (p. X).

Society benefits from addressing the Digital Divide. Putnam (1996) wrote that the advent of television had a marked negative effect on the civic engagement of the postwar (WWII) generation of Americans. He discussed the disappearance of social capital (features of social life—networks, norms, and trust), that enabled participants to act together more effectively to pursue shared objectives. He also discussed the disappearance of civic engagement: people's connections with life in their communities, not just politics. One solution to these issues can be addressed with jobs training programs that incorporate computer and Internet training for citizens, as well as emphasis on bridging the Digital Divide. Although participants reported that the *Digital Works* training program met their needs to learn about computers, not having broadband access limited the effectiveness of the program. The Digital Divide prevented participants from reaping the full benefits of the training opportunity.

Developing programming and thus demand for improved broadband service in the Appalachian Ohio region can mean individuals like Ben, Sallie Jo, Carol and others can have access and opportunities to improve their lives. Creating demand for broadband through programs such as *Digital Works* is one small step forward for improving broadband access in the region. This is especially important given the current political climate in Washington, D.C. where Congress and this administration are determined to remove any protections people in rural areas have for equal access to information, to the Internet and to protect their privacy online. Discussions also centered around the fact that low-income people will pay more for Internet access, but will not necessarily receive improved service (Gross, 2016; Tveton, 2016), another setback to broadband

improvement in the region. It is imperative governments strive to improve broadband in the region.

Better broadband equals better communities. *Digital Works* provided a context for citizens of a community to meet, work together and build relationships, all necessary factors for community building. Being inclusive and respectful in recognizing community culture is necessary for improving community well-being (Brennan, Flint and Luloff (2009). Local interaction and culture influence development outcomes, shaping community debate and action. Acknowledging, respecting and including local culture in the community development process supports the idea that community progress will not succeed or be sustainable without development of local social interactions and involvement of local citizens in the decision-making process. *Digital Works* provided a structure for addressing the Digital Divide and jobs creation by helping citizens find jobs and have an opportunity for building relationships, thus empowering them.

The stimulus to community connections that the *Digital Works* training created provided a foundation for community action on the broadband access issue. A framework for involvement in community organizations by citizens can be what is necessary for communities to look internally for solutions to getting more broadband access. Rural cooperatives across the country are embracing strategies used in the 1900s to bring in electric to their communities and are now building networks to provide high-speed Internet service (Kang, 2016). The co-ops are member owned, run like businesses with dividends for members. They are bringing in broadband services without using corporate providers who would not come into sparsely populated areas because of low return on

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investment. Since a federal court in June 2016 ruled that broadband should be treated as a utility, "as essential as the phone, and power should be available to all Americans, rather than a luxury that does not need close government supervision" the FCC determined it will make available $2 billion in grant money over the next ten years for broadband providers that can include member-owned power cooperatives (Kang, 2016, n.p.). Bolt Cooperative in Oklahoma received a $4.3 million grant from the FCC and was able to connect 6,000 homes using Northeast Oklahoma's Electric Cooperative's infrastructure and resources. This initiative stimulated economic revitalization in the region attracting a manufacturing plant and a new conference center and other small businesses.

Similarly, in Winthrop, Minnesota a group of farmers, frustrated with sluggish DSL connection which made it difficult to share business reports with partners, worked with a neighboring town and other nearby small communities in four counties to form a rural member-owned cooperative to build their own high-speed fiber network. To raise start-up money 10 local governments issued bonds for the first phase, and then they approached local banks for support. The return-on-investment was projected from new subscribers, and this project was developed without any federal government taxpayer dollars (Dejarnette, 2016). The community connections stimulated by the *Digital Works* training program could be a similar catalyst for community initiatives to bring broadband to Appalachian Ohio.

Conclusion

Digital Works training program did more than just provide skills for participants to secure jobs. Participants in this research are living on the edge, struggling with poverty and unemployment. They welcomed and appreciated the opportunity to learn a skill that

led to a job. Their lived experience shows that *Digital Works* provided an environment where participants gained confidence, which gave them hope and a feeling of self-empowerment. Interpersonal connections developed, inspiring participants to be more involved citizens in their communities.

Government funded agencies have standards and measures for quantifying results from programs and initiatives. But these numbers can only speak to one side of the story and miss out on the details, the lived experience, and suggestions that can only be learned from the stories of program participants. Who found work? What kind of jobs? Where were the jobs? Did they require a commute? When do the jobs start and finish? Are they temporary jobs? What kinds of qualifications were required? Do these jobs provide employee advancement opportunities? Is this job a career move or just employment? These and other questions were revealed by hearing participants' lived experience and provided insight into the value of the *Digital Works* training program and how they made meaning of it.

The strictly quantitative data of percentages and statistics that is the fodder of most government reports cannot explain how these jobs impact real people's lives in Appalachian Ohio. Hearing their own stories, and giving voice to unheard stories, added depth and humanity to the statistics of the numbers who participated. These personal stories should inform legislators and funders on the value of these government funded programs, over and above the numbers of people who participated in the *Digital Works* program. Participation in the *Digital Works* training program stimulated citizen desire to participate in community affairs. When citizens felt empowered from a personal sense of

accomplishment, they were ready to engage in community building activities. Empowered citizens are more able to participate in self-governing and civic decision making, all of which strengthens democracy. Individual lives improve with stimulation from effective government-supported programs.

The impact of the community connections and community building that resulted from the *Digital Works* training program can be utilized to further stimulate regional social capital. Social capital builds when citizens engage in civic decision making and work together to find solutions to regional challenges, such as the need for more broadband access and more job training opportunities. An engaged citizenry reinforces democracy. Individuals benefitting from government stimulation through this jobs training program helps all citizens in a community. The connection the participants in the *Digital Works* training program made with the program and their communities created a platform for community development interventions that are community driven. The computer and Internet skills the participants learned are skills that can be used in community asset mapping. People can pull together using these skills and become economically empowered and address other issues in these communities.

Training meant stronger communities. *Digital Works* was a first and important step to reinforce community building and connections. Empowered citizens were inspired to be more involved in civic decision making and the political process. With continued support of research training on the Internet, and media literacy training, citizens of Appalachian Ohio can be more involved in the political process and help elect legislators more in tune with the goals and needs of people in the region, and the mission of

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programs like *Digital Works*. The engagement that *Digital Works* stimulated in participants built a base of citizens now engaged in social issues and causes in their communities. This involvement makes each of those communities stronger and helps social change occur. Stronger communities in turn can work toward a more just society if that is the philosophy adopted by its citizens, as Britz (2008) suggested. For the people of Appalachian Ohio, the experience of participating in the *Digital Works* training program gave them a sense of personal accomplishment, and the personal empowerment that comes from that self-confidence to take charge of their communities, resulting in stronger communities. This citizen empowerment led to people approaching their local government to address the Digital Divide issue.

This research reminds me of the story of the young man walking along the beach with a cynical grandfather. Overnight, thousands of starfish had washed up on shore. The young man picked up the starfish one-by-one and threw them back into the ocean. His grandfather questioned his actions.

"Why are you doing that? See how many starfish there are? You cannot possibly pick all these up or make any difference."

The boy picks up another starfish and throws it into the surf. "I made a difference for that one. And that one, and that one" he says as he throws in more. The grandfather realized the boy's intent and the results and helped him toss more stranded starfish back into the ocean, using his energy to help as many as possible.

This study explored and detailed how the government-funded *Digital Works* program positively impacted individual lives in Appalachian Ohio. The analysis of

participants' lived experience revealed how this program gave people options and helped them find jobs. It expanded their worldview. The program gave them ways to view themselves and their communities differently. Most of all, the program gave them hope.

When only looking at the program through quantitative figures the return on investment appears low: $1.5 million over two years to help approximately 550 people find jobs. At an average cost of $2,700 per person for training and support may seem high and not very effectual. But for individuals, the impact is significant—and nearly every respondent has a story about feeling empowered and hopeful—such as Mary Ann from Gallipolis, taking care of a terminally ill husband, a sick child and paying all the bills while dealing with her own disabilities and working. The *Digital Works* program was a life-changing opportunity for Mary Ann, who shared, "At the time, I thought I was drowning; it was a miracle."

Epilogue

This epilogue details the changes that occurred while completing the research and writing for this project. While this study was underway, several changes in the region occurred. Just as the writing on the study was completed, I learned through an email that the Gallipolis center was closed in July 2017. This news meant that now there were no training centers operating in Appalachian Ohio. The *Connect Ohio* offices are closed, and there are apparently no further email correspondences. The email reported that *Digital Works* was "proud to have created 176 jobs, serving nearly 200 program participants" (email correspondence, June 28, 2017). This was surprising news since the facilitator there, during our interview, shared her plans to expand the facility to a larger location in

Gallipolis. At this new location, she planned to have secure office space with secure, high speed broadband that people could rent at modest prices to continue working their on-demand call jobs that required broadband access. Her assessment was that since the Gallipolis facility was so well used, and she was contacting more companies seeking workers, that *Connect Ohio* administrators were in favor and supportive of the expansion. This issue is worthy of further research, especially with the findings I present here of the positive impact of the *Digital Works* program on people's lives and their communities in Appalachian Ohio.

Digital Works helped raise awareness of the Digital Divide, thus creating more demand from people in Appalachian Ohio for improved service. One participant, Gayle, was so interested in seeing broadband in her community that she visited her county commissioners to lobby for help in getting more service providers in that area to offer broadband. Her training gave her confidence to go before the commissioners and to start a community group aiming at better broadband service.

Another development that occurred at the end of the writing process was a group of concerned citizens organized to raise awareness of the need for better Internet access in the region. To illustrate the importance of the need for broadband in the Appalachian Ohio region, an Ohio/West Virginia Connectivity Summit was held in Marietta, Ohio on June 28, 2017. The Summit was well attended by citizens of the region, as well as office holders, their staffs, and FCC Commissioner Mignon Clyburn, who listened as citizens shared their lived experiences of no broadband access and living with the Digital Divide (Clyburn, 2017).

This conference echoed the findings of my study that high speed Internet access is essential for the region to grow and progress and important for the people here to reach their fullest potential. Participants in the Summit plan to hold more meetings, develop policy strategies, and host other sessions to explore all options for broadband in the region. Attention to policy decisions for bridging the Digital Divide in this region would create a more fair and just society.

The issue of the Digital Divide in Appalachian Ohio is even more relevant to study now than ever given the current political climate. Newly appointed FCC Chair Ajit Pai is advocating changing the metrics in the way the Digital Divide is measured in an effort to hide America's Digital Divide. He believes access to the Internet through a smart phone is just as good as having high-speed Internet access in your house. He is looking to change the FCC's guidelines so that any place in the U.S. that has sufficient mobile coverage will be considered "connected," even if people living there have no option to receive broadband access in their homes. Mobile access is not the same as access at home. Screens are smaller, data caps on mobile bandwidth are lighter, overages are more expensive, and speeds are slower. Pai is advocating 10 mbps of download speed and 1 mbps for upload which is less than half the 25 Mbps threshold (3 mbps upload) necessary for a quality home connection. (technologyreview.com, 2017).

This new plan has ramifications for people in Appalachia, already struggling with poor Internet access. Children cannot do homework, and adults cannot hunt for jobs, and the slower speeds eliminates the possibility of doing remote work. In addition, The Center for Public Integrity reported August 11, 2017 that Pai, in convening the

Broadband Deployment Advisory Committee, excluded local government officials, instead filling the committee with representatives from big telecom firms and trade groups (Dodge, 2017). Hearing the lived experiences of people in the Digital Divide and the meaning they made of the training program is important for the FCC to consider before making any further policy changes.

While my project details the impact of the *Digital Works* program on people's lives, the closing of those training centers does not mean that these Digital Divide issues are closed, as the Connectivity Summit revealed. This one-day conference reinforced my study's findings, that as long as rural residents live on the wrong side of the Digital Divide, and continue to be the 'have-nots', then this issue must be explored, and further discussed. With this discussion, there may be hope for people like Ben, Sallie Jo, and Carol that the Digital Divide issues can bring better access to the region.

Reflexive conclusion. While completing this dissertation, I found that much of what I learned seemed connected. I found relevance on NPR, websites, in books and articles I read. In one book I read for mental distraction, Do What You Love, the Money Will Follow" by Marsha Sinetar I found a significant connection to my research findings about self-empowerment. Demonstrating what inspired self-image can stimulate, Sinetar (1987) wrote, "High self-esteem provides the power to know what and who we are. It gives us the courage to live out that very personal knowledge in our daily actions, choices, and way of interacting with the world" (p. 19).

When people have hope, self-esteem builds, as does the feeling that they can accomplish what they previously thought impossible. Participants of the *Digital Works*

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program found their self-esteem. In the Appalachian Ohio region, pummeled by poverty, low educational attainment, and unemployment people have been discouraged. Their lives were in a downward spiral with little changing for the better. But, with the *Digital Works* training program, and the subsequent jobs they were able to obtain, people discovered their self-esteem, and a sense of hope. They were able to find confidence in themselves and their abilities. This translated into peace of mind that they were able to care for their families which also bolstered self-confidence and diminished the defeatism they were feeling before the *Digital Works* training. Hope and self-confidence grew into the belief that they had value and worth and could contribute to their communities. They developed self-empowerment. Thus, *Digital Works* should be viewed as a catalyst for community building and civic action.

Completing the training and feeling they made a personal accomplishment led to jobs as a direct result. This changed participants' lives. I could hear it in their voices, the difference in the tone when they described their past struggles compared to the shift to a brighter tone when discussing their futures. My hope for the region is that those inspired and empowered from the *Digital Works* training program continue to advocate for better broadband access, and that all the progress they made in their personal lives, and for their communities, continues. Additionally, I hope that the government and policy makers find that listening to citizens with respect and support, brings a more fair and just society. Our democracy depends on it.

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Appendix A: Definition of Key Terms

Definitions of Key Terms

Throughout this dissertation report, the following terms were used frequently. The following definitions of key terms are offered to assist the reader in understanding the intended meaning and the scholarly context in which they were used.

1996 Telecommunications Act is a major deregulation initiative that allows telephone companies and cable companies to compete and prescribes a procedure whereby local exchange companies can enter the long-distance telephone business. It also reformulated aspects of universal service and established a new basis for computing the program's assignments. The Act also established the "E-rate" program as part of universal service. (Links to the Future: Role of Information and Telecommunications Technology in Appalachian Economic Development. (2002). *(*The Appalachian Regional Commission).

Broadband refers to the channels that provide high speed transmission of data relative to dial-up access over a modem. (Links to the Future: Role of Information and Telecommunications Technology in Appalachian Economic Development. (2002). (The Appalachian Regional Commission). It is also a descriptive term for evolving digital technologies offering consumers a single switched facility offering integrated access to voice, high-speed data services, video-demand services, and interactive information delivery services. Broadband also is used to define an analog transmission technique for data or video that provides multiple channels. A cable TV system, for example, employs broadband transmission facilities (both analog and digital). (Links to the Future: Role of

Information and Telecommunications Technology in Appalachian Economic Development. (2002). (The Appalachian Regional Commission).

Bandwidth is the communications speed and capacity of telecommunications networks that are classified as bandwidth; this means the frequency range of a telecommunications channel. Bandwidth determines the channel's maximum transmission rate and the capacity of the connection. A range of frequencies in the broadcast spectrum that is occupied by a signal (for example, a television signal may have a bandwidth of 6 MHz). The "necessary bandwidth" is the amount of spectrum required to transmit a signal without distortion or loss of information. In computer networks, bandwidth describes the capacity of network elements to carry and transmit data, measured in "Baud Rate". High bandwidth networks can carry more types of data simultaneously than low bandwidth networks. (Links to the Future: Role of Information and Telecommunications Technology in Appalachian Economic Development. (2002). (The Appalachian Regional Commission).

Bps is the speed and transmission rates and data transmission capacity is measured in bits per second (bps). The "Baud Rate" is the speed at which a computer can transfer data through a modem using communication software. (Links to the Future: Role of Information and Telecommunications Technology in Appalachian Economic Development. (2002). (The Appalachian Regional Commission).

DSL (Digital Subscriber Line) provides digital data transmission over wires of local telephone network. DSL uses high frequency; telephone lines use low frequency, so the same lines can transmit at the same time. 66% of the world's broadband connections

are DSL; 22% are cable and 11% fiber. DSL services are limited with within about

12,000 feet of a telephone company's central office. (Links to the Future: Role of

Information and Telecommunications Technology in Appalachian Economic

Development. (2002). (The Appalachian Regional Commission).

Dial-up Internet service means using a computer, modem, and a standard

telephone line to connect to another computer, network, or Internet Service Provider.

Dialup provides "narrowband" data transfer rates. The fastest dialup modem offers a

speed of 56Kbps, although line speeds may be slower than what a modem is capable of

handling. (Links to the Future: Role of Information and Telecommunications

Technology in Appalachian Economic Development. (2002). (The Appalachian Regional

Commission).

Digital Divide refers to an economic and social inequality gap between those who

have modern technology, such as computer, the Internet, and now, Smart Phones, and

those who do not. The divide the inequality creates in society can be seen along lines of

race, gender, educational attainment, income, as well as geographic regions of the

country. (Pew Charitable Trusts).

Non-broadband adoption means those individuals who chose not to adopt

broadband Internet, if it is available, due to a variety of reasons including cost,

availability, not seeing the need in their lives, or age differences.

Diffusion of Innovations defines "the process of diffusion is defined as the (1)

acceptance, (2) over time, (3) of some specific items—an idea or practice, (4) by

individuals, groups, or other adopting units, linked to (5) special channels of

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communication, (6) to a social structure, and (7) to a given systems of values or culture"
(Katz, Levin, & Hamilton, 1963, p. 238).

Digital Literacy is the ability to find, evaluate, utilize, share, and create content
using information technologies and the Internet. (www.digitalliteracy. Cornell
University.edu)

Information Communication Technology (ICT) means any of the set of rapidly-
evolving technologies that join computers and communications networks for the
transmission of data. (Links to the Future: Role of Information and Telecommunications
Technology in Appalachian Economic Development. (2002). (The Appalachian Regional
Commission).

Integrated Services Digital Network (ISDN) refers to a switched network
providing end-to-end digital connection for simultaneous transmission voice and/or data
over multiple multiplexed communication channels and employing transmission that that
conforms to internationally-defined standards. ISDN is the basis for a "universal
network" that can support almost any type of communications device or service. ISDN
lines generally can provide broadband connectivity to subscribers. (Links to the Future:
Role of Information and Telecommunications Technology in Appalachian Economic
Development. (2002). (The Appalachian Regional Commission).

Internet Service Provider (ISP) means a company that provides access to the
Internet for companies and/or individuals. (Links to the Future: Role of Information and
Telecommunications Technology in Appalachian Economic Development. (2002). (The
Appalachian Regional Commission).

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Knowledge Gap is the theory that those with economic means will gain access to new technology faster than those of lower socio-economic status, and will have access to information more efficiently, and thus become the information "haves" vs. the "have nots." (Severin & Tankard).

The Last Mile is the distance from a sub-station to homes that makes it cost inefficient for providers to run cable or Internet service. Much of the Appalachian region lives in the last mile, where service is not available.

Social Capital is the links, shared values, trust, goodwill, fellowship, sympathy, social interaction and cooperation among social groups or networks that enable individuals and groups to trust each other and work together for the common good. (OECD.org)

Appendix B: Interview Protocol for participants Preliminary Questions

1. Demographic Information:
   a. Age?
   b. Level of Education?
   c. Work experience?
   d. Last or current job?
   e. Last or current salary range?
   f. Number in your household?
   g. Level of experience with computers and the technology?
   h. What kind of Internet service do you have in your home?
   i. What technology do you have in the home: desktop computer, laptop, cell phone (type), landline, WiFI?
2. How did you hear about the Connect Ohio program and its training options?
3. What prompted you to participate?
4. Where did you take your trainings? What times?
   a. Were these good times for you? Did they conflict with your other obligations?
5. Describe the setting? Did you feel comfortable?
   a. How many other people were in the room taking the trainings with you?
   b. How did that make you feel?
   c. Were you able to ask questions of others? Of the trainers?
   d. How did you feel throughout the training?
6. What were you hoping to learn?
7. What kinds of information were you taught?
8. How did you feel you were treated by the trainers? Any suggestions for trainers on how they conducted the trainings?
9. How did the trainings meet your expectations of what you had hoped to learn?
10. What do you wish you had learned that was not offered?
11. Would you participate in these kinds of trainings again? Why or why not?
12. What aspect of the trainings would you recommend to others?
13. What kind of follow-up did you receive after your trainings?
14. What did you do with the information you received?
15. How did the trainings impact your life?

What personal meaning did Appalachian Ohio citizens who participated in the

***Digital Works* training interpret from their experience?**

Interview Protocol (Melody Sands, #15-x-224) Follow-up Interviews

Script: *Prior to interview:*

I would like to thank you once again for being willing to participate in the interview part

of my study for my dissertation. I appreciate your time for this follow-up Interview.

Let's pick up our conversation where we left off where we were discussing your

experience in the *Digital Works* computer training program.

Before we begin the interview, do you have any questions? If any questions (or other

concerns) arise at any point in this interview, feel free to ask them at any time.

Let's pick up our conversation about your experiences in the *Digital Works*

program.

1. We know the training center closed, and the program scaled way back. What was that like for you?
2. What things have happened since we last spoke about the training program?
3. What did you find most helpful and useful for you now?
4. Tell me again why did you participate in the *Digital Works* computer training program?
5. Was there anyone who was involved in, or influenced you to participate in the program? Who encouraged you to participate in the program? What did they say to you?
6. What were your expectations from the *Digital Works* computer training program?
7. What stood out the most for you about the training program while you were in it and compared to now?
8. *<<Probes: did the program help you? In what way? Did you get a job based on the program's training?>>*
9. Is there anything about the training you would have changed?
10. Are you still in contact with other participants from your Center?

Trainers:

1. How did the trainers influence your experiences?
2. At the end of your training, what was your relationship like with your trainer?
3. Are you still in touch with your trainer?

Personal History:

Background: To begin this part of the interview I'd like to ask you about your life growing up, and that community.

1. What was that neighborhood/community like when you were growing up?
2. How was your childhood different from your parents, or that generation of older people?
3. What about today's kids?
4. How would you compare the way you view where you grew up, to the way your parents/guardians view that neighborhood?
5. Can you remember your first experience with a computer?

High School:

6. Based on the last interview you said you went to high school at: _____
And you grew up in :_____

What was your experience like at your high school?

<<Probe/prompt: were you interested in sports/ what were your interests? Clubs? Learn languages? What groups did you hang out with? What did you do in summers?>>

7. How is that different from what your parents may have experienced?
8. How is it different from (your kids)/or what you think kids of today are experiencing?

Tell me about your high school experience with computers and technology.

1. What kinds of technology were big in your day?
2. What kinds of access to/ or use of computers did you have?
3. What kind of technology do you think kids today have?
4. What happened after high school?

<<Probe: How prepared were you for life after high school? (job preparation, college preparation, computer knowledge and skills.>>

<<Probe/Prompt: what did you parents say to you about being successful? Challenges you had to overcome? What kinds of challenges did your parents have –were they the same or different?>>

9. Do you think having computer skills influences how people in your community view you or interact with you?
<If says yes: How so? If says, no, get them to elaborate as to why they think that.>

10. How do you think having computer skills influences the way others in your community view you or interact with you?
If says no: How did you come to think that?

Follow-up: Are there other differences that matter within the ___community?

<<Prompt: Please tell more about those.>>

Other computer training experience (College? Other courses?)

Thank you for your responses. I'd like to know ask you questions regarding other computer training experiences you may have had, such as other organizations, on the job, or in college.

In the previous interview, you said that you had (some, none, or advanced) computer skills.

1. Can you tell me more about those trainings?
2. Are you the first in your family to take these computer training courses? Who else has taken similar training courses?
3. How did those programs differ from the *Digital Works* training?
4. Who taught those programs? Where did you take them?

What kind of Internet access do you have at your home?

1. *<<Probe: what is the monthly charge? Do you know the download/upload speeds? Do you have trouble with access?>>*

Did you take after the training to improve Internet/broadband access in your community?

<<Probe: did you call your provider; the cable company? Make any contact with the government officials? Did you tell the trainers of the program about your Internet service or any difficulties you had with access? Do you know if anyone else in your center took any action?>>

The experience overall and its impact on your life.

Thank you for your responses. Finally, I would like to ask a few questions about the computer training program and its impact on your life.

1. Earlier, you discussed your life situation prior to the training (job, education, relationship with your community). After the training program, how did things change? *Follow-up:* Can you give me specific examples of any changes that occurred?
2. What does this mean for you?
3. How do you feel about having participated in the program? *<<Probe response: what does that mean?>>*

Thank you for your responses. Before we conclude this interview, is there something about your experience in the *Digital Works* computer training program that influences how you engage in your community that we did not have a chance to discuss?

Thank you for your time and assistance with my research project. May I follow-up with you via email or phone if I need any further clarification?

Appendix D: Interview Questions for Connect Ohio Administrators

1. How did you select training sites? What criteria were considered in that process?
2. Who do you think are your target constituents? What kind of criteria were used to select these target constituents?
3. How did you inform them about the Connect Ohio trainings?
4. What kind of response / attendance did you get to the trainings?
5. Describe some characteristics of the participants> Demographics. Skill levels. Confidence levels. Income, Education levels. Work experience. Prior knowledge of computers and the Internet.
6. How did you solicit and select trainers? What kinds of experience did they need prior to being hired? How were pay scales determined?
7. What kind of training to trainers was offered, or required?
8. What were the goals of the trainings?
9. How well do you think those goals and objectives were met?
10. What kinds of debriefing, or assessment reports were required? What kinds of reports did administrators submit?
11. Why did trainings move from in-person, to entirely online?
12. How did administrators of the Connect Ohio program get recruited and selected? What kind of experiences and skills were needed to implement this program?
13. What improvements would you suggest for future trainings?
14. What kind of follow-up was conducted with participants?

Appendix E: Interview Protocol for Trainers

1. How did you hear about the opportunity to be a trainer with Connect Ohio?
2. What prompted you to apply and participate?
3. Describe your qualifications to be a trainer?
4. How were you trained and instructed on what information to provide to participants?
   a. How long was your training/instruction session (s)?
   b. Was there a written manual of points to cover and how to get those points across?
   c. Did you have training goals? What did those include?
   d. How did you track the outcomes, or results of your efforts as a trainer?
   e. What kinds of questions or situations arose during the trainings that you were not completely prepared to answer?
   f. How were the participants described to you? What kind of information were you given about the participants? (Demographic information? Social-economic background? Education level? Level of experience with computers and the programs you were to teach?)
   g. What kind of debriefings or reports did you file after each training?
5. How would you describe the participants with whom you met?
6. What is your perception of their comfort level with the trainings, the computers, the technology and the programs?
7. Describe the training settings. Lighting, temperature, equipment available, comfort level (desks, chairs), noise, smells or odors/ other distractions?
8. What do you feel went well with the trainings?
9. What do you think you would change about the trainings?
10. Would you conduct more of these trainings if the opportunity arose? What would you do differently?
11. Demographic information: Age? Level of experience? Qualifications for conducting these trainings? Level of education? Work experience? Teaching experience? If comfortable answering, what type of pay did you receive for this work? For the time invested, do you think this was adequate? What pay level would you suggest for trainers at future trainings?

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