Empowering Community Development Practitioners to Address the Digital Divide Through Contextualized Solutions

Cheyanne Geideman

Northwest University College of Social and Behavioral Sciences

Master's in International Community Development

26 April 2020

Portions of this thesis paper are based on previous work submitted for the following MAICD courses:

GLST 5952 Program Evaluation Practicum, GLST 5503 Culture Studies in a Global Context, GLST 5673 Globalization and Development, GLST 5932 Project Management Practicum, GLST 5153 Research for Social Change, GLST 5313 Community Development, GLST 5942 Funding, Grant Writing, and Volunteer Management Practicum, GLST 5203 Spirituality, Culture, and Social Justice, GLST 5923 Fieldwork, GLST 6383 Peacemaking, GLST 6423 Social and Environmental Justice, GLST 5333 Leadership

Table of Contents

Acknowledgements

I want to recognize the following people who helped make this project a success:

Forrest Inslee, Roberto Gallardo, Leslie Yarde, Joseph Mulongo, Avelardo Rivera, Glen Robyne, and Taylor Walters Denyer

In addition, I want to thank my classmates, professors and TA's in the MAICD program for their constant encouragement and pushing me to learn more and more.

Finally, I want to thank Friendly Planet Missiology for their support of my fieldwork and all the wonderful people I meant during my time in the Democratic Republic of Congo. To those who I formally interviewed and those I did not, thank you for your hospitality and the many lessons you taught me.

INTRODUCTION

The Land Rover rocks back and forth as it travels down the mountain. As he drives, Joseph tries to navigate the many potholes left by the rainy season. Despite his best efforts, the rough road makes the going slow and rough. To distract from the motion sickness, I ask him his opinion on the internet:

> The internet is one of the best things. Right now, it is helping to make the world closer together. Because through internet, you can learn anything you want. You can do your research on internet. You can learn online through internet. You can buy a car through internet. You can do your banking through internet. (Joseph)

Joseph is the executive director of Friendly Planet Missiology (FPM). A non-governmental organization operating in many countries, including the Democratic Republic of Congo where Joseph lives and works. He is a pastor with the United Methodist Conference in the North Katanga region of the country. Which is how he first got started with FPM:

> At Friendly Planet, we are doing what we can. But we want to help others, those who are supporting youth. That's why FPM will be able to buy computers at the nursing school for students and modems. I remember my first time using the internet. It was in 2008. Friendly Planet gave me a laptop and a cell phone that could be used as a modem. They took 6 of us to the U.S. and gave us the tools to use the internet. I think I was the only one who tried to use the internet to give feedback of the work we had been doing. I think it can be one of the reasons Friendly Planet decided to take me as a member and work for Friendly Planet. (Joseph)

Joseph recognizes that the internet not only impacted his career but also has the potential to impact the lives of many other Congolese. For this reason, Joseph raises funds to make sure all the students at Friendly Planet's Nursing School for women have laptops or tablets on which to complete assignments. He also dreams of starting an internet cafe for youth in rural villages. He recognizes the impact this connection can make in their lives and works to create that impact.

Joseph is not alone in viewing the internet as a tool for changing lives. Today we are living in the digital age. The digital age impacts all areas of life: from healthcare to politics, education to agriculture, and more. However, as industries around the world are changing, the digital age is impacting people at different rates. From the lack of access to a lack of skills, the digital age is creating many gaps between groups. And, for those who do have access and skills, there are radical differences in how they benefit from their online activity. These differences lead to a variety of impacts. As we witness this exclusion and inclusion, it is important that community development efforts around the world respond in their communities.

Community development organizations are uniquely positioned to respond to differences resulting from the digital age. To do this, it is imperative that community development practitioners must understand the differences in participation present in the digital age. However, understanding the digital divisions between groups is not enough; practitioners need to contextualize the programs that bridge these divides. This starts with understanding the relationship between the digital age and the current scope of community development. Community development practitioners have a responsibility to their communities to understand the topics listed above. Therefore, by drawing on existing literature and qualitative research, this thesis will explore the digital age, the issues it creates in communities, how these issues fit into community development, and how practitioners can address these issues moving forward. As part of their work, community development practitioners must understand the ways the digital age is impacting their communities and their missions and create contextualized solutions that address these changes. To better equip practitioners to implement programming changes, practitioners need to better understand the issues in relation to their community, and they can do this through the proposed online training.

In 2016, I visited the African continent for the first time with a small group of peers. We went to learn how our skills could fit into a missiological context. Before we arrived, we sent ahead the skills of each student so that the U.S. and African leaders could collaborate on

identifying experiences that would leverage each team member's unique skill set. I naively mentioned website design skills in my list even though I had only completed one semester on the topic. Our very first stop was a teacher's college. The principle sat us down in her office, looked at me, and declared I would build them a website. I was shocked and taken aback, but agreed to try. Throughout the next four days, I was plagued by issues with the website. From trying to build a site that the people could maintain themselves, to spending hours in a computer lab watching a spinning wheel for a webpage that never loaded. From connection to skills, the expectations for this project were not matching up with the need. Yet, as I stood in front of a class of a hundred college students, cheering at the news of my project, I couldn't help but wonder how I, or anyone, could ever fulfill this enthusiastic request under these circumstances?

Three years later, my failure to build that one website still haunts me. But, it has also propelled me forward, opening my eyes to needs that must be met if Africans, or anyone, are to feel connected to the world. This led to the creation of this thesis. This thesis and included training (cgicdthesis.com) are built on a foundation of qualitative research conducted in the Democratic Republic of Congo (DRC), as well as professional experiences pursuing digital inclusion efforts in the United States. This cross-cultural, cross-continental foundation provides a unique perspective. It shows that you can benefit from learning about the impacts and roles of the digital age in your community no matter your background. In addition, this thesis draws on course texts and themes from Northwest University's International Community Development (ICD) Master's program. The integration of multiple sources of research ensures a comprehensive thesis and well-developed training for all levels of community development practitioners.

What is the Digital Age?

Digital technology is changing our daily lives. It's opening doors for more innovation from more people, at lower costs with more power than ever before (McQuivey). Anyone, from anywhere in the world, can take advantage of digital tools to change industries, communities, and even the

world. Together, these changes are known as the digital age. Roberto Gallardo, assistant director of the Purdue Center for Regional Development, defines the digital age as having four characteristics: disruptive, exponential, combinatorial, and digital (27-31). Gallardo's definition comes from a combination of sources, including his own experiences working with rural communities in the United States. Gallardo's use of the term disruptive is a nod to James McQuivey's idea of people being digital disruptors: "Equipped with the right mindset, disruptors naturally see technology and other tools in a different light, one that enables them to see past the problem to the solutions that digital can help them deliver more rapidly than before" (McQuivey 19). Gallardo sees the digital age as a time when information communication technology (ICT) is disrupting the status quo. This disruption happens quickly and widely. Gallardo uses the term exponential to refer to how quickly everything is changing thanks to Moore's law. In 1965, Gordon Moore observed that the development of cheaper, faster, and overall better computer chips was happening every two years (Friedman 38-47). Moore predicted this trend would continue for many years which has held true. We see thinner laptops, smarter phones, and smarter watches being consumed by the public in the 21st century. These innovations allow for the development of sensors, since technology is made smaller and more cost-effective, and leading to the age of the internet of things. As the hardware has developed, so has the software being used. These innovations have allowed for the development of everything from cloud storage, to "big data", to social media (Friedman 19-29). These hardware and software innovations have changed not only how the technology works, but also what it can be utilized for. Combinatorial refers to how this growing impact infiltrates new areas and brings people and ideas together. Finally, Gallardo uses digital in reference to the mass amounts of information being translated into the computer language. From images of our daily lives to data from sensors the whole world is starting to exist in two places: the physical plane and the digital. This extends to the communities served by

community development practitioners which are impacted by all aspects of the digital age, and those impacts will continue to grow.

Digital Age and Globalization. Globalization contributes to the growing adoption of technology. With more internet users in the global south than in all developed countries combined, technology is powerful and it continues to grow (Myers 114). In the book *Globalization, Spirituality and Justice*, Daniel G. Groody takes the stance that "globalization means different things to different people" (14). Groody points out that to the economist, globalization is about linking economies. For the sociologists, it's about linking societies. However, despite what perspective you take, Groody demonstrates that there is a key uniting feature to all of these viewpoints: integration (15). For Groody, the world wide web is the greatest symbol of integration because "the internet has linked together constituencies of every sort, making the global community more interrelated than ever before" (15). This sentiment is echoed by Bryant L. Myers in his book, *Engaging Globalization*, where he splits globalization into five domains: economics, government, culture, technology and human beings (44-51). But, as Groody points out, technology has evolved to uniquely interact with each of these domains, changing the way we view globalization.

Technology and Economics. Technology and economics together are changing how societies function. Technology is changing our understanding of wealth and how it is earned. One shift is the development of the "sharing economy" (Friedman 113-118). With the widespread use of mobile and personal technology, apps such as Uber and Airbnb have flourished. These companies do not own any goods, but instead connect people so they may share their goods for a small fee. This is important economically because you have businesses that have value without directly owning any goods or services. Another disruption, an attribute of the digital age, we are seeing is through the rise of a "maker's paradise" (Friedman 113). From 3-D printers to co-working spaces, there is a push for freedom for the consumer to make what they want. The combined global forces of technology and economics are "enabling so many more people to lift

themselves out of poverty and participate in solving the world's biggest problems" (Friedman 169).

Technology and Governments. Governments all around the world are playing a role in globalization as they address technology. Many moral questions have been raised surrounding sensors, big data, and privacy. As discussed in the overview of the digital age, the innovation of computer chips has sparked the creation of sensors that allows for the collection of more and more data. The use of this data is allowing people to save time, money, and energy by providing information and simplifying everyday tasks (Friedman 49). However, it is also raising concerns about privacy. Through analyzing the data you produce, companies can learn a lot about you (Friedman 54). Individuals are now turning to the government, looking for protection and guidance on how to handle this new development. Social media is changing social movements (Friedman 293-300). Through providing a platform to spread information quickly, social media is enabling larger collective action. However, people are beginning to realize the limitations of social media as a political tool. Lack of organization and consistency in views within these movements makes it difficult to instill real change. In addition, social media is changing people's views of the internet as a source of immoral content: "The internet is an open sewer of untreated, unfiltered information, where (people) need to bring skepticism and critical thinking to everything they read and basic civic decency to everything they write" (Friedman 378). At the intersection of the globalization domains of technology and government, there are many important issues and opportunities arising.

Technology and Culture. Myers identifies culture as a domain of globalization. Since culture includes religion and churches, it is impossible to examine the intersection between culture and technology without also addressing the intersection between technology and religion. Many individuals, religious and otherwise, are interacting on the internet. However, as we witness flame wars, trolling, and scams running rampant across the internet, we start to wonder: where are the morals? We now hold in our hands the power to overthrow governments and find

solutions to the world's biggest problems. Instead, many individuals use this tool to search grumpy cat memes, call each other names, and create hostile environments. This raises concerns because many people are not applying the values they use in face-to-face interactions with their online interactions. Friedman summarizes it best:

> One of us could kill all of us and all of us could fix everything if we decided to do so. And that is why properly exercising the powers that have been uniquely placed in the hands of our generation will require a degree of moral innovation that we have barely begun to explore. (373)

Many are starting to ask what the role of the church should be in the globalized, digital world. Historically, the church has had an influential role in shaping many nations. The church has provided people a place to congregate and collectively raise their voices in protest, giving them more power than many would have had otherwise (Jenkins Ch. 7). The church has demonstrated the potential power it holds, but many have not actively seized on the innovations technology has created. During my fieldwork, one young Congolese missionary shared his thoughts with me on how technology could change the church. Obed studied environmental issues for his bachelor's degree, and believes the church could capitalize on projectors and other technological advancements to minimize the amount of paper being used. While many churches in the U.S. have made this innovation, there are still many around the world unable to take this step.

Technology and Humans. Finally, humans are at the center of globalization. As Myers puts it, "technological innovation does not occur if people in large enough numbers are not willing to learn new ways of doing things and so adopt and use new technology" (51). And perhaps this is what is missing from Gallardo's definition of the digital age. Because it is not simply the digital age, it is the digital age of humanity, where people create a digital world that spread across the globe and affects all areas of life. I have seen this first-hand in my work in the U.S. and, more specifically, during my fieldwork in the Democratic Republic of Congo:

> Sitting in the Congolese bank, I was nervous. Armed security guards stood at each entrance, monitoring the metal detectors. Above each of the big glass windows hung security gates, waiting to be lowered. The inside of the bank was a stark contrast to the busy street outside as the room was filled with a hushed murmur. This murmur was sharply interrupted by Adele's voice singing "Hello from the other side," as a woman's cell phone rang. In a country where English is not the first or even the second language, this ringtone came as a surprise. But in my interviews, many participants indicated that when they're online, they enjoy media from the U.S., France, Italy and more. To them, it was not about the language, but the human connection they made to the media as they worshiped, danced, or sang.

Globalization is changing the landscapes in communities across the world. Developments in technology and other areas have "linked individuals and communities in a way that is faster, cheaper, and more efficient than in any previous generation" (Groody 15). In addition, technology helps increase the spread of cultures beyond their geographic boundaries. Individuals are consuming content from other cultures, consuming new points of view, and changing their world outlook. During my fieldwork, I interviewed 14 university students. All of these students spoke more than one language, and most consumed online content in multiple languages. In fact, many seek out content from other cultures. One participant confided in me that he really enjoys Italian music and through listening to Youtube videos, he has picked up a little Italian. One night, I sat with a working single mother in her living room as she watched a Bollywood soap opera that had been dubbed over in French. Technology brings other cultures closer to consumers.

However, understanding the big picture of how technology is interacting with globalization and it's individual facets is only the first step to understanding how technology impacts communities. Bryant Myers demonstrates how technology interacts with four facets of globalization, but as Groody points out, there is more to globalization. In addition, technology is

not just here to stay, it will continue to grow and affect our world as demonstrated by Moore's law. For this reason, we must not only understand the impacts of technology on a global scale, but understand how it is integrating, or not integrating, into people's lives at the local level.

Digital Age and Communities

There are differences between how groups are participating in the digital age, not everyone has the same experience. This creates gaps within communities, countries and the world. This gap is referred to as the digital divide. Research on the digital divide has been improving for years, resulting in varying definitions. Roberto Gallardo offers a definition that draws on the collective literature and defines the digital divide as a gap "between those who have access to the technology, can afford it, and have the know-how to use it versus those who do not have access, can't afford it, or simply don't know how to use the technology" (33). As shown in Gallardo's definition, there are currently three parts to the digital divide. These are referred to as the first, second and third levels (Hargittai; Wei *et al.*). Research began with a first level but evolved to recognize more complex differences between groups which added a second and third level. These levels act as a framework for better understanding the digital divide. Despite these advances, reality is more complicated. The following paragraphs will take a closer look at each of these levels and provide real life examples of how the digital divide is impacting communities.

Level One of the Digital Divide. Originally, the digital divide referred to the lack of physical access to ICT and the internet. Scholars such as Jaeger *et al.* recognized the significance of this gap:

> In an information-driven, Internet-enabled environment, access to digital resources is a critical component of social engagement…[people's] access to critical information, including employment, educational, and government resources, is restricted. As services and resources become increasingly available only online, the ability to access these resources becomes paramount. (5)

Researchers, governments and organizations around the world have recognized the truth in Jaeger *et al.*'s words causing the body of research on the topic to grow. Originally, the conversation focused on if people had access to broadband at home. Since then, research has grown to ask about speed and delivery type. The conversation has also grown to include devices. Researchers Pouchter *et al.* at the Pew Research Foundation found that cell phone use is growing across the world. However, researchers Pearce and Rice found that mobile users participate in less online activities. Researcher Gonzales further emphasizes their concerns through his findings that low-income users must work harder to maintain access, as they are more susceptible to connection interruptions. But this is only the first level of the digital divide.

Level Two of the Digital Divide. The digital divide goes beyond access to include the "know-how" of using ICT. This "know-how" is commonly referred to as digital literacy: "Digital literacy generally is used to refer to an individual's ability to locate, evaluate, and use digital information, encompassing both technologies (e.g., computers) and services (e.g., e-mail)" (Jaeger *et al.* 5). This difference in digital literacy between groups creates the second level of the digital divide. Researcher Eszter Hargittai was one of the first to argue that the digital divide goes beyond access and adoption. He proposed the digital divide has a second level based on online skills. Originally, Hargitta defined skills as "the ability to efficiently and effectively find information on the Web". However, the collective understanding of the second level of digital divide by researchers has grown. Researchers have used many words to describe differences in knowledge. Some use the term digital literacy, others internet skills. But the most commonly supported term is digital skills: "the general skills needed to use the internet" (Scheerder et al. 1607) or other ICT devices. Therefore, the second level of the digital divide refers to the difference in digital skills that inhibit or aid ICT use, internet access and internet adoption. Whereas the first level focused on physical access, this level focuses more on users and their knowledge.

Level Three of the Digital Divide. Both the first and second level digital divides feed into a third level. The third level is the gap between those who benefit offline from their online use of ICT. One way to understand this third level is through envisioning that each person creates digital capital. Massimo Ragnedda defines digital capital as "the accumulation of digital competencies (information, communication, safety, content-creation and problem-solving), and digital technology" (2367) and acts "as a bridge capital between the offline and the online experiences" (2368). When digital capital is used in conjunction with other competencies, it "allows citizens to first use these capitals online and then to reinvest their proceedings in the social realm, producing measurable individual outcomes (e.g. welfare, income, health)" (Ragnedda 2368). The third level is all about how individuals' online activity affects them offline.

The Digital Age and Daily Life. Although researchers have created clear distinctions between different digital divide levels, the differences are not always clear. Within a single community, you may see all three levels, and multiple levels may affect a single group of people. You must realize that these differences can have a myriad of effects on groups. It can limit people academically, economically, or socially because they are not able to access the same opportunities or benefits as their peers. I have witnessed this first-hand in the US and in the DRC on many different topics.

Leadership. "It's exponential!" Roberto Gallardo says, as he advances his slide. He asks the audience how long it took for the telephone, Facebook, and Pokemon Go! to gain popularity respectively. The audience participates, watching the numbers decrease, until he reveals the number for Pokemon Go!: Two months. The crowd goes silent as the impact and power of the digital age starts to sink in.

Gallardo further adds to the first level by taking a step back and saying that the issue isn't just access, its adoption (131-135). Gallardo emphasizes the importance of community leaders recognizing the potential technology holds for their community. Gallardo emphasizes that no matter which digital divide level is present in the community, the greatest challenge that

needs to be overcome relates to mindset. Part of Gallardo's job is educating communities on the digital age so they can change this mindset. Kuenkel speaks to a similar issue when it comes to leadership. Kuenkel believes that in every situation, there are forces working against you which she refers to as dragons (38-39). She recommends that acknowledging their existence is the first step to overcoming them. When it comes to communities and the digital age, the greatest dragon that needs to be overcome is the mindset. Roberto Gallardo echoes this sentiment in his book, *Responsive Countryside*. Gallardo describes the current mindset of the digital age for some people as frustrated, skeptical, and suspicious of change (50-51). This mindset prevents many from fully participating in the digital age, making them late adopters who feel frustrated and alienated by the new technology (Gallardo 51). However, Parker J. Palmer believes that it is a leader's responsibility to balance the light and the shadows of the world (78-79). With so much emphasis on the shadows of technology, it is up to community development practitioners to shine the light and show the benefits of the digital age. Gallardo and McQuivey both stress that success in the digital age is about mindset. Therefore, leaders need to communicate the potential benefits and work with communities to build their capacity to apply technology in meaningful ways in their communities.

Education. Sitting on the edge of the chair, Daniel looks skeptical and a bit put back. He is not quite sure why he is here, just that some American is interviewing people from his village. Either by choice or by force, he was asked by his elders to participate. But, as the conversation progresses, he opens up and gets more animated. He is a student at Mulungushi studying psychology. Through the interpreter, he shares his concerns about continuing this plan of study. He worries that he does not have the financial resources to continue, let alone purchase the digital resources he needs. At school, the computer labs are only for the theology students. He is responsible for supplying his own computer and internet connection. These responsibilities add more financial stress to Daniel and make him uncertain of his future.

Daniel's struggles are echoed by the United Methodist supported university in Kamina. The president shared with me his dreams of building a computer lab. Like Daniel, students have to supply their own devices and connections. The president worries about the financial stress on his students and their ability to learn the required skills without those resources. During my visit to his city, he shared with us his concerns, asking how a student can learn computer science, when they have no computer (Elisee). His heart breaks for those individuals, and he is fighting to find the resources to make the needed changes at his university.

This situation is not unique to the DRC, or even Africa. As COVID-19 takes the world by storm, schools are moving to online learning, sometimes at the expense of their students. Teachers are taking to Twitter as they share the struggles their students have with accessing their classwork. Researchers Haung and Russell looked at three Oklahoma City schools and found that the one with the highest test scores was the one with students who had the most access to computers. In the United Kingdom, Livingstone and Harper found that most children had access to computers at school, but there were still socio-economic differences. However, these differences all but disappeared if the children had access to a computer at home. Helpser and Livingstone's research shows that home access has an impact on students, and as shown in the stories and through Haung and Russell, that access has an impact on academic success. Their finding is supported by Hampton *et al.* who found that students who were dependent on mobile phone service or did not have access to broadband at home did not perform as well academically regardless of socio-economic status.

Social. Claudia is finishing his studies at Africa University. After completing his degree, he dreams of returning to Kamina and starting a communication station:

> Because as a country, we need to be together, and then we need to know what happen in the big city. When they have the internet they're gonna have some news from each other. They're gonna have some information from Youtube, from google, something like that. You know as a community it is better to work in a team. We cannot say just

> because those guys in the village we don't want to help them. No. We need what we are doing in the city. Even them, they are human being. We need to be together and share stuff together. (Claudia)

Claudia sees the internet and radio communication as more than just a way of bringing people together, he sees it as a way of stopping violence in his region:

> When we try to have the radio and internet, we will try to advise them...on how to be together, no violence, something like that. Because when we try to tell people, there are some people who are going to understand 'yeah, violence is not good.' That guy can go to his friend and say hey, did you hear on the radio, they say violence is not good. If you do this, it is not good. Just do this, it is the right way. Even on google, we are going to try and put information on those types of things. (Claudia)

Claudia offers a way of approaching reconciliation through technology. John Paul Lederach stresses that to transform from conflict, one must recognize the content, context and structure of relationships. As someone who grew up in the region, Claudia has first-hand knowledge of the content, context and structure of the relationships in this conflict. From his perspective, he sees education and interaction as a step towards ending violence. What Claudia advocates for, Brenda Salter McNeil refers to as "contact theory" in her book *Roadmap to Reconciliation*. McNeil also sees contact theory as a step towards reconciliation because "relationships between conflicting groups will improve if they have meaningful contact with one another" (33). While technology is not the solution to every conflict, Claudia demonstrates how it can be a powerful tool when working towards reconciliation.

Addressing the Digital Age. The digital divide comes in many forms and, while the digital divide levels provide a framework for understanding these forms, it is only a starting point. The digital divide is more complex in reality, as shown in the examples above. Addressing the divide can happen through many different approaches. One common method is through digital

inclusion. Digital inclusion has its roots in political policy, but researcher Nemer offers a definition:

> Digital inclusion should examine the extent to which initiatives enhance interactions and possibilities of the marginalized people to participate and actively engage in current socio-technical dynamics. (4)

But other researchers, such as Parson and Hicks, argue that digital inclusion has an ugly sibling, digital exclusion:

> digital exclusion (although not often framed in this way) is further marginalizing already oppressed and disenfranchised individuals and communities. Inequalities in income, education, and differences in race, culture, age, gender and disability are not only being transferred into the information society but are reinforcing social differentiation and polarization of groups. (12)

Moving forward, community development practitioners need to take these concepts into account as they serve communities. The digital divide is a term ultimately used to describe differences in technology between people groups. Practitioners can address these differences through incorporating digital inclusion efforts into their current and future programs. These efforts should seek to encourage the meaningful use of technology amongst everyone so as to avoid digital exclusion.

Community Development in the Digital Age

What is Community Development? The digital age presents many considerations for communities to explore when looking at how they can change for the better. As outlined above, the digital age is having a wide range of effects on communities and individuals. By examining the digital divide through development theories, a framework can be provided that gives context to the digital divide and brings understanding to its wide-ranging impacts. Different development practitioners provide important insights into the digital divide. These different viewpoints are important to consider as different views will apply to different groups. However, the digital age is

not just restricted to these development views. Each of these viewpoints connects back to the digital age and the role community development practitioners can play in the digital age.

Development as Transformation. Myers lays the foundation for development to be about transformation, specifically transformation out of poverty. He recognizes that there are many schools of thought when it comes to development. Wayne Bragg sees development as transformation, David Korten sees development as being people-centered, John Friedman sees development as expanding access to social powers, Amartya Sen sees development as freedom, and Jayakumar Christian sees it as a Christian response to powerlessness (Myers 153-172). Regardless of their views, each of these practitioners brings ideas about development that can be applied to the relationship between the digital age and communities.

Development as Capabilities. Amartya Sen's work specifically lends itself to digital divide research due to its multi-faceted approach. Sen believes that "The process of economic development can be seen as a process of expanding the capabilities of people. Ultimately, the process of economic development has to be concerned with what people can or cannot do," (Amartya Sen qtd. In Wresch 262). Information communication technology lends itself to building people's capabilities on a variety of fronts because of its adaptability into many fields. Sen focuses on building people's capabilities in health literacy, education, economics, and socially (Myers 29,167-168). ICT has shown to have positive impacts on all of these areas (Wresch; Stellefson *et al.*; Huang and Russell). However, as community development practitioners apply this view to communities, they will find that the digital divide itself can limit people's capabilities and, therefore, their abilities in other subjects. When approaching the digital age using Sen's framework, community development practitioners will see the levels of the digital divide as capabilities. The first level is the capability to access technology. The second level is the capability to participate. And the third level is the capability to benefit. Regardless of what the community's current capabilities are and are not, community development practitioners need to identify and respond to these needs.

Development as Power. Banerjee and Duflo's perspective compliments Sen's (Myers 38-40). Banerjee and Duflo approach development from the assumption that the poor are knowledgeable and researchers need to better understand their actions (Myers 39). Mobile devices are taking the world by storm because they are relatively inexpensive compared to computers (Hwang and Nam). Therefore, many poor individuals are taking advantage of ICT technology by using mobile devices. Research should strive to understand how the poor currently use ICT and how they want to use ICT. It is through this understanding that impactful policies can be constructed.

In addition, many development frameworks focus on social power such as the framework of John Friedmann (Myers 158-160). Friedmann sees development as "a process that seeks the empowerment of the household and their individual members through their involvement in socially and politically relevant actions" (Friedman qtd. Myers 158). ICT adoption and use are one means of expanding households' potential involvement in these areas. This directly relates to the first level of the digital divide and shows Friedman's value in addressing it. In addition, Friedmann identifies eight dimensions of social power: "social networks, information for self-development, surplus time, instruments of work and livelihood, social organization, knowledge and skills, defensible life space and financial resources" (Myers 118). Each of these areas can relate directly to digital skills. If the digital skills of each of these areas are measured, the dimension needing the most work can be identified, and development efforts can be focused on that area. Once more, due to their effects on the other dimensions, Friedman identifies social networks and social organizations as the keys to expanding social power. Coincidentally, one of the strongest areas of technology has been the development of social networking sites or social media. People are becoming more and more connected through social media, especially in emerging economies (Friedman 133). Therefore, social media has the power for those in poverty to come together and influence change in other dimensions, thus gaining social power. Digital skills relate directly to the second level of the digital divide. However, the idea of building

social power online is also one way of viewing the third level of the digital divide. In this way, Friedman's framework is applicable to the digital age.

Through identifying the critical role technology is starting to and continuing to play in the lives of the poor, we can adapt and expand current development practices to better address the issue of poverty. Technology plays a role in the various dimensions of poverty that Myers identifies. These dimensions also provide a way of looking at technology use and identifying the areas of need. In addition, these analyses will lead to understanding how to adapt development practices to better address poverty across the world. Technology is changing lives all around the world, and it is time we use it to change the lives of those in poverty.

Expanding Development. However, Katie Willis takes a different approach. Willis asks "how 'development' has been defined, who has defined 'development' and at what scale development has been examined" (2). She questions what we are developing and looks at it from an economic perspective, a human-focused perspective. She also challenges readers to look at development in terms of scale and its relativity to other groups (Willis 3-12). Willis challenges us to look at development through presenting all these viewpoints and then taking a historic look at development. Ultimately, Willis points out that development is a Eurocentric idea. In doing so, Willis opens up our scope beyond the word development to ask what other work is related but may not carry the Eurocentric title of development? In the following paragraphs, we will explore development in relation to social and environmental justice as well as moral ideas on inclusion and identity.

Development as Social and Environmental Justice. Author Cynthia D. Moe-Lobeda lays the foundation for pursuing social and environmental justice through examining scripture and how it applies to these issues. Specifically, Moe-Lobeda looks at the Christian directive to love your neighbor and breaks it down into several attributes. The most notable attribute is that human love holds "transformative power" (Moe-Lobeda 170). Moe-Lobeda states that love entails justice which means it "aims at correcting any oppressive and alienating trends within the

community". Also, it "is dedicated to the reordering of society, to the changing of institutions, systems, and patterns of behavior which deny people their basic human rights" (Richard McBrien via Moe-Lobeda 180). From this foundation, Christians and non-Christians alike begin their pursuit of social and environmental justice.

The digital divide is an issue that oppresses and alienates populations of the world which prevents them from fully participating in the global society. Digital inclusion policies look at how to close this gap by including everyone in the opportunities and benefits afforded by technology. Pursuing social and environmental justice includes advocating for digital inclusion because, as digital capital scholar Massimo Ragnedda puts it:

> As we have seen, those who do not access the Internet (first level of digital divide), or do not use it 'effectively' (second level of digital divide), or are not able to transform the online experience into something concrete and tangible (third level of digital divide), lose noteworthy opportunities in the economic, political, cultural, personal, and social spheres. (2373)

Therefore, if social and environmental justice advocates to remove oppressive systems and allow everyone to fully participate in the global society, then fighting for digital inclusion is part of that mission. In addition, closing the digital divide and pursuing digital inclusion can be seen as an act of love. In her foundation of love entails justice, Moe-Lobeda defined love as transformative (170). Scholars such as Neil Selwyn have noted the societal acceptance of ICT as a transformative power, observing: "the transformative nature of ICT has been welcomed also as offering an unprecedented opportunity to overcome existing social divisions and inequalities" (342). This transformative power is something community development practitioners should seek to implement in their communities.

Development as Inclusion. Volf believes that exclusion is not about differences, boundaries or judgements. Instead, these are all pieces that everyone participates in to build and understand their identity. For Volf, "Exclusion takes place when the violence of expulsion, assimilation, or

subjugation and the indifference of abandonment replace the dynamics of taking in and keeping out as well as the mutuality of giving and receiving" (67). Volf believes that we need to celebrate and embrace our differences, and doing so is not exclusion. People are interdependent on one another, which is only possible through our differences. When these differences are labeled as 'wrong', and people deny their necessity and turn it instead into an enemy, one that must be fought in an us versus them battle, that, according to Volf, is when exclusion starts. Exclusion breaks both the ties that bind us all together and the borders that differentiate us, launching us into chaos, disorder and war. With this mindset, Volf similarly defines inclusion as embrace. It is not the creation of a uniform and same-minded group, but the embrace and acceptance of differences into the group.

At the center of each of these, exclusion and inclusion, Volf places identity. Exclusion and inclusion revolve around how one identifies with others, and the actions pursued in conjunction with this identity. If these ideas are then applied to digital exclusion and digital inclusion, then a different viewpoint of the concepts is opened, one that speaks more openly and directly to community development practitioners. Digital exclusion through Volf's eyes would be the separation of technology based on identity. Whether by saying technology is only for this group or by defining groups by their technology use. For Volf, digital inclusion recognizes the differences between groups, and seeks to help technology embrace those differences. For Volf, the digital divide is not a gap in technology "haves" and "have nots" or technology "cans" and "cannot", but an issue with the identity of technology as being only for certain groups. The role community development practitioners must play is not one of forcing technology onto people, but of breaking down these exclusive barriers so that people can identify with and embrace technology, even though these results may look different from today's applications of technology. Unless practitioners enable communities to embrace technology, communities will miss out on the opportunities and benefits listed previously.

Development is People. There is something all these development theories and practices have in common. Myers believes development is about transforming people's lives. Banerjee and Duflo's viewpoints align with Myers, as they argue that the people receiving the transformation best know what they need. Sen's perspective follows theirs; he argues development is about increasing people's capabilities. Friedmann sees these capabilities as power people have over specific domains. Willis challenges us to expand our thinking of development to see it from other people's point of view. In doing so, we see at the heart of social and environmental justice is loving people, as demonstrated by Moe-Lobeda. Volf approaches development as ideas around the identity and inclusion of people. Environmental activist Clawson argues that people need community to make environmental change. No matter which theory you follow, no matter what domain of development you pursue, all of these have one thing in common: people. And, as we have demonstrated thus far, people are being impacted by the digital age in several ways. From social structures such as leadership and education, to the environment and culture they reside in, people everywhere are feeling the effects of the digital age. And since people are at the heart of every developmental strategy and theory, every community development practitioner, regardless of focus, geographical area, or social standing, needs to be aware of the effects of the digital age in their community.

However, as a community development practitioner, you can know all these frameworks and read every journal article related to the digital age, but if you do not understand the people, nothing you do will be successful. During my fieldwork, I learned this lesson the hard way. I spent months preparing for my research by combing through every journal article I could find. These articles informed my research. I drew every question directly from what I learned in these articles. But, as I started my interviews, they fell flat. I watched participants come in the room ready to talk but became stifled by my carefully constructed questions. Thinking on my feet, I put aside my preparations and focused on the person in front of me. Instead of asking them about technology, I first asked for their dreams. Since most of my participants were college

students, many had big dreams and were excited for their future. Sitting in a rocking minivan, I interviewed one student named Ruben. His eyes lit up as he shared more and more about himself. He studied agriculture, but for him this was just a means to an end. Ruben dreams of opening an orphanage. But, he talked excitedly about how technology can help with precision agriculture which would increase his revenues. At another point, a student named Edouard sat telling me about the issues of alcohol and drug abuse in his country. I didn't even know this issue was present, but he himself had battled against it. As he sat and told me his dream of helping his fellow countrymen overcome this problem, I asked how technology affected his dream. He saw how technology could help him: “it will give me more knowledge and it will also give me the opportunity to get in touch with people who want to help with my project” (Edouard).

All the students I asked saw how technology could positively impact their dreams. But, Edouard summarized their mindset best with his words: “I will not wait” (Edouard). They will not wait until they have the money, they will not wait for technology to catch up with them, they will not wait to follow their dreams. And why should they? As community development practitioners, it is our responsibility to help them be the change in their community. The participants in my study recognized how technology could positively impact their dreams and their lives through providing opportunities for connection, education, business, innovation, and more. But, these impacts can only happen if everyone is included in the digital age.

Community Practitioners Working in the Digital Age

The digital age is not only impacting communities, but also how community development work is conducted. The adoption of ICT opens new avenues for community development work, as practitioners use apps, websites, and messaging services to communicate information with participants and build long-distance relationships. The digital age is impacting many aspects of community development organizations, including program evaluation, project management, fund development, leadership, and support from communities of practice.

Project Management. According to the *Project Management Body of Knowledge (PMBOK) Guide*, “Monitoring is collecting project performance data, producing performance measures, and reporting and disseminating performance information” (613). A project manager must keep tabs on the project to make sure it is progressing as expected. The project manager does this by keeping track of the results of the project in relation to the timeline and goals. This is important because “Continuous monitoring provides the project team and other stakeholders with insight into the status of the project and identifies any areas that require additional attention” (PMBOK 613). Monitoring a project is essential to overall success and the digital age makes monitoring the progress and success of projects easier in many ways. In the introduction, Joseph discussed how using the internet opened doors for him with FPM. Joseph used the internet to communicate with FPM’s executive director and other administrators on the progress of projects. Now, Joseph uses that same technology to network with project leads in each village to know how progress on various FPM initiatives are going. Because of the freedom technology provides, FPM can implement projects across geographical areas while maintaining the insight necessary for project management.

Project Evaluation. Project evaluation happens after a project is complete. Its purpose is to measure the overall impact of the project on the defined stakeholders. The impact can be measured both qualitatively and quantitatively through surveys, interviews and other means. The impacts reported from the evaluation “provides actionable data to inform program design” (Gugerty *et al.* 13). Evaluation ensures projects are successful and continues to make them successful. Technology and the digital age can help with program evaluation in the same way it helps with project management, connecting people. The organization GiveDirectly uses cell phones to keep in touch with their participants (Gugerty *et al.*). This allows the organization to conduct evaluations midway through and after their program. Technology has opened the door for more long-term evaluation, as technology helps organizations stay in touch with participants for longer. In this way, program evaluation is impacted by the digital age.

Fund Development. In his book, *A Spirituality of Fundraising*, Henri J. Nouwen talks about using fundraising as a way to bring people into serving God. He explains fundraising as the common ground between people who are all looking to serve God (22). In this way, the relationship with God, the same one that the fundraiser, the organization, and the donor all have, becomes the start of the relationship between the organization and the donor. Simone P. Joyaux has a similar viewpoint in her book *Strategic Fund Development*, where she puts a strong emphasis on relationships deeming "strong relationships build strong organizations. And strong organizations build strong communities." (223). The digital age is setting new precedents for relationship building in fund development, as applications, such as social media, allow for organizations to stay better connected with their supporters. In addition, more and more grant opportunities are moving online and requiring electronic applications. In order to stay funded, community development practitioners and their organizations need to recognize and adapt to the impacts of the digital age on their funding sources.

Leadership. Finally, community development practitioners are leaders in their communities and the digital age is impacting this area. However, technology is changing what leadership looks like. President Trump is one example of this change through his notorious use of twitter. Many news outlets, including NBC and the Washington Post, have observed that his tweets have global impacts (Todd, Murray, and Dann). From commentary on the nuclear situation in North Korea to relationships between religious groups in the United Kingdom, President Trump's words are impacting other countries. However, President Trump has not taken any action, just wrote a few tweets. These words caused backlash from these countries, sometimes words, sometimes actions. The implications of a leader's words are taken even farther because they are in the public eye. The internet is called the world wide web for a reason, everyone pays attention to what a leader says and does. Not just online, but in person, as video and other mediums can spread quickly online. A study from the University of Nottingham found that President Trump's tweets affected stock prices (Rayarel). Truly everyone is listening to a

leader's digital activity, and, if not currently, they may be soon. In the digital world, your words can have far-reaching impacts, and leaders need to choose their words carefully. When applied to community development, practitioners need to keep this in mind. This includes industry-specific examples such as the white savior complex and poverty porn (Kuja). Ryan Kuja explains in his article what the results of the spread of a harmful mindset look like. However, in the digital world, I am most concerned about the sixth consequence:

> It perpetuates poverty porn, the ubiquitous images of the poor seen in many fundraising campaigns, which objectify human beings for the sake of eliciting an emotional response to garner a donation. It labels them as powerless victims who can't help themselves, implicitly naming God's image-bearers as inept, incapable objects who are passively awaiting rescue. (Kuja)

Leaders, in the field of community development and beyond, have a responsibility to be aware of what they are doing and saying both online and offline. The first step to this is understanding the impact of the digital age on the communities they serve as well as on their profession. Petra Kuenkel, the author of *The Art of Leading Collectively*, emphasizes that trust is the foundation for leadership. Digital activities can make or break trust, so it is important that practitioners work not just to preserve the trust they have built but expand it through their digital activities.

Support through Communities of Practice. Finally, the digital age can also provide support systems for community development practitioners. In her book, *Everyday Justice*, Julie Clawson targets social and environmental advocates who are looking to integrate their advocacy efforts into their daily lives through making more sustainable and moral choices. Clawson encourages readers that "having the support of a community helps all of us better commit to seeking justice" (188). ICT can help connect these advocates to build these communities through applications such as social media. Building online support communities will help advocates better commit to seeking justice. But, ICT can also help advocates in other ways. Pellow reviewed the actions of

environmental justice movements across countries and found an important recommendation for U.S. organizations:

> The U.S. environmental justice movement could learn valuable lessons by paying more attention to the movement in the global South. Specifically, groups in the global South are very clear that they must reach out and network with allies of different ethnicities, races, and nationalities around the world. (234).

ICT can also help these groups become more aware of one another and better network through applications such as social media, as well as through news alerts and other information-gathering applications. These benefits can extend beyond social and environmental justice advocates to practitioners in other areas of development. However, these ICT contributions cannot happen if the digital divide persists. Practitioners need to be able to adopt and use ICT to take full advantage of these benefits. Therefore, digital inclusion is paramount to the work of community development practitioners.

Due to the effects the digital age has on the communities served and the operations of the organizations themselves, it is imperative that community development practitioners address the digital divide in their communities. At the beginning of this thesis, Joseph shared how ICT has empowered him to better serve his region of the DRC. Addressing the digital divide goes beyond transforming the lives of the individuals that community development practitioners serve, to transforming and improving the very practice of community development.

What is Needed

ICT has a wide range of impacts on people all around the world which Community Development practitioners are starting to realize. Practitioners are getting involved in addressing barriers to ICT and implementing ICT into community development programming. Wresch best summarizes the hope associated with ICT in his 2009 article “Progress on the global digital divide: an ethical perspective based on Amartya Sen’s capabilities model”:

> The important place of technology in national development has been a consistent position taken by the United Nations Development Programme which…predicted a number of improvements for developing countries of the world including the hope distance learning would bring information to poor hospitals, NGOs would have an increased ability to supply information to needy clients, small businesses would find new markets for their products and services, countries could build businesses around telecommunications jobs, and government censorship would become more difficult. (255-256)

My fieldwork and other experiences reflect Wresch's hopes in the members of the general community, as they, too, recognize the varying impacts that technology has on their lives. To help communities benefit fully from the impacts of ICT, through transitioning to a digital mindset and ensuring the meaningful use of digital applications, community development practitioners need to understand the role that the digital age is playing in communities. This way, programs that address barriers to ICT access and integrate ICT into existing and future programs can be developed and implemented in communities around the world. Therefore, to empower this change, I have developed an online training for community development practitioners. This training consists of five modules that educate practitioners on the digital divide levels mentioned above. However, the value of this training goes beyond educating to contextualizing the theoretical frameworks and takes into consideration additional influences that impact community development programming. These additional influences are unique to every community and include the community's culture, situational and environmental influences, and more. The following paragraphs will provide an overview of the educational components of the training and an explanation for the additional influences included in the training. The full outline of the training is available in the appendix and the full training can be viewed online at cgicdthesis.com. The first module sets the tone for the course, establishing a mindset that takes the digital age's influences into consideration. From there, the next three modules explore the

digital age's biggest influence, the digital divide. Finally, the fifth module works to apply the theories developed in the first four modules and helps the user see the theories within the context of their community. This course seeks to prepare community development practitioners to better address the digital age within their communities.

Module One: Introduction. In the first module, community development practitioners are introduced to the digital age and the digital divide. The first level sets the stage, challenging practitioners to think digitally. From there, the second, third and fourth modules each cover a different level of the digital divide. Finally, the fifth module takes a more practical approach, moving away from theory and considering other factors community development practitioners need to consider, such as, culture, environmental influences, and the safety of their participants. However, the real value of this training is not in the straightforward education on theory, but the focus on the contextualized application of this theory.

Module Two-Four: Digital Divide Theory. The second, third and fourth modules explore each level of the digital divide. Module two focuses on the first level and issues related to accessing the digital world. The third module turns to the second level of the digital divide by exploring theories related to gaps in digital skills. Finally, the fourth module is about the differences in offline benefits people receive from online activities, which is the third level of the digital divide. Throughout these modules, practitioners are challenged to 'consider their community' through reflection questions. These seek to help contextualize the issues in a practitioner's individual communities. This idea is then continued into the fifth module, where practitioners learn about additional influences on these issues and explore considerations for integrating solutions into programs. In addition to the educational value, the ultimate contribution of this training is the focus on contextualizing programs to fit the individual needs of each community.

Module Five: Application

Culture. Culture is an important factor in any community development work, as culture is the "software of the mind" and impacts "the ordinary and menial things in life: greeting, eating,

showing or not showing feelings, keeping certain physical distance from others, making love, and maintaining body hygiene" (Hofstede *et al.* 5). Since culture is so ingrained into people's lives, it is not a far leap to assume that culture will have an impact on how individuals use ICT or, at the very least, community development programming. While current research fails to explore the relationship between ICT and culture thoroughly, this training introduces community development practitioners to Hofstede *et al.*'s framework for measuring culture as defined in their book, *Cultures and Organizations: Software of the Mind*. Despite gaps in literature, community development practitioners are creating contextualized programming everyday. Addressing the digital age in their communities will be no different.

Situational. As I biked through rural villages in the Democratic Republic of Congo (DRC), my group took our time dodging potholes, navigating the rocky descent of mountains, and stopping to help push vehicles out of the deep sand. Outside of major cities, paved roads are rare. Traveling is rough and takes a long time. For many organizations, it makes having information communication technology, such as cell phones, vital. Mary is a bookkeeper for a Bishop in the United Methodist Church. Being able to connect with pastors in remote villages is key for her work, as it allows for reports to be submitted on time without the cost of travelling to each village to collect their account records.

The situation in every community is different. In the DRC, ICT allows people to stay connected saving time and money to a greater extreme than many other areas of the world. Another example comes out of Illinois ("Together As Extension: Extension Adapts"). In McDonough county, residents are doing their best to stay home amid concerns about COVID-19. However, one Extension educator wanted to do her part to help her community. Beth Chatterton is a 4-H program coordinator and spends her time working with families and youth in her county. But, with the COVID-19 restrictions, Chatterton found herself unable to maintain her connections. She also recognized that many families were suddenly in her same situation: working from home, home schooling, and parenting full time. She wanted to do something that

would not only allow her to maintain her connections, but also bring some stress relief. Chatterton started doing Facebook live videos where she would read a story and connect it back to a 4-H activity. Chatterton was quickly surprised by the success of her project:

> It's something I think people can connect with. It's just kind of an easy thing to just grab a story and try and figure out an activity to go along with it. As we do social distancing, it's very easy to feel like you're stuck and in a bubble and not really connecting with people. I'm hoping that them [families] seeing my face and having questions asked to them, they feel like there's that connection still, that we're still here. ("Together As Extension: Extension Adapts")

Chatterton's story is another example of how a situation can influence community development programming. While neither of these examples are about problems resulting from the digital divide, they both use ICT to overcome problems in their communities. Community Development practitioners must take into account the situations in their own communities and understand how technology influences, whether positively or negatively, that situation.

Safety. As Roberto Gallardo points out in his book, *Responsive Countryside*, not everything about the digital age is good. Gallardo provides a whole chapter on some of the biggest threats and security risks communities need to be aware of before pursuing digital inclusion efforts. This same line of thought has led organizations to include safety education in their digital inclusion programming. One example of this is Purdue Extension's Digital Ready Businesses program ("Digital Ready Businesses"). The program teaches small businesses basic digital skills on topics such as social media and email marketing. However, a prerequisite to participating in the program is an online internet safety course. In this way, Purdue Extension makes sure they are conducting responsible digital inclusion programming. This section of the training encourages other community development practitioners to take this same responsibility and recognize what digital threats and other safety concerns exist in their community. They are encouraged to take

that extra step and prepare participants and their communities with the tools to avoid or handle these concerns.

Other Ethical Considerations. In addition to concerns about safety, the fifth module of the training encourages community development practitioners to recognize a few additional considerations, including environmental, emotional, and ethical. Even though environmental issues may not be the sole focus of a community development organization, participating in digital inclusion initiatives requires organizations to be mindful of their economic impact. The production of ICT devices has negative social and environmental impacts on many countries. Pellow best summarizes:

> Studies reveal that the electronics infrastructure that makes possible much of these 'liberating' global cultural changes comes at the expense of devastated ecosystems from which the raw materials are extracted and harms the health of workers who manufacture and recycle such products at every stage of the commodity chain. (40)

While this blatant destruction is contradictory to community development, it uniquely positions practitioners to bring to light another dimension of digital inclusion policy.

In addition, the training expands on the previous safety point by encouraging practitioners to be aware of their community's emotional well-being. Being online can have positive and negative effects on an individual's emotional health. Practitioners must take this into consideration. In addition, there are many other ethical dilemmas present online because opportunities for wrong doings and mistakes are just as present in the digital world as in the real world. Practitioners should be self aware of their own online activities and encourage the same in their community. In this way, a better digital world can be created, and community development practitioners can pursue digital inclusion initiatives more responsibly.

Contextualization. Throughout the training, there are reflection points where participants must implement the content and "consider their community". The training seeks to emphasize that impacts of the digital age look different for each community which means there is no single

solution. Ernest T. Stringer points out the issue with such a mindset in his book *Action Research*: “The problem with generalized recipe-like solutions is that they fail to take account of the underlying issues that have made the experience problematic for participants in the first place” (167). For this reason, many community development practitioners implement action research, appreciative inquiry or other qualitative research into their organization. Action research allows for participants to not only be a part of identifying issues and priorities, but also in constructing “a series of steps or tasks that will enable them to achieve a resolution of the issue(s) investigated” (Stringer 169). Stringer believes that “researchers need to develop the facility to do things with people and not for them” (178). Sue Annis Hammond agrees with much of this in her book *Appreciative Inquiry.* She lays the foundation for guiding a group through the process of discovering what works for them and using that as a springboard for their change. For Hammond, she has groups focus on what works, and has them figure out how they can do more of that. Her reasoning is based in psychology and focuses on building confidence: “because the statements are grounded in real experience and history, people know how to repeat their success...because we have derived the future from reality, we know it can happen.” (Hammond 6, 37). No matter how a community development practitioner approaches an issue, the right solution starts with good questions. This training helps practitioners consider such questions and begin exploring the topic of the digital age in their community.

Why this is Needed. Sitting in the Bishop’s office, I listened to two staff members tell me horror stories of the digital divide in their region which were made worse by the assumptions of their western counterparts. Every so many years, the United Methodist Church holds a meeting for delegates representing districts across the world. This meeting has many objectives but is mainly concerned with sharing resources. However, many delegates, such as the Congolese, have to travel very far to attend. The meeting organizers noted that many delegates were leaving the resource books they received in their hotel rooms because they did not have room available in their luggage. So, the organizers started providing tablets to the delegates with the

resources already downloaded. The organizers hoped to not only provide the written resources this way, but to provide delegates with tablets their congregations could use for voting and other business at their annual meetings. In reality, this idea didn't go as planned. Mary, the bookkeeper for the Bishop, explained that many people had no idea how to use the tablets and there was little time to train them. Soon, many tablets were sold off, taken for personal use, or disappeared altogether.

This story is just one of many where people with the best intentions fail to help based on inaccurate assumptions on access or skills. To avoid this mistake and better help these communities, community development practitioners need to understand the digital age in relation to the communities they seek to serve. My training fulfills this purpose, providing the foundation for practitioners to see their community from a new viewpoint.

Conclusion

I stood on the dirt road, picturesque mountains in the background, saying goodbye to Ruth and Lawrence. It was the morning of my third day on the African continent and these two had been my guide through it all. Lawrence was at our guest house door every morning to take my team to his house to enjoy the breakfast Ruth made with such love and care. In three short days, they had seen me at my best and my worst. But, despite it all, they still looked at me with all the admiration and love of a parent. In our tearful goodbyes, they told me how promising my future was: "You will bring the internet to Africa" Lawrence laughed. At the time, I laughed it off but his words haunted me. His words drove me to find the answers I've outlined in this thesis. They drove me to inspire others. They drove me to share these struggles with others. All this, so that we may overcome these struggles and connect all people, not just Africans, to the digital world.

Community Development is impacted by the digital age. Digital divide issues, including digital exclusion, are closely tied to current community development frameworks which impact communities across the world. It is imperative that community development practitioners understand the impacts of the digital age in their individual communities. To empower

practitioners, this thesis contributes a training that educates community development practitioners on the digital age, the digital divide’s impact on communities, the practitioner's responsibility to contextualize solutions, and the related ethical considerations. This training seeks to unlock the potential of community development practitioners to open their communities to the benefits of the digital age and seek a more inclusive digital society.

Works Cited

A Guide to the Project Management Body of Knowledge: (PMBOK® Guide). Project Management Institute, 2017. (129-230, 595-611)

Beaulieu, Lionel J. "Promoting Community Vitality and Sustainability: The Community Capitals Framework". Purdue University, Oct 2014.

Claudia. *Personal Interview.* 22 June 2019.

Clawson, Julie. *Everyday Justice*. InterVarsity Press, 2009.

Daniel. *Personal Interview.* 20 June 2019.

"Digital Ready Businesses". Purdue Extension Community Development, web. https://www.cdext.purdue.edu/signature-programs/economic-business-development/digital-ready/

Dutton, William, and Grant Blank. "Cultures of the Internet: Five Clusters of Attitudes and Beliefs among Users in Britain". Oxford Internet Institute, University of Oxford.

Edouard. *Personal Interview.* 23 June 2019.

Elisee. *Personal Interview.* 23 June 2019.

Eshet, Yoram. "Thinking in the Digital Era: A Revised Model for Digital Literacy". *Issues in Informing Science and Information Technology*, vol. 9, 2012, pp. 268-276.

Friedman, Thomas L. *Thank You for Being Late*. Picador, 2017.

Gallardo, Roberto. *Responsive Countryside: The Digital Age and Rural Communities*. Mississippi State University Extension, 2016.

Gonzales, A. L., Ems, L., & Suri, R. "Cell phone disconnection disrupts access to healthcare and health resources: A technology maintenance perspective". *New Media & Society, 18*, 2016, pp. 1422-1438.

Groody, Daniel G. *Globalization, Spirituality, and Justice: Navigating the Path to Peace.* Third Printing, Orbis Books, September 2017.

Gugerty, Mary Kay, Dean Karlan, Delia Welsh, and Tetyana Zelenska."Goldilocks Case Study: Give Directly." *Goldilocks Toolkit*, Innovations for Poverty Action, 2 Jan. 2016, web. http://www.poverty-action.org/publication/goldilocks-case-study-givedirectly.

Hammond, Annis Sue. *The Thin Book of Appreciative Inquiry*. 3rd ed., Thin Book Publishing Co, 2013.

Hampton, K. N., Fernandez, L., Robertson, C. T., & Bauer, J. M. “Broadband and Student Performance Gaps”. James H. and Mary B. Quello Center, Michigan State University, web. accessed https://quello.msu.edu/broadbandgap/

Hargittai, Eszter. “Second-Level Digital Divide: Differences in People’s Online Skills”. First Monday, vol. 7, no. 4, 1 April 2002, web. accessed: https://www.firstmonday.org/ojs/index.php/fm/article/view/942/864

Huang, Jie, and Susan Russell. “The digital divide and academic achievement.” *The Electronic Library*, Vol. 24 Issue: 2, Emerald Insight, 2006, pp.160-173.

Hofstede, Geert, Gert Jan Hofstede, and Michael Minkov. *Cultures and Organizations: Software of the Mind*. 3rd ed., McGraw-Hill, 2010.

Jaeger, Paul T., John Carlo Bertot, Kim M. Thompson, Sarah M. Katz, and Elizabeth J. DeCoster. “The Intersection of Public Policy and Public Access: Digital Divides, Digital Literacy, Digital Inclusion, and Public Libraries”. *Public Library Quarterly,* vol. 31, 2012, pp. 1-20.

Jenkins, Philip. *The Next Christendom: The Coming of Global Christianity*. ch. 7.

Joseph. *Personal Interview*. 18 June 2019

Joyaux, Simone P. *Strategic Fund Development*. 3rd ed., John Wiley & Sons, 2011.

Kuenkel, Petra. *The Art of Leading Collectively*. Chelsea Green Publishing, 2016.

Kuja, Ryan. “6 HARMFUL CONSEQUENCES OF THE WHITE SAVIOR COMPLEX.” Sojourners, 24 July 2019, web. https://sojo.net/articles/6-harmful-consequences-white-savior-complex?fbclid=IwAR36mzsd_H6tyFqU43hcelOSABMcii1h2QhfcfcrD2sAju3elTBdqbDAor8. Accessed 3 Aug 2019.

Lederach, John Paul. *Conflict Transformation*. Skyhorse Publishing, Inc., 2003.

Livingstone, Sonia, and Ellen Helsper. “Gradations in digital inclusion: children, young people and the digital divide”. *New Media & Society*, vol. 9, no. 4, 2007, pp. 671-696.

Mary. *Personal Interview*. 12 June 2019.

McNeil, Brenda Salter. *Roadmap to Reconciliation*. IVP Books, 2015.

McQuivey, James. *Digital Disruption*. Amazon Publishing, 2013.

Min, Seong-Jae. “From the Digital Divide to the Democratic Divide: Internet Skills, Political Interest, and the Second-Level Digital Divide in Political Internet Use”. *Journal of Information Technology & Politics,* 7:1, pp 22-35, 2010.

Moe-Lobeda, Cynthia D. *Resisting Structural Evil*. Fortress Press, 2013.

Mutsvairo, Bruce, and Massimo Ragnedda. “Does Digital Exclusion Undermine Social Media’s Democratizing Capacity?” *New Global Studies*, 2019,pp. 1-8.

Myers, Bryant L. *Engaging Globalization: The Poor, Christian Mission, and Our Hyperconnected World*. Baker Academic, 2017.

Myers, Bryant L. *Walking with the Poor Principles and Practices of Transformational Development*. Revised ed., Orbis Books, 2011.

Nemer, David. “From Digital Divide to Digital Inclusion and Beyond: A Positional Review”. *The Journal of Community Informatics*, vol. 11, no. 1, 2015.

Nouwen, Henri J. *A Spirituality of Fundraising*. Upper Room Books, 2010.

Obed. *Personal Interview*. 16 June 2019.

Palmer, Parker J. *Let Your Life Speak*. Jossey-Bass, 2000, pp.73-95.

Park, Sora. “Dimensions of Digital Media Literacy and the Relationship with Social Exclusion”. *Media International Australia*, 142, pp 87-100, 2012.

Parsons, Cheryl, and Steven Hick. “Moving From Digital Divide to Digital Inclusion”. *Currents: New Scholarship in the Human Services*, vol. 7, no. 2, 2008, pp. 1-8.

Pearce, K. E., & Rice, R. E. “Digital Divides From Access to Activities: Comparing Mobile and Personal Computer Internet Users”. *Journal of Communication,* vol. 63, no. 4, 2013, 721-744.

Pellow, David Naguib. *Resisting Global Toxics*. The MIT Press, 2007.

Pouchter, Jacob, Caldwell Bishop, and Hanyu Chwe. “Social Media Use Continues to Rise in Developing Countries but Plateaus Across Developed Ones.” *Pew Research Center*, 19 June 2018, web. http://www.pewglobal.org/2018/06/19/social-media-use-continues-to-rise-in-developing-countries-but-plateaus-across-developed-ones/

Rayarel, Krishan. “The Impact of Donald Trump’s Tweets on FInancial Markets.” The University of Nottingham, 2018. https://www.nottingham.ac.uk/economics/documents/research-first/krishan-rayarel.pdf Accessed 3 Aug 2019.

Ragnedda, Massimo. “Conceptualizing Digital Capital”. *Telematics and Informatics*, vol 35, 2018, pp. 2366-2375.

Ragnedda, Massimo, Maria Laura Ruiu, and Felice Addeo. “Measuring Digital Capital: An Empirical Investigation”. *New Media & Society*, 2019, pp. 1-24.

Ruben. *Personal Interview.* 21 June 2019.

Scheerder, Anique, and Alexander van Deursen, Jan van Dijk. “Determinants of Internet skills, uses and outcomes. A systematic review of the second- and third-level digital divide”. *Telematics and Informatics*, no. 34, 2017, pp 1608-1624.

Selwyn, Neil. “Reconsidering political and popular understandings of the digital divide”. *New Media & Society*, vol. 6, no. 3, 2004, pp. 341-362.

Silver, Lauren. “Smartphone Ownership is Growing Rapidly Around the World, But Not Always Equally.” *Pew Research Center*, 5 February 2019, web. https://www.pewresearch.org/global/2019/02/05/digital-connectivity-growing-rapidly-in-emerging-economies/

Stellefson, Michael, Beth Chaney, Don Chaney “The Digital Divide in Health Education: Myth or Reality?” *American Journal of Health Education*, vol. 39, no. 2, 2008, pp. 106–112.

Stern, Michael J., and Alison E. Adams. “Do Rural Residents Really Use the Internet to build Social Capital? An Empirical Investigation”. *American Behavioral Scientist*, vol. 53, no. 9, 210, pp 1389-1422.

Stringer, Ernest T. *Action Research*. ed. 4, Sage publishing Ltd., 2014.

Todd, Chuck, Mary Murray, and Carrie Dann. “Trump’s Tweets have consequences--at home and abroad.” *NBC news*, 30 Nov 2017, web. https://www.nbcnews.com/politics/first-read/trump-s-tweets-have-consequences-home-abroad-n825191. Accessed 3 Aug 2019.

“Together As Extension: Extension Adapts”. Extension Disaster Education Network, 8 April 2020, web. https://extensiondisaster.net/together-as-extension-extension-adapts/

Van Deursen, Alexander J.A.M., and Jan A.G.M. van Dijk. “Using the Internet: Skill related problems in users’ online behavior”. *Interacting with Computers*, vol. 21, 2009, pp. 393-402.

Volf, Miroslav. *Exclusion & Embrace*. Abingdon Press, 1996.

Wei, kwok-kee, Hock-Hai Teo, Hock Chuan Chan, Bernard C. Y. Tan. “Conceptualizing and Testing a Social Cognitive Model of the Digital Divide”. *Information Systems Research*, vol. 22, no. 1, 2011.

Whitacre, Brian E., and Jacob L. Manlove. “Broadband and civic engagement in rural areas: What matters?”. *Community Development*, 47:5, pp 700-717, 2016.

Willis, Katie. *Theories and Practices of Development*. 2nd ed., Routledge, 2011.

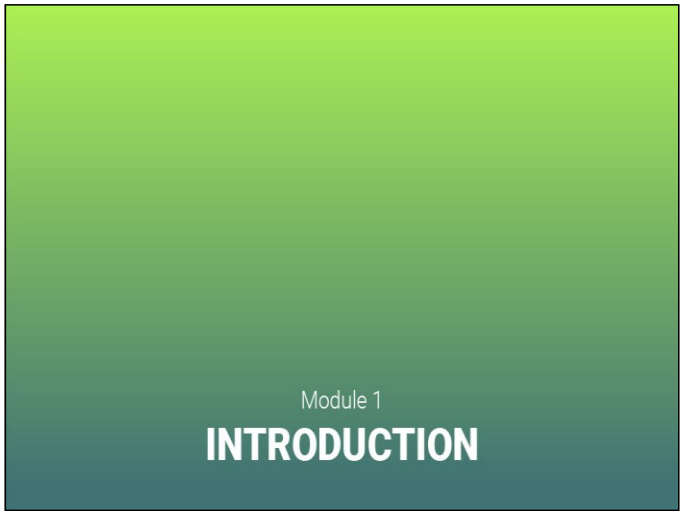
Wresch, William. “Progress on the Global Digital Divide: An Ethical Perspective Based on Amartya Sen's Capabilities Model.” *Ethics and Information Technology*, vol. 11, no. 4, 2009, pp. 255–263.

Appendix

An online training was created to compliment this thesis and can be accessed online at cgicdthesis.com. This training seeks to educate community development practitioners on the impacts of the digital age in their communities. In addition, the training goes beyond educating and seeks to contextualize the theoretical frameworks within each community. The following sections outline the slides for each module and showcase the major text and contextualization questions, labeled “Consider Your Community”. Additional interactions and learning opportunities are available in the full thesis which can be accessed at cgicdthesis.com.

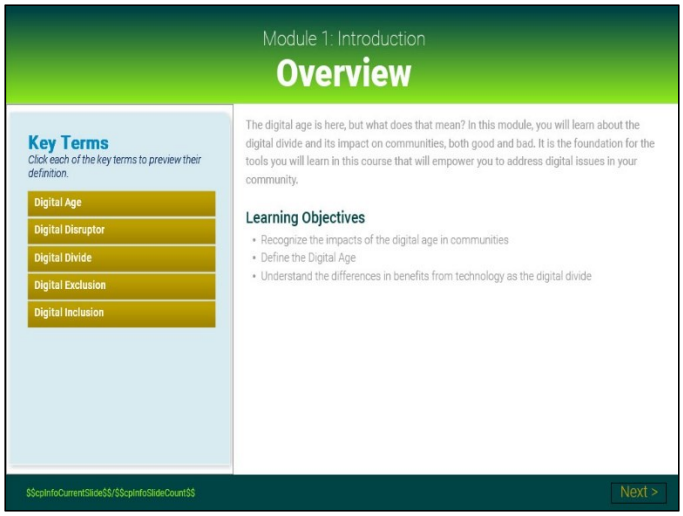
Module One: Introduction

Slide One: Title slide



Slide Two: Overview

The digital age is here, but what does that mean? In this module, you will learn about the digital divide and its impact on communities, both good and bad. It is the foundation for the tools you will learn in this course that will empower you to address digital issues in your community.

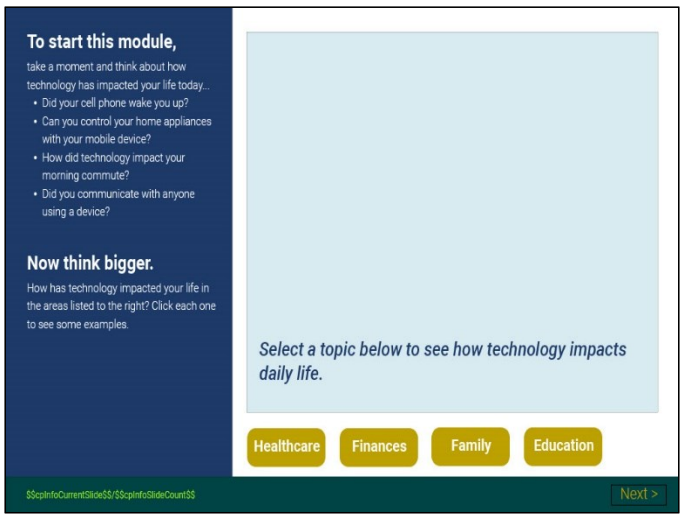


Slide Three

To start this module, take a moment and think about how technology has impacted your life today…

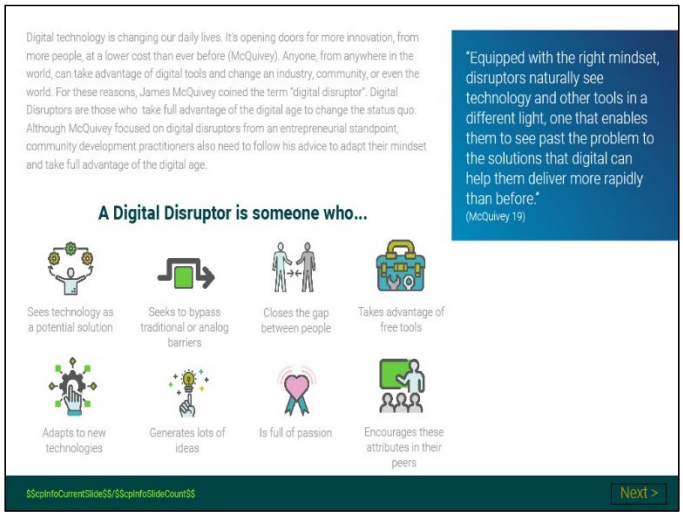
- Did your cell phone wake you up?
- Can you control your home appliances with your mobile device?
- How did technology impact your morning commute?
- Did you communicate with anyone using a device?

Now think bigger. How has technology impacted your life in the areas listed to the right? Click each one to see examples.



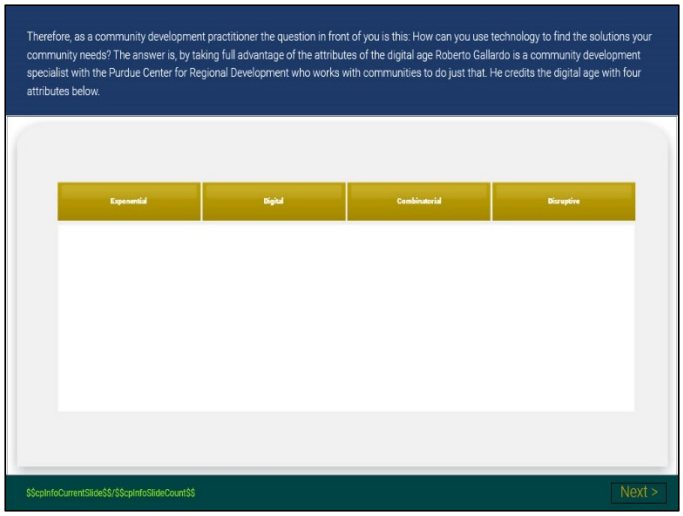
Slide Four

Digital technology is changing our daily lives. It's opening doors for more innovation, from more people, at a lower cost than ever before (McQuivey). Anyone, from anywhere in the world, can take advantage of digital tools and change an industry, community, or even the world. For these reasons, James McQuivey coined the term "digital disruptor". Digital Disruptors are those who take full advantage of the digital age to change the status quo. Although McQuivey focused on digital disruptors from an entrepreneurial standpoint, community development practitioners also need to follow his advice to adapt their mindset and take full advantage of the digital age.



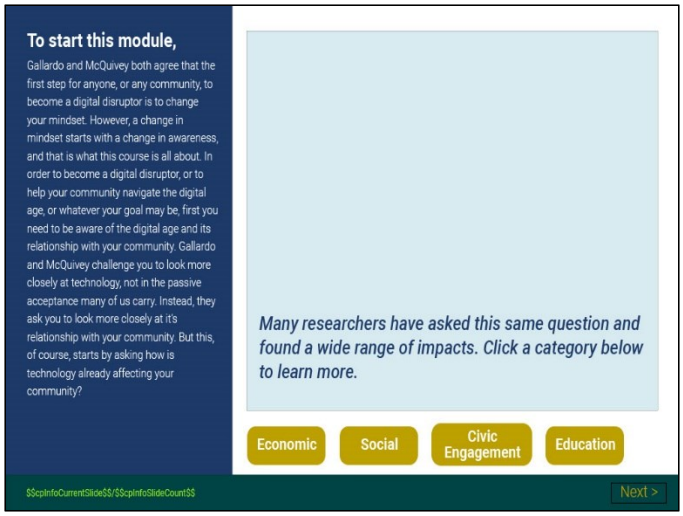
Slide Five

Therefore, as a community development practitioner the question in front of you is this: How can you use technology to find the solutions your community needs? The answer is, by taking full advantage of the attributes of the digital age. Roberto Gallardo is a community development specialist with the Purdue Center for Regional Development who works with communities to do just that. He credits the digital age with four attributes below.



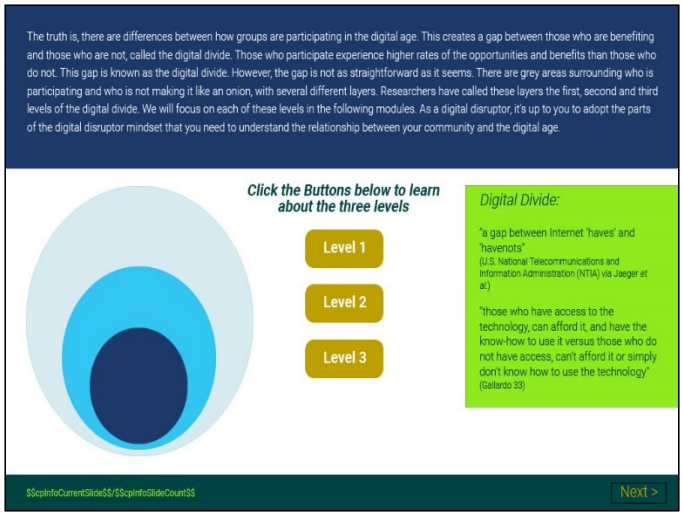
Slide Six

To start this module, Gallardo and McQuivey both agree that the first step for anyone, or any community, to become a digital disruptor is to change your mindset. However, a change in mindset starts with a change in awareness, and that is what this course is all about. In order to become a digital disruptor, or to help your community navigate the digital age, or whatever your goal may be, first you need to be aware of the digital age and its relationship with your community. Gallardo and McQuivey challenge you to look more closely at technology, not in the passive acceptance many of us carry. Instead, they ask you to look more closely at it's relationship with your community. But this, of course, starts by asking how is technology already affecting your community?



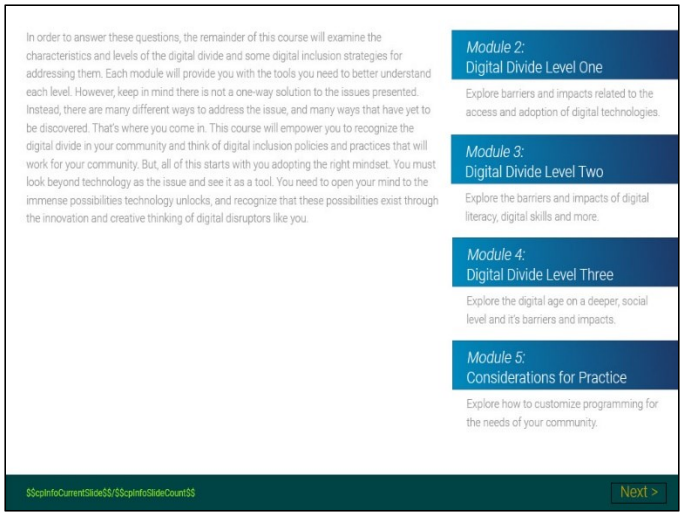
Slide Seven

The truth is, there are differences between how groups are participating in the digital age. This creates a gap between those who are benefiting and those who are not, called the digital divide. Those who participate experience higher rates of the opportunities and benefits than those who do not. This gap is known as the digital divide. However, the gap is not as straightforward as it seems. There are grey areas surrounding who is participating and who is not making it like an onion, with several different layers. Researchers have called these layers the first, second and third levels of the digital divide. We will focus on each of these levels in the following modules. As a digital disruptor, it's up to you to adopt the parts of the digital disruptor mindset that you need to understand the relationship between your community and the digital age.



Slide Eight

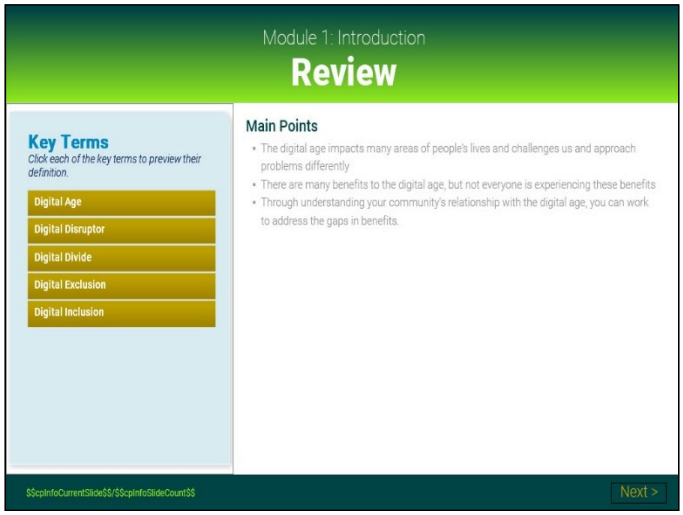
In order to answer these questions, the remainder of this course will examine the characteristics and levels of the digital divide and some digital inclusion strategies for addressing them. Each module will provide you with the tools you need to better understand each level. However, keep in mind there is not a one-way solution to the issues presented. Instead, there are many different ways to address the issue, and many ways that have yet to be discovered. That's where you come in. This course will empower you to recognize the digital divide in your community and think of digital inclusion policies and practices that will work for your community. But, all of this starts with you adopting the right mindset. You must look beyond technology as the issue and see it as a tool. You need to open your mind to the immense possibilities technology unlocks, and recognize that these possibilities exist through the innovation and creative thinking of digital disruptors like you.



Slide Nine: Review

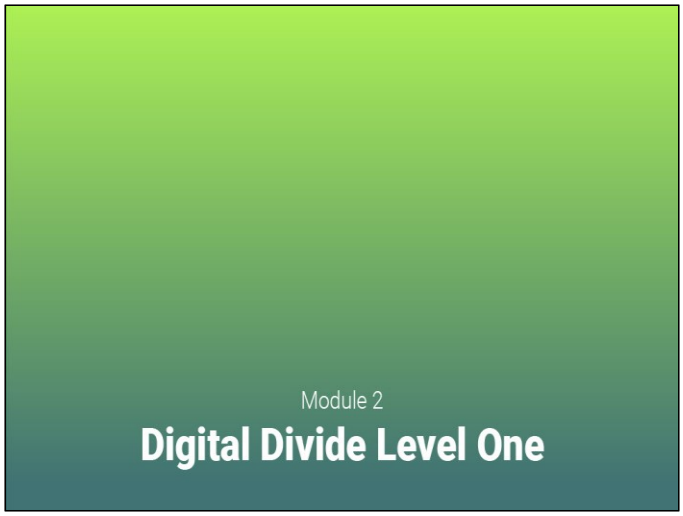
Main Points

- The digital age impacts many areas of people's lives and challenges us and approach problems differently
- There are many benefits to the digital age, but not everyone is experiencing these benefits
- Through understanding your community's relationship with the digital age, you can work to address the gaps in benefits.



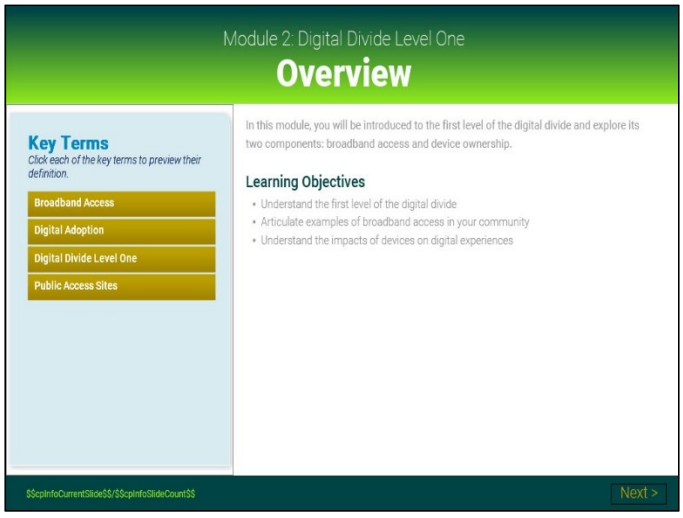
Module Two: Digital Divide Level One

Slide One: Title slide



Slide Two: Overview

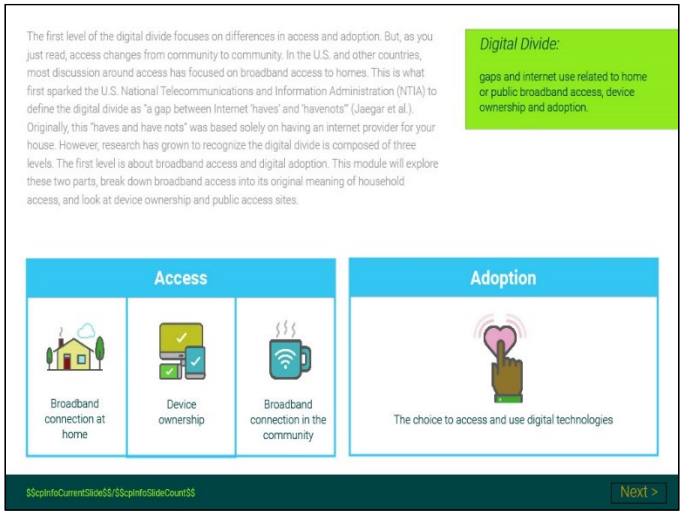
In this module, you will be introduced to the first level of the digital divide and explore its two components: broadband access and device ownership.



Slide Three

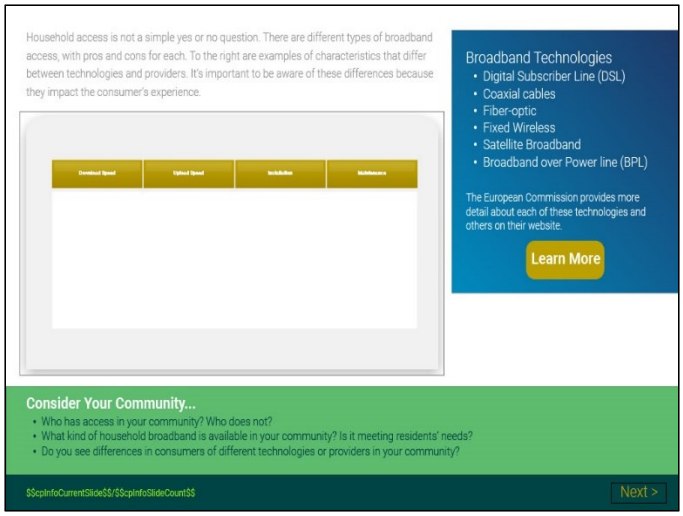
The first level of the digital divide focuses on differences in access and adoption. But, as you just read, access changes from community to community. In the U.S. and other countries, most discussion around access has focused on broadband access to homes. This is what first sparked the U.S. National Telecommunications and Information Administration (NTIA) to define the digital divide as “a gap between Internet ‘haves’ and ‘havenots’” (Jaegar et al.). Originally,

this “haves and have nots” was based solely on having an internet provider for your house. However, research has grown to recognize the digital divide is composed of three levels. The first level is about broadband access and digital adoption. This module will explore these two parts, break down broadband access into its original meaning of household access, and look at device ownership and public access sites.



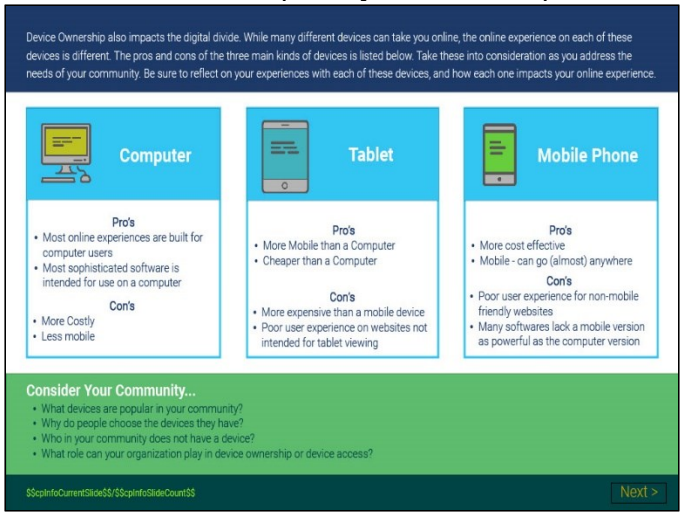
Slide Four

Household access is not a simple yes or no question. There are different types of broadband access, with pros and cons for each. To the right are examples of characteristics that differ between technologies and providers. It’s important to be aware of these differences because they impact the consumer’s experience.



Slide Five

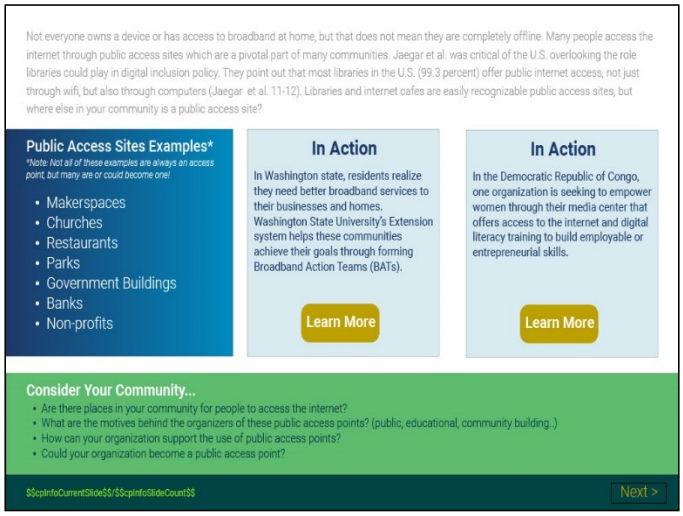
Device Ownership also impacts the digital divide. While many different devices can take you online, the online experience on each of these devices is different. The pros and cons of the three main kinds of devices is listed below. Take these into consideration as you address the needs of your community. Be sure to reflect on your experiences with each of these devices, and how each one impacts your online experience.



Slide Six

Not everyone owns a device or has access to broadband at home, but that does not mean they are completely offline. Many people access the internet through public access sites which are a pivotal part of many communities. Jaegar et al. was critical of the U.S. overlooking the role

libraries could play in digital inclusion policy. They point out that most libraries in the U.S. (99.3 percent) offer public internet access, not just through wifi, but also through computers (Jaegar et al. 11-12). Libraries and internet cafes are easily recognizable public access sites, but where else in your community is a public access site?



Slide Seven

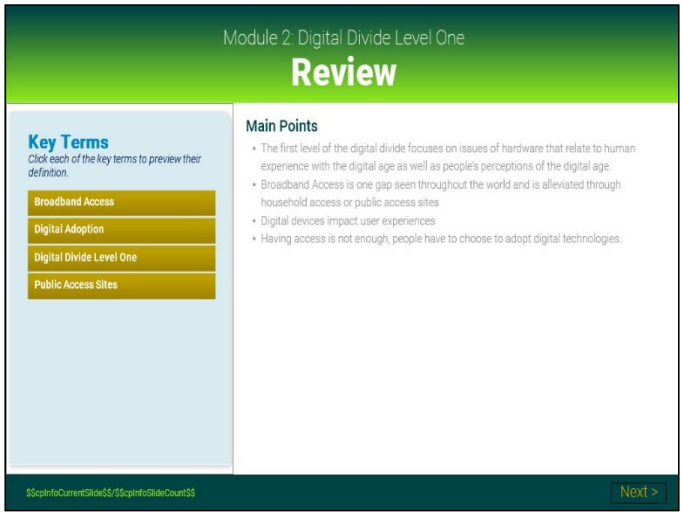
As you can see, there are many considerations when understanding the quality of access an individual has to the digital age. However, access, in its many forms, is only half of the first level. The second half has to do with adoption. Adoption is the choice to access and use digital technologies.

As we discussed, sometimes this choice is taken away through lack of access. But this is not the only barrier. There are people who have access, whether at home or through public sites, but choose not to use the technology. It will be important for you to understand who those people in your community are and what their motivations are.

Slide Eight: Review

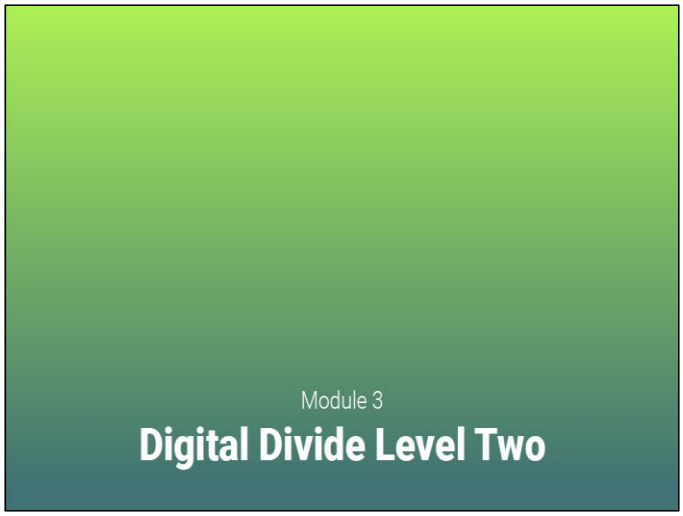
Main Points

- The first level of the digital divide focuses on issues of hardware that relate to human experience with the digital age as well as people's perceptions of the digital age.
- Broadband Access is one gap seen throughout the world and is alleviated through household access or public access sites
- Digital devices impact user experiences
- Having access is not enough, people have to choose to adopt digital technologies.



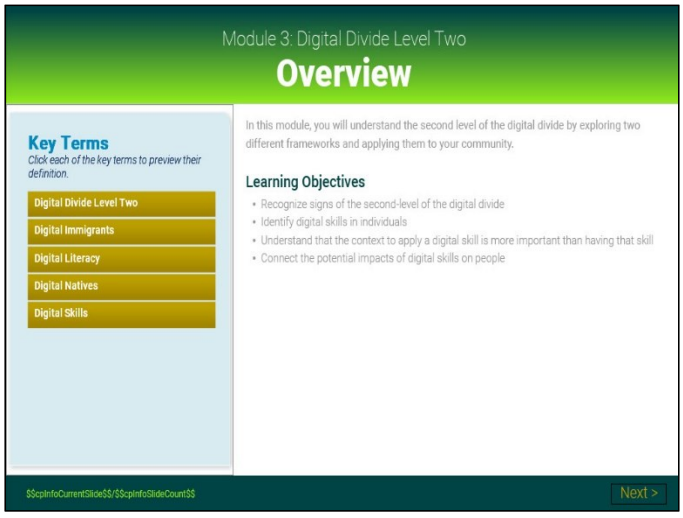
Module Three: Digital Divide Level Two

Slide One: Title slide



Slide Two: Overview

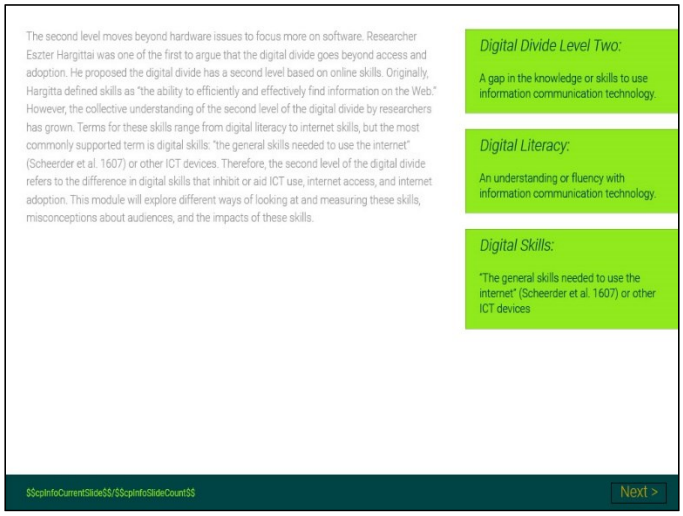
In this module, you will understand the second level of the digital divide by exploring two different frameworks and applying them to your community.



Slide Three

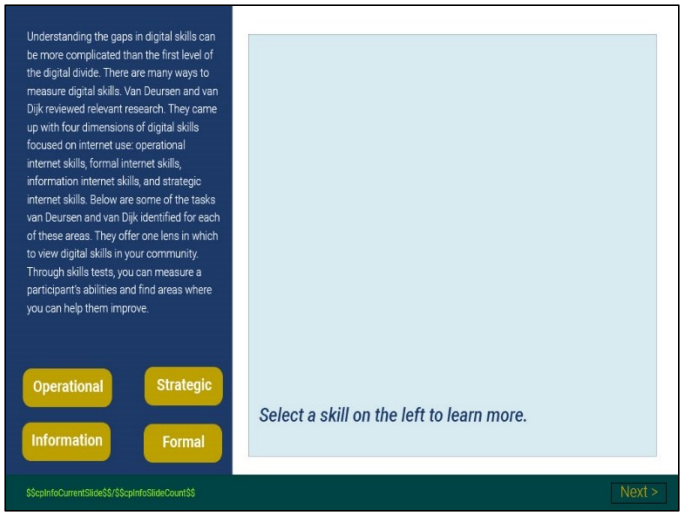
The second level moves beyond hardware issues to focus more on software. Researcher Eszter Hargittai was one of the first to argue that the digital divide goes beyond access and adoption. He proposed the digital divide has a second level based on online skills. Originally, Hargitta defined skills as “the ability to efficiently and effectively find information on the Web.” However, the collective understanding of the second level of the digital divide by researchers has grown.

Terms for these skills range from digital literacy to internet skills, but the most commonly supported term is digital skills: “the general skills needed to use the internet” (Scheerder et al. 1607) or other ICT devices. Therefore, the second level of the digital divide refers to the difference in digital skills that inhibit or aid ICT use, internet access, and internet adoption. This module will explore different ways of looking at and measuring these skills, misconceptions about audiences, and the impacts of these skills.



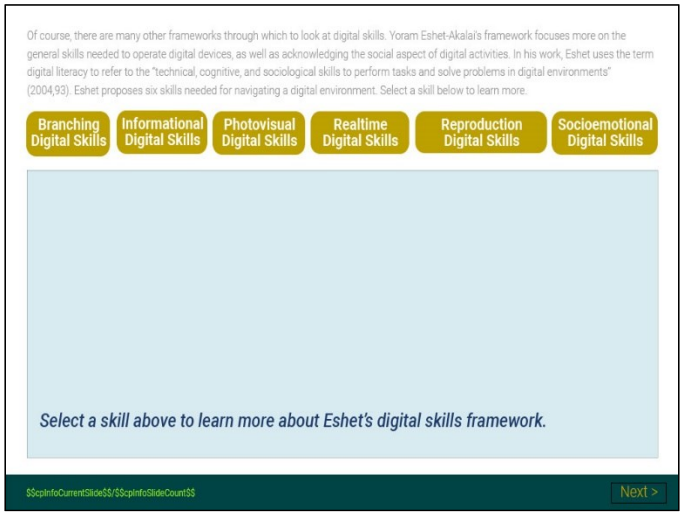
Slide Four

Understanding the gaps in digital skills can be more complicated than the first level of the digital divide. There are many ways to measure digital skills. Van Deursen and van Dijk reviewed relevant research. They came up with four dimensions of digital skills focused on internet use: operational internet skills, formal internet skills, information internet skills, and strategic internet skills. Below are some of the tasks van Deursen and van Dijk identified for each of these areas. They offer one lens in which to view digital skills in your community. Through skills tests, you can measure a participant’s abilities and find areas where you can help them improve.



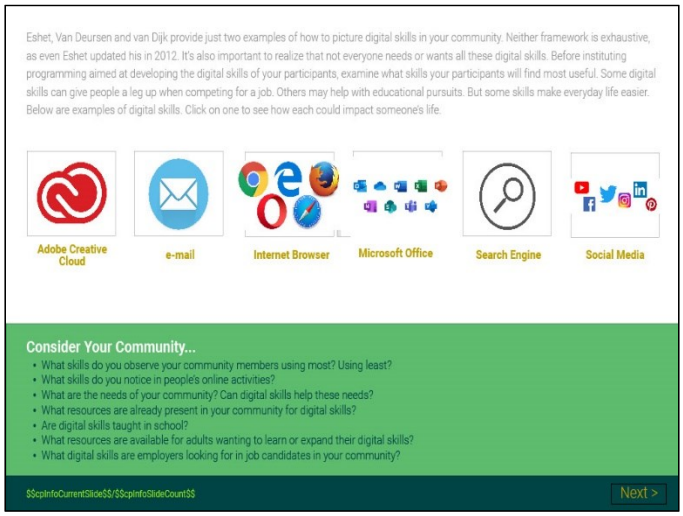
Slide Five

Of course, there are many other frameworks through which to look at digital skills. Yoram Eshet-Akalai's framework focuses more on the general skills needed to operate digital devices, as well as acknowledging the social aspect of digital activities. In his work, Eshet uses the term digital literacy to refer to the "technical, cognitive, and sociological skills to perform tasks and solve problems in digital environments" (2004,93). Eshet proposes six skills needed for navigating a digital environment. Select a skill below to learn more.



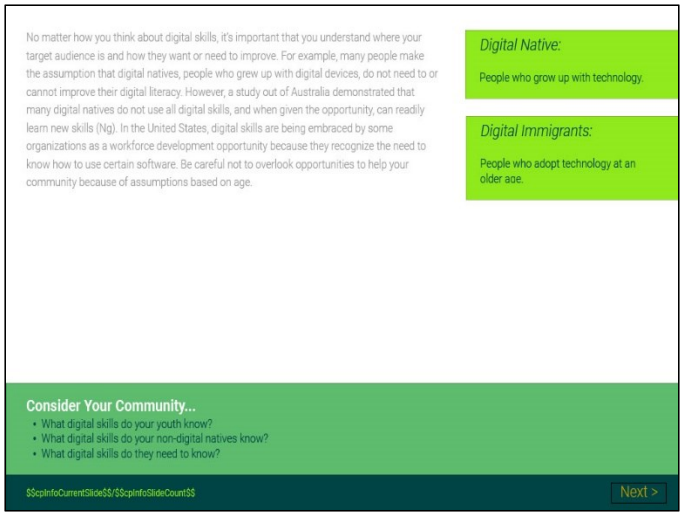
Slide Six

Eshet, Van Deursen and van Dijk provide just two examples of how to picture digital skills in your community. Neither framework is exhaustive, as even Eshet updated his in 2012. It's also important to realize that not everyone needs or wants all these digital skills. Before instituting programming aimed at developing the digital skills of your participants, examine what skills your participants will find most useful. Some digital skills can give people a leg up when competing for a job. Others may help with educational pursuits. But some skills make everyday life easier. Below are examples of digital skills. Click on one to see how each could impact someone's life.



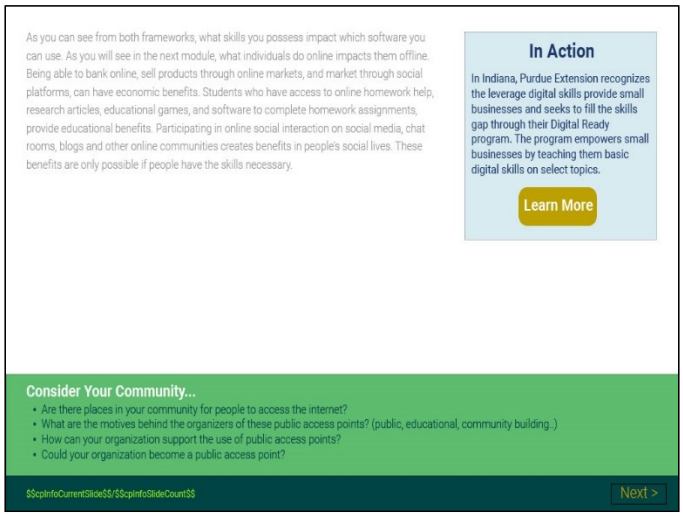
Slide Seven

No matter how you think about digital skills, it's important that you understand where your target audience is and how they want or need to improve. For example, many people make the assumption that digital natives, people who grew up with digital devices, do not need to or cannot improve their digital literacy. However, a study out of Australia demonstrated that many digital natives do not use all digital skills, and when given the opportunity, can readily learn new skills (Ng). In the United States, digital skills are being embraced by some organizations as a workforce development opportunity because they recognize the need to know how to use certain software. Be careful not to overlook opportunities to help your community because of assumptions based on age.



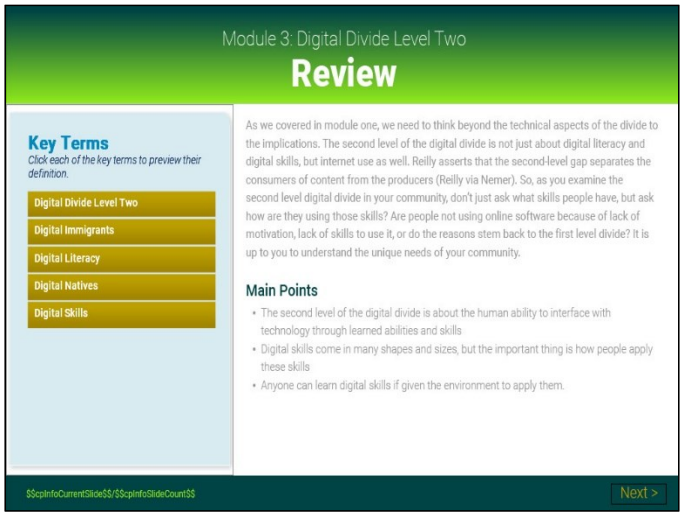
Slide Eight

As you can see from both frameworks, what skills you possess impact which software you can use. As you will see in the next module, what individuals do online impacts them offline. Being able to bank online, sell products through online markets, and market through social platforms, can have economic benefits. Students who have access to online homework help, research articles, educational games, and software to complete homework assignments, provide educational benefits. Participating in online social interaction on social media, chat rooms, blogs and other online communities creates benefits in people's social lives. These benefits are only possible if people have the skills necessary.



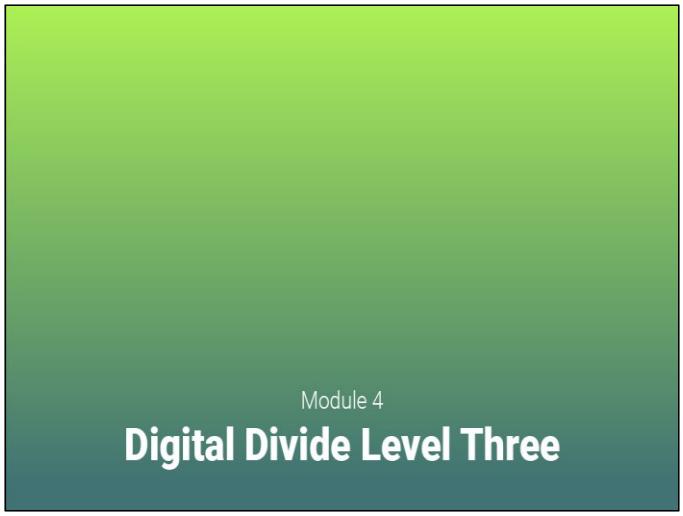
Slide Nine: Review

As we covered in module one, we need to think beyond the technical aspects of the divide to the implications. The second level of the digital divide is not just about digital literacy and digital skills, but internet use as well. Reilly asserts that the second-level gap separates the consumers of content from the producers (Reilly via Nemer). So, as you examine the second level digital divide in your community, don't just ask what skills people have, but ask how are they using those skills? Are people not using online software because of lack of motivation, lack of skills to use it, or do the reasons stem back to the first level divide? It is up to you to understand the unique needs of your community.



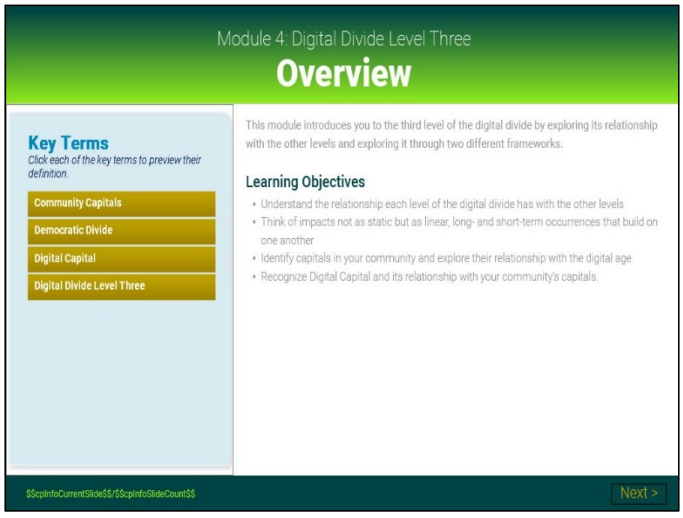
Module Four: Digital Divide Level Three

Slide One: Title slide



Slide Two: Overview

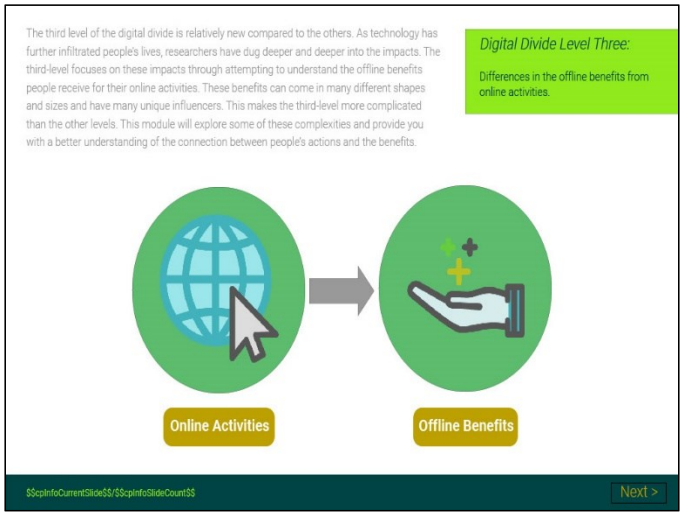
This module introduces you to the third level of the digital divide by exploring its relationship with the other levels and exploring it through two different frameworks.



Slide Three

The third level of the digital divide is relatively new compared to the others. As technology has further infiltrated people's lives, researchers have dug deeper and deeper into the impacts. The third-level focuses on these impacts through attempting to understand the offline benefits people receive for their online activities. These benefits can come in many different shapes and sizes and have many unique influencers. This makes the third-level more complicated than the

other levels. This module will explore some of these complexities and provide you with a better understanding of the connection between people's actions and the benefits.



Slide Four

While the influence of the other levels is important, Selwyn points out the real issue in the third-level of the divide is the gap in offline benefits between those with similar skills and access opportunities. People have the same foundation of access and digital skills for their online activities, but they have major differences in their offline benefits. This tells researchers there are other barriers at play. To better understand these barriers and the offline benefits people receive, Selwyn divides them into two categories: short, surface-level benefits and long-term, deeper benefits. This division is just one way of thinking about the offline benefits of online participation.

Slide Five

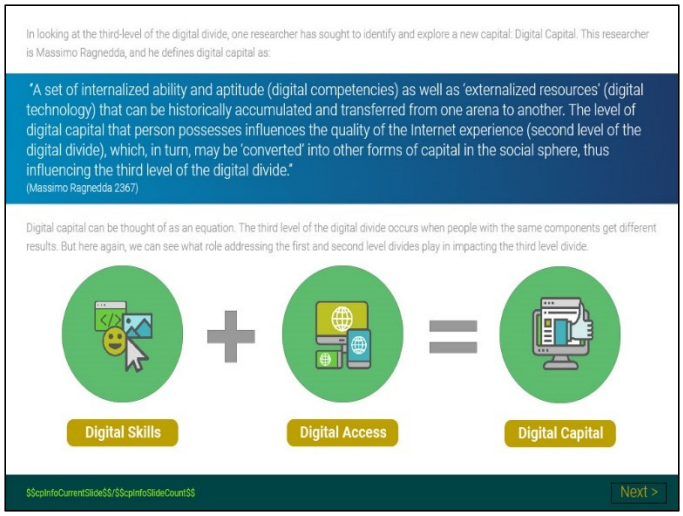
Another framework for understanding the third level of the digital divide is through the application of the community capitals framework. Researchers Ignatow and Robinson provide the best definition of capital: “capital refers to stocks of internalized ability and aptitude as well as externalized resources which are scarce and socially valued. Like the more traditional form of capital, they can be transformed and productively reinvested” (via Ragnedda 2367). The traditional form of capital Ignatow and Robinson are referring to is money, but a community capital can be thought of in similar terms. In the same way that people collect money and spend it on a “benefit,” people use and build their capitals. Click on a capital to the right to learn more about each one. The original community capitals framework was developed by Flora and Flora in 2004 and has been adopted by many universities and researchers since.

Slide Six

In looking at the third-level of the digital divide, one researcher has sought to identify and explore a new capital: Digital Capital. This researcher is Massimo Ragnedda, and he defines digital capital as:

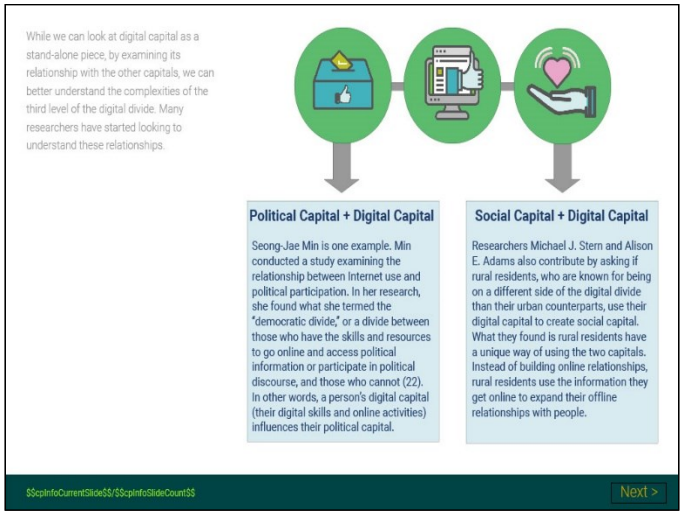
> "A set of internalized ability and aptitude (digital competencies) as well as 'externalized resources' (digital technology) that can be historically accumulated and transferred from one arena to another. The level of digital capital that person possesses influences the quality of the Internet experience (second level of the digital divide), which, in turn, may be 'converted' into other forms of capital in the social sphere, thus influencing the third level of the digital divide."
>
> (Massimo Ragnedda 2367)

Digital capital can be thought of as an equation. The third level of the digital divide occurs when people with the same components get different results. But here again, we can see what role addressing the first and second level divides play in impacting the third level divide.



Slide Seven

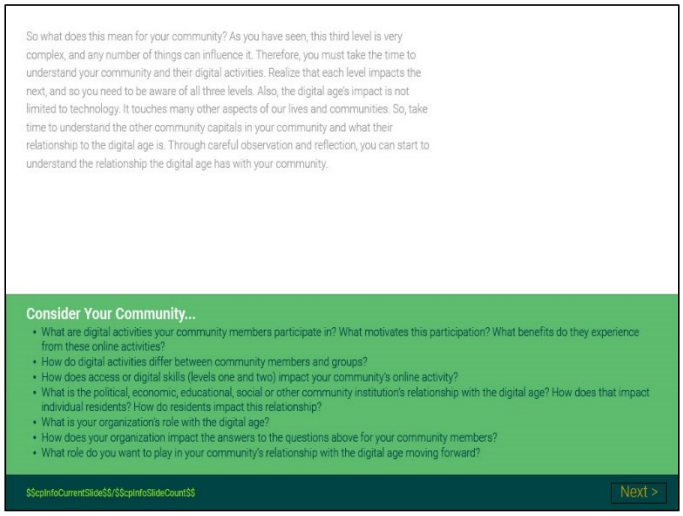
While we can look at digital capital as a stand-alone piece, by examining its relationship with the other capitals, we can better understand the complexities of the third level of the digital divide. Many researchers have started looking to understand these relationships.



Slide Eight

So what does this mean for your community? As you have seen, this third level is very complex, and any number of things can influence it. Therefore, you must take the time to understand your community and their digital activities. Realize that each level impacts the next, and so you need to be aware of all three levels. Also, the digital age's impact is not limited to technology. It

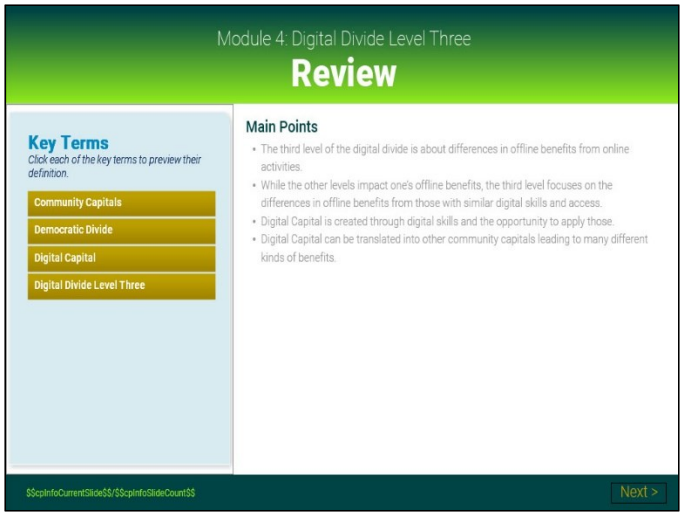
touches many other aspects of our lives and communities. So, take time to understand the other community capitals in your community and what their relationship to the digital age is. Through careful observation and reflection, you can start to understand the relationship the digital age has with your community.



Slide Nine: Review

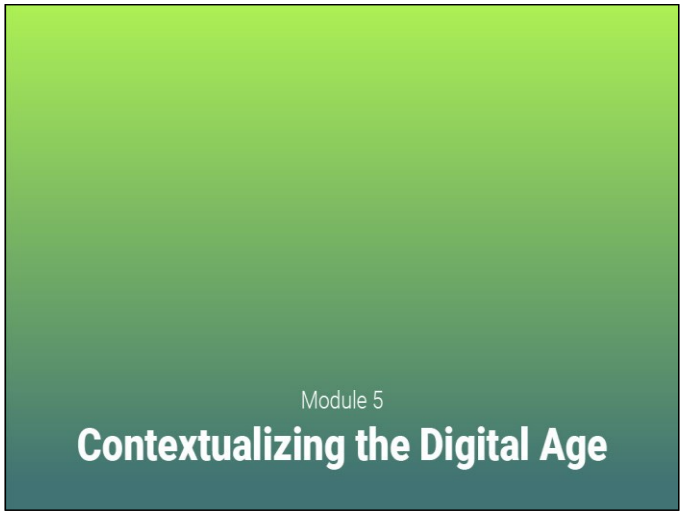
Main Points

- The third level of the digital divide is about differences in offline benefits from online activities.
- While the other levels impact one's offline benefits, the third level focuses on the differences in offline benefits from those with similar digital skills and access.
- Digital Capital is created through digital skills and the opportunity to apply those.
- Digital Capital can be translated into other community capitals leading to many different kinds of benefits.



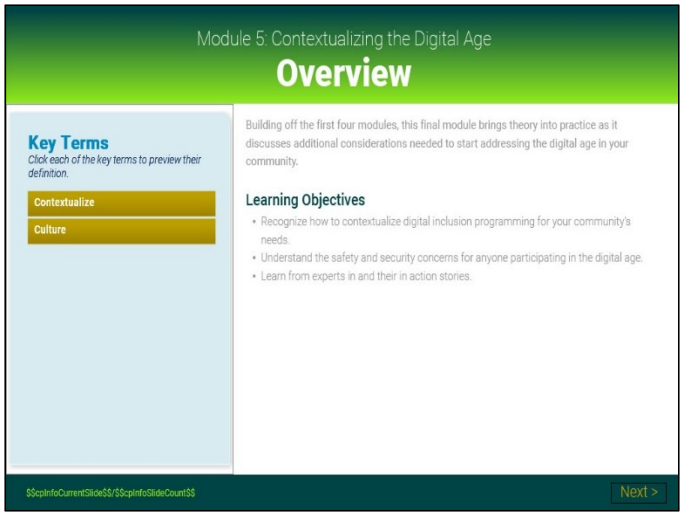
Module Five: Contextualizing the Digital Age

Slide One: Title slide



Slide Two: Overview

Building off the first four modules, this final module brings theory into practice as it discusses additional considerations needed to start addressing the digital age in your community.

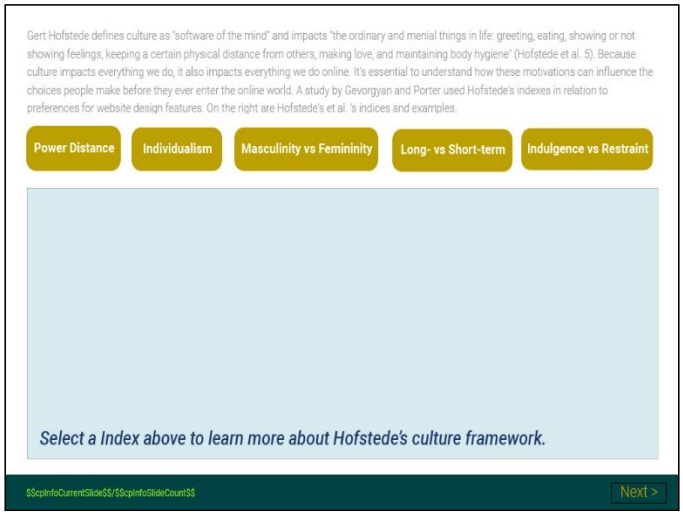


Slide Three

Up until this point, this training has focused on the existing research around the digital divide. However, when addressing issues in practice, many other elements need to be taken into consideration. Community development practitioners work to contextualize their programs to fit the needs of the communities they serve. This module will look at some of the additional pieces that impact contextualizing programs and how they interact with the digital age. Also, this module will highlight success stories where organizations like yours are changing the digital divide either directly or indirectly through their programming.

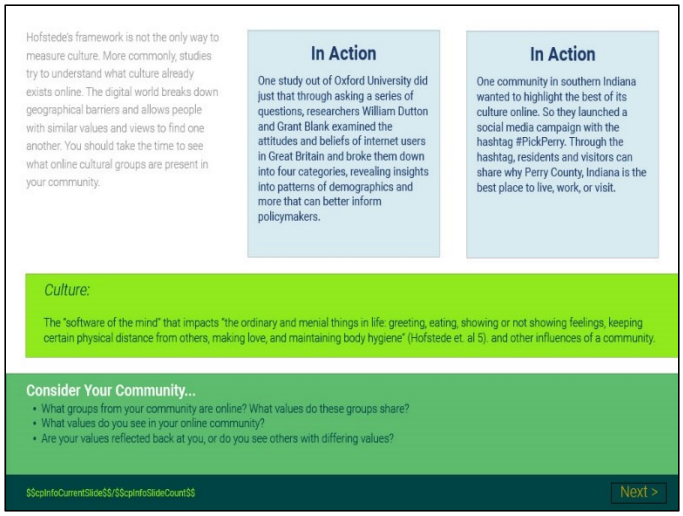
Slide Four

Gert Hofstede defines culture as "software of the mind" and impacts "the ordinary and menial things in life: greeting, eating, showing or not showing feelings, keeping a certain physical distance from others, making love, and maintaining body hygiene" (Hofstede et al. 5). Because culture impacts everything we do, it also impacts everything we do online. It's essential to understand how these motivations can influence the choices people make before they ever enter the online world. A study by Gevorgyan and Porter used Hofstede's indexes in relation to preferences for website design features. On the right are Hofstede's et al. 's indices and examples.



Slide Five

Hofstede’s framework is not the only way to measure culture. More commonly, studies try to understand what culture already exists online. The digital world breaks down geographical barriers and allows people with similar values and views to find one another. You should take the time to see what online cultural groups are present in your community.



Slide Six

In addition to culture, you should take into consideration situational influences. The situations and environment in your community can have an impact on how people view or use technology. It's up to you to recognize these influences and contextualize your programming to meet them.

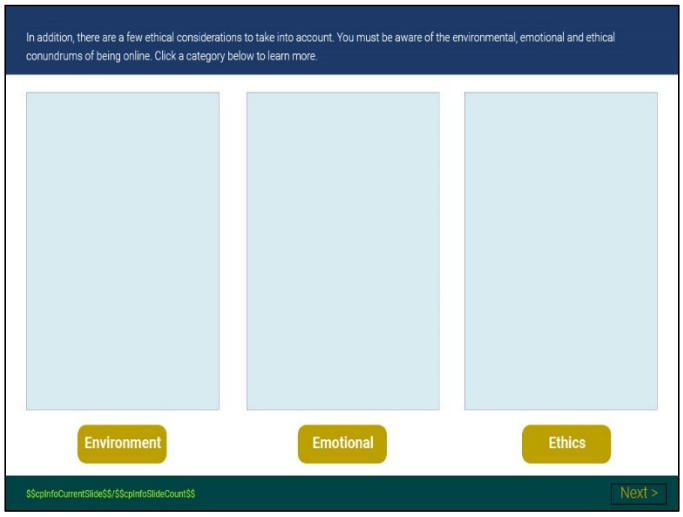
Slide Seven

Finally, before encouraging online activities in your community, it's essential to be aware of one of the negative sides of the digital age: safety and security concerns. From phishing and fraud to more significant physical risks, many online dangers translate into real-life problems. Before your organization encourages or facilitates online activities, make sure your participants have

the skills to protect themselves. Take stock of what digital threats your participants may experience and provide them the tools to overcome them. Below are examples of risks and tools for overcoming them; however, these are not exhaustive lists, and you should talk to the experts in your region to see what your top concerns should be.

Slide Eight

In addition, there are a few ethical considerations to take into account. You must be aware of the environmental, emotional and ethical conundrums of being online. Click a category below to learn more.



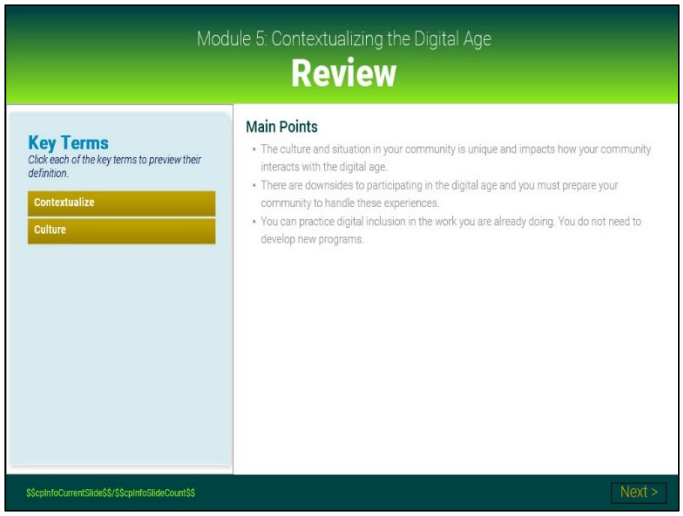
Slide Nine

When discussing theory, it is easy to jump towards programming that directly aligns with the given framework. However, not every program needs to be directed at the digital divide. Instead, programs can recognize the impact the digital age has on the issues they're addressing and integrate digital inclusion concepts into their work. It's not about closing the divide but making sure people are included in the benefits of the digital age.

Slide Ten: Review

Main Points

- The culture and situation in your community is unique and impacts how your community interacts with the digital age.
- There are downsides to participating in the digital age and you must prepare your community to handle these experiences.
- You can practice digital inclusion in the work you are already doing. You do not need to develop new programs.


Module 5: Contextualizing the Digital Age
Review
Key Terms
Click each of the key terms to preview their definition.
Contextualize
Culture
Main Points
• The culture and situation in your community is unique and impacts how your community interacts with the digital age.
• There are downsides to participating in the digital age and you must prepare your community to handle these experiences.
• You can practice digital inclusion in the work you are already doing. You do not need to develop new programs.
$$cpInfoCurrentSlide$$/$$cpInfoSlideCount$$
Next >