ABSTRACT

Title of Document:	COMMUNITY AND EDUCATIONAL OPPORTUNITY IN THE US: THE RELATIVE UTILITY OF TECHNOLOGY AND DIGITAL LITERACY IN A TRANSCULTURAL COMMUNITY
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This ethnobiographic study explores the ways in which five low income transmigrants living in an urban Mid-Atlantic transcultural community made use of technology and digital literacy. Specifically, the study focuses on the ways in which participants defined the purpose, importance, and utility of technology and digital literacy in their lives. The stories reveal complex and often heroic efforts to become digitally literate and apply technological learning to their obligations as parents, breadwinners, and community participants in widely dispersed social networks that cross family, community, and national boundaries. Their stories reveal: 1) the desire for digital literacy to participate in our modern society; 2) limitations in concepts of access and equity as currently conceived in scholarly literature; 3) trust as a key component of successful programs; and 4) the importance of technology in sustaining transcultural networks.

The voices of the participants reveal that immigrants recognize the need for technology training, not only for jobs, but also to aid and enhance their everyday life. They shared the need for training to include: basic classroom skills instruction for children; learning opportunities for adults; programs that include authentic tasks and design features that consider cost, time and day of the week, location, language options, and word of mouth confirmation regarding the quality of content and trust in instructors and training location. Their search for safety extends to protecting their personal information and children by acquiring cyber safety and security knowledge.

This study adds to transcultural scholarly work, and also expands both digital divide and digital inequity literature that only rarely focuses on the relationship between participants and transcultural community constructs. Increasingly, computer based forms of communication are taking the place of letters, telephone and travel to maintain and expand ties to family and friends dispersed throughout the globe. Technology becomes a way to support their transmigrant identities and strengthen the networks of friends and family used to identify places to live and work. Rather than creating a homogeneous global society, technology may actually serve to strengthen national identities across borders.

COMMUNITY AND EDUCATIONAL OPPORTUNITY IN THE US:
THE RELATIVE UTILITY OF TECHNOLOGY AND DIGITAL LITERACY IN A
TRANSCULTURAL COMMUNITY

By

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Dedication

To Rob, Richard, Brianna and my mom, Clarise.

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To the participants in my study. I hope this work, in some way, allows your voice to be heard and helps guide new education initiatives and policies to meet the needs of your communities.

To Mom: your pride, respect and love mean the most to me.

To Richard and Brianna: I am especially thankful for your unconditional love and the joy you bring to me each and every day. Mom has finally finished the BIG Report.

To Rob: Words can not express how grateful I am to have you as my husband, best friend and soul mate. Thank you for your encouragement, time, dedication, support and love. We Are Doing It All!

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Chapter 1: Introduction to the Study

This ethnobiographical study focuses on the meaning and uses of technology and digital literacy as they informed the lives of five transmigrants to the U.S., in the relatively unexplored domain of transcultural digital inequity research.

Most digital literacy research has approached issues of opportunity by focusing on the concepts of digital divide or digital/social inequity, but only rarely has the literature integrated the personal perspectives of low-income or inner-city marginalized communities. While the preponderance of literature reveals the existence of inequities, they do so to the exclusion of social or cultural considerations. To my knowledge, there is no scholarly work to date on an ethnically diverse group of low-income immigrant adults that clarifies and reveals the means they use to obtain and make use of digital literacy skills from their individual perspectives. While there is a large body of work focusing on digital literacy as well as digital divide and digital inequity issues, these studies have focused on individual subgroups such as low-income or inner-city marginalized communities, or have emphasized digital inequality as a problem driven by a kind of technological determinism.[1] The focus on the impact of social capital of low income immigrants, as the literature review will reveal, has been a focus for only a handful of empirical studies. However, these studies treat communities as monolithic entities, rather than as diverse communities with an intricate tapestry of relationships that can include African-Americans, Asians, Latina/os, Whites, and others, where each individual possesses their own interests and needs. Additionally, these communities can be made up of a combination of those born in the U.S., naturalized citizens, and as the U.S. Census Bureau indicates, a

growing percentage of new or recent immigrants.[2] These immigrants bring their own

culture with them, while living within the culture of their new nation. They are

people situated in-between. They may settle in a common area and form what some

scholars refer to as a transcultural community.[3] This heterogeneous community may

include immigrants from different countries with their own reasons for emigrating.

While earlier studies provide a clear picture of the gap in digital literacy, they fail to

examine and value the social and cultural complexities that diverse groups bring to

the table and how these play out in their individual perspectives, conceptualizations,

uses and attitudes toward technology and digital literacy, in concert with their life

commitments, as they learn to be participants in a transcultural community.

     This study helps reveal the ways in which a community of low income adult

immigrants perceive and make use of technology and digital literacy to enrich their

lives in the U.S. using an ethnobiographical methodology. This methodology

provides a means to allow the participants' voice to take front stage. Ethnobiography

provides an excellent way of amplifying the participants' individual perspective by

providing detailed narratives through the participants' own words. Viewed through a

transcultural lens, their voices become fuller as the findings reveal how they converse

with dual experiences of their homeland and current country. Considering aspects of

their host country helps to surface essential characteristics that drive their decision

making processes, and reveal the opportunities to level and/or expand their

possibilities.

     The immigrants in this study converge in a community technology program

where they seek to acquire new skills. Because there are, as yet, very few scholarly

studies that focus on the intersections of technology and opportunity through a transcultural perspective, this study sought to clarify and reveal the relationship between technology use and digital literacy, and the efforts of contemporary immigrants to manage the transition from one culture to another, and from one economic, political, social and cultural context to another.

Five research questions guided the research design and data collection which informed this study. RQ1: *What role does technology and digital literacy play in transmigrants' social, political, and economic hopes and dreams?* RQ2: *How does technology and digital literacy serve their political, economic, and social interests?* RQ3: *What skills do they hope to acquire?* RQ4: *How do they make use of digital literacy program content?* and RQ5: *How, if at all, does the acquisition of digital literacy empower participants in the context of an urban Mid-Atlantic transcultural community?*

These questions helped to generate information about the way low income immigrant participants in an urban mid-Atlantic transcultural community perceive and utilize, or do not utilize, technology and digital literacy in the U.S.

In this chapter, I synthesize prior digital inequity research and scholarly work on the scope and nature of acquiring digital literacy in the U.S. Next, I illuminate specific terms relative to this research, and provide detailed information about the digital literacy course that participants engaged in, including the location and circumstances surrounding its offering, and I share insight about the transcultural community backdrop. Understanding the transcultural backdrop expands understanding beyond a single person or location, and helps create the broader view

that incorporates multiple cultural aspects. Just as technology has created a global marketplace and connected the world, it has also served as an enabler of transcultural communities.

The Scope of Acquiring Digital Literacy in the United States

Since the mid-90's an array of studies and reports have documented and analyzed the impact that the information revolution had on the lives of U.S. citizens.[4] These studies suggest that information and communications technology (ICT) or "technologies" have spread faster than any previous communications invention and have begun to affect nearly every aspect of today's U.S. population. These reports explored the way technologies have changed the way opportunity is provided to citizens across the fields of educational achievement, improved health, economic opportunity, and community participation. Another group of reports call attention to a new focus on inequality.[5] These gaps document a disturbing inequality in terms of who reaps the benefits of digital opportunity.

The digital divide is a common term used to describe the inequalities that exist with respect to the use of Internet and other telecommunication services; it is shorthand for any and every disparity within an online community.[6] Digital divide has become the accepted term for referring to the social implications of unequal access for some sectors of the community, along with an inability to acquire the necessary skill set for use,[7] which is also referred to as "digital literacy". However there is a growing recognition that access alone, while necessary, is not sufficient. "The notion of a binary divide between haves and have-nots is thus inaccurate and

can even be patronizing because it fails to value the social resources that diverse

groups bring to the table."[8] Kling states,

> [The] *big problem with "the digital divide" framing is that it tends to connote "digital solutions," i.e., computers and telecommunications, without engaging the important set of complementary resources and complex interventions to support social inclusion, of which informational technology applications may be enabling elements, but are certainly insufficient when simply added to the status quo mix of resources and relationship.*[9]

Van Dijk has argued that physical access and demographics are of limited

value,[10] calling for more scholarly work that focuses less on conditions and more on

criteria.[11] New work along with new terminology has started to surface to include:

social inclusion;[12] real access;[13] digital inequity;[14] and multifaceted concepts of

access.[15] However, even these studies, which document inequality gaps in terms of

those reaping the benefits of digital opportunity; have been focused on urban or rural

low socioeconomic neighborhoods and umbrella demographic groupings such as U.S.

African American or Hispanic populations. While numerous studies have focused on

how low-income populations are being left behind as technology progresses,[16] only a

few have explored the impact on immigrant populations.[17]

The growing consensus regarding the complexities of digital inequality and its

relation to the acquisition of digital literacy is documented by research exploring the

reasons behind this gap. The exploration of the motives behind immigrant

communities' search for digital literacy and their perceptions about it adds to the

opportunity, digital divide and digital literacy scholarly fields. This is particularly

necessary for the educational community, where both the formal and informal

educational systems are faced with the task of preparing children and young adults to

succeed in an increasingly complex and competitive society where proficiency in

technology is becoming a requirement for success.[18] The Business Roundtable

continues to back the statements from its earlier report[19] and the National Advisory

Commission on Educational Excellence for Hispanic Americans Report which

suggested the need for targeted educational technology programs specific to low-

income families, and labor and employment training including digital literacy

issues.[20]

Some scholars, such as Obach, Wentzel and Wigfield suggest that in the

educational arena literacy goals will be difficult for many ethnic groups due to the

complexity of minority student achievement and motivational influences, which

include family, peer and cultural interactions, and socioeconomic factors, as well as

other external elements that education, whether formal or informal, will not be able to

influence.[21] For example, in the case of many poor immigrants, parents are tied up

with the demands of earning enough income for the family. Outside the reach of the

educational influence and within the context of these various demands and societal

pressures, what desires and needs lead them to pursue digital literacy? What do they

expect themselves and their children to need in today's society to support their

future? Research is needed to help educators and policy makers appreciate and

understand technology's impact on minority, low-income immigrant digital literacy

achievement through the voices of the people directly involved. As stated by Schmidt,

> *In efforts to widen access to the new technology and to train people*
> *how to use it* [technology] *this dimension* [socialcultural context] *of the issue*
> *sometimes has been overlooked. …sometimes the focus has been almost*
> *exclusively on the technology itself, rather than on the purposes that will have*
> *meaning in the lives of those who are gaining access to it and the skills to use*
> *it. This aspect of the digital divide clearly needs to be a major consideration*
> *in planning, developing, and implementing IT access and training efforts and*
> *projects.*[22]

Adding to the immigrant community complexity is the fact that these units are not some homogenous one size fits all group. Indeed, immigrants come to the U.S. for a variety of reasons (e.g., war, diaspora, work, family) and from a variety of countries and cultures. Even within a specific source country for immigration, scholars have identified a variety of constructs such as gender, class, generation, mobility, race, ethnicity, and regionality that play out in the context of immigrant identity.[23] Additionally, the region, state, or city one emigrates to also must be considered.[24] East coast, west coast, just over the border, rural, and urban neighborhoods can all have different cultural configurations.   In many cases, immigrants may have ties back to their home country, and may create transnational social networks. Indeed, digital literacy is situated in a broader and more complex social and economic transformation in recent decades. "The last quarter-century has witnessed a worldwide surge of movements of 'collective identity' that challenge current globalization on behalf of people's control over their culture and their lives."[25] Castells explores identity as the fundamental construct of social meaning:

> *In a world of global flows of wealth, power, and images, the search for identity, collective or individual, ascribed or constructed, becomes the fundamental source of social meaning. This is not a new trend, since identity, and particularly religious and ethnic identity, have been at the roots of meaning since the dawn of human society. Yet identity is becoming the main, and sometimes the only, source of meaning in a historical period characterized by widespread destructing of organizations, delegitimation of institutions, fading away of major social movements, and ephemeral cultural expressions. **People increasingly organize their meaning not around what they do but on the basis of who they are** (emphasis added).[26]*

<u>Definition of Terms</u>

This ethnobiographical research through a transcultural framework relies on specifically applied terms, which—though grounded in common understanding—have been used historically in similar yet distinct ways. For clarity, several of these terms are defined below as they are used in this study.

<u>Technology.</u> "Technology" is a term that has changed as rapidly as the field itself. In the educational arena, "information technology" refers to any equipment or inter-connected system or subsystem of equipment that is used in the acquisition, storage, manipulation, management, movement, control, display, interchange, transmission or reception of data or information. In the same setting, "instructional technology" often includes components of information technology used in the delivery of educational materials. Instructional technology covers the processes and systems of learning and instruction. Instructional technology is often referred to as a part of educational technology. "Educational technology" has come to be associated with software products, distance learning resources and other materials that are specifically marketed to the educational community to facilitate learning, develop human capacity and improve performance. For this study, "technology tools," "computers and the Internet," "information communication technologies" or "ICT," will all mean "technology." The term "technology" will be used to describe computer tools and applications that participants make use of to enhance their ability to communicate, search for information, improve their productivity, expand their knowledge, skills, and education, in either formal or informal settings, or assist in the

furthering of their career. Thus, computers and associated software, the Internet, cell phones, PDAs, and printers, are all technology.

Digital Literacy. "Digital literacy", for this study, refers to knowledge and proficiency related to the computer, computer peripherals (printer, fax, scanner, speakers, etc.) and Internet use. Digital literacy refers to the ability to use technology in a manner that supports productivity in school, work, community, and home. Consistent with Williams, digital literacy is "the body of knowledge appropriate to the development of skills and applications and, second, a body of knowledge and conditions for the practical use and application of a range of devices…"[27] In other words, literacy does not refer to the ability to listen to music, or play games; instead it refers to the ability to use technology to enhance your education, career, community and family.

Culture. An exploration of cultural context in this study will add rich insight. However, cultural context is difficult to characterize since an explanation of "culture" itself is far from straightforward. Many authors agree that defining culture is difficult and in the view of Williams, it is "one of the two or three most complicated words in the English Language."[28] Culture is inferred from the words and actions of members of the group and is assigned to this group by the researcher. "It [culture] consists of looking for what people do (behaviors), what they say (language), and some tension between what they do and what they ought to do, as well as what they make and use (artifacts)."[29] Creswell refers to culture as "an amorphous term", not something "lying about."[30] Wolcott refers to it as something the researcher attributes to a group as he or she looks for patterns of daily living.[31] Levinson refers to culture in its

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broadest sense as shared values, beliefs, and codes.[32] Van Maanen explains, any type

of ethnographic undertaking "requires at a minimum some understanding of the

language, concepts, categories, practices, rules, beliefs, and so forth, used by

members of the written-about group. These are the stuff of culture."[33]

Anthropologists and sociologists have described culture in a number of different

ways, including as publicly observable symbols,[34] shared knowledge,[35] or cognitive

models.[36] Other definitions include a consideration of culture as a form of practice

informed by symbolic knowledge stored in the brain; culture is what people do in

everyday life informed by implicit and shared knowledge.[37] Thus, culture can be

expressed through language, dress, and other ways, which serve as a means of

communication for people in a society to understand themselves, each other, and the

world around them.

Borrowing from a variety of concepts, for the purpose of this study, "culture"

will refer to the patterns of human activity and the symbolic structures that give such

activities significance and importance. I will be exploring the perspectives of adult

low income immigrants to reveal if, and if so how, their individual homeland culture

may be incorporated into their life in a mid-Atlantic urban neighborhood, thereby

redefining the boundaries of the local culture.

Community: Like "culture", "community" is another problematic term. This

study will utilize Van Hear's suggestion that a community can be defined as a social

collective with a significant dimension in common[38]. It may not be fully

homogeneous as often communities may be formed by people of similar ethnicity, but

made up of immigrants from a variety of nations who come from different social and cultural backgrounds

Transmigrant, transborder citizen, transnational, diaspora: Transnationalism and transculturalism as theoretical frameworks will be discussed in detail in Chapter 2, but several related terms are defined below.

These terms "include[s] words like immigrant, expatriate, refugee, guest-worker, exiles community, overseas community, ethnic community. This is the vocabulary of transnationalism."[39] For Safran, the term diaspora should be limited to more precisely defined populations which include dispersal from a location of origin, to two or more external regions, while retaining characteristics of their homeland, being at least partially ostracized from their host society, and aspiring to return to their homeland.[40] Others, like Chaliand and Rageau, suggest that the migration might be the result of a catastrophic or forcible ejection.[41] Van Hear uses a loose perspective defining diaspora as populations which satisfy three minimal criteria: the population is dispersed to at least two other territories, the presence is enduring although not necessarily permanent, and some social, economic, political, or cultural exchange must endure.[42] Van Hear also uses a concept of transnational community to include communities in diaspora, as such communities are contiguous but may straddle a border.[43] Glick Schiller uses transborder citizens to describe people who live their lives across the borders of two or more nation-states, participating in the normative regime, legal and institutional system and political practices of these various states.[44] For this research, I will use the term transnational to include populations that have immigrated regardless of the number of destinations and cause

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of the ejection, thereby avoiding the argument over the subtleties of the definition of diaspora. The underlying causes and destinations of the migrant are important, but not key for this research; the fact of immigration is of preeminent importance and therefore transnational, transmigrant, transborder citizen and diaspora research all are applicable.

Basch, Glick-Schiller and Szanton-Blanc present a comprehensive definition of transnationalism in their publication *Nations Unbound*. The authors

> *define 'transnationalism' as the processes by which immigrants forge and sustain muti-stranded social relations that link together their societies of origin and settlement.* [They] *call these processes transnationalism to emphasize that many immigrants today build social fields that cross geographic, cultural, and political borders.* [45]

"However, the authors of *Nations Unbound* recognize that several researchers were 'moving in the same direction,' as early as 1979, with Chaney's 'people with feet in two societies.' Others would follow up in an independent way."[46]

Transcultural: Just as the transmigrant is a person in-between their home country and their host country, a community can be "in-between". The transcultural community becomes a conglomeration of transmigrants from different countries emigrating for a variety of different reasons.

Low Income. It is difficult to put a firm limit on where to define "low income". Clearly anyone or any family earning less than the Federal Poverty Threshold should be included in this group. For the year 2007, the Census bureau defines this for a family of four as $21,200. However, this line is independent of location/cost of living. For this research, this number is not firm. Instead, "low income" will be defined by more qualitative terms, and will incorporate factors such

as hours of work, age that one begins work, number of people in the household working, and available leisure time. For example, a family of four, where both mother and father work two jobs at over 60 hours a week, 6 days a week, and earn $25,000 will still be classified as low-income.

Summary

The technological explosion in the world has lead to a corresponding explosion in job opportunities for those with the skills to exploit it. However, how has technology affected low-income immigrants? How does this group view technology? By using ethnobiography to expose individual voices, and a transcultural lens to examine the community backdrop, it is possible to acquire a rich understanding of the aspirations, hopes, and uses which participants make of a unique educational opportunity.

This study explores what technology and digital literacy themes emerge from low income immigrants' perspectives as viewed in an ethnobiographical framework through a transcultural lens. Chapter 2 provides a review of literature supporting the study, and Chapter 3 describes the research methodology. This is followed by chapters 4-8, which provide each individual participant's narrative. Next, Chapter 9, *Mining the Voices,* presents an interpretation of the participants' voices which reveals several themes that lead to a deeper understanding of participants' life situations and how these play out in their use of and perceptions about technology and digital literacy. The final chapter, *Empowering Voices for Change*, examines ways the findings may be used by education policy decision makers at various levels

(community, school system, state, federal, etc.) to provide educational opportunities

better suited to the needs of low-income adult transmigrant populations.

1 Alkalimat and Williams, "Social Capital"; Bohland et al., *Creating the CyberSouth*; Castells, "European Cities," 18-32; Castells, *The Information City;* Castells, *The Information Age*; Castells, *Network Society*; Castells, *The Power of Identity;* Chapman and Rhodes, "Nurturing Neighborhood Nets"; Chow et al., *Who goes there?*; DiMaggio et al., "From Unequal Access"; Dwyer, *Apple Classrooms*; Hall, "Cultural Identity"; Hampton, and Wellman, "Neighboring in Netville"; Irving, McGuire-Rivera and Daley, "How Access Benefits"; Glennan and Melmed, *Fostering the Use*; Gooding, *Identifying Critical Factors*; Gordo, "Overcoming Digital Deprivation"; Gunkel, "Second Thoughts"; Hawley, "Cyberstars and HELP"; Mark, Cornebise and Wahl, *Community Technology Centers*; Means and Olson, "The Link between Technology"; Pinkett, "Community Technology"; Resnick, Rusk and Cooke, "The Computer Clubhouse"; Rohde, McGuire-Rivera and Downs, *Community Connections*; Rosenfeld and Tardieu, *Artisans of Democracy*; Schmidt, *Adapting to the Big Change*; Schön, Sanyal and Mitchell, eds., *High Technology*; Schuler, "Community networks"; Senyak and Fong, *Thinking About Community Technology*; Spooner, *Internet Use by Region*; Warschauer, "Reconceptualizing"; Warschauer, *Technology and Social Inclusion*; Westat, *Technology Opportunities Program*.

2 U.S. Census Bureau, *The Hispanic Population.*

3 Ellen Berry and Mikhail Epstein, *TransculturalExperiments*; Mihai Spariosu, *Making Sense of History*; Linda Basch, Nina Glick Schiller, and Cristina Szanton Blanc, *Nations Unbound.*

4 Alwin Schmidt, *Adapting to the Big Change*; Maria Papadakis, *Computer-Mediated Communities*; Mark Cooper, *Disconnected, Disadvantaged, and Disenfranchised*; Tom Spooner *Internet Use by Region*; John Carlo Bertot, and Charles R. McClure, *Public libraries and the Internet;* Wendy Lazarus and Francisco Mora, *Online Content for Low-incom;* Children's Partnership, *Measuring Digital Opportunity*; U.S. Census Bureau, *Why People Move*; U.S. Bureau of the Census, *Internet and Computer Use;* Pew Internet and American Life Project, *Cities Online;* Pew Internet and American Life Project, *The Internet and Education*; Pew Internet and American Life Project, *Hispanics and the Internet*; U.S. Department of Commerce, *American Community Survey;* U.S. Department of Labor, *Bureau of Labor Statistics*; U.S. Department of Commerce, *Education and Training*; Gupta, "Computer Literacy"; McKay, "Human-computer Interaction" ; Phang et al., "Senior Citizens"; Madden, *Internet Penetration and Impact*; Lenhart et al., *The Ever-Shifting Internet Population*.

5 Alkalimat and Williams, "Social Capital"; Carr-Chellman and Savoy, "Using the User-design Research"; Castells, *End of Millennium;* Castells, *Network Society. Volume 1*; Castells, *The Internet Galaxy*; Castells, *The Power of Identity*; Castells, "Global Governance"; Castells and Cardoso, *The Network Society*; Castells and Hall, *Technopoles of the World*; Gordo, "What Planning Crisis?"; Kvasny and Lee, "Towards a Framework"; Kvasny, Greenhill, and Trauth, "Giving Voice"; Schön, Sanyal, and Mitchell, eds., *High Technology*; Pinkett, *Creating Community Connections;* Shah, "The Researcher/Interviewer"; Adams, Blandford, and Lunt,"Social Empowerment; Warschauer, "Reconceptualizing the Digital Divide"; Warschauer, *Technology and Social Inclusion*; van Dijk and Hacker, "The 'Digital Divide"; AOL Time Warner Foundation and Bertelsmann Foundation, *21st Century Literacy*; Lazarus and Mora, *Online Content*; Steyaert, "Inequality and the Digital Divide".

6 Clark, "Bridging the Digital Divide"; Norris, *Digital Divide?*.

7 Foster, "The Digital Divide"; Cullen, *Addressing the Digital Divide*; Cawkell, "Sociotechnology".

8 Warschauer, *Technology and social inclusion* p. 7.

9 Ibid.

10 van Dijk and Hacker, "The 'Digital Divide'".

11 Burbules and Callister, *Watch IT*.

12 Warschauer, *Reconceptualizing*; Warschauer, *Technology and Social Inclusion*.

13 Bridges.org, *Spanning the Digital Divid*.

[14] Kvasny, "A Conceptual Framework"; DiMaggio and Hargittai, *From Digital Divide*.

[15] Van Dijk, *The Digital Divide as a Complex.*

[16] Pinkett, *Creating Community Connections*; Jarboe, "Inclusion"; Kvasny and Lee, "Towards a Framework"; Kvasny, Greenhill and Trauth, "Giving Voice"; Cooper, *Disconnected, Disadvantaged, and Disenfranchised;* Spooner, *Internet Use;* Bohland, Papadakis and Worrall, "Creating the CyberSouth"; Glennan, and Melmed, *Fostering the Use*; Dwyer, *Apple Classrooms*; Means and Olson, *The Link;* Castells, *End of Millennium*; Castells, *Network Society. Volume 1;* Castells, *The Internet Galaxy;* Castells, *The Power of Identity*; Castells, *Global Governance;* Castells and Cardoso, *The NetworkSsociety;* Rosenfeld and Tardieu, *Artisans of Democracy*; Warschauer, *Reconceptualizing*; Warschauer, *Technology and Social Inclusion*; Lazarus, and Mora, *Online Content*; Aphek, *Minimizing the Digitial Divide*; Steyaert, *Inequality and the Digital Divide*.

[17] Anderson, *Imagined Communities*; Wolpert, "Departures from the Usual"; Wolpert, *Patterns of Generosity*; Wolpert, *What Charity*; Servon, and Horrigan, "Urban poverty and Access"; Ramalho Correia, "Information Literacy"; Kvasny, "A Conceptual Framework"; Kvasny, Greenhill, and Trauth, "Giving Voice"; Czerniewicz and Brown, "Access to ICTs".

[18] Schmidt, *Adapting to the Big Change*.

[19] The Business Roundtable, *Prospering Together.*

[20] National Advisory Commission, "From Risk to Opportunity.

[21] Obach, "A Longitudinal-Sequential Study"; Wentzel and Wigfield, "Academic and Social"; Kvasny, and Lee, "Towards a Framework"; Kvasny, Greenhill, and Trauth, "Giving Voice to Feminist Projects"; Castells, *End of millennium*; Castells, *Network Society. Volume 1*; Castells, *The Internet Galaxy;* Castells, *The Power of Identity*; Castells, *Global Governance;* Castells, & Cardoso, *From Knowledge to Policy.*

[22] Schmidt, *Adapting to the Big Change*, 36.

[23] Basch et. al.. *Nations Unbound;* Glick Schiller, Basch and Szanton Blanc, *Transnationalism*; Glick-Schiller, Caglar and Guldbrandsen, "Beyond the Ethnic Lens"; Popkin, Youngs and Healy, *Helping Your Child*; Georges, *The Making of a Transnational Community*; Hagan, *Deciding to be Legal*; Sorensen, "Nueva York"; Sutton, "Some Thoughts"; Goldring, "Blurring Borders"; Rouse, "Making Sense"; Fry, *Gender and Migration*; Valentine, *Uniting Two Cultures*.

[24] Glick-Schiller, Caglar and Guldbrandsen, "Beyond the Ethnic Lens."

[25] Warschauer, *Technology and Social Inclusion.*

[26] Castells, *Volume II: The Power of Identity*.

[27] Williams, *What I Came*, 173.

[28] Williams, *Keywords*, 87.

[29] Creswell, *Qualitative Inquiry*, 59.

[30] Ibid.

[31] Wolcott, "On ethnography intent".

[32] Levinson, ed., *Schooling the Symbolic Animal*.

[33] Van Maanen, *Tales of the Field*, 13.

[34] Geertz, *The Interpretation of cultures*.

[35] Spradley and McCurdy, *Conformity and Conflict*.

[36] Holland and Quinn, eds., *Cultural Models.*

[37] Chaiklin and Lave, eds., *Understanding Practice*; Holland et al., *Identity and Agency*.

[38] Van Hear, *New Diasporas*.

[39] Tölölyan, "The Nation-State," 4.

[40] Safran, "Diasporas," 83.

[41] Chaliand. and Rageau, *The Penguin Atlas*.

[42] Van Hear, "From 'durable solutions'."

[43] Van Hear, *New Diasporas*.

[44] Glick Schiller, "Transborder Citizenship."

[45] Glick Schiller, Bash, and Blanc-Szanton, *Nations Unbound,* 7.

[46] Appadurai and Breckenridge, "Why Public Culture?"; Appadurai, "Global Ethnoscapes"; Gupta, "The Song of the Nonaligned World"; Nagengast and Kearny, "Mixtec Ethnicity"; Rouse

Mexican Migration; Rouse, "Mexican Migration"; Rouse, "Making Sense of Settlement"; Cano, *The Mexico-North Report,* 4.

Chapter 2: Literature Review

A review of scholarly literature demonstrates the relative paucity of studies focusing on low income immigrant groups. The chapter is divided into three major sections, each with subsections: The Relationship Between Social Inequity and Digital Literacy, Background Studies on Digital Divide Studies, and Digital Literacy through a Transcultural Lens. First, these topics are examined to show the lack of research that addresses a heterogeneous group of low-income immigrants at a micro-level. Additionally, research reveals that definitions of digital access must be expanded to include goals related to both physical access and reducing barriers to learning. It is necessary to acquire digital literacy skills to be able to access the explosion of information this enables, and be able to take advantage of the increase in information and service based jobs in today's economy.

Secondly, key digital divide and digital inequity theories and frameworks considered relevant to this study are examined with regards to the requirement of high technology jobs for technology skills. The research moves beyond simple access to show how augmenting the definition of what constitutes the digital divide expands the discussion and brings to the forefront additional implications. For example, lack of cultural capital related to technology impacts may have lasting effects as there may not be familial drive to acquire these skills, and no availability for tutoring within one's home environment. Prior study frameworks examining digital literacy issues are explored, and are shown to lack the micro level investigation sought in this dissertation. They also assume homogeneous groups, and lack the ability to be directly applied to a transcultural community.

Finally, I situate the transcultural framework. Such research is usually fixed to specific communities of immigrants who have ties to both a host and home country. Studies to date, as we shall see, do not explore the role that technology can play in the lives of people in a transcultural community.

The Relationship Between Social Inequity and Digital Literacy

In spite of the fact that we are living through one of the most fundamental technological and social changes in history, some U.S. residents, especially the poor and immigrants, have not had the same opportunities to access and use technology as other more privileged groups. "The revolution in technologies that took shape in the early 1970's, and diffused throughout the economy, society, and culture in the last quarter of the twentieth century, has profoundly transformed the way we live, work, produce, consume, communicate, travel, think, enjoy, make war and peace, give birth and die."[1] This revolution has restructured community demographics as the global economy has moved many low paying jobs associated with manufacturing overseas, and many entry jobs require at least a minimum level of technology competency. Immigrants still can do jobs that are based on manual labor, but have limited growth opportunities due to their lack of technology competency. Occupations such as construction foreman, cashier, bank teller, and even working at a fast food restaurant all have technology components. The ethnic makeup of communities may not be affected by the technology revolution, but it has constricted the work opportunities and therefore has limited, rather than expanded the means to rise out of poverty. Education is needed to acquire the requisite skills to increase opportunity.

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Technology has reshaped urban communities, educational settings, workforce skill requirements, and political arenas.[2]

In addition to changing job availability and desired skill sets, urban neighborhoods are becoming increasingly transcultural, as the residents have different origins, and simultaneously act within their present community while maintaining ties to their homelands. Technology may assist the maintenance of these homeland connections, but "the presence of technological innovation … [does not explain] why immigrants invest so much time, energy, and resources maintaining home ties."[3] Thus, some immigrants already have the desire to maintain connections to their homeland, and technology may provide a better means to do so.

Not all members of society have had the same experiences, especially with respect to technology access and the acquisition of knowledge and skills that accompany it. Many immigrants are unable to effectively use technology as they have not been able to acquire the skills that are often encapsulated within the term digital literacy.[4] This study seeks to expose low-income immigrants' perspectives about the conditions, opportunities, and possibilities for them to acquire and use digital literacy within a transcultural community.

Past digital divide studies provide "useful data, but they do not automatically result in explanations, as many are not guided by theory or hypotheses derived from theory. They remain on a descriptive level of reasoning."[5] The findings are not able to reveal, for example, what are the driving factors that cause a diverse set transmigrants with limited income to attend a technology class? Are these factors different for people of a different nationality? Other scholarly work has clearly

identified digital inequities, but only a handful of research studies allude to social and cultural causes of the digital divide.[6] For example, a growing segment of socio-economic literature contains information pertaining to digital inequity and community empowerment through technology; however, it falls short of explaining how different communities and users, such as low income immigrants, view technology.[7] Thus, the literature does not tie technology use and digital literacy to an individual's needs at the micro level. Schmidt argues that another dimension to digital inequity "has to do with the purposes for which technology is used, and its relevance to those who use it or do not use it,"[8] and concludes that this dimension has been overlooked. No examination has been made exploring what uses individual immigrants make of technology, and therefore it is unknown how the digital gap affects them from their perspective. This dissertation seeks to explore these personal insights, and by so doing understand how access gaps affect immigrants' ability to succeed and meet their personal goals.

Digital Inequality and Social Inequality

In exploring explanations of digital literacy disparities, some scholars have started to view digital inequality as a subset of social inequality in general, drawing from social science literature. For example, Wellman & Berkowitz[9] and Van Dijk,[10] draw from sociologist Charles Tilly's (1998) groundbreaking work, *Durable Inequality*[11] utilizing a relational approach for explaining digital inequality. The relational approach uses categorical differences rather than individual attributes as the primary drivers of inequality.[12] A handful of empirical studies have examined how resources distributed in this manner have influenced digital literacy for the socially

and economically marginalized populations, including immigrants like the ones in this study.[13] Several attempts by researchers to categorize the resources or "forms of capital" that play out in digital inequity issues have helped to reframe the concept of digital inequity. These scholars often refer to the work of Pierre Bourdieu and James Coleman.

> *Bourdieu (1986)[14] distinguishes between economic capital (property and money), social capital (connections and obligations), and cultural capital in the three forms of the embodied state (training of the mind and body), the objectified state (possession of cultural goods), and the institutionalized state (educational qualifications). Coleman (1988)[15] makes a comparable distinction between physical capital (material forms of property), social capital (relations among persons that are characterized by obligations, expectations, trust, information channels, and norms and sanctions), and human capital (skills and knowledge).[16]*

Situating disparities among different groups against the background of general frameworks of social inequality helps bring to the forefront the gaps in current digital inequity scholarly work and the need for future research. However, forms of capital still remain narrowly descriptive in nature, attempting to clump subsets of populations into "homogeneous" groups, when in reality there are significant differences among the members. These earlier studies treat these communities as monolithic entities, rather than as diverse communities with an intricate tapestry of relationships. The social networks of the group I am studying include family, friends, and church. Many communities today, including the one I am studying are made up of people from a variety of countries, ethnicities, and classes. They differ by color, religion, and culture. As a growing percentage of these people are new or recent immigrants,[17] in a way, their greatest similarity is the fact that they are new to this country. These immigrants, often referred to as transmigrants, are border crossers who bring their own culture with them, while living within a transcultural community. Most research

has focused on a single ethnicity or group, and has focused at the macro or group level: what does the group seek to gain. My research focuses on a micro or individual level, and seeks to identify the commonalities in desires. Thus, I am not seeking to find how each group is different from the other, but instead trying to ascertain how they reach similar decisions regarding the need for technology. This work builds upon earlier inequity studies and expands the literature base probing at the micro level. The conceptual distinctions and earlier models of analysis will be discussed in the next section offering a framework to better understand the transcultural phenomenon related to digital divide, digital literacy and digital inequity research.

Economic, Social, Political and Cultural Goals as a Backdrop for Digital Literacy

The participants of this study exist against the backdrop of U.S. digital literacy initiatives. These initiatives have become a growing part of educational community discussions as a result of the No Child Left Behind (NCLB) requirement which states "student academic achievement [will be improved] through the use of technology in elementary schools and secondary schools through assist[ing] every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability."[18] The mandate to have all students technologically literate by the 8th grade has caused a mad dash for states to implement a plan that will help students reach these goals. They will need to report on progress in 2009, and accomplish the goals by 2014. The digital literacy urgency is not a new phenomenon. The push for digital literate citizens stems from earlier business reports,[19] and from industry and government reports.[20] Taken

together, these reports rationalize the importance of digital literacy in distinct ways, as social, economic, political and cultural goals.

Although adult immigrants, unlike their children, may not experience educational initiatives in the same way, they will also have to compete in a society whose labor force is driven by these educational mandates. Additionally, their children are learning within this construct and require digital literacy both for school success and to enable future workforce opportunities.

Among immigrants, literacy skills, including digital literacy, provide one means to locate, access, retrieve, evaluate, interpret and act on information, take part in community affairs, and be knowledgeable on local, national, and international issues.[21] Clearly low-income immigrants' ability to succeed in society is tied to these skills and the extent to which they have acquired digital literacy.[22] As scholars such as Lenhart and Servon have suggested, the economic and political saliency of the U.S. economy is increasingly dependent on a technologically literate work force.[23] As the economy grows, this need grows accordingly, and calls for ubiquitous computer and internet skills. "The ability to access and use IT is particularly important given the global economic shift away from manufacturing and toward services and information-related industries as the two primary characteristics of our current economy are globalization and information reliance."[24] An earlier economic workforce report, written jointly by the U.S. Departments of Education, Labor and Commerce calls for increased investment in worker education, stating:

> *For America to compete in this new global economy, it can either create low-wage, low-skilled jobs or take full advantage of the Nation's labor force and create high performance workplaces... Not only does a better educated and trained workforce create significant productively gains and better bottom line*

results for American workers, but the more a worker learns, the more a worker earns.[25]

"An inability of low-income and disadvantaged workers to compete for IT jobs contributes to the accelerating income gap between the wealthy and the poor."[26] For newly arriving immigrants whose English language and/or computer literacy might be challenged, access to computer based education is an indispensable requirement for economic opportunity. By enhancing digital literacy, they might acquire a chance to enter new career avenues, join the need for a growing technological workforce, and obtain an enhanced economic status. Digital literacy, according to the 2002 report of the National Academy of Engineering and the National Research Council, titled *Technically Speaking: Why All Americans Need to Know More about Technology,* is a requirement for educational success and for employment. [27] And so it is for transmigrant participants who live in transcultural communities.[28] Although business and educators understand the need for digital literacy, do immigrants? My study investigated why immigrants have decided to expand their technology knowledge and if their motivations match those described by the business community, educators, and technology advocates.

As immigrants continue to enter the U.S., their ability to be integrated into the workforce has given rise to discussions that extend beyond the economic labor market and examine digital literacy's effect on other aspects of life. Some such deliberations have focused on digital literacy for citizenship and civic engagement centered on a wide range of political, civil and social rights and responsibilities for both the individual and the state.[29] Digital literacy "serves to facilitate democratic decision-making, assists citizen participation in government, and contributes to the

search for roughly egalitarian measures in the economy at large."[30] For some, including immigrants, digital literacy enables a variety of social citizenship possibilities, often referred to as "knowledge democracy"[31] or "knowledge economy."[32] Digital literacy enables citizens' access to information that was previously unavailable allowing new participatory and social dimensions.[33] The proliferation of government and non-profit sites offering on-line facts and assistance enables an almost endless supply of high quality information at ones fingertips. As a result, digital literacy is considered a basic right of the 21st century citizen[34] and can aid in the achievement of social inclusion which will enable individuals, families, and communities to fully participate in society, control their own destinies, and take into account a variety of factors related to economic resources, employment, health, education, housing, recreation, culture, and civic engagement. Unfortunately, the benefits of digital information only hold true if one is properly armed with the ability to access it. My study sought to find out if these immigrants were armed with the necessary knowledge, and perhaps more importantly, what their perceptions were about the benefits of digital literacy.

The participants in my study may choose to learn to act as informed citizens, to both exercise and defend their rights. For citizenship to succeed, people, as scholars like Warschauer, Kvasny and Kulik suggest, need the tools and knowledge necessary to allow them to make informed decisions regarding other people, the community and the state.[35] An informed citizenry is involved in the community; it ensures that the government responds to their needs. They are knowledgeable on civil rights as they pertain to free speech, thought, and faith, and are cognizant of the

right to own property, and expect equal justice under the law. Social citizenship

expands these rights to include economic welfare and security, the right to be true to

your heritage, and the right to live a civilized life, i.e. have a job, house, and health

care. To be well informed, the populace must acquire specific skills, and must

participate in continuous learning in both formal and informal settings. But in spite

of the advantages of technology, and need for digital literacy, not all people have the

same access and therefore inequalities persist. In particular, some people lack the

technological opportunities and "know how" that other groups have.

The acquisition of digital literacy is a central focus of research on the digital

divide and digital inequity. Earlier studies by the U.S. Department of Education and

other U.S. Government departments[36] document the growing gap between

"technological haves and have nots." This "digital divide" was originally focused on

hardware and Internet access, but has been expanded to other "have and have-not"

theories, to include, concepts of social inclusion,[37] real access,[38] and digital

inequity.[39] This same concept I refer to as an "opportunity divide"[40] in technology

access for workers, or the general population. While the name may change, the

concept remains the same. Some population groups, especially immigrants from

lower socio-economic countries, are less likely to have had or continue to have either

computers or other technology-based learning tools at school and/or at home.

Although technology use isn't the only factor that contributes to academic and

work/career "success", it is an important one because of the increasing dependence on

one's fluency with technology. Indeed, the economic costs to society of a

technologically uneducated workforce are well documented.[41]

Previous studies targeting the digital inequity related to social, economic,

political and cultural goals have focused on specific demographic groups such as

African-American or Hispanic, and low-income, rural or urban populations.[42] This

study will expand on these earlier digital divide works with an increased focus on

inequity of digital literacy of adult, low-income immigrant populations situated in a

unique transcultural setting.

Background on Digital Divide Studies

The literature focus on the digital divide suggests a certain absence of

conceptual clarity, and the depth of analysis that goes beyond issues of access shows

how simplification of an issue may lead to a solution which can be implemented, but

doesn't cure the original problem, i.e., the digital divide is more complex than simple

access. Many in the educational field and especially those in the educational

technology sub-field would classify this study under the digital divide studies domain,

since most studies dealing with digital inequity fall under this umbrella term. While

this research makes both a theoretical and a practical contribution to the digital divide

discussion and research, I argue that a more elaborate framework is urgently needed,

as current notions of digital divide research suffer a lack of conceptual clarity and in-

depth analysis.

Like many topics, the digital divide issue existed long before the problem

was named and studied.[43] Irving states Jonathan Webber and Amy Harmon claim to

have invented the term in 1995 while working as journalists for the Los Angeles

Times, "to describe the social division between those who were very involved in

technology and those who were not".[44] However, almost ten years earlier, Schreiber

had already written about how society was becoming divided into the information

"haves" and "have-nots" with the advent of computers and the Internet.[45] No matter

when the Internet started, or who coined the term "digital divide", the idiom became

popularized when government officials started discussing the issue, creating greater

media coverage. The National Telecommunications and Information Administration

(NTIA) in the U.S. Department of Commerce redefined and popularized the term by

publishing on this topic during the Clinton administration via the seminal *Falling*

through the Net series[46], *The Digital Workforce: Building Infotech Skills at the Speed*

of Innovation,[47] *How Access Benefits Children*,[48] and *The Emerging Digital Economy*

II.[49] The first NTIA report, *Falling Through the Net: A Survey of 'Have Nots' in*

Rural and Urban America states, "While a standard telephone line can be an

individual's pathway to the riches of the Informational Age, a personal computer and

modem are rapidly becoming keys to the vault."[50] NTIA later contracted with the

Census Bureau to include questions on computer and modem ownership in the

Current Population Survey and to cross tabulate the information gathered according

to several specific variables, such as income, race, age, and rural, urban, and suburban

geographic categories.[51] Three NTIA reports followed highlighting both the growing

digital divide and the importance of technology skills for the 21st Century workforce.

Servon notes that these NTIA reports are considered seminal as they not only track

the dynamics of the problem, but document it as well, as shown by the progressive

urgency of the language tone of each proceeding report.[52] The earliest NTIA report

recommended focusing on connecting all schools, libraries and other public access

centers creating "public safety nets", allowing everyone potential access working

towards a goal of "hooking up all those households who want to be connected."[53] The

opening paragraph of the second *Falling Through the Net II: New Data on the Digital

Divide*, report states, "Now that a considerable portion of today's business,

communication, and research takes place on the Internet, access to the computers and

networks may be as important as access to traditional telephone services."[54] While

the first report mentioned providing access to "all those households who want to be

connected", the third report, *Falling Through the Net: Defining the Digital Divide*,

"assumes that universal connectivity should not be elective but should rather be

viewed as a national economic necessity."[55] The stronger language of the 1999 report

opens with:

> *With the emerging digital economy becoming a major driving force of our*
>
> *nation's economic well-being, we must ensure that all Americans have the*
>
> *information tools and skills that are critical to their participation. Access to*
>
> *such tools is an important step to ensure that our economy grows strongly and*
>
> *that in the future no one is left behind.[56]*

These earlier reports referred to the "divide" as a gap between those who had

access and those that did not. The NTIA report findings became the impetus for

government at all levels to turn attention to formulating policies to decrease the

digital divide, especially minority and immigrant 'have nots', like the ones in this

study, who were becoming a larger percentage of the U.S. population. One of the first

initiatives was the original large scale federal E-rate funding program that supported

discounts on telecommunications services, Internet access, and networking for

schools and libraries at the national level. Additionally, funding of Community

Technology Centers (CTC) and Technology Opportunities Programs (TOPS) were created to help support the narrowing of the digital divide whose efforts centered on the disadvantaged, especially immigrants and Hispanics.

In 2002, the report *A Nation Online: How Americans are Expanding Their Use of the Internet* helped justify the Bush Administration's funding cuts for both the TOPS and CTC initiatives. Federal funding went from a high of $64.05 million for 2001, to $4.96 million in 2005 and was left unfunded for 2006. The report indicated that Internet access increased by thirty percent, and that Internet use was up in all categories regardless of income, education, age, race, ethnicity or gender.[57] Current public policy and federal mandates distribute federal funding rely on the 2002 report's findings, although many, including myself, argue that the 2002 NTIA report presents an inaccurate assessment of a complex social situation, presuming that having access to a computer with Internet access is the means that makes possible entry into paths for achievement that ultimately will solve the problems of the poor.

Scholars such as Anderson, Czerniewicz, Brown Foster and others argue that these earlier digital divide reports falsely imply that there is one "gap", access.[58] Indeed, if access is the primary means to end all problems then social inequality should not be an issue in the U.S. as the public libraries would fill this role. So if the NTIA report is correct, and the digital divide has gone away, why are all citizens not technology fluent? Why do U.S. employers identify lack of digital literacy in the workforce as one of their main problems? Why do community members, like the ones I am studying, continue to sign up for informal and/or formal computer training? What does technology literacy do to improve the lives of immigrants? A plethora of

research, searching to answer similar questions, was begun outside the auspices of the NTIA to investigate the digital divide around themes related to access.

A variety of scholars such as Graham, Schon, and Blakely have examined the technological gaps in access in our society. While not specifically targeting immigrants, their work presents snapshots of the existing issues which are helpful in providing insight for this study. In addition to detailing differences in access, research findings have alluded to a more complex problem focused around the impact of technology on society. Graham explored some of these differences of access and noted that the gap could level off, but differences could also be accentuated. [59] "IT produces effects in opposite directions simultaneously; it acts as a great leveler of opportunity while also being an amplifier of inequity."[60] Blakely, et al.'s pioneering study of technology and the ghetto in Los Angles illustrates this hypothesis and describes the creation of elites while ignoring a mass of low–income undereducated.[61] These studies imply the need for the creation of strategic policies that go beyond computer and internet access and are designed to help the technologically disadvantaged who include many immigrants who struggle to succeed in the U.S., while simultaneously trying to send money back and support family in their home country. Castell's groundbreaking work describes how technology transforms social life, and in combination with economic, social, cultural, and political changes, produces a "dual city."[62] Castell's later work is in line with Blakely's theory that technology itself may not cause the gap between the haves and have-nots, but it does continue to exacerbate it.[63] Technology can link production of new products and processes across the global information backbone, thereby slowly

eliminating the distinction between high tech and low tech industries. Thus, one can functionally unite units in disparate locations, and can bypass areas of have-nots within the inner city. By allowing one to work across distances, technology eliminates the need to train individuals within local urban have-not areas, or outsourcing in the modern vernacular. My study's locale is one of these urban have-not areas. It is located near a large number of high tech companies and the area is in the top ten growth areas for high-technology, yet its residents do not participate in this expansion. They lack the skills for these jobs, and in fact, in many cases, lack the basic education to acquire the needed skills. Deepening segregation can result as pieces of cities lose their economic base. What results is a mismatch between the urban school system and the requirements of the labor market. There are numerous jobs, but they require higher levels of education and digital literacy than the population obtains. Zellmer makes similar arguments regarding technology's effect on the urban economy.[64] Skill requirements for jobs split between ever more sophisticated educational qualifications at the one end, and low skill jobs (or no jobs) for the untrained (often new immigrants) on the other end. Autor, et al.,[65] and Bresnahan, et al.[66] examined studies and data from the last twenty-five years and concluded that rates of poverty and segregation among poor, largely Black and Hispanic populations, has worsened in the large U.S. cities. Autor, et al. describes the flight of businesses from the central-city, resulting in fewer blue-collar jobs suitable for those without education in higher level skills.[67] In the area under study, census data indicate a large Hispanic and Caribbean population who are lacking these skills and are constrained to low paying jobs. My study investigated how members of the

community perceive technology playing out in their workforce needs, and what place they believe it holds for their future.

Some research findings support the argument that technology access in itself does not assist the poor.[68] The poor cannot take advantage of the economic opportunities that technology presents because of issues related to education, language, work readiness, and computer (digital literacy) skills. Rather than bridging the gap, technology can drive the working poor (as well as portions of middle management) out of the mainstream economy, and as a result, cause a widening economic gap. The technological gap can lead to an ever deeper economic gap which may directly impact the immigrant population I am studying as they try to improve their economic situation.

Contradicting the ideas described above, several studies characterize the digital divide solely as an issue of access, and therefore argue access is improving, the gap is narrowing, and the overall situation is improving. Similar to the 2002 NTIA report, interesting statistics extracted from the U.S. Department of Education's Educational Technology Fact Sheet[69] make a strong case that the digital divide, as defined solely by access, has narrowed significantly. Still scholarship on the digital or opportunity divide is complicated by limited datasets. Comprehensive and detailed longitudinal studies have yet to collect adequate data on how technology factors affect low-income populations in both the academic arena and the workplace as viewed from an individual's perspective. While some institutions like the Pew Internet & American Life Project, collect information regarding home computer access and Internet connection, little data is gathered as to who and what is being

done productively with technology and for what reasons.[70] Yet, because society uses

technology for economic benefit, it matters greatly if one is able to productively

function with and via technology. This study will examine the value the social and

cultural complexities that diverse groups bring to the table and how these play out in

their individual perspectives, conceptualizations, uses and attitudes toward

technology and digital literacy, and how these challenge the idea that solving the

access issue solves the digital divide. To do this, one must seek to further examine an

expanded definition of what constitutes the digital divide, and what are the resulting

implications.

Looking Beyond Access

In contrast to the earlier government reports, scholars like Warschauer,

Kvasny, Czerniewicz and Brown have tried to move beyond access as the single

component of the digital divide and construct a broader perspective. This viewpoint

better illuminates the situation in which my study population is situated. This section

will discuss the metamorphosis of the definition of digital divide within these latest

scholarly works while revealing unexplored areas which require the use of an

expanded framework.

Current debates about digital literacy draw from the interconnections between

digital divide, as defined by access to computers and the internet, and digital equity

literature, which emphasizes the supporting resources, both educational and social,

for digital success. Including analyses of culture such as those within this study are

imperative, as reliance on "measuring the digital inequity in terms of its technical

access, and in using quantitative measures for assessing quality of services and social

benefits is flawed, as basic social issues need to be considered and faults or lack thereof rectified in order to ensure that digital inequity issues can be addressed."[71] One group of scholars divide the broad understanding of digital divide debates and research into two broad categories: policy or digital divide studies and social impact or digital equity studies.[72] As shown in the previous sections, most literature related to the digital divide falls short of providing a full picture of a complex issue by focusing primarily on survey research that highlights the diffusion of computer technologies and internet access and use in home, work, school and public spaces. Ethnicity, race, geographic locations, household income, household composition, age, and education have usually been the identified and measured demographic factors studied. While this works well in identifying the scope of hardware problems and alludes to broader social impacts, it does not address cultural barriers such as those which might exist within a transcultural community like the one in this study.

A newer movement by scholars more closely examines the digital inequity phenomenon in terms which connect to the community being impacted by technology. These scholars delve more deeply into societies which differ by race and socio-economic status in order to reveal a better understanding of digital inequity as it is conceptualized and used through frameworks based on economic, social and human capital.[73] Schement and Forbes identify gaps in household telephone penetration which they state are due to monthly fees that are tied to its use. As a result, they speculate that a similar gap will persist in computer usage in the home, due to the monthly fees that are required for internet access.[74] Hoffman and Novak's research finds similar results, where in groups with less than $40,000/year income, whites are

35

twice as likely to have access to a computer with Internet access at home. [75]

Therefore, they conclude, the lack of access, due to the lack of economic capital,

becomes endemic to non-White poor, and the supportive structures within the

community do not develop the social capital necessary to establish the social

infrastructure required for ubiquitous technology use. More extensive demographic

studies illustrate subtleties of purchasing patterns and desire to use computers, [76] but

while these studies speculate on reasons for these gaps and desires, they are simply

guesses and are not based on systematic research on the causes of the gap,

particularly from the perspective of the individual, an omission which my study seeks

to rectify.

The arguments describing the digital divide as a symptom of a much larger

and more complex problem have resulted in a closer look at the barriers and a more

broad definition of "access". The Global Knowledge Partnership defined access in

their 2000 report to include: "physical access to IT; access to training; access to

salient local content in the language of the user; and access to the process by which

telecommunications decisions are made."[77] Servon categorizes three dimensions to

digital divide issues: access, training and content.[78] Each of these dimensions is not

independent, for example, physical access is often affected by ones inclusion in social

networks which can provide both resources and training. One must be prepared to

discuss the interconnections between the dimensions to fully understand how they

affect technology users.

Access to physical resources, such as devices (computers and the Internet) and

conduits (electricity, Internet services) are acquired through economic capital but

must also be considered within the broader social context of each. For example, a research scientist in a large corporation would have significantly different bandwidth requirements than an elementary school student. Even the existence of identical physical resources does not lead to an implicit equality in access or digital literacy. The ability to assimilate information is affected by other factors such as content and language (digital resources), communities, networks and support (social resources), and education and literacy (human resources).[79] Typically, digital resources refer to *all* material made available digitally via technology. From the viewpoint of the white middle-class, there may be a virtually unlimited amount of information available, but when viewed through a different sociocultural lens, i.e. that of an immigrant similar to the ones in this study, some with limited English language ability and/or limited educational background, a different picture emerges. Digital resources for this group must be in an appropriate language, at the appropriate readability level, and relevant for their culture and goals in life.

Human resources include issues such as literacy training and education. Literacy encompasses linguistic (reading and writing) skills along with the newer possibilities presented with digital literacy.[80] Digital literacy includes critical literacy[81] which is an important part of reading and comprehending in the online era. "Critical reading of the Web involves analyzing whether a site is credible, examining its viewpoints, asking why information is presented in a particular fashion, considering what kinds of information has been left out of the presentation, and determining whose interests are served by the site's emphasis, organization, or omissions."[82] Additionally, one can examine social resources which refer to the

community, institutions and social structures that support acquisition of digital literacy.

Several studies examine how the lack of resources contributes to digital inequity. One study investigating computer use among low-income and middle-income children discovered that middle-income children were best able to solve computer problems by seeking the assistance of a family member or friend. However, this social capital support did not exist for low-income children, as their family saw little need for a computer,[83] nor did it exist in many of the homes of participants of this study. As a result, many turn to the community technology center to provide the human capital resources they need to support their learning. Pinkett argues that a sociocultural constructionism asset-based approach to community technology and community building can be effective in achieving a social and cultural resonance that truly addresses the needs of residents and the broader community.[84] Widening Pinkett's study helps in investigating the wide range of variables that reflect the historical, economic, and cultural interdependencies between host country and country of origin that immigrant transcultural community citizens must engage in, and enables the exploration of the complexity of the resulting issues. The study of digital literacy among heterogeneous immigrants, such as transmigrants living in a transcultural community situates a complex social set of interactions drawing upon the multiple identities that persist in their dual cultural situations. From a "social impact perspective, it is naive to assume that technology access and market forces are the sole roadblocks"[85] to digital literacy even when viewed through a variety of economic, social and political lens. Further decomposition requires conceptual

frameworks to examine digital divide and inequity issues. The next section describes these frameworks and shows they are not without limitation, and therefore will be expanded within this dissertation to provide the largest canvas possible to paint a detailed picture of the situation in which my participants live.

Prior Digital Divide and Digital Inequity Frameworks

Several scholars have recently expanded the notion of digital divide beyond access and developed conceptual frameworks that could be used as a means to separate the barriers to digital literacy into components. I argue, that while these components can be coalesced into a broader framework for use in examining a transcultral community, they must be augmented by additional dimensions to form a complete picture.

Warschauer[86] draws from literacy theorists such as Gee, and social scientists Bourdieu and Castells. Gee's work[87] is grounded in Bourdieu's socio-cultural perspective. Warschauer emphasizes that the meaning and value of digital literacy (access and skills) in the larger context of social inclusion are specific to the social context, and acquisition is a matter of both education (do they have the background to learn the material) and power (do they have the physical resources to acquire the resource or information). Warschauer's four categories for social inclusion include physical, digital, human and social resource constructs. A transcultural community's makeup, a heterogeneous group of transmigrants, may provide a complex group of barriers to digital literacy, and therefore, Warschauer's categories may help simplify analyses.[88] However, Warschauer's factors are directed at macro level analyses (economic, political and legal environments in the societal sense) and therefore his

model is too broad to use exclusively for my research. It is necessary to also examine factors at the individual level, such as habitus, to include the micro level assessment this study desires.

Kvasny provides another potentially useful framework using a "holistic approach for analyzing digital inequality that goes beyond common conceptualizations of the digital divide that narrowly focus on technology access and interface usability … contend[ing] that unequal access is rooted in historical, institutional, economic, cultural and social conditions that underlie technology use and distribution as well as capital development."[89] Kvasny integrates social and cultural considerations into the prevailing digital divide discourse through social, economic and cultural capital constructs, in addition to technical means (refers to the connectivity and availability of computers) and institutional reform which mediate virtually all economic, political, and social life (the relative lack of employment opportunities, the limited availability of affordable daycare).[90] Kvasny and Truex's work adds to Kvasny's earlier research by adding additional dimensions.[91] Utilizing Bourdieu's sociology of language as a theoretical lens, they analyze political speeches regarding digital opportunities delivered by U. S. government officials in order to see what techniques the speakers use to "define away" the previously identified digital divide problem. Their framework details six major constructs: habitus (expectations, aspirations, and attitudes toward technology; how and if one engages technology); symbolic violence (use of technology to enforce decisions); cultural capital (exposure to, previous experience with, and familiarity with technologies); symbolic capital (sharing of technical expertise, denying training in new technology); social capital

(access to relationships with others knowledgeable about technology); and economic

capital (ability to acquire technology and training). To inform relational approaches

amongst the constructs they emphasize the need to 'cross-map' key concepts. Van

Dijk & Hacker also support a relational view through mapping networks, conditions,

positions and connections.[92] While I question several of Kvasny and Truex's

categories and interpretations of those categories, their work is valuable as it looks

more deeply into the cultural contexts in which digital literacy is embedded.

Czerniewicz and Brown's research delved into the broader views of "access"

as applicable in the Higher Education context.[93] Czerniewicz and Brown combined

Warschauer's and Kvasny and Truex's frameworks to form the analytical foundation

of their study based on four key areas of resources: personal, contextual,

technological and content. In particular, they sought to design a framework that

would help them investigate the relationships at both the micro and macro levels.

Personal resources refer to the individual's interest and attitude toward computers, as

well as knowledge, and skills. Contextual resources which are the support structures

in place to assist in furthering ones knowledge and can include community, familial,

or institutional support, but must be built around the individual, i.e., it must be a

resource that one can routinely access. Within contextual resources, Czerniewicz and

Brown also include constraints such as having the time available for learning, or

having childcare available to allow learning. [94] Thus, they expanded the traditional

definition of physical resources to incorporate practical considerations such as time

and autonomy. Content resources refer to the availability and appropriateness of

content that can be used. This can be subject to restrictions in language,

appropriateness (i.e. reading level or interest). Content must speak to the needs and social conditions of the learner. What this framework failed to address were issues which might arise as a result of a transcultural community like the one in my study. Do individual's form networks outside their ethnic group (both country and language)? What networks do they use, i.e. family, friends, church, community? What do they use as educational resources? Do they build their own library of content sources? Questions such as these need to be further explored.

While the realm of educational research has, to date, provided some potentially excellent insights incorporating social, economic and cultural impacts into the analysis, all have applied their analysis at the macro demographic level: treating communities as monolithic entities (African American, Hispanic, White). Thus, these studies do not allow disaggregation of data through a transcultural lens. It is for these reasons that I have decided to apply a different approach to the study of digital literacy; a comprehensive transcultural lens that helps conceptualize the embedded digital literacy phenomenon as it is perceived by the adult low income immigrants at the micro, meso and macro level. Insight is greatly enhanced by overlaying this study with a transcultural lens so that insight can be extracted including understandings of their place of origin, their place of residence, and how they form networks which go beyond their cultural background and extend to persons with common goals and desires. This technology base "sub"-community, or what Glick Schiller might call a social field,[95] contains members from different ethnicities and nations of origin, and forms the transcultural community under study. The sociocultural constructs

participants create will be examined to understand if and if so how this effects their perceptions, conceptualizations and uses of digital literacy.

<u>Digital Literacy through a Transcultural Lens</u>

The broad issues of digital inequity and the digital divide have benefited from recent analyses incorporating social, economic and political impacts to extend the issue beyond one of simple access. Digital inequity frameworks have further aided the analyses as issues can be broken into specific influencing areas, especially as applicable to marginalized populations. However, existing literature and research frameworks are deficient in theorizing and empirically examining factors that help one gain a deeper understanding of potential differences of low income transmigrant adult populations in order to garner a nuanced understanding about the ways in which digital literacy is perceived, conceptualized and used. It is important to note that transcultural communities, like the one in this study, are culturally complex groups of transmigrants from various countries emigrating for different reasons. Their cultures do not always start from a similar base. However, when living and working within similar economic constructs, their cultures tend to find ways to minimize conflicts and work toward common goals. In the context of digital access and literacy issues, they help mold the solutions that are created in their community. Transnational studies provide insight into these communities, but no literature as yet specifically addresses the impact cultural conditions have on technology use and perceptions. However, seminal research from transnational migration studies can aid in providing a starting point for viewing this study through a transcultural lens, as the participants

in my study are recent immigrants from different countries all living within the same Mid-Atlantic neighborhood.

Situating the Transcultural Framework

"Transnational Migration Stud[y] has emerged as just one sub-field of a broader interdisciplinary focus on Transnational Studies."[96] Although this scholarship is carried out by researchers in many of the social sciences, they often treat their efforts as unconnected to each other.[97] There is little synthetic theory building about what it means when governance, social movements, income-earning, religious life, and participation in knowledge building programs like technology classes are all enacted across borders. M. Smith[98] argues that to understand how migration affects people's sense of belonging and identity, it is the voices of the migrants themselves that must be interpreted and constructed into cultural stories. [99] Identities are constructed by narratives "which attempt at imagining communities to lock up human groups within fantasmatic boundaries."[100] R. Smith argues that immigrants do not necessarily share a common experience or status in their host or migrant community.[101] Thus, there are a variety of linkages that develop within the struggle for power and status within all communities in which you belong which are based on social and cultural motivations, such as enhancing status, and concerns about safety and security.[102] These are not only struggles based on bi-national identity, but can also be struggles based on gender, as countries of origin often present fewer opportunities for women than the U.S. Gender issues include past status, and aspirations for the future.

Glick Schiller and Levitt argue that earlier migrant research situated within

"migration theory [that] lacked the conceptual tools to adequately describe what was

being observed." [103] They contend

> *The development of a transnational perspective on migration during the 1990s has provided social science with a vocabulary and a framework to analyze the way in which migrants and their descendents participate in familial, social, economic, religious, political, and cultural processes that extend across the borders of nation-states. We are now able to conceptualize simultaneity, the ways in which individuals settle into a new locality and also maintain various kinds of social relationships that extend into other nation-states. We can distinguish between migrants who actually have crossed borders to resettle, transmigrants who move often across borders, and persons who have not moved but who live within transnational social fields and therefore, along with migrants and transmigrants, engage in some degree of simultaneity. Transnational Migrant Studies do not deny the significance of state borders; the varying degree of state economic, military, or political power; and the continuing rhetoric of national loyalty. Instead, this scholarship analyzes rhetoric and social practice, noting that networks of migrants and their descendants constitute social fields extending within and across nation-state borders. By so doing, it provides the conceptual space for scholars to study processes and positions including gender, racialization, class, and identity, which are not contained within the border of a single state. [104]*

Transnationalism provides a theoretical framework that acknowledges that

while many politically divide migrant "spaces" into separate nation-states (home

country and current location), all aspects of migrants' lives are permeated by

economic, social, political, familial and cultural processes that extend across and

among perceived borders in an endless array of forms. While transnationalism

provides a useful framework for this study, many argue that because the term itself

has developed through several disciplines in a simultaneous way, the concept is

muddy one, often signifying different meanings depending on the field of study.[105]

Indeed, reviewing literature on transnationalism included references to diasporas,

transnational social fields, transnational corporations, transborder migrants,

transnational communities, bi-national societies, dual national societies and globalization. The term itself is hard to define as "different theoretical interpretations lead to the application of different methodologies and different considerations of units of analysis, which go from the individual, the family, organizations, the society, the economy and cultural practices, to the interactive foreign policies between two or more nation-states."[106] The term itself "trans" the Latin noun or prefix meaning "across" or "beyond" and "national" meaning of or relating to or belonging to a nation or country, implies belonging across national boundaries. However, past transnational migrant studies have routinely situated migrants into two separate "bound" geographic locations. This "orientation…approach[es] the study of social processes and historical processes as if they were contained within the borders of individual nation-states."[107] Indeed, scholars have worked and continue to work "within the prevailing assumption that immigrants live within distinct 'ethnic communities'."[108] The term "national" may be interpreted to mean any geographic container, and cause the reader to have a geographically localized interpretation of the group. Therefore, for this research I will utilize the term "transcultural" to help the reader move beyond the geographic "national" boundaries. However, the transcultural conceptual framework parallels the transnational framework as described by Glick-Schiller, Basch and Szanton[109] and Glick-Schiller and Levitt.[110]

Summary of Transnational Migration Studies: Transnational Framework

"The current period of globalization has transformed migration studies with the emergence of a transnational paradigm."[111] Working independently of each other anthropologists and ethnographic sociologists began to posit a new form of migration which

has since been labeled transnationalism.[112] Transnational migrant studies explore how transmigrants connect to their new country while maintaining contact with their home country. Technology may be one method transmigrants like the ones in this study use to maintain these connections. Simultaneously, they also may create a new transcultural community formed within their new residences, with transmigrants from other countries and natives, often by uniting behind commonalities. Glick Schiller and Fouron[113] state that migrants maintain a myriad of relationships to their home, host or other states. The community may form multiple understandings and political agendas within their shared set of symbols.[114] "Transnational Migration studies encourage one to acknowledge that while the world is divided politically into nation-states, aspects of our lives are penetrated by economic, social, and cultural processes that extend across borders."[115] Glick Schiller[116] argues that the term transnationalism or transnational processes emphasizes the ongoing interconnection or flow of people, ideas, objects, and capital across the borders of nation-states, in contexts in which the states shape but do not contain such linkages and movements. Thus, there are multiple layers and dimensions of the transnational social spaces that transmigrants, such as those in this study, inhabit.

Glick Schiller's[117] concept of a "transnational social field" as a network of networks, referred to by other authors as a transnational space, circuit or social formation, allows one to examine how migrants can live within and across states at the same time.[118] What may appear as an "ethnic niche or enclave," to those who look at location as a limiting boundary, may actually be part of a transnational social field.[119] Several studies present situations where transcultural social fields are formed by uniting forces such as religion, choral participation, or participation in

performing cultural groups, [120] but none have investigated technology as a facilitator

of transcultural formation. Communications technology can bridge distances, as well

as allow local people with common interests to find each other. Additionally, the

desire to increase knowledge about technology may be a common interest that unites

transmigrants, like the ones in this study, in a social network. Members of the

network may form peer groups where they assist each other in their technology

understanding, and may also provide assistance in their personal and professional

lives. Networks may grow as Web 2.0 technologies become increasingly more

available. This study examines if and how members of a transcultural community use

technology to enrich their lives in the U.S.

The formation of transcultural social fields may also be dependent on the

location in which they exist. Brettell argues that although urban theory generalizes

from one city to all cities, one must be careful, because the incorporation of

immigrants into the social structure of an area differs from one city to the next. In

order to be able to extrapolate results to other areas, one must address the specificity

of locality. [121] In the words of Ellis, "Place-specific conditions matter, … [because]

economic structuring … affects regions in very distinctive ways." [122] Where

immigrants settle may affect their transcultural incorporation, as localities differ not

only on size, but also how the hierarchies of power and capital flow. The flattening

of the world as described by Friedman has resulted in a restructuring of global capital

and strengthened the significance of cross-border forces and has changed the

economics of many localities.[123]

Technology may also foster immigrants and their descendents to organize themselves across local boundaries.[124] It is not necessary for the homeland to be involved. For example, Takenaka states that Japanese settled in many countries and have organizing networks and organizations that enhance their social capital in ways that maintain their Japanese identity without including the Japanese state.[125]

In addition to uniting across boundaries by common home background, global movements may form a basis of transcultural social field and identity construction. Movements such as the international workers movement, the international women's movement, and the anti-nuclear movement span national boundaries and may result in a form of nationalism that is not linked to homeland, but instead by ideological or religious cause.[126] This study will explore whether members of this study become united by unifying ideas and organizations, and if, and if so how, digital literacy plays a part in unifying efforts.

As indicated, digital divide, digital inequity and social inclusion theories can be greatly enhanced by the overlay of the transcultural perspective. Within the context of the various demands and societal pressures, what desires and needs lead the transmigrants in my study to pursue digital literacy? What do they expect themselves and their children to need in today's society to support their future? Research is needed to help educators and policy makers appreciate and understand technology's impact on minority, low-income immigrant digital literacy achievement through the voices of the people directly involved. Particularly since these people are not homogeneous; they come from a variety of countries and socioeconomic conditions, and emigrate to the U.S. for work, family, to escape war, etc. and settle in

diverse communities, i.e. rural, urban, east coast, mid-west, southern, etc. They often

maintain ties to their country of origin. These transcultural identities must be

understood to decipher their views toward digital literacy. A transcultural perspective

facilitates the understanding of immigrant perspectives, conceptualizations and uses

of digital literacy based on identity which considers both old and new communities of

residence.

Thus, this research explores the uses of and perspectives about technology as

constructed by a selection of diverse transmigrants from several home countries,

situated in an urban mid-Atlantic transcultural community, as analyzed through a

trasncultral lens. Using this orientation, I seek to examine how these individuals live,

work, and grow within this paradigm and situate how they conceptualize, and make

use of technology and digital literacy to either, maintain, or augment their multiple

identities within specific regional, local and historical contexts.

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Chapter 3: Methodology

<u>Introduction</u>

This study aims to explore the meaning and uses five immigrants make of technology and digital literacy through a local technology education program situated in a transcultural community. For this purpose, the use of an ethnobiographical methodology is compelling.

Ethnobiography provides a fruitful way of illuminating the participants' often not heard voices. The introspective and retrospective nature of ethnobiography can enhance understanding of the link between the individual and a transcultural community very effectively. The interpretive nature of ethnobiography allows the researcher to make that link. The detailed narratives of the individuals make ethnobiography a mine of information. The intensely personal nature of ethnobiography impacts upon the sense-making of the reader. The existing literature and the researcher's interpretation can be woven into the ethnobiographic narrative, while the participants' individual voices remain of preeminent importance.

Ethnobiography is an approach that allows an examined account of the voices of the people in a unique community and focuses on their culture in the here and now, unlike oral history which seeks to put the voices in historical context. Unlike phenomenology, ethnobiography allows individual decisions that are influenced by a unique community setting to surface, by extracting the views of the individual and weaving their stories together to understand the transcultural tapestry in which they live. The use of the transcultural lens, provides a cultural component that allows the

researcher to view the perspectives of the participants with respect to both their host and home culture to better understand their situation and life choices.

The group I studied is heterogeneous in makeup, and the nature of ethnography extracts culture rather than the individual. I was interested not merely in the blanket. I wanted to explore the threads of the blanket to see how they were weaved together to form the beautiful quilt that makes up this transcultural community. Ethnobiography and its ability to bring to the forefront individual voices revealing commonalities of experience and dreams fit my goals best. Thus, ethnobiography, which uses the series of events making up a person's life to discover and describe a particular group, community or culture,[1] values an exploration of and has a capacity to highlight different textures of personality including intimate details of experience and perspective that develop in a community, seems the best choice to highlight an individual's perspective while simultaneously placing them within a larger context.

In order to better understand how participants interact within their world, I adopted an epistemological and methodological position that allowed me to take part in, listen and observe the lives of the participants. As with all people, the participants in this study are engaged in a complex and on-going process of meaning-making and identity construction. Their lives include a full and multifaceted range of structures, relations, situations, and places, dispersed families (back home and close by), work, peer cultures, religious activities, life long learning processes and institutional formations. These participants' lives are situated in a particular place and time; and as some social theorists have argued,[2] their responses and exercise of agency will

intersect with and are contingent upon historical circumstances. The focus on the complexity of digital literacy, use of technology and the transcultural society of immigrants supports the choice of ethnobiography as the most compatible method with the purpose of my study.

Ethnobiographic procedures for this study are drawn from earlier scholarly work.[3] Ethnobiographic techniques, which Goodall[4] calls "new ethnography", have been "theorized and celebrated … as textual productions which overcome definitively the problem of ethnographic authority inherent in outsider accounts."[5] Thus, ethnobiography foregrounds participants' voices. Ethnobiographies heavily invest in weaving verbatim data into the research findings arguing that ethnographic texts should push the researcher to become "intimately involved in the 'dialogic ethic' and the 'transformational vision'."[6] Ethnobiography is not only an art of discovering and describing a culture (in this case low income transmigrants) emphasizing the peoples' own voices, but also a personal meaning-making process for the researcher. It is "highly particular and hauntingly personal."[7]

The idea for this study was formulated from a five plus year relationship working in a local community. From my interactions, a list of questions emerged that could help reveal the ways in which technology and digital literacy exists within this transcultural milieu (social, political, and economic aspects). In my view, the participants in this study were active agents. The descriptions of their lives in their own words were intended to elicit a more robust understanding of how these five immigrants made sense of technology's impact on their work, family, community,

church, and daily life, as transmigrants in a mid-Atlantic urban neighborhood through engagement with a community technology program.

After examining the interviews, the words of the participants were studied and themes emerged which helped address larger, etic questions that may help direct educators and policymakers. I believe the fieldwork yielded detailed accounts regarding the role of digital literacy in participants' lives and future plans from an emic perspective or from what Denzin and & Lincoln[8] refer to as the view of the social actors. This led to a better understanding of the transcultural practices of selected immigrants as they experienced cultural transitions and adjustment in the mid-Atlantic urban transcultural community. An ethnobiographic method allowed me to record, discover, and bring to the forefront the participants' voices.

In this chapter, I present the various components of the research design. This section has outlined the rationale for choosing ethnobiography. The next sections will describe the procedures for the conduct of the study: description and location of the program and transcultural community, subject selection, data collection, analysis, interpretation and limitations of the research.

Both an earlier pilot study described in Appendix B, and the research field

work took place at a local community center which will be referred to as Pemberley

Station (Figure 3.1) in a low-income neighborhood in an urban area in a mid-Atlantic

state.[9]

Figure 3.1. The local community center

Study participants entered a digital literacy class sponsored by the local Parks

and Recreation Department. Several digital literacy/computer classes were and

continue to run through the county *Parks and Recreation* housed in several local area

community centers including the one used in this study. The programs were

advertised through the printed *Parks and Recreation* catalog, an online version, as

well as through word of mouth. Participants enrolled in a variety of digital literacy

classes for a small fee. Open lab time was also open to community members.

Sessions utilized a constructivist based Digital Fluency curriculum,[10] which covers

basic through advanced computer skills, focusing on tools that can enhance the life,

education, and work experience of the attendees. The basic curriculum is shown in

Table 3.1.

Table 3.1. Example of Digital Fluency Curriculum Outline

Summer 2006 Beginner & Advanced Computer Classes at Pemberley Station							
Beginning				Continuation			
Session	Date	Topic	Activity	Session	Date	Topic	Activity
1	6/14	Basics Overview	Parts/Hands-on	1	6/14	Advanced Word Cont. business cards	Business cards Columns Adv disclaimer
2	6/21	Review Basics & Word	Word Exercise	2	6/21	Mail Merge Excel Labels	Mail Merge print out labels
3	6/28	Word	Finish exercise Saving files	3	6/28	Advanced Word Making own templates About Help Customize tool bars and what they mean Columns - brochures	Make 1-2 own templates and exploration exercises (one with column set-up) brochure
4	7/12	Word Art Drawing tools Clip art Insert clip art	Flyer	4	7/12	Advanced Word Draft stamp Watermarks Header/footer Page breaks Margins Inserting hyperlinks	Continue with brochure Document exercise
5	7/19	Word Art Word Sizes/borders Insert Pics QuickCam	Card Quick Cam	5	7/19	Power Point Advanced—adding animation, hyperlinks, sound etc	PowerPoint
6	7/26	Templates	Word Exercise FAX Business Letter	6	7/26	Excel Basics and Tools Graphing	Invoices
7	8/2	Multi windows Copy/cut/paste	Business letter Word document (free choice: Resume--work flyer—church program--school project etc…)	7	8/2	Excel Mail merge Data filter	Address book
8	8/9	Text box Envelopes Business cards	Word document Envelopes Business cards start	8	8/9	Excel Modifying	Advanced invoice templates Free choice activity
9	8/16	Finish extra class	Finish and Certificate	9	8/16	Finish extra class	Finish and Certificate

No grades or tests were given.   The constructivist Digital Fluency curriculum

covered digital literacy applications such as Word, Excel, PowerPoint and the

Internet. Lessons and class exercises were chosen from a large set of project-based

activities; the specific lessons used were based on participants' interests. Free time for technology exploration was also provided before and after class sessions. These courses served both adults and school-aged youth and were offered in the evenings. The beginner class started at 6:00 PM and ran for one hour. Time to complete projects or utilize the lab for individual work time was allowed between 7-7:30 PM. The advanced class ran from 7:30 PM until 8:45. Classes ran for eight or nine week sessions year round, with time off between sessions for holidays. Ten to twelve students were enrolled in the courses at one time. The lab did host 15 refurbished computers, but several were temperamental at best. On several occasions, we had up to 15 enrolled. Students preferred coming with a friend and sharing computers rather than waiting for another timeslot. While several participants went directly from the beginner class to the advanced, more often, participants chose to repeat the beginner class to learn and practice more. Over 300 community members have participated in these courses between June 2002 and December 2007.

I continue to teach one night per week year round, and have initiated an after school enrichment program and several summer sessions for youth through grant initiatives. I have participated for several years at the community's annual festival, sponsored by a local non-profit organization and the local community center. The festival shares cultural experiences, health care and other information for all area residents. In the past, the technology program booth at the festival has offered an overview of the class and has showcased participants' past projects.

<u>Transcultural Community Tapestry</u>

The community of interest for this study occurs in a mid-Atlantic urban transcultural neighborhood which consists of immigrants from a variety of nations with different cultures, values, and opinions. Specifically, the investigation takes place in an area which I call Pemberley Station (all names and counties changed). Pemberley Station is located near a major metropolitan city in Coty County. The county line bounds its quarter-circle area on the west, Orchard Boulevard on the south, and Thames Branch on the north and east. Until World War II, the Pemberley Station area was a rural estate, when developers began to build large numbers of houses and apartments. Throughout the post-war years, Pemberley Station remained a "starter community." In the 1970's, due in part to housing and school desegregation, there was a large influx of African-Americans, and in the 1980's immigrants from Central America (especially El Salvador) moved into the area. The 2000 Census indicates Pemberley Station's 0.8 square miles includes a Latino population (all numbers are rounded to preserve anonymity) which has increased from 7,000 to 10,000. The area is also 25% African-American (4,000 people). Over the last decade, the neighborhood's Latino population has grown from about 40% to 60% of the entire area.   There is a strong possibility that due to the large number of immigrants, some who may be unaware of the census and some who are undocumented and may avoid the census, the population number may be an undercount. Of the 10,000 Latinos counted in the survey, 25% are not identified by nationality, and of the remaining 7, 500 people, 6,000 are Central American including 3,500 Salvadorans and 1,800

Guatemalan. The concentration of Latinos in Pemberley Station is part of a national trend. An article in the Washington Post on April 1, 2001[11] stated,

> *Black and white Americans are more likely to go home to integrated neighborhoods than they were a decade ago, but Hispanics increasingly live in ethnic enclaves, according to a Washington Post analysis of 2000 Census data.*

Latinos, whose numbers have caught up with those of blacks, are creating Spanish-speaking communities where none existed a decade ago. For Latinos, increasing segregation appears to be related to a huge influx of immigrants in segregated neighborhoods. These enclaves follow a historical pattern for immigrants, who for generations have moved into neighborhoods with networks of relatives and friends, where others speak their language and can help them find work.

While the 2000 census indicates Central American immigrants still makeup the largest demographic group, recently an increasing number of immigrants from the Caribbean (Jamaica, Trinidad) have started to develop pockets in the community. According to the 2000 census, 72% of the population in the Pemberley Station area speaks a language other than English at home. Long working hours and the difficulty of English, as well as the lack of conveniently scheduled English language classes are among the explanations heard from some community residents when questioned why so many immigrants have not learned English. Figure 3.2 shows the percentage of Hispanic in various areas within Pemberley Station.

Recent immigrants often have ties to both their new and old countries and acquire different residence and statuses as *"transmigrant," "transnational,"* or in "diaspora." Basch, et al. uses the term "transmigrants" to describe immigrants who build and maintain multiple relationships and social fields.[12] Pemberley Station

Community Center is characterized by a rich mix of ethnic groups, and therefore is an excellent location for this study.
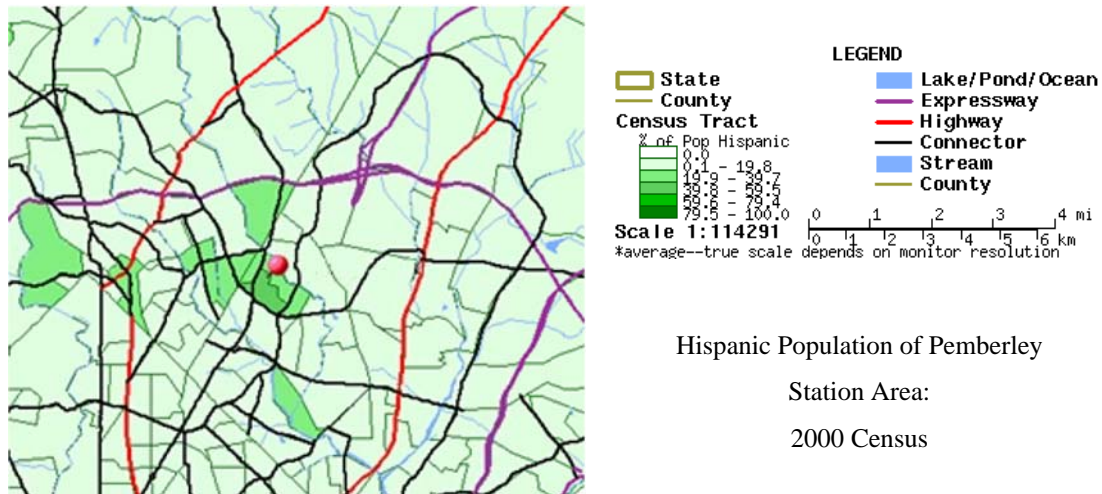
Figure 3.2. Percent Hispanic Population for Pemberley Station: Source US Census 2000

One pocket in this community houses El Salvadorian immigrants who live close to the center and thus have received benefit of its service in the past. Over time, an increasing number of immigrants from Trinidad and Jamaica frequent the community center. While these Caribbean immigrants live further away, most are still within close commuting or walking distance of the Community Center.

While immigrants from the Pemberley Station community have different countries of origin, several common threads can be seen among them all: they have moved because of either economic need, or persecution; they moved to this area through networks of family or friends; they form pockets within the community based on these networks; these networks also serve as the contacts for employment; they continue to stay united through local church services and related activities; due to

their low incomes several families may reside in the same household; and several, like the ones in my study, have sought out the programs of digital literacy.[13]

The members of the community have strongly held religious beliefs. As a result there are many churches in the area. Due to the multi-cultural nature of the neighborhood, religious preferences are diverse including, Catholic, Lutheran, Baptist, Seventh Day Adventist, Presbyterian, Unitarian, and Episcopalian/Anglican. Many of these churches have both an English and Spanish language service to meet all the needs of their parishioners. Some churches cater to African Americans. Some congregations have their own buildings, while others share a church building, and many others use school facilities. Religion is an important part of their lives, and becomes a source for not just spiritual support, but provides a network that supports their home culture, and provides a source for information regarding jobs, childcare, housing, schools, and negotiating the local community.

Coty County is placed within an area which has an ever increasing demand for technology based jobs. This growth is not unnoticed by the community, and although they may not see potential employment in a technology industry for themselves, they see the possibility for their children. Additionally, they see technology becoming more ubiquitous in all jobs, from McDonalds, grocery stores, and the local banks, to construction, to libraries and community centers. Thus, they wish to acquire technology skills to enhance their current opportunities. Additionally, even within a heterogeneous, transcultural community, the residents have common values of family, friends, church and education, and they find they can maintain these

ties via communication modes created by technology, and see the importance of

technology and digital literacy to succeed in the 21st century.[14]

Participant Selection for Fieldwork

Purposeful rather than random sampling[15] was utilized in selecting

final participants for fieldwork between May 2006 and October 2006. As

Patton suggests,

> *Qualitative inquiry typically focuses in depth on relatively small*
> *samples, … selected purposefully… The logic and power of purposeful*
> *sampling lies in selecting information-rich cases for study in depth.*
> *Information-rich cases are those from which one can learn a great*
> *deal about issues of central importance to the purpose of the research,*
> *thus the term purposeful sampling.[16]*

Since, I was already teaching courses at the local community center in the

transcultural community of interest and had approval from the director of the

facilities, I had access to participants. Subjects were participants involved in the

courses I offered through the informal program. I first did a pilot study, described in

Appendix B. The demographics of the participants of the pilot study are shown in

Table 3-2. The lessons learned from the pilot study guided the construction of the

final study.

Table 3.2. Demographics of Pilot Participants

Age	Country of Origin	Gender	Question Set	Child Interview - Age	Years in US	Employment	Fieldwork Study
29	El Salvador	Female	First	12	5	Unemployed	No
45	Nigeria	Female	First	13	4	Home Health Care	No
36	Mexico	Female	First	16	9	Cleaning	No
18	Tahiti	Female	First		4	Health Care	No
33	El Salvador	Female	Second	14	5	Cleaning	No
37	Guatemala	Female	Second	11	8	Unemployed	No
32	Jamaica	Female	Second	10	8	Home Health Care	Yes
35	Nicaragua	Female	Second	11	10	Cleaning apartments and businesses	Yes

From the almost 250 who had participated in the program, between 2002 and 2006, ten participants served as the original fieldwork sample. Those selected were program participants who had immigrated to the United States within the last ten years (although this included trips back and extended stays to their homeland), resided in the local community, were able to answer questions in English to help reveal the utility of technology and digital literacy, while also being able to complete an information questionnaire and sign the consent agreement (included in Appendix A) and at the time of the first interview were enrolled in one of the courses. While not in the original design, by chance I was able to acquire through conversation with the participants their economic status.

Recruitment began by following up with two of the students I had earlier interviewed (Jamaica and Nicaragua) in the pilot phase (see Appendix B) who were at the time enrolled in another course I offered. These two, plus an additional eight

people made a total of 10 students who had self–selected for the study: 3 females

from Jamaica, 1 female from Nicaragua, 1 female from Guyana, 1 female from

Belize, 1 female from El Salvador, 1 female from Guatemala, 1 female from Nigeria,

and 1 male from El Salvador.[17]

The final representation consisted of 2 Jamaican females, 2 Central

Americans, one female and one male, and one South American female. (Table B-1 in

Appendix B describes those eliminated from the final group.) This group was

characteristic of the overall make up of the ethnic and gender groups that attended the

community center technology classes and therefore was an appropriate sample.

Indeed, Central American and more recently Jamaican immigrants were the

predominant ethnicities of students attending the classes. Additionally, out of the

almost 300 participants who had attended classes between 2002 and 2007, only 11

have been male. Table 3-3 provides some basic background information about the

participants who were included in this study.

Table 3.3. Final Study Participants' Demographics

Name	Age	Country of Origin	Gender	Children/Age	Years in US	Employment
Milessa*	32	Jamaica	Female	Daughter - 16, Son - 12	8	Home Health Care
Yadira*	35	Nicaragua	Female	Daughters - 7,10, Son - 16,	10	Cleaning apartments and businesses
Marisha	48	Jamaica	Female	Daughter - 20, 16, 14, 12, 8 Son - 29,10, 7	9	Home Health Care
Josephine	45	Guyana	Female	Daughters - 15, 13, 12	10	Substitute Teaching Assistant
Carmelo	31	El Salvador	Male	Daughters- 12, 10	7	Day worker: masonry, painting and construction
Mean	38				8.8	

NOTE: * =Also in pilot study

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My understanding of this community was not a result of a short six month study, but instead was the culmination of five years of work with the community. Methodologically, ethnobiography, characterized by prolonged engagement with the transcultural immigrants under study allowed me to have firsthand experience with the community members and prepared me to focus on the participants in my study and foreground their perspectives. The stories presented were a direct result of my interviews, observations, field notes, and instruction of these participants, but my more in-depth understanding of these events resulted from years of interaction with the community. I experienced the growth of the computer classes, their celebrations, birthdays, deaths, holidays, and community activism.

The stories were a result of combining my experience in the community center with the descriptions of all the participants of both the pilot and final study. Interview data based on emic questions were used to extract an etic view of the digital literacy-transcultural phenomena of the group. Their voices were complemented by observations and understanding of their perspectives gained during class time, and in informal open lab time. During these periods they conversed about their "daily lives"; home, church activities, work and family, allowing me to have a holistic view of their daily living and their way of making sense of their lives in the U.S. within this transcultural community. Interviewing revealed the informant's point of view, their visions of the world, and beliefs, attitudes and opinions about technology and digital literacy. Observations, and other ethnographic methods, such as taking field notes and collecting documents and artifacts allowed me to have an understanding of how technology and digital literacy use complements understandings generated from

in-depth interviews. In sum, the engaged and extended period of time in the field and

the multi-dimensional methods of ethnobiography not only allowed me to fulfill my

goal to discover and describe participants' perceptions, perspectives, conceptions,

attitudes toward and opinions about technology and digital literacy, and the tangible

aspects of their "trans" cultural experience, but also enabled me to understand the

lives and experiences of these immigrants.

Recovering Voices and Perspective

Following Patton and Wolcott's suggestions, my collection timeline is

outlined in Table 3-4 Fieldwork Data Collection Schedule.[18] Empirical data and

collection processes are detailed below.

Table 3.4. Fieldwork Data Collection Schedule

Name	First Interview	Classes	Ongoing Classroom Observations*	Second Interview	Outside Observations
Milessa	Dec-05	Beginner (twice), Intermediate, Advanced	Dec-05 - Jun-06	May-06	Met her at church
Yadira	Jan-06	Beginner (twice), Intermediate, Advanced (twice)	Jan-Mar, Sep-Oct 2006	Jun-06	Several trips to her house
Marisha	May-06	Beginner, Intermediate, Advanced	May- Oct 2006	Sep-06	Met her at church
Josephine	May-06	Beginner, Intermediate, Advanced	May- Oct 2006	Sep-06	
Carmelo	May-06	Beginner, Intermediate	May-Aug 2006	Jul-06	

NOTE * These were observations affiliated with class days.
They took place before, during, between and after class.

Interviews

Interviews for this study were conducted between May and October of 2006,
except for two participants who also were members of the pilot phase. Their initial
interviews took place in late December 2005 and January 2006. Second interviews
and clarification sessions with these two were conducted during class after the final
study protocol was finalized in May of 2006. The timeline for fieldwork data
collection is summarized in Table 3-6.   All participants were members of the Parks
and Recreation community center technology/digital literacy class, and therefore I
had weekly opportunities to observe and dialogue with them in an informal, albeit
instructional manner. This brought a familiarity which aided the formal interviews,
as well as provided the ability to clarify questions as needed.

All interviewees received an explanation of the study, and an informed
consent form at the time of the original interview. Each of the final five participants
was interviewed twice at locations and times based on convenience and
appropriateness for the participant such as class, home, or church. Informal follow-up
clarification sessions were conducted as needed. The majority of the interviews took
place at the community center, either before class, or in the evening on another day of
the week. The length of the first interviews varied, but on average lasted between 60
and 75 minutes. The second interview was shorter, on average lasting between 45-60
minutes.

For the formal interview process, unstructured interview techniques were
employed.[19] A list of possible questions were developed to create an interview
framework, but as Falmer stated, the unstructured interview: "…assumes the

appearance of a natural interesting conversation. But to the interviewer it is always a controlled conversation which he [or she] guides and bends to the service of his [or her] research interest."[20] The interview protocol, or list of possible questions was created from prior interviews (described in Appendix A), and was used to help guide the discussion when needed, aid in note taking during the interview, and facilitated the organization of thoughts and themes after the interview was completed. While the protocol helped guide the conversations, participant responses directed the progression of the interview. When necessary, I would pull the conversation back toward an original topic of interest to ensure complete coverage of necessary subject matter. However, the redirection was only done after the participants were allowed to complete any in-depth conversations on topics they were passionate about.[21]

Interviews were recorded (audio) with the participants' permission on a Sony ICD-P210 digital audio recorder. This maintained a time and date stamp for each recording. The audio files were transferred to a computer, and verbatim transcripts were done immediately after each interview based on these recordings. Reflective field notes were kept to provide valuable information, which may have not presented itself in the transcript of a taped interview. Transcripts were used to sketch out life event timelines through use of visual graphics and excel spreadsheets. These assisted in the identification of knowledge gaps which were addressed through clarification questions asked informally during class or casual discussions within one to two weeks after the first interview. For more complex topics and to fill in large gaps, explain confusing information, and find out about issues which may have arisen in other interviews, a second interview was conducted. Checks on the first two participant

transcripts were done by my dissertation advisor. She seemed pleased by my techniques to draw out answers while still allowing the participants to share their personal interests.

Observations

For this research, I adopted what Lindlof and Taylor term "participant–as–observer." I "stud[ied] a scene from the vantage point of one or more positions within its membership,"[22] acknowledging my role as researcher. Data were gathered through observation techniques at events taking place at the local community technology center. Events informed this study, as they allowed me to see social patterns: how participants managed to succeed and attend, and how they negotiated their educational lives. I observed community center computer class members while engaged in technology related activities. In addition to interacting with them during class time, I observed participants during open lab time before, between and after the regular class session. I was particularly interested in websites and activities they chose, what arrangements they made to balance home and education, how they interacted, and how they shared computer knowledge with each other. Observations allowed me to dive deep under the surface to extract participants' perspectives on these events and their selection of lifestyle patterns. These activities allowed me to gain a holistic view of the participants' daily living and their way of constructing perceptions and opinions about technology and digital literacy. The protocol also included both descriptive and reflective notes.

Documentary Evidence

Documentary evidence and artifacts also informed this study. Documents can support and help verify interview and observation data. Documents can provide "the talk and social action contexts that the researcher is studying,"[23] and can "endure and thus give historical insight."[24] Documentary evidence included the Parks and Recreation class sheet with demographic data such as name, address, age, etc. A Parks and Recreation pre and post content knowledge profile and course evaluation sheet distributed during each course session was used to reveal what information participants hoped to gain and what skills they came with and retained from the class. Data were also collected from artifacts generated by participants, for example, letters, resumes, job search activities, pictures, scrapbooks, cards, poems, business cards, activities, etc. All documents and identification were made anonymous and protected. Either Xerox copies or electronic copies of most documentary materials were made allowing the originals to be returned to the participants. Participants also gave me artifacts as gifts, for example a church program and bookmarker they developed, a flyer with their picture, and a poem.

Data Transformation

Translating transcripts, artifacts, and field notes into workable descriptions, extracting themes, and constructing a coherent and meaningful story for the readers was central to my research. To accomplish this task, I pulled from recommendations and guidelines from a number of qualitative scholars such as Coffey, Atkinson, Wolcott, Miles, and Huberman. These steps including entering data into the

computer, indexing, coding, recoding, organizing, selecting, sorting, retrieving and otherwise manipulating data.[25]

Data Analysis

Records were kept of all research activities including interviews, fieldnotes, and artifacts. Folders were created for both hard copies and electronic copies of the records to store appropriate materials. After analyzing data from the initial interviews and accompanying field notes and observations and collected artifacts, information gaps were identified, and follow up questions and interviews were conducted. Themes were extracted from analysis of each participant aided by the use of memos and categorizing strategies. My analysis methodology followed the works of scholars such as Maxwell, Creswell, Wolcott, Miles, Huberman, Coffey, Atkinson, Merler, Bogdan, and Bilken[26] and can be found in more detail in Appendix C.

Data Narratives

Initially, data were placed within the NVivo software package, with the intent to spotlight themes and categories. However, for my purposes, I found that since my themes were not predetermined, but instead emerged from analysis of the data, and it was important to place each story in a chronology, the use of graphic organizers, Word and Excel best fit my thought processes and theme construction. Using these themes as inputs to NVivo would be redundant; I already had organized the information into themes and would be doing duplicate work within NVivo.

Once determining tentative themes I found that color coding, inline highlighting and the search feature (Ctrl-F) within Word was more practical in

transferring narrative data to the descriptive story. A narrative was first crafted around each of the tentative themes that presented themselves. After crafting a first draft of each person's individual account, observation and documentation/artifacts were re-reviewed and inserted into the description where appropriate. Narrative sections were rewritten, smoothing out the transition between text and dialogue. Information drawn from field notes was used to augment the narrative, especially where informal questions were used to fill gaps identified in the transcripts. As the narrative grew, additional themes were revealed which sometimes led to additional reorganization and rewriting.

As an understanding of each participant crystallized, it was compared to other participants meaning constructs, and how it supported or created new "global" themes. In some cases, new ideas emerged from previous transcripts as what originally seemed minor was in the spotlight of another person's story. In other cases, additional questions were asked of other participants to see if similarities in experience emerged. These questions were sometimes asked in a formal interview, but more often were worked in to normal interactions "around" the classroom (these could have been before, between, or after class). These answers were not digitally recorded, but were put down on field notes.

After reviewing a sample of coded original transcripts, observation and documentation artifacts, codes, themes drawn from codes and the descriptive narratives crafted from the process, I placed the individual stories in chronological order (from time in home country to coming to U.S. and current). After completing draft data narratives, the overall themes were further focused and clarified. The

individual chapters were written and rewritten to both provide an informative description of the people's lives, while also providing a matrix of information allowing the reader to see the travels and choices made by these participants. It should be noted that the understanding and descriptions of each participant were not a result of isolated interviews, but were instead the distillation of interviews, observations, artifacts, and informal discussions that took place over the course of seven to ten months. This long baseline not only provided for more data collection, but helped to build the relationship and trust basis necessary to extract information about one's story and situation in a robust manner. Additionally, an upfront organizer and a reflective piece were added at the beginning and end of each individual story. In the end, over 300 pages of double spaced interview text was the result of the transcription. I also had 233 pages of fieldnotes, and 39 collected artifacts. As a result five individual stories were crafted to show, from the individual's perspective, and primarily through their own voice, how their lives progressed and how their choices made sense to them.

What is shared in chapters 4-8 "describes" the uses of and perspectives about technology and digital literacy as shared through the individual accounts. I made a conscious decision to keep each participant's narrative separate to keep their stories clear and without a forced construction. Since each person was unique, following an individual path to the U.S., with different goals, and using different resources, it was important that each voice be allowed to tell its own story. Each participant also had different sentence construction, and commingling stories would confuse the reader because of style, and could lead to a confusion related to who was talking.

Intermingling conversations would have been challenging to both the reader and writer, and I do not believe, would have added to understanding.

As Lofland states, "to 'capture participants in their own terms' one must learn their categories for rendering, explicable and coherent the flux of raw reality. That, indeed, is the first principle of data analysis."[27] Bearing that principle in mind, each chapter is arranged in chronological order from life in home country to the present participation in a transcultural community. The descriptive accounts contain interwoven analysis to allow for a palatable read, although I made a mindful effort to keep my own dialogue at minimum, in the individual stories. I also acknowledge my engagement in ordering the stories by thematic units may have tainted the descriptive accounts, but the effort to record the majority of the individual stories through the voices of the individuals in full, hopefully outshines the construction and organizational pieces created using my words. As stated by Patton, "Direct quotations are a basic source of raw data in qualitative inquiry, revealing respondents' depth of emotion, the ways they have organized their world, their thoughts about what is happening, their experiences, and their basic perceptions. The task for the qualitative researcher is to provide a framework within which people can respond in a way that represents accurately and thoroughly their points of view about the world, or that part of the world about which they are talking."[28] It is with this goal, to bring out the depth of the participants' stories using their own words, while also presenting the information in a thematically relevant order that the chapters were constructed. It is my hope that this was done successfully, and the reader walks away understanding how each theme was revealed within each individual's story.

Interpretation

"Associated as it is with meaning, the term interpretation is well suited to mark a threshold in thinking and writing at which the researcher transcends factual data and cautious analyses and begins to probe into what is to be made of them."[29] The process was just as time consuming, if not more than the data transformation process itself. I began by reading through the individual story descriptive drafts several times for familiarity. Next, I read through each again, inserting comments and through highlighting and font color changes, marked possible themes. As each story took shape, I compared and contrasted each account to identify issue commonalities and discover additional themes. Quotes from the transcripts and fieldnotes were organized under each theme, and the chapter began to take form. Sections with common themes in different narratives were compared closely to further focus the theme as appropriate. I analyzed artifacts to supplement the transcripts and fieldnotes I was using, to see how they supported the emerging themes.

Originally, themes were focused around the uses of technology and digital literacy, but as the chapters emerged, it became clear that additional common themes were materializing regarding transcultural communities. Additionally, the use of support networks – family, friends, and church, surfaced as powerful facilitators of the participants' lives. Findings were highlighted, and via systematic fieldwork, I was able to further flesh out the analytic framework (transcultural perspective and ethnobiography to emphasize peoples' voices), to identify patterns and themes. This caused a significant expansion of the literature review, and a reorganization of the earlier chapters around these ideas. Once again, chapters were restructured and

rewritten to best reveal these ideas. Continual dialogue with my advisor, Professor

Finkelstein, helped further focus the themes; new themes were created, others were

removed, and some were combined.

In order to successfully reveal the complex themes that emerged, it was

important that I maintained an open mind to understand what the participants said,

and not force what was said into pre-conceived themes and ideas. In a way, I feel that

the transcripts were like cocoons, somewhat drab on the outside, but as the

interpretation continued, the cocoons opened, themes emerged, resulting in the

iridescent and beautiful butterfly that is their lives. Chapters 4-8 present individual

stories which emerged from the analysis. They follow a chronological format as it

was determined that the cultural and personal path they took to their current state

resulted in a powerful presentation. Chapter 9 presents my interpretation of the

participants' data to more deeply understand and amplify what they shared.

Personal Experience, Interest, Limitations and Possibilities

Ethnobiography implies not only a set of techniques and modes for data

collection, but also an epistemology and process of research. Most importantly,

ethnobiography becomes a collaborative endeavor of learning from and with people.

This perspective emphasizes that research is a product of *both* participant's

construction of their own meaning and the researcher's interpretation of the

participants constructed meaning.   Participants in the study constructed their reality

within a given society, and as the researcher, I attempted to understand the "complex

world of lived experience from the point of view of those who live it."[30] The

researcher unites multiple viewpoints and social realities and through the

ethnobiographic narrative allows the participants views and "own words" to take center stage.

Epistemology, or the nature of knowledge construction plays an important role within this interpretive paradigm. This perspective opts for an interwoven mode of data collection where the researcher and participant are interlocked in an interactive process. Hultgren[31] describes knowledge construction as one where the most valid reality is that which is constructed by the individuals involved in the research situation. Eichelberger describes the work of the researcher involved in ethnographic research as constructing knowledge on the basis of the interpretations of data with the help of the participants who provide the data in the study.[32]

 "The investigator and the objects of investigation are interactively linked so that the 'findings' are '*literally created*' as the investigation proceeds"[33] (italics in original). In ethnobiographic work, the researcher and the researched are linked interactively through fieldwork; the literally-created findings are the accounts that document the multiple realities. In a sense, the researcher seeks to reproduce the world of the researched in such a manner to make what is not visible (culture) become apparent in words.[34]

However, inquiry is never "value free."[35] As Moustakas states, "research is an interactive process shaped by his or her personal history, biography, gender, social class, race, and ethnicity, and those of the people in the setting."[36] While I understand it is not necessary, and would indeed be impossible, to purge myself of my own bias and values, I recognize I must understand my own biases, values and assumptions in order to properly interpret another's culture. Agar has suggested that

the researcher should be concerned with his/her own personality and cultural background because "the [researcher's] background is the initial framework against which similarities and differences in the studied group are assessed."[37] I, therefore, recognize the need to share my own background for the reader to determine their own interpretation.

Personal Experience

I am a female Caucasian, born in England and educated in the U.S. As an "army brat" I have traveled and lived around the world, attending fourteen different schools in my K-12 experience. My own background and experiences of "uprooting" and traveling between cultures have grounded me with an appreciation of the attempt to manage the transition from one culture to another, and one educational and neighborhood environment to another, a key element in this study.

My interest in immigrants grew while teaching chemistry and physics within the Montgomery County Public School system, in Maryland from 1994 to 2000 and simultaneously serving as advisor to the Technology Club and Girls Computer Club at a predominately "Latino" high school (65% Latino, primarily El Salvadoran immigrants). During this time period, my interest in technology and educational applications was also growing. From 1997-2000, I served as Global Access Chairperson at the school at which I taught, and I supervised in-services and projects focused on integrating technology into the classroom. In 1998, I began graduate school in the College of Education at the University of Maryland, College Park, with a focus on educational policy and leadership. In addition to taking the core education classes, my research interest directed me toward classes in qualitative research,

sociology, and anthropology. I applied the knowledge gained in my graduate work to my teaching, and through action research I was able to explore immigrant attitudes and perspectives toward technology, but only in a limited manner. Even such a limited and informal exploration revealed some commonalties within this group, as well as differences between this group and other ethnicities.

This cultural awareness grew from my earlier teaching experience in Prince George's County, Maryland in a predominantly African-American school. Many aspects of the Latino/a-Hispanic culture differed from my previous school; the strong importance of socializing, the desire to work in groups, and the lack of free time (many worked after school to help support the family) and were facets of the culture that would require different teaching techniques than I was currently employing. A student could not be expected to come after school for extra help if he/she had to work to support his family or watch his siblings so his parents could work, nor could it be expected that they complete research activities via the Internet and/or complete written assignments with a word processor if they did not own a computer nor have the skills to do so. Through various graduate classes, I undertook "ethnographic explorations", which revealed beneficial aspects of technology for both this group, and other groups for whom English was not their primary language, or whose English was severely limited. For example, when writing papers, the computer gave students a means to check spelling and grammar without having to be embarrassed by their lack of mastery of the English language. Thus, the computer served not only as an instructional tool, but also as a means for building self-confidence and increasing their knowledge of the English language.

Informal work seemed to reveal that technology use at school might be a means to help this student demographic. Yet it was also clear that technology was not being used effectively. Most technology instruction focused on skills, not integration into the classroom nor connection with the lives of the student population. In many cases, utilization of technology in the classroom meant teachers using the technology but never the students themselves. Teachers needed to learn how technology could best be used to the benefit of their own particular student population. These observations led me to explore this topic in more detail; what did this student population consider to be of importance related to technology use and digital literacy?

My beginning exploration provided impetus to more fully investigate the individuals' perspective and opinions about technology use and digital literacy, and the qualitative research paradigm was the most applicable method. Quantitative studies provide information on populations (demographics, standardized test scores, educational attainment, dropout rate, income) but these studies describe the symptoms without examining the underlying cause. Information regarding the people's own voice is often drawn from understandings of smaller groups that are a subset of a larger population – via qualitative research. Thus, the foundation for this dissertation was established.

Ethical Considerations

All qualitative researchers face ethical issues that surface during data collection, as well as, in the analysis and dissemination of the final report.[38] In reflecting appropriate standards, I protected the confidentiality and anonymity of the informants, by assigning pseudonyms to individual participants. When completing

the consent form, I explained the nature of the study with all participants, the purpose

of the study, the role of each participant and made them aware that they may choose

to not participate or may withdraw at any time. All information collected was stripped

of all identifying information. All transcripts and documentary materials contain no

identifying information. Data containing names was converted to digital form, names

removed and replaced with pseudonyms, and filenames only contained pseudonyms

and not real names.

Quality and Rigor Considerations

This dissertation relied on a thick description of each participant privileging

the voices of participants. Such a description can be created through the use of

people's voice—staying close to the data as originally recorded, including long

excerpt's from one's field notes or repeating informants' words. This strategy is

recommended by Wolcott who states that it allows descriptive data to "speak as

fact."[39] A conscious choice was made to separate each participant into separate

chapters to best reveal their voice. This provided for more detail on each individual

without muddying the stories within the readers mind. Simultaneously, this allows the

reader to hear the multiple voices and identify the similarities and differences. An

attempt was made to provide organizers which would preview and explain what the

reader was about to explore in order to provide context and clues regarding the

content and interpretation. Field notes and observations provided additionally depth

to the stories. The chapters were organized (and reorganized) to provide a means for

the reader to easily identify the similarities and differences, but ultimately, it is up to

the reader to judge the accuracy of these comparisons. A thick description provides the reader with the means to compare.

In any description such as this, it is imperative that one minimize the bias of the author. I attempted to accomplish this in several ways. First, I gave the reader a clear description of my personal background, relationship with the community, and goals with this research. This honesty with the reader allows the interpretation of the descriptions in the context of my experiences. The reader can judge the honesty and clarity of the descriptions on their own. Additionally, I have attempted to use my experiences in teaching, graduate school classes on ethnography, anthropology, and sociology, and personal reflections to understand my viewpoints and minimize their inclusion in the descriptions. Understanding ones preconceptions is paramount to eliminating them from a description. I closely examined my descriptions to minimize my personal viewpoints; I let the participants' voices tell the story. Finally, strategies were used to minimize misunderstandings representing the data.[40] Both member checking and peer reviewers, including committee members, were used to verify the analysis and interpretation and to assure the study made sense and brought to bare areas in need of further clarification. Member checking, as Lindlof and Taylor state, "means taking findings back to the field and determining whether the participants recognized them as true or accurate."[41] While the researcher is still entitled to his or her own interpretation, member validation assures that the researchers' story overlies with the participants' point of view. Peer "debriefers", through review, are able to uncover areas in question or in some cases portions of written text that do not make sense.[42] Continual dialogue with my dissertation advisor served to ensure the

conclusions were not a result of my psyche, but instead were truly part of the life story. This sounding board served to both expand the context of the voices and verify the chapters tell a "true" tale.

Limitations

Although the participants may have been a fair representation of the students who participated in the technology program at this community center, one should not confuse this as a claim that my results are necessarily generalizable to all transcultural communities. Depending on the community make up, i.e. countries of origin, government and non-government support organizations, church, employment availability, technology maturity, age and years in the U.S., location and demographics (rural, urban, north, south), individuals may have different aspirations or goals that will lead them on a different journey. The immigrants I interviewed all recognized technology as a way to make their life fuller, and felt their journey was important enough to share.

Second, it is possible that participants chose not to be open or fully disclose information with the researcher due to either their own, their family's, or their friends legal status. Participants were encouraged to be honest and were reminded that all information would remain confidential. I had been engaged with the community and the community center for several years, and therefore I tried to have my trustworthiness already established with the community and the participants. Interviews were conducted at locations chosen by participants, under the assumption that they would choose locations where they felt comfortable, in control, and safe, i.e., home, church and the community center.

In spite of these limitations, and the small number of participants in this study, their stories appear genuine, their spoken goals match their actions, and their voices tell a consistent and compelling story. Their journey to digital literacy is an interesting tale of hardship, sacrifice, and the desire to succeed.

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[1] Spradley, *Participant Observation*; Fetterman, *Ethnography: Step by Step*;

[2] Castells, *The Information Age: Volume III*; Castells and Hall, *Technopoles of the World*; Ferreira, "Information Technologies"; Gordo, "What planning crisis?"; Schön, Sanyal and Mitchell, *High Technology*; Kvasny, "A Conceptual Framework"; Kvasny, Greenhill and Trauth, "Giving Voice"; Czerniewicz and Brown, "Access to ICTs."

[3] Dwyer, *Moroccan Dialogues*; Fox, "Silent Voices"; Fiske, "Ethnosemiotics"; Lejeune, Eaken ed., and Leary trans., *On Autobiography*; Pratt, "Arts of the Contact Zone"; Reed-Danahay, *Auto/Ethnography*; Clifford, "On Ethnographic Authority"; Chabran and Salinas, "Place Matters"; Cook-Lynn, "How Scholarship Defames"; Mohr, "Measuring Meaning Structures"; Berger, *The Sacred Canopy*; Ellis, "Understanding the Profound".

[4] Goodall, *Writing the New Ethnography*.

[5] Jordan, "Writing the Other," 43.

[6] Goodall, *Writing the New Ethnography,* 198.

[7] Van Maanen, *Tales of the Field*, ix.

[8] Denzin, and Lincoln. *Handbook of Qualitative Research*.

[9] The local community center served a community comprised of several immigrant populations. The 2000 U.S. Census bureau statistics stated that this neighborhood hosts a population of 16,000, almost two thirds of whom were foreign born, and half of those were not US citizens at the time of this study. The community center occupied a portion of a former elementary school which was renovated extensively, and was situated next to a new elementary school. The center was surrounded by major roads within a four block radius, including a major commuting route heading into the local city, and a major road that travels east-west through the urban outskirts. The center was bounded by a county elementary school, a private (not National) Boys and Girls Club and local resident housing and apartment complexes. The community center included two multi-purpose rooms (one with a stage and one that can be used for pre-school), two meeting rooms, a fitness room, kitchen, game room, offices, and a senior lounge. The area Parks and Recreation Administrative Offices were also located in the building. There was play equipment and a field located adjacent to the community center located on and shared with the neighboring elementary school. Recreation programs and classes in sports, fitness, dance, crafts, cooking, self-improvement, computers, drama, games, hobbies, martial arts, music, and do-it-yourself instruction were offered. The center hosted tournaments, clubs, camps, special events, workshops, drop-in programs, after-school programs, and cultural activities. The center accommodated people of all ages, i.e., children, teens, adults and senior citizens. The center had extensive hours; it was open from 9 AM to 9 PM Monday to Thursday, 9 AM to 10 PM on Friday and Saturday, and noon to 5 PM on Sunday. The facilities were open to residents of two surrounding counties with the purchase of a resident card (under 18 is $15.00, 18-59 is $35.00 and seniors are free). While all county residents with a resident card could utilize the facilities and sign up for courses, which were available to them at a relatively low cost, the majority of participants that used this community center were local—most within walking distance.

[10] Pruitt-Mentle, "Students' Voices."

[11] Washington Post, April 1, 2001. Section A. p. 1

[12] Basch, Glick Schiller, and Szanton Blanc, *Nations Unbound*.

[13] As outlined in the earlier definition section, although the census has a clear definition of "low-income," in practice, low-income is a much more subjective determination. For this research, no fixed number exists. Instead, the definition of low-income is incorporates factors including daily hours

of work, size of household and the numbers of workers within it, and available leisure time. The majority of the community center participants are low-income by the qualitative definition described above. This research will only use low-income transmigrants as research subjects. Their selection will be further described in the methodology section.   Although low-income, the population is not without goals. Many see education as a way for their children to move up, and try to maneuver within the local school system to their best advantage.

[14] Participants also valued education for their children. Some community parents felt that Steal County was a "better school system" and therefore claimed to reside there, although they actually lived in Coty County. Children in K through third grade residing in this neighborhood, attend Monmouth Elementary School. Those in grades 4, 5, and 6 go to Meade Elementary School, seventh and eighth graders attend Tomah Middle School, and Evans and Mepham High Schools offer grades 9 through 12 if residents are listed as living in Coty County. Residents claiming to live in Steal County would attend Plainview High School which is part of Steal County's "Downcounty Consortium" which includes a large number of feeder elementary and middle schools. Many families in this neighborhood viewed education as an important means to move ahead, and wanted to make sure that their children had the tools for a better future.

[15] Patton, *Qualitative Evaluation*; Miles and Huberman, *Qualitative Data Analysis*.

[16] Patton, *Qualitative Evaluation,* 169.

[17] For pragmatic reasons, the length of the dissertation itself, the methodological decision to create ethnobiographic accounts to reveal the participants voices, and the need for follow up interviews to fill in information gaps, a decision was made in response to some committee members' recommendation that in order to extract the desired richness and extraction of voice, five participants was appropriate. From the 10 initially interviewed, Belize was eliminated as further inquiry revealed her current employment and economic financial status would not meet this study's definition of low-income. Only five were chosen for the study in order to allow an in depth exploration of their lives and relationships with technology.

One recording from a Jamaican lady was in-audible at times. Although English was not an issue during the class, both the El Salvadorian female and Guatemalan interviews needed translation assistance at times, which staff at the community center provided when needed, but this made for an incomplete interview. Additionally, the Guatemalan interviewee was unavailable for follow up interviewing to complete her full story. The interview from the Nigerian lady was incomplete as she did not want to share details about her home country and lifestyle and I felt uncomfortable pushing for more details.

[18] As suggested by Patton "Qualitative findings grow out of three kinds of data collection: (1) in-depth, open ended interviews; (2) direct observation; and (3) written documents." I used Patton's and Wolcott's three major modes to gather data: through "participant observation (experiencing), interviewing (enquiring), and studying materials prepared by others (examining)." In addition, fieldnotes were taken with all three modes of data collection. My emphasis was on striving for depth of understanding "of both external observable behaviors and internal states (worldview, opinions, values, attitudes, and symbolic constructs)," and these three modes allowed for what Geertz calls "thick descriptions" revealing inner perspectives. [Patton, *Qualitative Evaluation,4;* Wolcott, "On ethnography intent"; Wolcott, *Transforming Qualitative Data*; Wolcott, *Writing Up Qualitative Research*; Wolcott, *Writing Up Qualitative Research. 2nd Edition*; Geertz, *The Interpretation of Cultures*.]

[19] Hitchcock and Hughes, *Research and the Teacher*.

[20] Ibid., 163.

[21] An additional demographic questionnaire was developed to collect information, such as country of origin, number of years living in the U.S. and in the community, educational background, familiarity with technology, occupational status, economic conditions and cultural background. However, it became evident that this information could be gathered more easily through the interview process. In some cases, these questions served as ice breakers or filler questions. Care was taken not to reveal participants immigration status, nor expose the specific nature of their employer.

[22] Lindlof and Taylor, *Qualitative Communication Research*, 147.

[23] Ibid., 117.

[24] Hoddler, "The Interpretation of Documents," 704.

[25] Coffey and Atkinson, *Making Sense of Qualitative Data*, 6; Wolcott, *Transforming Qualitative Data*; Miles and Huberman, *Qualitative Data Analysis.*

[26] Maxwell, "Qualitative Research Design."; Creswell, *Qualitative Inquiry*; Beebe, *Rapid Assessment Process*; Wolcott, *Transforming Qualitative Data*; Miles and Huberman, *Qualitative Data Analysis*, 90; Coffey and Atkinson, *Making Sense of Qualitative Data*, 9; Mertler, *Action Research*; Bogdan and Bilken, *Qualitative Research in Education.*

[27] Lofland and Lofland, *Analyzing Social Setting*, 7.

[28] Patton,*Qualitative Evaluation*, 21.

[29] Wolcott, *Transforming Qualitative Data*, 36.

[30] Schwandt, "Constructivist, Interpretivist", 118.

[31] Hultgren, "Using Interpretive."

[32] Eichelberger, *Disciplined Inquiry.*

[33] Guba and Lincoln, "Competing Paradigms," 111.

[34] Goetz and LeCompte, *Ethnography*; Hammersley, *What's Wrong*; Van Maanen, *Tales of the Field.*

[35] Denzin and Lincoln, *Handbook of Qualitative Research.*

[36] Moustakas, *Phenomenological Research Methods*, 4.

[37] Agar, *The Professional Stranger*, 43.

[38] Creswell, *Qualitative Inquiry.*

[39] Wolcott, *Transforming Qualitative Data,* 10.

[40] Stake, *Case Study Research.*

[41] Lindlof and Taylor, *Qualitative Communication Research*, 242.

[42] Creswell, *Qualitative Inquiry.*

Chapter 4: Carmelo's Story

The next five chapters aim to bring the voices of the study participants clearly into view to amplify the perspective of the five participants to reveal the struggles they had and the opportunities they sought. Carmelo, a Salvadoran male (the only male in the study) is presented first. He is followed by Yadira, who is also Latino, but from Nicaragua, and therefore has the most similar background to Carmelo. I next present Josephine's story. She is from Guyana in South America, which culturally bridges the gap between Central America and the Caribbean. Milessa, a Jamaican immigrant, is discussed next, and the chapter concludes with Marisha, another Jamaican woman.

<u>Introduction</u>

Carmelo's life began in poverty, in the midst of war, during a time punctuated by natural disasters. The death of his father in the war, limited educational prospects, and very few job opportunities left him with a limited future in El Salvador. With the support of his family and friends, they persevered and made it to the U.S. to make a better future. With the additional support of information gained from fellow church members, Carmelo has negotiated the job market. At the juncture in which I interviewed him, Carmelo had decided that technology was a means to increase his job prospects and status, potentially gain citizenship, help his children and possibly give him a skill which would allow him to return to El Salvador and be successful and help his home country.

<u>Life in El Salvador</u>

During the time of Carmelo's birth and upbringing in El Salvador his life was one of financial need and turmoil. His family lived in poverty, and the Salvadoran Civil War ravaged the country and cost him the life of his father at age 7. The family moved to San Salvador to look for jobs and avoid some of the effects of the war on the countryside, but the family continued to suffer from abject poverty. Additionally, earthquakes decimated the city, and ended Carmelo's education, which was already severely limited. Through it all, and in his subsequent immigration to the U.S., Carmelo and his family counted on each other for support and direction.

Carmelo was born in 1975 in Cabañas, El Salvador to an extremely poor family in a war ravaged community.

> *The house terrible. We had no electricity. Some of us had running water, but most* [of us] *get running water from river. You couldn't drink the water right away. You boil it and sometimes added bleach. They fill the bowl up with water and let it sit out in sun to get warm to bathe.*

As in all situations, people find a way to survive, and one of the things Carmelo positively remembered is the food from "back home."

> *Breakfast, desayuno, is hot tortilla. Lunch the largest meal. Tortillas, rice and beans. Dinner smaller… tortillas and beans. Sometimes we had something special like chicken. Also pupusas, fried tortillas filled with cheese or beans. Tamales* [are] *good but take a long time to make. The women start making the tortillas early in the morning. Sometimes we* [the children] *would help. You soak it* [the corn] *in water …it makes a dough. Then grid it. Then you form it and fry it. Sometimes we make a soup or flan. Many people think we had coffee, but coffee was always too expensive.*

Carmelo's father was killed in 1981 in the Salvadoran Civil War. As the situation in the country deteriorated, Carmelo's family knew they had to move to a safer area. Soon after his father's death, at the age of 7, Carmelo, his mother, grandmother and a younger brother (Lilo) and *other relatives and neighbors left* for

San Salvador. Others [relatives and neighbors] *went to Honduras, relocating to a refugee camp. We moved to the city* [San Salvador], … *we lived with an aunt's family.* As the war raged, the number of people living in the home fluctuated, going from a high of 14, to a low of 10 living in the household at any one time. Although safer than the countryside, their economic situation was no better.

> *Back home was terrible. We had no food, no money. Men work for minimum wage... probably $2.00* [U.S.] *per week. That's if you could find a job. There wasn't really any jobs for the men.*

Carmelo's aunt worked in a *dress factory*. The idea was for the family to relocate to the city and his mother would also find work there, but work was irregular at best. *But my mom always said she had enough work taking care of us* [children] *and cooking.* As a result of the civil war, and relocation, education for Carmelo was, at best, sporadic, and often non-existent. Not too long after moving to San Salvador, an *earthquake hit* [June 19, 1982 – 7.0 on the Richter Scale, 40 people killed].[1] *No, no one in our family hurt.* School for Carmelo took place *in … next to … church,* but when the earthquake hit, *school was canceled to take in people who lost their houses*.

In 1986, an even more severe earthquake took place and in addition to creating additional work shortages and turmoil, ended Carmelo's education [October 10, 1986 – 7.2 on the Richter Scale, between 1000 and 1500 killed].[2] The earthquake caused considerable damage to San Salvador. *I was 11. It was a mess, nothing left.* Carmelo, was *finished school by then*. From discussions, he had obtained the equivalent of a third or fourth grade education at completion.

Such an incomplete education leads to limited, and predominantly labor based job prospects. When asked what he did, he indicated *not much…you do what you can find.* When he was younger *they* [he and his brother and cousins] *would go to the*

dump and find all sorts of things. He also worked *cleaning* [a] *restaurant and as a dishwasher. Longest job was unloading and loading trucks.* This he did *for over a year.   You do what you need to.*

Each family member contributed to the household however they could. His mother and aunts provided most of the financial support for the family. Additionally, other relatives who had left for the U.S. would *wire money.*   Despite the distance, family networks remained strong. Each family member was not driven solely for individual success, but instead, felt responsible for supporting the entire family. These ties were important throughout Carmelo's life.

Links to the U.S.

Carmelo's eventual immigration was aided by the earlier immigration of his brother and uncle. The family's immigration to the U.S. was dependent on these familial ties to smooth the way. Carmelo was eager to share the history of his family and extended family. Juan, Carmelo's uncle had left for the states [New York] in the late 1970's from El Salvador. He lived with his brother [Carmelo's other uncle] who *drove a truck and was gone a lot.* Juan was able to get work at a *printing factory.* Carmelo also had an older brother, Eduardo, who *married when he* [Eduardo] *was pretty young back home to a women from Honduras.* Eduardo and his wife moved back to Honduras with her family in late 1981-82. When asked why they did not move to the city, he replied, *it was not so safe with his wife.*

It was unclear whether this was a legal marriage, or a marriage only in thought, as later, Eduardo remarries without any discussion of a prior divorce. *He* [Eduardo] *also left and moved to N.Y.* [joined his uncles] *in 82 or 83, something like*

that. They also wanted him there to play soccer—a league. He left with the name *Rivera, but once in the U.S. changed it to Gonzalez. He worked in the printing factory, like Juan,* [his uncle] *but hated it. They made posters and banners, all one color then another. He said it was boring. Later* [1986] *he moved to Massachusetts* [Worchester] *and lived there for about 3 years.* Worchester was chosen as they had friends from El Salvador who had settled there. Thus, Eduardo's network of dependencies began to expand beyond just family. He began to rely on personal friends and fellow Salvadorans to help him find a residence and employment. These networks were a precursor to those used by Carmelo.

In Worcester, Eduardo became involved with Claire, *a friend of the family*, from El Salvador. Eventually, Eduardo *moved in with her. They knew each other from back home*. Mary, their daughter was born in 1987. *Claire knew a little English* and was working in an office in a pizza place. Both Claire and Eduardo were gone during the day so Lillian, another friend of the family, took care of Mary. Lillian also learned a little English and was able to work as a hostess at night. *It was President's Day, or July 4th I can't remember, and Eduardo went to visit a friend in* [the Pemberley Station area]. *After the trip he moved to* a location near Pemberley Station *around 88-89.* Eduardo's friend had convinced him there were *better jobs that paid more.* At first they all moved in *with friends in small apartment. There were 8 in the apartment.* Claire was able to work *cleaning houses* and Eduardo was able to *find work through his friend. He also cleaned, but they cleaned businesses - big buildings. They also got paid more* [the men were paid more than women]. Claire and Eduardo had a son, José, who was born in 1990. Lillian *shared a room with Mary and José,*

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and *took care of them* during the day while Claire and Eduardo were at work. Lillian was also able to obtain cleaning jobs through Claire. Later Lillian was able to *work at a cleaning job at dentist office on weekends*.

Carmelo shared that although Lillian did most of the child care, the stress of two kids was too much for Claire. Claire was not ready for motherhood. She liked the freedom that the women in the U.S. had. She was *too young. She left after a couple of years* [1992] and moved to *another area nearby*. Lillian stayed and helped with the children. She continued to learn some English through work, and through the books and papers Mary brought home from school. They tried to learn English… *Spanish easier …used at home more. The school told them to use English… drop Spanish. Language was problem for Mary. She also having spelling problems.* She was trying to spell English like Spanish sounds. The school would *pull her out of class each day for about an hour or two. She would get very embarrassed.* They wanted Mary to learn both [languages], but the *school said only English.* Today Mary remembers *very little Spanish. I think they regret this.* In 1997, Lillian gave birth to a boy, Armando. As Eduardo continued to put down roots in the U.S., he was establishing a landing point to help additional family members. Carmelo would later take advantage of this network created by his brother to help in his own relocation.

Carmelo's Immigration to the U.S.

While Eduardo moved to the U.S., much of Carmelo's family persevered in El Salvador despite all the financial disasters, war, and natural disasters. However, when Carmelo began to start his own family, the decision was made to immigrate to the U.S. Carmelo counted on his family who had already relocated to provide the

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destination and aid in finding employment when they arrived. This network of

dependency and support was later expanded to include friends, both personal and

familial, and was leveraged to aid relocations to and within the U.S., and to find new

residences and jobs.

In El Salvador in 1996 at age 21, Carmelo and his partner, Gloria, had their

first child, a girl, Eulalia. Gloria, already had another daughter, Velma (two year's

old), from a previous relationship. With limited job prospects, and a limited future for

his family, he and his family struggled to survive. Carmelo made a decision to move

to the U.S. However, Carmelo's path was not as smooth as his brother Eduardo. *It*

took almost 3 weeks. Ya, first to Guatemala and then to Mexico…then you get into the

U.S. Carmelo and his brother Lilo came to the U.S. in 1999. Although I prompted

Carmelo to hear more about his journey, he always steered the conversation in

another direction. Based on the circuitous path he took, it is doubtful that he entered

the country legally. Carmelo and Lilo *came first to Florida.* The bus they were able

to take out went to Florida first, and then went to Virginia. *I was in Florida. First, I*

was in Virginia [living with an uncle].

Carmelo joined a large community of Salvadorans living in Virginia. He

used this network to help him find a job, as members would communicate job

openings to each other, and assist in obtaining the required paperwork.   Carmelo's

uncle knew of a job opening and Carmelo used another community member's papers

to obtain the job. *They had papers. I was working in the McDonalds.* Carmelo

described how several people might be legally residing in the U.S., and other

community members would use their immigration papers to prove their own

eligibility to work in the U.S. After several months he was able to land a

handyman/landscaping job at the apartment complex he was living in. His uncle and

several other Salvadorans also worked as landscapers at this location.

Carmelo had steady employment as the apartment handyman and landscaper,

so he *sent for my wife.* In 2000, his wife, daughter and step-daughter joined him, and

soon after his mother, grandmother, and aunt with two children also arrived. Carmelo

felt very fortunate to have them all arrive safely, as shortly afterward additional

earthquakes hit San Salvador. (January 13, 2001 – 7.7 on the Richter Scale, 852

killed, February 13, 2001 – 6.6 on the Richter Scale, 315 killed)[3] Although they were

safe in the U.S., hard times came. *I was working there* [VA]*, but then I came over*

here [Pemberley Station].   *We had to move around Christmas. The apartment*

complex was bought out and all the people were fired (including Carmelo). *My*

brother [Eduardo] *was here* [Pemberley Station], *I called him, and he convinced me*

to come over here. And then I came over here. Although I do not know exactly how

many people were living there, *the apartment was full*. Carmelo's group was at least

nine, plus Lilo, and Eduardo's family included five, and then there were additional

family members of Lillian's.   Lilo had been unable to find a job in Virginia and had

moved to Pemberley Station soon after they came to the U.S.

As soon as Carmelo began finding day work and his aunt and wife began

cleaning houses, they were able to *rent* their *own place*. Although the apartment was

still full (ten people including Lilo), Carmelo and Lilo were sometimes gone during

the week for specific jobs. When painting, *sometimes when they have like project*

work I go 2 months... go 2-3 months. We working in VA. I will not come home for

the whole week and then come home weekend. We camp out there. If they did not

stay at the work site, they would not get home until 2 AM, and would have to get

back up at 4 AM to drive back. Instead they would camp out near the job site.

Carmelo's day work included cleaning, painting and landscaping. During his off

hours he would go and *help out in the printing office,* through a connection of

Eduardo's. Although in Massachusetts Eduardo did not enjoy printing, his

experience allowed him to find higher paying jobs in this field. Carmelo was *trying to*

learn more so he could *get a more permanent job. But after a while they said* [he]

couldn't come back due to insurance reasons. Someone told him about a masonry

position. He learned more about masonry and although he also still does other jobs

such as painting and landscaping, he has been *working off and on* as a mason since

2002.

At the time of the interview, in 2006, Velma was in seventh grade in Tomah

Middle School and Eulalia was in fifth grade in Meade Elementary School in Coty

County. *The school* [both the elementary and middle school] *was about half Hispanic*

and half African American… not many whites. I pushed Velma to take ballet in an

after school program at school [it was free through an outside group]. *She took for 1*

½ years in the elementary school. Velma had two close friends. *They were both white*

but also poor.

Although Carmelo no longer lived with his brother Eduardo, the families were

close, and Carmelo was willing to share information about his family. Carmelo

shared how the families worked as one and were involved in each other's activities.

In particular, Carmelo shared additional information about Eduardo's two older

children. Mary attended Evans High School and had *close friends from both Nigeria and India*. She *only* had *one Hispanic friend*, but they were *not really close*. She would have liked to be more involved with after school programs *but didn't feel safe*. She focused mostly on academics – *she would come home and do her homework.* The school was not helpful in planning her future. *Counselors were overworked and overloaded. One of the counselors was also the JV football coach and had very little time to provide her with career advice. She saw the counselor maybe twice her entire high school career.* In fact, it was through friends rather than the counselor that the family found out about the Free Application for Federal Student Aid (FAFSA) website and the process for obtaining financial aid assistance and scholarships. The family as a unit felt education was key to their children's future. Their studies came first. There was *no TV until studies done*. Eduardo and Lillian *tried to check Mary's homework,* but as a result of their limited education, this quickly became impossible.

José was more problem in school, even as early as kindergarten. He was suspended often. *I guess middle child need attention. He is doing better now. He likes soccer* and Eduardo and Carmelo both enjoyed coaching his team. *Soccer is good… an inexpensive sport. All you need is ball and markers.* Eduardo applied for a soccer grant through the church and got $400.00. Soccer has given José some discipline and has resulted in better behavior.

Why Technology

Within the Pemberley Station community, men tended to work in labor intensive fields, which rarely required computer skills. As stated in Chapter 3, few men attended the computer class at the Pemberley Station Community Center. As

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one of the few exceptions, I was particularly interested to know what brought

Carmelo to the class. Carmelo viewed technology not solely as a way to increase his

earnings, but as a means to increase his status in the transcultural community in

which he lived and the community from which he emigrated. Additionally, he

believed it would help him complete the paperwork for his citizenship, and allow him

to assist and set a good example for his children.

Networks of friends and family have helped Carmelo succeed in the U.S.

These networks have communicated that computer skills are needed to get ahead.

Word of mouth is an important means to spread a variety of information around the

community, and was one way people learned about the computer/digital literacy

class. I asked Carmelo how he found out about this particular program. *Uhm,*

actually from [Jackie]. *From* [Jackie]. *You know her right. Her daughter is José's*

godmother. She told me what activities takes place here. And another one from

church, she other one, [Lisa]. [Lisa] *took a computer class. That was a year ago I*

think. Although Carmelo had a limited education, and minimal computer experience,

he was not afraid to aim high. He was hoping to learn *everything to use computer. I*

want everything I need to learn. Carmelo wished to eventually go beyond a beginner,

and become an expert. *When I go back one day, retire, I plan to go back home and*

maybe open computer school.

Although El Salvador is a poor country, Carmelo still dreams about

repatriating and working there and helping enhance not just his own status, but El

Salvador's as well. *Like you know—love Salvador and you know…make much more*

advanced country…and not be the same old poor Salvador. In Central America, like

everyone knows it a poor country. Carmelo feels that if he learns enough about

computers, not only are the skills useful in the U.S., but he hopes to return to El

Salvador and he has aspirations to *go back and open* [computer] *business.* Carmelo

shared how many fellow Salvadorans have similar goals and some have already

returned to El Salvador. *They learn something here…and they go back home…and*

you know invest in over there. Computers are not as widespread in El Salvador as

they are in the U.S. *These things will be like luxury over there … and not everyone*

could afford to take a course like this…and to take a course in Salvador. Don't have

no computer back home. Carmelo feels his status in El Salvador would be greatly

enhanced if he could return there with computer skills.

Carmelo's initial interest in computers came from a friend's success in the

field. *Way back …way back…I know I had a friend. He had a degree in computers*

and he in New Jersey and he makes big bucks. One of Carmelo's friends had come to

the U.S. and taken computer classes and eventually earned a computer professional

certificate. *He always tell me this is where the money is, get into this. So you know,*

ever since, everything is computer now.

Carmelo's friend had immigrated before Carmelo. *He was here from when he*

was 17, he got a scholarship from the government, and they paid him, he started on

computer here and he just kept studying and he married an American. He got his

degree… he just works with computers so he goes out of the country, and travels

around and works with computers. Although not explicitly stated, his friend's ability

to get a government loan indicated an ability to negotiate the American systems and

take advantage of opportunities. With a voice mixed with both mild jealousy and

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awe, Carmelo described his friend's current economic situation. *Right now he is working in West Palm Beach. He bought a house there too. He is working right now with insurance company, All-State. He is getting like 95 dollars an hour.*

Although Carmelo understood from his friend the opportunities that a computer job could bring, he felt a job at that level was far away. For him, the need for computers was more personal. *He just tell me what he did and that it would be a good paying job, but then meanwhile the years go by, and you apply for the same job and you don't get that. They ask, the first thing on the application: do you know computers? And then you don't know they give first priority to those who know. So then I realize I need to know computer.* This was a common refrain from all the participants of the study and most of the members of the class. *Every job you apply, it use computer. It's a must now. You have to speak English is a must for a job. Same for computers. You have to have that.*

Carmelo Rivera
2222 Goode Ave.
Pemberley Station, MD.
00000

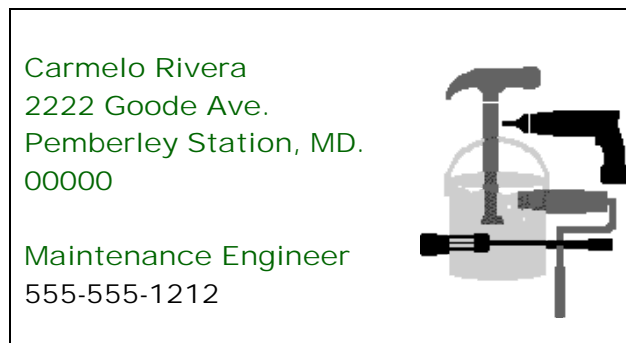Maintenance Engineer
555-555-1212

Figure 4.1. Business Card Carmelo Made in Class

Friends and relatives, who had relocated to the refugee camp and then returned, *had received computer training.* Some classes were offered through a special program to students on how to use the computer and how to put together. Carmelo saw computer training as a means to increase status. Not only would he gain

knowledge, but he felt this information would increase his money making potential.

One of his wife's

> *… friends, she came from Salvador knowing nothing…has a cleaning company…and was ambitious because she don't want to clean people's houses for the rest of her life. She was the secretary of the church, and she went and she took computer classes.   So she paid a lot for it—for the class, and she took it and she's the one run anything for the pastor, anything he needs to do. She handle it, very smart.*

Carmelo failed to get several jobs he had applied for; his lack of residency and computer skills have been a hindrance. *I applied, but when I applied, because I didn't have my residency, they did not give me a job.* He plans to apply for his residency, but he has been told the information and forms are online at the U.S. Citizenship and Immigration Services website[4]. *I am planning to do this. But to do that I have to know computers.* Although I consider myself well versed with the Internet, I found the website far from user friendly. Its construction is what I would refer to as non-standard. There is a central section with text, but no links. Corresponding links are sometimes at the bottom of the column, sometimes at the top right, and other times, cannot be found on the same page. I can see how this would be very difficult for immigrants to negotiate. Figure 4.2 contains two screen grabs from the USCIS website that he often visited.

In class, Carmelo spent a lot of time trying to negotiate the system: first trying to figure out how the website operated, and then trying to find the information he desired. There were some videos in multiple languages that were helpful, but ultimately, one would probably best be helped by someone who has successfully negotiated the website and could provide a path to the needed information and forms. Carmelo stated that difficulty negotiating the citizenship process was a common

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problem for others he knew. He was trying to understand the website and citizenship

process for both his own benefit, and to help his family and friends as well.

There have been a handful of computer classes in the community, but

Carmelo has limited funds and has had to make a careful selection among the

available courses.

My wife had a friend from the church…much older than me. She went to take computer course through the church, and they want much more. And she learned, not what we are learning now. She learn just how to bring up the screen, and how to type in letterhead, letters. That's basically what she went to learn. Her course was for eight weeks and she paid $500. And she works in the office from the church, and that's all they teach her. And how to print it out, and how to save it.

Networks of friends quickly identify which classes are best able to meet the

needs of the community and provide guidance to the best programs. These friends are

other transmigrants who reside in the Pemberley Station transcultural community.
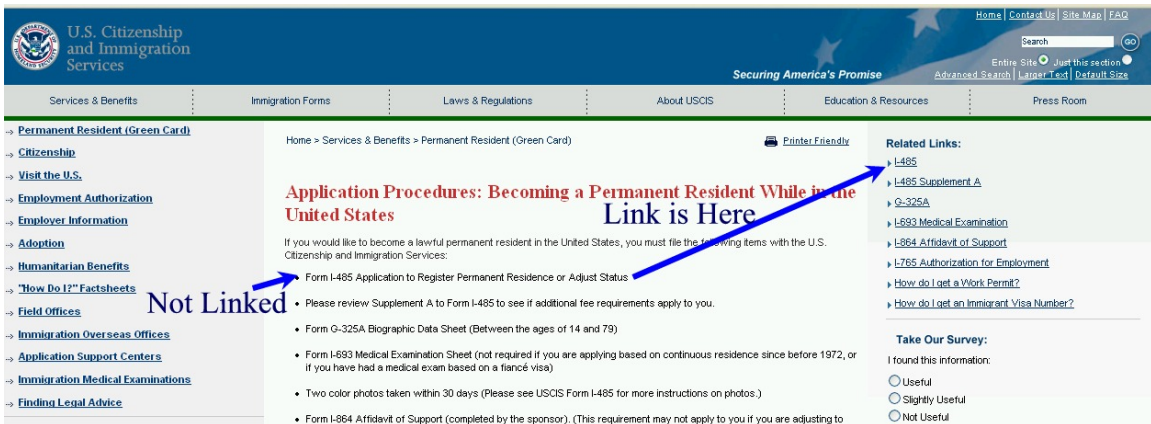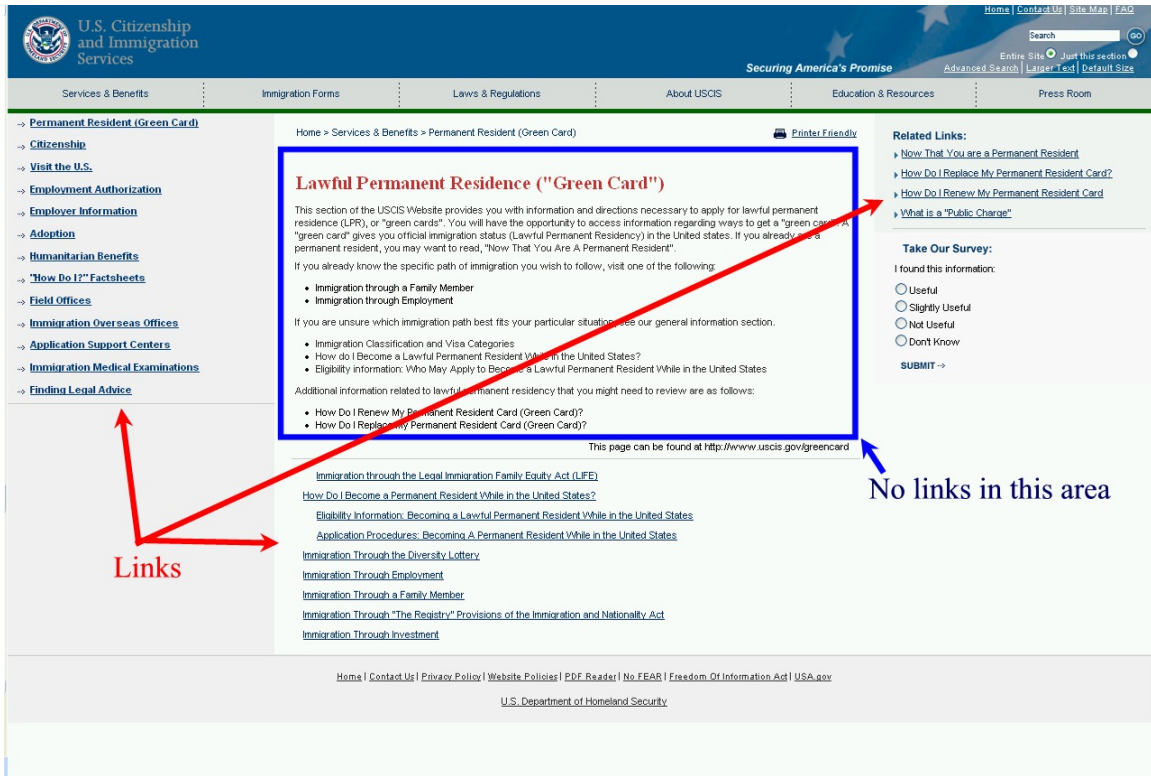
Figure 4.2. USCIS Website Screenshot visited by Carmelo
SOURCE: USCIS Website at http://www.uscis.gov/

Technology for Children's Success

Carmelo, like other members of the Pemberley Station community,

understood that computer knowledge enhanced both their own prospects and those of

their children. After beginning the course, *what happened is sometimes my daughter*

has homework to do, and I can help her. Computer skills were not necessarily taught

in the classroom, but it was assumed they had it. *They make them turn in papers* [the

school require papers be typed or done with a word processor].

> *She know how to save. She knows how to burn CDs and whatever, … I show*
> *her the card with the picture. She said, "How did you get that up there? I*
> *want to go to that class too!" I told her, we started already. You want to*
> *come, but we started already. You have to wait till the other. We finish, and*
> *when I go in the advanced, you go in the beginner if you want. She doesn't*
> *know yet how to do that* [how to make cards and fliers with different
> formatting and use the word art tool – see Figure 4.3].

Figure 4.3. Flier Carmelo Made in Class

Carmelo feels that teachers are focused on curriculum, and do not teach the

computer skills as part of the curriculum. *Like, it's just a quick thing. It's not even*

like a whole hour, or nothing no. Its just like a 20 minute class, and that's it. She

said it was a lot of them [many of Carmelo's daughter's classmates do not understand

how to use the word processor or use the internet]*, so the teacher just teach. And you*

have to go following. And if you are slow, not everybody learns at the same pace.

She doesn't have time to come and say, go here, do this, you know. They just have to

follow with the flow. And if you learn, you learn. If you don't get it, you don't get it,

and when you go home or somewhere else you try it. Carmelo viewed digital literacy

skills as key to his daughters' futures.

Carmelo's social network of community members, friends and family were an

important means to supplement more formal means of acquiring computer skills. *She*

goes with nephew [José] *…he took computers for two years. So, he knows computer*

better. Although José has been helpful, Carmelo takes particular pride in his new

computer abilities and his ability to help his daughter. *She doesn't know how to do*

everything. I was showing her how to do it [insert page numbers and change column

format]. He also made the birthday card and thank you note shown in Figure 4.4.

Figure 4.4. Birthday Card (Left) and Thank You Card (Right) Made by Carmelo

However, Carmelo still has concerns regarding his daughter's use of the

computer. *One friend caught her daughter on chatline. She moved the computer into*

her bedroom. … When she online she goes and sits there and watches what she is

doing cause you can never tell. Thus, although safety is a concern, Carmelo

understands the importance of technology for his children's future, and will extend his skills, and use community resources to help acquire the needed abilities.

Transcultural Connections

In many respects the Salvadoran community in Pemberley Station is not fully integrated into the U.S. society, but instead still lives a Salvadoran lifestyle. They are a close knit community centered on family, friends and church: all groups dominated by Salvadorans. The church is *all from El Salvador—90% is Salvadoran and then we have like 5 from Guatemala, and then we have 1 Dominican in our church of 400 members.* Religion is extremely important and becomes a central focus of their life. I asked Carmelo if computer classes were held at his church. *No, although a friend's church did, but an outside group do it … and it was more expensive than this.* They felt that the course at Pemberley Station Community Technology Center fit their needs and especially liked that a translator was available at the center. Many church members wanted to take the computer class at Pemberley Station, but it needed to be scheduled around other demands.

> *Tuesday's um they normally have prayer group—so Monday Wednesday, or Saturday, OK. … Thursdays church service* [many times the wives go to church service during the week].

The male Salvadorans were predominantly in labor intensive fields and therefore, needed to clean up before being able to attend the technology class. *Some have another job…they work far…classes at 6 hard. Saturday. Most people have time on Saturday.* Some of the residents did do construction work on Saturday. It *depends. Depends on company…*[Smith and Cooper] *… they* (one of the construction companies) *don't work on weekends.*

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Members of the church had discussed taking the technology course, but often the course was full and for some, it was not at a convenient time, Carmelo felt more would attend if given the opportunity.

> *A lot of people* [in his building and church] *in my church were interested to come…they wanted to know how I got it…They can like extend the room …bigger room…and get more computers. Say like 20 computers…and like change to maybe 3 times… days a week and then can get much more people. Because the churches have a lot of people and now most of them people are ambitious and they don't want to just be cleaning people's bathroom and doing landscaping.*

In spite of a difficult and poverty stricken life in El Salvador, many residents of Pemberley Station still thought of going back.

> *Most of them want to go back home and open up a business. Most of them will apply and … these things luxury …like the ones that work in a bank. They have to come over here … to take the course and then go back so they can modernize the bank system in Salvador.*

Carmelo feels that many Salvadorians believe that they can take knowledge gained in the U.S., and be successful and make an impact on El Salvador.

> *I have spoken to my friends…and most of them just … want to make money. Send back their money home, go back and open business. They learn something here…and they go back home, and you know invest it over there.*

Thus, although this community lives, works, and prays in Pemberley Station, as shared by Carmelo, many wish to first succeed in the U.S., which would raise their status among Salvadorans both here and in their homeland. Next, they would like to have learned enough to return to their homeland and help raise the standing of El Salvador. They are a people in between. They have left their home country, but still feel tightly connected to it. They maintain the values and living arrangements of their home country while living in the U.S. They are surviving, and by the metrics in El Salvador they are doing very well. This elevation in status is important to this

community. Carmelo feels the possession of computer skills is an excellent way to boost his status as one needs to acquire the proficiency, but you do not necessarily need a degree or extensive education. Carmelo feels that with a few courses, and a computer on which to practice, he will have enough skills to teach others and potentially apply his new abilities to problems in El Salvador.

Reflection

Carmelo entered the U.S. via a circuitous path, with limited English skills and a minimal education, but a network of relatives to help him. He worked predominantly in labor intensive fields, and relied on connections via relatives, friends, fellow Salvadorans, and church contacts to find employment. During his seven years in the U.S., Carmelo watched as technology became ubiquitous, and recognized computers as a way to increase his status in the community, increase his earning power, learn how to get his citizenship, and help his children. This recognition was made in combination with his tight knit group of Salvadorans in the community, and they collaborated in identifying programs in the area which matched their needs. Additionally, Carmelo saw that computers and digital literacy skills could potentially increase his status in both Pemberley Station and El Salvador. These skills could also provide him with an opportunity to return to El Salvador where he could apply his knowledge to help his home country raise its position in the modern world.

Chapter 5: Yadira's Story

Yadira's life was a life of struggle and striving to do better for herself, and her family. She grew up in Nicaragua, during a time of war and a time of insecurity. She left Nicaragua for the U.S. with hope and a purpose – to make a better life. She did not know how hard the road would be, nor the path she needed to take. This is the story of her journey, and how she learned along the way that in America, technology competency was the vehicle that could take her to a more successful life.

<u>Life in Nicaragua</u>

Yadira's story is one of hardship, dedication, hope and persistence. She was raised in a poor family consisting of a mother, father, two older brothers and herself. Her father was a migrant worker before he joined the military in 1982. Yadira's father died in 1983 when she was twelve, during one of the conflicts in the war between the Sandinistas and the Contras. Her two older brothers fled the country to Mexico the following year because *they would make them sign up*. Subsequently, her mother took odd jobs to get by, and soon remarried to help support herself and Yadira. Thus, with the political turmoil, life was hard with no clear path to get ahead. In the late 1980's and early 1990's her "extended" family including her Nicaraguan neighbors and the *father of her children* started to emigrate to the U.S. to avoid the *bad situation* in her home county: limited educational and employment opportunities, and an ongoing civil war. Through communication with them, primarily by phone, Yadira began to learn more about the U.S. and the possibilities available.

From her contacts, Yadira learned that *in the U.S. education is free and everyone can attend*. For Yadira this was important because it presented a path to possibilities. *With education you can move ahead*. Neither Yadira's mom nor dad had attended formal school. Yadira stated she had attended school, starting in 1978; however, it was unclear as to the exact grade she completed. At one point she stated sixth grade yet the resume she developed in class indicated a "High School Diploma from Benjamin Zeledon in Managua, Nicaragua." When following up with her, she clarified that she had paid to get a receptionist certificate which was part of the 10-12 school, *but I pay them* [school officials] *to send a copy but they don't.* Additionally, much of her education took place during the early 1980's during the height of the conflict between the Sandinistas and Contras and therefore schooling often took second place to survival. Yet, even during those desperate times she focused on the need for education.

The Nicaraguan education system was not organized like the U.S.

> *Yeh, they* [Nicaragua] *have elementary. They don't have middle school. At that time* [in 1978 when she started school]. *Now they do. There was only from first to sixth elementary and then from 7 to 12 it was to graduate. But you have to pay. They don't call it middle school though but now they go from Kindergarten to 6 and 7 to 9 and then to another school from 10 to 12.*

> *They teach the basics and they have English now. Before it* [teaching English] *was just in private schools. They have English now. They have all the kinds of careers that you can take in here* [in the U.S.]. *They have them over there. If you don't have money to go to college then you just take those small things* [courses or classes] *and then you can work. But before they didn't have that. Like I went to … I got my receptionist thing, my certificate, but I paid for it, I paid for that school.*

In Nicaragua, the only technology needed was the telephone. Teaching of computer skills and using computers in the early 1980's were not part of the

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curriculum in the school Yadira attended, nor was it a vehicle for information gathering and dissemination in Nicaragua. When asked if she used computers in her school she replied, *Not in that time. But now yes. When I went back, yeah. … they teach computers.*

Education was important to Yadira, an opportunity *to do something better.* To earn money, Yadira and her mom did "*different things"*. She would never expand in great detail what different things she did. "*Yeah different things, sewing, different thing*s". She had also mentioned in class, how she and her mom picked lettuce and cucumbers. For Yadira, education was a ways and means to do *something better* than "*different things.*" The lack of stable employment, safety concerns, and the desire for a better future for herself and her family, drove Yadira to emigrate to the U.S.

Coming to the U.S.

Yadira came to the U.S. in 1996. Her story is one of instability, work, and the struggles of movement from one country to another, across the country, across rivers, a struggle that required complete focus. Her story is one of struggle which was relentlessly physically taxing. It is an escape from hardship and attempted rape to a place of freedom and opportunity. She came to the U.S. to succeed. She came for her children to have a better life. She was driven by her struggle to ensure the future for her family, and found that such a future in the U.S. must include more than just working long hard hours.

In the early 1990's to avoid the Nicaraguan conflicts and to find employment opportunities, Yadira's partner's father and uncles came to the U.S. and settled in New Jersey. In late 1994 her partner/father of her first son and his brothers joined

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their father in New Jersey. Communication between Yadira and her partner was by phone. These conversations' played an important part in shaping the move to the U.S. Arrangements were made to bring other members of the household, including Yadira, from Nicaragua to New Jersey after her partner had settled. The household in New Jersey started with Yadira's partner, her partner's brother and father, but soon grew to include many others.

Unmarried, but with a partner who helped pay for her to use the "Coyotes", a for-hire service, Yadira was able to enter into the U.S. She crossed the border with her partner's mother, partner's 10 year old son (from another relationship), partner's sister with a 9 month old, and herself, with her 7 year old son and 4 month old daughter.

Yadira came to the U.S., to be with the father of her child, and to lead a better life. She came in *illegally*, with the support of family. But the route was not easy; it was complex and demanding. As she expressed, *Well it's a long story. See what happened was that when my father died, my mom got remarried right away and then he* [the new father] *tried to rape me. I didn't' try to just go away, I saw the opportunity to come here and I just took it. Schools better and more opportunity and he* [partner of children] *send me money to come. Not much to do there.*

> *So then they send money for us again. So it was like from the same family so it was like 3 mothers and 4 kids. Because my mother-in-law* [she called her a mother in law even though she was not married] *was bringing his* [her partner's] *ten year old son* [from an earlier relationship] *and I was bringing my son* [7 year old]*, four month old and my sister-in-law was bringing her daughter and she was nine months almost ten. So we call and took a plane from Nicaragua to Guatemala. And then we walked and took buses. From city to city that's how they do it you took buses from city to front the border of Guatemala and actually we crossed 3 rivers, the Rio Grande and the rivers between Guatemala and Mexico.*

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Stress was a constant throughout the planning and the trip itself. The process was physically and mentally demanding. Apprehension and anxiety continued to play a part as they reached the U.S. border. Yadira was scared for her family and herself. Yadira's entry into the U.S. was by crossing the river [Rio Grande] on

…those things from the tires, those rubber things. That's how they cross you. I walked cause the river is not that deep. But I was scared. I [was] scared because at that time I didn't know they had those things that you carry your kids in. How you call those. Like little harnesses? … me and my son and I carry my daughter in my hand, and then I was so tired. But I wasn't scared because they come over there and they won't let nobody take your kid. And then, and this guy the Coyote, that's how they call this guy that carry you from place to place he told me, can I help you? I can carry the baby for you and I was so scared. But there was this mountain that we have to go up the hill and then go down so to keep us coming so I decided to give it to him but what I did he had those rings on the belt and I grab him from there and I thought I not let go of this man and my son's hand because he has my kid and that's how he helped me to cross it. The hill.

They traveled by night and

slept by day. That was unbelievable because all you could hear is following the footsteps because it's so dark that you can't even see their faces. And then we crossed the Rio Grande and then we went to Harlingen, Texas.

Once they reached the U.S., they stayed with the coyotes until they received the rest of the payment. This part didn't go smoothly either.

And then we were in a Hotel waiting for our family to send the rest of the payment. You give one payment in the other country and then the last payment is when they put you in the plane here. When you are already in the U.S. So they were waiting for the money and because our family didn't know what they were going to do… so the Coyote call immigration and we was in there for three hours with the baby and then we had to wait, we were sleeping in people backyard with the kids for five days because immigration catch us and they gave us an appointment for the following week. And we have to go to immigration. So we went there, and we were so hungry we have no food nothing. I was breast feeding my daughter so she didn't suffer that much. But you know the rest of them they had no

food, so there was this guy that gave five dollars. And that's how we spend
the whole weekend and waited until we had the appointment at
immigration and they gave a permit in there. I guess because of the kids.
We were lucky because of the kids, you know, we have babies and they let
us travel all the way from Harlingen Texas to New Jersey. … it took me
about 18 days to go to the U.S. from Nicaragua all the way to New Jersey.

Yadira came to the U.S. in possession of traditions and habits, and in the U.S. she encountered a variety of new messages, customs and ways of life. She had to adapt her old way of life into her new surroundings and find a way to succeed for herself, and her family.

Surviving in the New Country

Yadira's story is one of struggle, hardship, and the desire to succeed. She came to the United States in 1996, hoping to find a better life for herself and her family, and overcame many obstacles. She came to unite her family and to empower herself and her family for the future. When she arrived in the U.S., Yadira was prepared to work hard for a better future for herself and her children. Once in New Jersey, Yadira connected with the rest of the family already residing in the U.S. Through the social network of the neighborhood and church Yadira and her "sister-in-law" started to work while her "mother-in-law" watched the kids. *I worked. I was working, actually I was working doing dresses in a factory and I was like, I was the one that sewed the buttons with the machine and the holes for the buttons.* Seeing the importance of language to get ahead, she learned English while working in the dress factory through a program sponsored by the factory and local church. She was able to make herself understood in everyday conversation and could quickly change back and forth from Spanish to English.

Yadira soon "split" from her partner because *he was already married to somebody when I came and I didn't even know.* But she was *glad that he brought me. Well I think he was working this little thing maybe have two houses set up for just for fun he did it. But I think he never thought that I would ever find out.* Yadira was suffering the indignity of having a partner who was trying to convince her he could have two "families"- two women. Yadira lived in New Jersey for about a year and a half before moving. As a result of her partner's infidelity, once again Yadira decided to take another journey to improve her future. Through extended family connections, and telephone communication, Yadira *decide*[d] *to come* [to Pemberley Station] *to* [her] *aunt's house.* Although this journey was not as physically demanding, she was once again the sole provider for her family, and she always strived to not only survive but to succeed. She wanted an empowering education for her children. She maintained her hopes for the future, and began to discover and understand the possibilities that were available to her in the United States.

> *And then I came down here. I came to* [Pemberley Station]. *That's where my aunt used to live. And then for the stupid thing I had to leave. They found out that I was pregnant and they kick me out. So then I went to live in a shelter with my son and daughter and I was pregnant and that's where I had my kid.*
>
> *Well actually I was in* a nearby town, *just for about two months and then I went to the shelter and that was* [Randy Road], *you know that* [Mother Theresa], *there's a place in there where we can stay there just for all the pregnancy until two months after the baby is born and then you have to find your way out. And after that there was this nun that found me a place to stay and I was working and I was baby sitting for my neighbors and that's when I met my husband.*

The place the nun helped Yadira find was located in a nearby area. She lived there for about 2 years. *I mean it was a bad place, there was a lot of drugs and fights,*

but I was with my kids and that was the important thing. The shelter run by a local

church, made connections for her to serve as a child care provider that allowed her to

make money to survive while caring for her own little ones.

Yadira moved out of the location she was sharing and moved in with her new

partner who later became her husband. Rent in many cases could not be paid, so

moving from location to location was routine. Meanwhile,

> *And then we went … from* [Kennedy Street to 16th Street] *…to live on*
> [Washington Park]*, then we went to live…, we move around a lot. I don't*
> *know how long I'm going to be here, I guess a year. Because, I don't know,*
> *you know I don't know if they are going to sell the house. They don't want*
> *to do anything, see you know they didn't paint it when I move in here, and*
> *they didn't paint.*

Since their marriage of about 5 years, they have moved 5-6 times around the

Pemberley Station vicinity. They rented year to year, month to month, but tried to

move to housing that allowed their children to stay within the same school system,

and school if possible. Besides the three children, ages 16, 10 and 7, her brother lives

within the small space they call home. Additional family members and friends come

and go when they need a place to stay for awhile. Since she is dependent on walking

or public transportation, she finds things close to home and prefers to be close to the

children's schools. Work has included house and office cleaning, in many cases

covering for a friend or being paid off the record for a friend's job.

Yadira's husband works as a construction worker, which pays the bills, when

work is "in season". *"He's been doing that since he was a kid. Because that's what*

his father does." Her brother, who they sent for from Mexico, also lives with them.

Now my brother … he does anything because he didn't study at all. He didn't finish

school. [He left Nicaragua to go to Mexico to avoid going into the army]. *So he used*

to work in a gas station and he worked in a hotel as a cleaning person. Right now he

learned to paint so now he is a painter.

During the winter her husband

…does nothing. That's what they do, like my husband if he, like before there were two or three months without job with little piece, but now he knows carpentry, he knows plumbing, he knows drywall he does everything and he has work for inside and outside. But now my brother now that you mention it in the winter he works in a restaurant. He used to cook over there [at a restaurant]. *So they find ways but I'm trying to tell you is that they don't see more than what like is very near and they don't see anything more like they are stick in there and they have to take whatever they do. Not like me. Like I would like to have benefits. Like my husband has no benefits, he has no insurance.*

While construction work helps pay for rent and some food, some of the money

goes to purchase alcohol. Yadira finds this frustrating.

I want to like ask him… if you come here like if you make a sacrifice to leave your family over there then you have to become somebody. What's the point to come here like these men in the street? Like why they doing, why they come here, why? They could have stayed back and done that [drink and not tried to make better of themselves].

Yadira went on to clarify how she feels

Nicaragua has a drinking problem. There are plenty people like that over there. I mean like I don't know if the alcoholism is become the constant of their society. I went back to my country and all my boyfriends from school. All my classmates, are alcoholic.

When asked where her husband and others get the money to drink, Yadira replied,

I don't know, but people they find a way you know. Like here they get drunk with a dollar and fifty, a bottle of vodka. You can buy it for a dollar. So you know, I don't know, its not just Latinos, I see many people that's what I'm telling you, why is it important to come here? I came here in the U.S. I wasn't scared, it's a risk that you take, you know the traveling, the living with family, and they will come here to do that, they will work just for that, because my brother was in that situation. He used to work just for his beer.

In spite of her hardships, she maintains a positive attitude and desires to learn new things to get ahead. She is frustrated by the lack of motivation of the men in her life (husband and brother), as well as their use of alcohol, but focuses on things she can do rather than on their inadequacies. While the U.S. has offered far more opportunities than her home country, circumstances were not exactly what she had originally envisioned. Yadira's journey within the U.S. included challenges presented by below minimum wage employment, language barriers, betrayal by loved ones, and a struggle to locate to an accepting neighborhood and stable living arrangements. Local churches played multiple roles in Yadira's journey. The church served as a place of shelter, a means to stay connected to her home country, and a way to acquire information regarding her new neighborhood such as employment, citizenship, housing and education options.

Yadira's husband and her brother were *not legal*. Yadira stated that she did just *receive* [her] *papers* although I did not ask to see any documentation. Yadira received her papers *from the amnesty.*

> *Well these they call amnistía* [amnesty] *its kind of an amnesty. What amnesty are they forgive anything but not like if you have, like you committed a crime, like something big, otherwise you have to be here for a certain time and I got... my papers they give it to me not too long ago. You have to have certain times* [be in the U.S. for a certain length of time]*, you have to prove that you* [have] *been here and you have to prove that people know you. They ask you for letters,* [and] *you have to pay your taxes. You have to... be a good citizen, you know while you are here, you have to be a good person. You have to prove that you have good character. Actually, you go to an interview before they decide to give you your resident card. It took me 9 years... It takes time. My husband has been here for 13-14 years and he haven't done it yet.*

When asked why her husband had not completed the paperwork, she responded,

Well see, he had tried *four or five times, but what happens is that you have to fill*

out paperwork. There are things that you have to file and rules that you have to

fill [out]*, in order for them to give you that privilege. They not just going to... I*

go tomorrow and they go oh yeh, No they have to follow the rules. You have to

follow regulations.

Her husband has attempted several times to complete the necessary

paperwork….

> *Well he does* [attempt to apply] *but for some reason he doesn't fill them out*
> *all the way. I've told him I could help him. Now you can get the forms*
> *ahead of time from the computer and fill out and I could help. We could*
> *even try and type them. But he doesn't listen...doesn't want help. Some of it*
> *it's hard for him to fill out. Like before he used to put down picking up*
> *pickles and so that* [they] *called you work on a farm. But at that time when*
> *that law came he wasn't supposed to be working for like 100 or 600 hours*
> *..so he can't put all that work down. And ... like ... if someone gives you the*
> *job, the person that's hiring... they have to put on the statement, saying that*
> *they need this person with these skills. If they don't find nobody legal with*
> *these skills then they will put my husband in and they can give him the*
> *resident card. But if they find somebody that is already legal and lives*
> *here, he* [the potential employer] *will have to give him* [the legal status
> person] *the job. Jobs you do that are not* [legal or on the books] *... you*
> *cannot put down, so there are some regulations that you have to have to fill*
> *out. And if you don't fill them* [work history] *then you cannot prove you*
> *lived here and paid taxes.*

Even after filling out necessary paperwork, there is still a waiting game.

> *Like if they give you an appointment, like my girlfriend she's been here*
> *five years and they give you an appointment to go before the judge for*
> *immigration. If you miss that appointment, … you miss… then you lose*
> *everything. Even if you are there and the judge says, I don't have time*
> *today, you have to come back in another 3 months. Then you will have*
> *to be there and that's what happened to my brother. He's been there for*
> *five times already, and for some reason they have too many cases so they*
> *keep* [changing] *dates for the interview. As long as he's here he will*
> *have to keep showing up.*

The process to "get papers" is long and detailed, and can take several years to negotiate. Yadira was able to navigate the U.S. process whereas her husband and brother were not able to do. Whether steering her way through the U.S. citizenship process or finding connections to education, employment or housing, Yadira came to realize the importance of digital literacy within the U.S. The message was clear, more and more employment at or above minimum wage required basic computer skills. Communication and educational advantages were found through the Internet, and even paperwork for applying for citizenship could be found on-line and could be filled out ahead of time.

Discovering Technology

Yadira came to the U.S. in possession of traditions and habits, and an opinion of how one succeeded. In the U.S., she encountered a variety of messages that indicated that other things – specifically basic computer competency was needed for many jobs of interest. Computer competency was not something she ever thought about before. She thought success was based on hard work, but she found with time that in the U.S. there was a knowledge component as well that was needed for work, communication and even recreational purposes–basic computer competency. The digital literacy messages were constantly being reinforced with regards to labor force economics, her children's education, and were becoming necessary to maintain transnational connections.

Once Yadira understood the importance of digital literacy for employment, she was determined to figure out a way to acquire the skills. Due to familial requirements, there was a lot of planning and juggling she had to do in order to learn

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more about technology and acquire the skills. She had to schedule the time. Often her time was spent looking for employment or taking on day to day jobs at a moments notice. She had to negotiate attending technology classes with her husband (who didn't think she should attend), juggle family expectations, and meet the requirements to attend class. Roadblocks such as transportation, money and childcare all had to be overcome.

When asked about the purpose of digital literacy and technology use, Yadira replied, first *to find a better job.* Yadira had worked off and on *cleaning apartments, cleaning offices, and working at McDonalds.* Without transportation Yadira had to rely on public transportation (and money for using it) or jobs that were close to her place of residence. Moving from location to location made it difficult to stay at one job for any length of time. Like many in the community, Yadira relied on the local church for job referrals. In class, Yadira made a business card to advertise her business (Figure 5.1).

Figure 5.1. Business Card Yadira Made in Class

Yadira had

> *gone to the* [a Latino Catholic Center] *…and I ask for a job actually, if they could help me find a job. So when I called they gave me some numbers. And I called some of the numbers for the work and they told me I had to have knowledge on the computers. So that's when they call me back and ask if I find something and I told them that I needed*

computer skills and they told me about you [the computer class at the local community center].

The job Yadira was referring to was at a

construction company, they needed a receptionist. And they told me that I needed to have knowledge in computer skills. All of their things that they do in reception you have to make note of it in and you do it in the computer. Like they told me Windows. Windows, and Word. Window and some Word because they said we have to like a schedules and stuff like that using some tables.

Yadira shared that all current jobs want employees with computer skills.

Grocery store also wanted [me to have computer skills]. *…right now in the registers of the Shoppers* [local grocery store], *they have computers. They not regular registers anymore, they computers. They have to, like in a Latino store[s], you have to learn the numbers and put them in there so that the computers would take count. So everywhere. In the clothes stores, computers they have to put whatever the number is, the item, what kind of dress. So* [computers are] *everywhere. They have technology everywhere. And now that I know, I find out that its not that complicated, that just things you have to remember like when you go to Windows what you need to do, and how to copy and paste things like that.*

Yadira would take specific detailed notes from class on how to start programs, open

and save files, because she wanted *… to be able to show them* [future employers] *that*

I can work with computers. As a class project, Yadira made a poster for the local

festival (Figure 4.2).

Figure 5.2. Poster Yadira Made in Class

Another job Yadira had looked into that also needed digital literacy was an

airline position.

> *I was thinking about working in the Airline. I don't know but I had that in mind. They*['re] *not open here. It's a new agency that they are going to open in* [Caymantown]*, and it will be opening in 2 months. I see the lady all the time because she is the one who I rent the house from. So when she comes to get the rent and when she talks to me I remind her. She say don't worry I have you in mind. Give me the resume. But it must be typed.*

The program was constructed in a strange manner as they

> *were sending back* [interested people] *to El Salvador for training.   And she* [Yadira's landlord] *said that you need to go over there, cause they like rotating, depending on what you want to do they rotate you, like you can be selling tickets or you can be boarding people in the plane or you can be in the flight like a flight attendant. Or at the bottom side pulling the luggage. So they rotate you so you don't have to be working in one specific thing. And you have to fill out the information, like how many occupants. In everything there is computer.   They have these little computers.*

One of the primary activities Yadira spent time on in and outside of class was

developing resumes (Figure 5.3). She also learned how to search for jobs on the

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Internet and spent time before and after class searching for jobs, although many were

not close to where I [she] *live.*

Abbreviated Resume

Yadira Ramirez
Street listed
Town, State, Zip Code listed
Phone Listed

I always like to be around people; I can work as a receptionist or customer service representative.

> I is a positive person, I like to help people in any way I can. Could be at my work or my community. "I think that in order to develop yourself in something you I do; you really have to like it. That way you are happy and the people around you would see it in your attitude and ability."

Education
     1987 – High School Diploma, Benjamin Zeledon, Managua, Nicaragua
     1988 – Receptionist Diploma, Independent School, Managua, Nicaragua
     1988 – Typing Diploma, Independent School, Managua, Nicaragua

Figure 5.3. Abbreviated version of resume completed in class

Yadira also investigated becoming a teacher's aid.

I saw a flyer the other day for this school where you can go over there and it cost $800 though but because you have a license you can work in a day care or have your own day care at home. It's at the Baptist church on [Legion Street]. *And they have that and they will teach you and it is $800 for the entire course and after they will take you to have a test by the city and then you can work as a teacher's aide. It's $800, but is not bad considering that you don't have to go to college. But some have to go to college to do that. But I think for me it's not an answer. Because I was talking to somebody and they told me like that its not enough money, I would have to work somewhere else* [a second job].

Yadira's employment search was complemented by her focus on her children. She didn't want them to have the same struggles as she did, and wanted to make sure they were on a better path.

Technology for Her Children

Yadira articulated one feature of her dreams as her children's empowerment. What she exposed was that digital literacy was a requirement for jobs for both herself and her children. Schools assumed certain minimum access to and understanding of computers, although teachers weren't always able to help. Employment was also based on computer competency. Therefore, for her future and the future of her children, Yadira pursued computer instruction. She once again had to overcome barriers: monetary, familial, and scheduling to enable this learning, but felt it was essential to her future. Yadira discussed the importance of knowing more about computers so she could help her children. Yadira shared that a friend had *given her son a computer*. *They* [her children] *have to go to the internet and find out like for their homework, the dictionary, and he has to turn in all his work on the computer.* Yadira's household could not afford Internet access, and she became frustrated with the school's demands.

> *They* [the school] *want them to look up stuff on the internet. But we do not have Internet access. He miss class one time and he to check Internet for assignments. The teacher said he should have been able to do his homework even without coming to class ... he can not complete many of the activities like he is suppose to or like other kids do. He knows how to take pictures and make them into screen savers. They* [her kids] *know pretty much a lot more than I do.* Her son *thinks that the computer skills will help him too.*

Yadira further shared a more frustrating instance with a school assignment. I clarified the story with her son who stated, *I typed the paper up at home but we don't*

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have a printer so I took it into school but I couldn't print it out there and my teacher

wouldn't accept it [the file]. Major projects or papers were to be typed at Yadira's

son's school.

> *I actually had some work on the system* [the school's network], *but there was*
> *something in there that was like delayed and I tried to print it out and it*
> *wouldn't and when I went back it was gone. I did it over again by hand but the*
> *teacher wouldn't take it.*

Yadira's computer at home used Works and the school system used Word.

Yadira went on to clarify, and

> *they not letting nobody do their homework over there anymore. Before they*
> *use to have it but now they don't have it. I don't know why, they don't have*
> *nobody to be there in that office watching the computers.* Her son shared, *they*
> *tell you can go to the library, but they will only let you use it for about like*
> *half an hour.* Yadira confirmed, *so many people go* [to the public libraries]
> *and use the computer but they won't let you stay for more than half an hour*
> *on the computer and he needs more time. And after school and before school*
> *and lunch they don't let you do that anymore.*

Yadira's son also shared how basic computer skills, *like opening, saving,*

printing even typing they don't teach you. They send us to websites or we use games

but they don't teach us the other. I think he should take the course too, Yadira added.

Yadira and her son felt that the school system was unrealistic in their expectations of

what students should "already know" and they couldn't figure out how they where

suppose to learn it. They also felt that learning *more job related activities like the*

items we learned in the computer technology course would be of greater benefit than

going to websites.

Yadira's children currently, attend Coty County Public Schools. Their moving

from one location to another is a common occurrence within local neighborhoods.

Well my son he was in the same school for the middle school. [he had attended the

same middle school for 2 years in DC and the same middle school for 2 years in

Coty] *but he attended from elementary ...he had 3 schools* [different elementary

schools in NJ and locally]*... and for High School he's going to be in the same school.*

And for Michelle I think that she is going to go to the same school as my son. [feeder

school into high school he is attending]. *She went to one school in D.C., not good*

though, and one school here in [Coty County], *we didn't like. She likes the one she is*

in now. It has a Magnet program. [even though the family has moved about once per

year, she has stayed in the same school] *and Maria have to be in the same school*

because she'll be in a Magnet School.

One concern that Yadira has with regards to computers is the potential

exposure of her children to inappropriate material. *Sometimes not sure what they will*

get…bad things [pornography] *all the time they* [the media] *talk about. I need to know*

more. I am sure it is safe in the library but what about friends house…you

know…wonder. Yadira would like to learn ways to protect her children and filter bad

material from them. However, she does understand that there are numerous locations

that could possibly provide them access, and therefore she is somewhat frustrated.

Overall, Yadira is satisfied with the U.S. educational system and the current

schools her children attend. There have been instances of aggravation.

> *In middle school there was this teacher, and for some reason my son was*
> *behind in his algebra. And I admitted that my son needed help. If you can*
> *work with him for a few minutes extra or during the class, just with him.*
> *And he would still not do it. And my son would keep failing, failing,*
> *failing. So I went there one time and he was not in the class* [the teacher]*,*
> *the kids were playing, waiting for him.*
>
> *The kids were just talking, sitting on their desk. My son was sitting on his*
> *desk. He will be working but not knowing what to do because nobody was*
> *paying attention to him. So they* [the office] *called him and he sounded like*

he was in shock that I had come by. And I said are you getting ready for class? And he said yes I'm just getting ready for something. So I said to him my son needs help, he's having trouble in this and he mentioned it to you. Yeah he mentioned it to me. So what you planning to do? Because when I go to the meetings its supposed to be they work with you for your kids. So he said you know I've been so busy. So I said I wrote to you, and I did not hear back. Can you come my home to help my son and I will pay you? And he said no I don't have time for that. So I said well can you explain one more time what he needs to know and can you give him extra work for home. And he said, like sarcastic ....he say, you know they didn't do it here what makes you think they do it at home? And I say you know what don't worry about him at home, you take care of him here and I take care of him at home. And if you will help him he will do better. And then after that he started to, but then I find out that they fired him because the kids, there was everybody having the same trouble.

Yadira was happy that her children had the opportunity to attend school. Although she felt at times it was difficult for her children, herself and others like her to be heard and understood by the school system and teachers. While she understood that the U.S. school system is helpful in giving her children a chance, she became frustrated when obstacles were placed in the way by schools not thinking or caring about an issue. Obstacles included situations such as requiring students to complete their work on the computer but not assessing if students had the background knowledge to type or use a word processing application. Schools also did not consider if students had ready access from home. Common feedback seemed to emphasize utilization of the community libraries, but community's libraries limit work time and still require students to pay for printing out paper. It seems reasonable to allow students to complete their work before or after school or during lunch, but as noted this had become a financial and logistic problem for the schools and therefore was no longer available.

In addition to viewing her children's education as important, Yadira also wanted to increase her own education and is working toward a GED degree.

I used to go to this place for GED classes and before I never went because I didn't have nobody to leave my kids with. And that place they actually have a nursery and the kids would go and play over there while we were studying. That was in the morning and some of them were in the afternoon, there was three, but they have like GED, Family Planning and they would have, like you have to have a child like that doesn't go to school yet. So you can't bring like older kids. Because you can't put them in there, but you can't just leave them out somewhere on their own.

Yadiara did not receive her GED, but she did hope to retake the exam and receive her diploma. Technology may play a part in her completing this goal.

No, I was so close I missed just 2 questions. I should take again but I do not want to go through classes again. They say you can practice with computer [Internet sites are available to practice or CD/DVD can now be purchased to help students prepare for the exam] *now. Then I wouldn't have to worry about the kids.*

Yadira was one among many students who participated in the evening classes, many of whom were Latino women. Not many men attend.

I don't think they [are] *interested. Like they, like my husband, he says he fine. In Spanish they call it conformista. It's like whatever they do as long as they work 8 hours a day they don't care if there is something else for them even though it would make them make more money but they just don't do it. Making a job, just work 8 hours a day and that's their job they come home and sit down to dinner.*

And not only my husband think that way, but my brother too. You know the majority of them they [Latino men] *think that way.*

Transcultural Connections

For Yadira, the computer and digital literacy forms a bridge between her family, whether they reside in the U.S. or Nicaragua, as it provides a way to communicate with her family and friends. While in the past, she has used the phone to communicate, today cyber cafes with internet access are becoming more popular.

Actually they put in college cyber cafe and they have that all around. Everybody is using computers now. Actually it is cheaper to communicate to the family. It [the place they communicated via phone and Internet] *the cafe. You pay for it. You go over there and you pay for it. Now it's cheaper than phone. My girlfriend she moved to Miami, but we can talk through computers* [email].

… but I guess I'm just trying to get my phone so that I can have the internet. I guess I have some friends they have they office, all my friends have graduated they have good jobs and they gave me their email addresses so that I can communicate with them. They used to write me and call me but they just give it to me I guess they want me to do that.

Yadira wants to have home access so she can start communicating more frequently with her friends, many who live in Miami and New Jersey and her family still in Nicaragua. Whereas the phone used to be the communication device of choice, increasingly the computer is taking over the function. Without a computer, Yadira is afraid of becoming cutoff from friends and potential job sources. Email is becoming the communication method of choice, and has mostly replaced letters in this community. Yadira wants to have more ready access to email so she can more frequently communicate with her friends.

Reflection

Yadira had entered the U.S. with no English skills and limited education and is attempting to increase her knowledge to provide her with better career opportunities. However, she is caught in a system which is not designed to help her case. GED opportunities lack day care. Jobs require computer skills. Her children require computer skills which the schools are not providing and computer access which they do not have. Yadira has searched for ways to acquire the skills she and her children need.

Yadira's basic search is for digital literacy and 21st Century workforce skills that are not being provided by standard education. She needs to be able to turn on a computer, write, save, and print a document. She and her children would also like to be able to work at home on similar programs as work or school. She wishes to communicate with friends using email. Yadira sees the fundamental shift of the U.S. society from typed (on a typewriter) and handwritten information and papers, but has not been able to participate in the change in paradigm. She sees it as essential to the future of her family, and therefore seeks an educational environment that will provide it to her. Additionally, she wants her children to obtain the same information as she feels their public school education is not providing it for them.

Chapter 6: Josephine's Story

Similar to other study participants, Josephine's life included numerous struggles including poor living conditions as a result of a combination of part-time jobs, unemployment, and low wages. However, unlike some such as Yadira, Josephine's journey included a responsible and motivated husband, and a relatively strong education in her home country. She had strong family bonds, and a drive to focus on the welfare and future of her children. Her husband had emigrated from Guyana first, and she followed. Josephine's background afforded her both mastery of the English language and an educational head start. Although starting from a different point educationally, from an economic perspective Josephine was poor as most of Guyana was economically depressed. Like others, Josephine and her family were pushed to emigrate because of a lack of jobs and future in her home country and sought a place with the opportunities for a better life. This led her to travel first to Canada and later to the location of the study. But even with what comparatively was a strong educational background, lack of technology knowledge and digital literacy skills became a barrier to new opportunities in the U.S. This is a story about how even someone fluent in English and with an educational foundation can have her future in the U.S. derailed without basic computer competency and technology knowledge.

Life in Guyana

Josephine Martin was born in 1962 in Guyana, which is in the north east corner of South America. Guyana is North of Brazil, East of Venezuela, and West of Suriname. Guyana's main language is English, and although in South America, its

culture is more closely aligned with the Caribbean, especially the West Indies, i.e. Anguilla, Bahamas, Barbados, Trinidad and Tobago. *It is the only English speaking country in South America.*

Josephine attended school in Georgetown, Guyana which is also the capital. *It used to be later school* [secondary education] *like for my brother, you had to pay for. But now* [since the mid-1970's] *schooling was free in Guyana all the way through the University….You started nursery school beginning at four. I think four. Yes, four. Then when you six you begin primary school. You go for 6 years and pass test for secondary.* Free schooling went up to and included four years at the University level. Primary through secondary schooling was mandatory. Students first attended nursery school for two years, at age 4 and 5. At 6, children entered primary school, *which had six grades*. Secondary education was directed based on students' performance on the Secondary School Entrance Examination (SSEE). Secondary school consisted of three tracks: general secondary school, the multilateral school, or the community high school. *General secondary schools had six-year program, after which you take the* [Secondary Schools Proficiency Examination] *exam for entry into trade school, or examinations for university admission.* The multilateral schools, *for smart students,* provided five years of education for students concentrating on science, technology, agriculture, home economics, or commerce. The third type of secondary school was the community high school, open to students over twelve years of age. During the first half of the four-year program, students were taught basic academic skills as well as prevocational subjects. In the final two years, they concentrated on vocational areas, such as agriculture, home economics or secretarial work. The program included

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on-the-job training. Poor performance on the Secondary School Entrance

Examination lead to three more years of primary education (all-age school) after

which one could still continue in secondary school. Josephine fell into the *general*

secondary school track and then continued to a vocational school. Comparatively, in

Nicaragua and Jamaica, public primary school, through grades 6 and 5 respectively

was free, and students had to pay to continue to higher grades.

I took typing to work in office. You know receptionist [in secondary school].

Although this was Josephine's plan, she ended up sewing in a garment factory like

her mother and sister. Considering the number of unemployed, this was a *good job. It*

paid well. While education was free to all Guyana citizens, there were no guarantees

that one would find a job in a chosen field. Employment opportunities were limited.

She started her job in a garment factory part time while taking *some more secretarial*

and accounting classes at University of Guyana. Her brother worked in the rum

factory. Josephine never mentioned her dad despite prodding her several times. On

each occasion she changed the subject and therefore I decided not to pursue the topic

any further. She was married to a man who

> *… we know each other since we were twelve years old. He graduated*
> *when he was fifteen because he was so smart. And he used to come and*
> *teach me economics and literature and so on, and so he was a teacher. He*
> *came to Canada. He used to say my time with you is short but if you take*
> *care of yourself you'll be the woman I marry.*

Wesley, Josephine's husband graduated early from secondary school taking

the multilateral school track and entered the University of Guyana where he was in

the teacher education program. In the course of the program, he became interested in

science. He took many Chemistry and Biology courses and was hoping to go into

medicine. In 1983 he moved to Scarborough, Canada in order to become a resident, and then apply to medical school. Like many others from Guyana, immigrating to Canada aligned with the vision of a better life and more possibilities.

Josephine didn't see her future husband for four years. *So he was in Canada and I did not see him for so long*. Instead she corresponded

> *with him through letters. Although, sometimes the mail would get lost. And I remember he kept saying that this special mail is going to come… go in the bedroom and open it up. But I never got it. And he never told me what it was, but then I realized that it was the engagement ring. Canada sent it and it reached Trinidad but it never reach Guyana. Someone in the registered mail took the ring out. But it was insured. So when he came to get married to me he brought one.*

While waiting for Wesley, she continued to work in the garment factory. *It was really hard waiting, but I used to go to sewing, and then I got married, and when I went to sew, the lady that I used to go sew, she helped me sew my wedding dress. He sent the material.* After marriage, her journey which eventually led to the U.S. began.

U.S. via Canada

Unlike Yadira, Josephine had a stable family structure, lived in a relatively peaceful home country, was a native English speaker, received a free education in her home country, and had a husband who was both educated and motivated to succeed. However, in spite of these advantages, her family and personnel journey was one of struggle: to find a job, to rise above financial difficulties, to raise a family, and to have her husband further his education. These struggles affected her choices for education, work, and technology use.

Wesley had *worked at several jobs while living in Canada; as a clerk, an assistant manager of an educational program and another clerk job* before becoming

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a Canadian citizen in 1987. Soon after that Wesley came back to Guyana to marry

Josephine [1987]. After the wedding, Josephine and Wesley spent two days in

Guyana and then

> *had to go to Trinidad because I couldn't get visa in Guyana. So I had to go to Trinidad. I got a Visa there and from there I went to Canada. And then I went back to school. They evaluated and I needed like four more or six more credits for my degree for permit* [A permit is needed to work in Canada]. *I took some other courses and I worked as a secretary and some accounting. I worked at a fairly big book store and I handled all the cash. I used to take $10,000 a day to the bank and take out all the money when the day was finished and count them up and do all the books and receipts and make sure, the manager always say 'how was sales?'. 'How did we do today?' So I stayed at that job for four years, and then I got pregnant. And then my mother-in-law she came to stay with me and they said that I should stay home with my daughter. I say, they* [the book store] *said they could give me part time. But my mother-in-law and husband wanted me to stay home. And anyway I stayed home with my daughter.*

Josephine's daughter was born in 1991 and Josephine stayed home until 1993.

In 1993 she …

> *applied with the government, the municipal government and* [I] *did typing there. And shortly after that I had my papers* [Canadian citizenship] *and I was making much more money, I was making like $10 a hour. My husband had a degree* [biology] *and wasn't making that much. I was making more than him at that job. He was working with the government. He was going to school too. He was like, a clerk. But then he apply and he went to St. Lucia to do medicine because he could get to in Canada. This was to help him become a doctor.*

1993 was a big year for Josephine. She started working again after becoming a

Canadian citizen, Wesley left for St Lucia to attend medical school and Josephine was

pregnant with her second daughter. *Wesley left for St. Lucia when I was pregnant.*

Josephine was now living in Canada with her first daughter and her mother in-law

and was working in a secretarial role for the government making *good money* [$10

per hour]. But pregnant with a second child while her husband was gone was a lot.

It was hard for me when I went into labor. But my doctor he was so nice and he came in the middle of the night and he gave me something and induced labor. But husband wasn't there and it was really hard and he didn't see my second daughter.

A year later [1994] *the school* [St Lucia] *went into bankruptcy and then he came back.* This was a trying time for Josephine and her family. *Well we didn't have no money and when he came over I got pregnant again.*

Wesley couldn't pay for school in Canada since all their money had gone to attend the school in St. Lucia, and a clerk's pay would not pay the bills for three adults and soon to be three children. Pregnant with a third child Josephine knew she wouldn't be able to help out working. As did many of this study's participants, they turned to their support networks of church, family and friends to help find a better situation for both home and employment opportunities. A church friend of Wesley's from Guyana had told them to come to the U.S. Their friend lived near the site of this study, and was attending a special program through a local University to become a teacher. They made there decision in 1996. *So we came over. We rent a U-haul truck.* Their friend *looked for an apartment for us…and found one on* [Riviera Road]. *And we came over and Wesley went to school and we were living on* [Riviera Road] *and we had no furniture, right.* Wesley attended the local University in the same program as his friend. Tuition was paid in return for working within the local public school system. The program enabled him to get a teaching certificate while working in the school system. He worked in the local school system teaching high school Biology for seven years [four was the requirement] although *the pay wasn't very good.* While the pay covered rent and health insurance allowing them to cover rent and food, it was *hard sometimes to pay the electric and other bills*, and even harder

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during the summer when school was not in session [Wesley was only on a 10 month contract] Although, in 1996 salaries appeared to be reasonable when comparing on a national basis, due to the cost of living in the area and the average income, salaries were the lowest in the nation.[5] Additionally, Wesley was still paying off loans from attending school (in Canada), and in addition a portion of their income was sent to Guyana to support to their families.

In 2003 he switched to another school system where for two years he taught a variety of long term sub positions at middle school, and in 2005 he switched to a high school long term sub position, and at the time of this study had still not secured a full time job although *one looked promising*. It was unclear why he had difficulty obtaining a full-time position: was it a result of his Canadian citizenship, or was he not certified in   subject areas where work was available. Additionally, I was curious as to why Wesley would leave a full time position to take part-time, less secure employment. Josephine shared several reasons including, *safety. It was just getting too unsafe* [in the previous school]. Additionally, Wesley's mother, s*he was sick*. Part time substitute positions allowed Wesley to go *back and forth to visit and be with the family.* The switch in school systems included relocating closer to the new work. The relocation was also an important factor because *the school systems are better for the children*. Josephine's children attended Coty County Public Schools until they moved to the Merrick area when they switched to Steal County Schools. [Steal County] *is much better schools.* The children still attend Steal County Schools although the family moved back to Coty County since Steal County *was too expensive.* The school boundaries between Steal County and Coty County cross this neighborhood and many

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families seem able to manipulate the system to choose which county's schools their children attend (based on earlier temporary addresses).

Transcultural Connection

As with all the participants in the study, maintaining transcultural connections either through living arrangements or the church was a support mechanism to adapt to new surroundings, find jobs, and learn about available resources. It was important for Josephine and her husband to live in a community *with other people from Guyana and Trinidad.* They wanted to live near fellow immigrants, and *attend the local* [Merrick] *Presbyterian Church together.* Additionally, they wanted a larger space to live in and could not afford some of the locations in Steal County. Locations they could afford were in *bad neighborhoods.* Josephine had wanted to start back to work and was thinking about a new career. Josephine's mother in-law had gone back to Guyana when they had relocated to the U.S., so child care for the three young children had to be considered.

Josephine stayed home with the children until the last child started kindergarten [2001]. Then she decided to go back to work. When looking for work, she found only limited jobs with her experience. She had worked as a cashier previously in Canada, but the cashier jobs were limited. The only ones available were *late shifts* which she did not want because of her kids. Josephine decided to go back to further her education. *I went to* [the local University] *and I went to register but the registering was very hard so he* [her husband] *went with me so I registered.* She registered for classes through a local program at the local University to become a nurse, similar to Wesley's program [partial tuition covered in return for service].

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I did nursing one and nursing two. I like it, because nursing one was okay when I went to nursing home and worked with elderly patients, but nursing two you have to do wet to dry dressing, some of them just have a sort of a bump and then you have to give them insulin. And I went back and told them I didn't want to be in nursing. I really admire the RNs they have go get into so much. With three kids it was too much for me. So then I went into Education. I had Chemistry One and Anatomy One, Anatomy Two, and Biology and my husband was saying go into the two year program [Educational Paraprofessional Certificate program]. *It would it easier on him, so the two year would not be so long. So when I went for the two year program they said they could not give me credit for all those sciences because you don't need all those sciences. But in nursing you have all those sciences. But the two year program was hard.*

While continuing with the certificate program, the schools paid a small amount for her work while she was in the training. Josephine completed the paraprofessional program in 2003 which qualified her to serve as a teacher's aid, but did not give her the certification needed to be a full-time teacher. The importance of family pervades the culture, and at this time, Wesley began traveling back and forth to Guyana to visit his sick mother and began only working part-time as a substitute teacher. Therefore, it was imperative that Josephine work to help pay the bills. Josephine reached out to her mother who moved to the U.S. so that she could watch the children while Josephine worked.

Computer Skills Needed for Future

Josephine's success in nursing classes was hampered by a lack of computer skills which resulted in difficulty completing assignments with a resulting inadequate performance on papers. The science demands of nursing were too great, from both the perspective of material and time requirements, so instead she switched to education. Unable to pay back the partial tuition requirement, necessary if she decided to drop

out, an arrangement was made with the institution to allow her to transfer into another similar program developed to meet area needs in education. This education program was to certify more ethnically diverse teachers and teachers' aides. Schools expected you to work in the district upon certification, but no *you did not have to work in the school system although they figured you would.* But you did have to *pay for more of it.* She *took out a student loan* and *we are still paying it off.* With her certificate she was hoping to work as a teacher's aide (earlier education), but *nothing was available* at that time that matched her location requirements. The jobs open were *not at good schools* [safe] *or were too far away.*

While looking for work, she found that she and her mother could watch children of church members for additional money to help cover expenses. She was having difficulty finding a school to work in due to transportation issues, as well as the fact that while interning she witnessed some schools where the kids were *out of control* and didn't want to be in that type school. She found that she could make more money doing child care. From 2003-2005, she ran a small child care business from her house. Although not explicitly stated, based on licensing requirements, this was clearly an unlicensed activity. When her husband started a long-term sub position, she ended this activity.

When she stopped the child care business, she started to substitute teach. But, because of her lack of technology skills, it was difficult to find new jobs which were listed on the Internet (her husband had to help her), access the information regarding assignments, and access classroom resources such as attendance. She expected the

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technology competency demands of substitutes to only grow. Thus, digital literacy

was not just a "nice to have" in the workplace. It was a requirement, and if one lacked

the skill it was a barrier to entry in the field. One of the reasons Josephine liked

substituting rather than pursuing a full time paraprofessional job was it allowed her to

drop off the kids at school. While it wasn't fully discussed in detail, it became clear

that the bus did not pick up the children. One reason was that, as described earlier,

they lived in Coty County although the children attended Steal County Schools (see

Figure 6.1). She only chose substitute jobs that allowed for this time schedule.

> *They are always calling me for subbing and I was all booked up until May.*
> *I mean I am always on time and make sure everything is clean, and put*
> *everything, like, especially Kindergartners I make sure that everything is*
> *picked up by the right person. Right. If not, you go back to the office,*
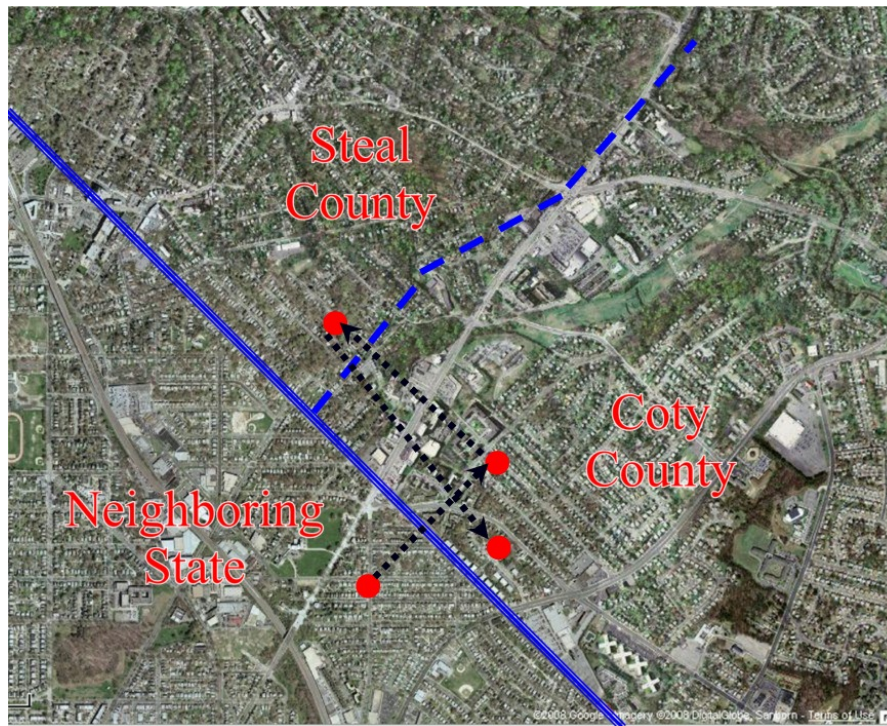> *right? and you call the parents.   And everyone say she's good we take her*
> *she's good.*

Figure 6.1. Arial View of County Lines
SOURCE: Google Maps

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<u>Going Digital</u>

Josephine entered the U.S. via Canada as a native English speaker with a strong educational background from her home country and continuing education from Canada. Her choices for further education and work were affected by familial issues: pregnancy and a husband in school. Her choice to further her knowledge of computers and technology use was driven by three primary factors, continuing education, work demands, and home choices. While she had a good job-good paying job in Canada *that was several years back and times have changed. Even the book store and receptionist jobs now probably require you to know about computers.* In the U.S., it became apparent that digital literacy was seamlessly a part of the fabric of everyday life. Without basic skills just as word processing, saving files, searching the internet navigating around for jobs and class assignments Josephine found herself trapped…she had education but was missing the piece that pulled it all together…technology. Josephine found that her future was limited by her lack of technology skills. Her troubles in nursing courses and her difficulty finding substitute openings were a result of her lack of computer literacy. She also feared that in the future, her work would depend on digital literacy skills that she didn't have. These skills are required to minimize future struggles. Additionally, Josephine wanted to help her girls with their assignments at school and she also loved to write poetry and wanted to publish her poems on her own. As viewed by Josephine, technology was not solely about new employment; technology was becoming necessary for existing jobs. Lack of technology knowledge was not just a barrier to future opportunity; it can become an impediment to education and work success.

When asked about the purpose of digital literacy and technology use,

Josephine replied,

> *Well I'm this kind of a person like this. You don't want to be in the dark, I mean, even when I substitute I have to use the computer. Soon everything is going to be on the computer. I don't want to be left behind. And if I see the opportunity now to do it, well you know, right to use it.*

Josephine had to write some papers on a computer in a lab when she was

taking nursing courses…

> *But guess what. When I do the nursing most of courses I had to do on the computer, but I got a C because when I went to the last segment and when I bring it up you can't read it. When I went to print it* [her papers]*, it just came out gibberish. I don't no what I did but she gave me a D for that, because she couldn't read any of the papers. But she saw me work on them.*

It became apparent through other informal conversations, that these

difficulties encountered with technology are one of the primary reasons she switched

content areas in her studies at the local University. The nursing track relied heavily on

digital media and simulations and required all work to be done through a word

processor and sent electronically to the instructor. While the educational track still

held standards for written papers to be completed electronically, many of the

assignments *could be hand written or posters and drawings*. Josephine went on to

discuss the importance of digital literacy and her coming to take a computer class at

the community center. *Well, everything is changing you know. If you are not*

computer literate there is not a place for you. Josephine uses a computer to get

substitute assignments and the only method for checking on available substitute jobs

is via the computer. Lacking technology skills, she must have her husband help her

check the availability of jobs and log in the required information when she accepts a

substitute job. But even as a substitute she needs to know more about technology

applications and usage.   When there is an

> *emergency code green or red. Emergency code is to make sure the kids are
> all safe. So if you don't know it's embarrassing. You have to know how to
> get into that computer to let the office know that everybody is accounted for
> in the room where you are …Everything, say for instance, in substitute
> teaching, you have to get on the computer and kids don't know how to get
> on the computer* [students are not given teacher passwords]. *They*
> [substitutes] *have to have some idea. They have to have a number*
> [password] *to get into the computer. And they have to know how to use it.
> So everything to do with my job, in order to get my job it is connected to
> the computer now. If I don't know how to use the computer I cannot go
> and locate jobs on the computer. It's not only on the phone no more, it's
> on the computer. …even now, the teachers, like if you get a job on the
> phone, they will say there's a job test for details in the computer you have
> to go and search it. Sometimes I would tell the teachers please use the
> phone because I didn't want them to know I don't know how to use the
> computer to search it.…*

Both job and professional development opportunities are often missed when one can

not access or sign up electronically. Josephine relied on her husband and even her

older daughter to negotiate the online format.

> *Even Friday was a holiday, it was like a workshop for teachers*
> [substitutes] *and in order for you to register you have to register on the
> computer. It was a workshop to get to know the substitute department
> and working with kids who have English as a second language. So that
> you would be aware of what is going on in a classroom. A lot of people
> did not register because they did not know how to get in on the
> computer. My daughter helped me to get in the computer to register. But
> I too late and the computer said closed, and so because I could not
> access the information I had to go by just feet and go in there and the
> lady said well okay just go in there and register.*

When asked if the school system required technology competency of

candidates who sign up she replied, *No. But they expect you to. You have to learn on

your own. All the sub plans are actually in the computer and you have to actually get*

in the computer. Substitutes are given a sub number which they then use to access the sub plans.

Applying Technology

Josephine tried to take an earlier technology course several years before she attended the course through the local Community Center. She attended a class

> *…offered by* [one of the] *Public Schools* [her husband was working there at the time]. *Well they brought in somebody to teach the course. First of all they teach you the hard drive, how much bytes all these things and what's in the hard drive, whatever, you know? and parts of the computer. The class was a one day course. My friend took a course but then there was this guy. But it wasn't right. Two weeks course and then he was asking for money for them to buy computers of grading and if they give the money then he said something else and give somebody else some money it was like a rip off you know what I mean? and eventually they pay about $200 and then he give them a certificate and they don't know nothing. Some of us scared to take courses. Hard to know who to trust.*

It is clear that it was difficult to find a class for a reasonable price that taught basic literacy skills, i.e. hands on use of the computer rather than teaching about the computer.

As with the other participants in the study, Josephine found out about the course through word of mouth through her network of friends and fellow churchgoers. Each church tended to have attendees who were tied together not just by religion but similar home cultures, at minimum native tongue but often by home country. Some subpockets within the church might share a home county, and may be from the same town or church. As a result, their bonds included a common drive to find ways to improve their lot in the U.S. When one would find something beneficial, i.e., a source for jobs, or in this case a course that taught technology in a useful product based manner, they would share their insight with the group. Within the

course setting, although not important to Josephine, some participants' lack of legal status in the U.S. made trust of the community center, its privacy, and its teachers important to all the participants. For others, their lack of disposable funds and time made it important to have a course that fit their needs. As an adult learner Josephine knew exactly what she wanted to learn. She wanted to know how to utilize the internet to search and navigate for job openings. She wanted to know about word processing: typing, formatting and saving and retrieving files. She wanted to be able to help her girls with their classwork assignments.

When she entered, Josephine raised specific questions related to class work for her children. For example, *how do you get the top name and date to stay to the right and the rest over here*? Josephine was trying to help her children do the correct headings [align right] that were required by the teacher. She also wanted to know how to insert page numbers and how to insert a table for her daughter's lab report. She also wanted to learn the various free educational worksites such as lesson plans from Kathy Shrock and the Discovery Channel, and various rubrics, worksheets and puzzle generators that she could utilize in class to supplement the material that was left by the regular teachers for the subs. An example of a word search she created is in Figure 6.2. She wanted to use some of these sites to help her children study. She was also curious about filters for the Internet, as she was concerned with what her daughters might encounter when using the internet. Thus, the focus of her interest was not the computer itself, but the uses of the computer and how it could be used to meet expectations of work and school. While they had a computer at home, one that her husband "had built", it was surprising to learn that *no, no Internet. But we hope to*

have one day. [At the time of the first interview, they had no Internet, but by the second interview they had acquired an account with AOL.] Wesley had taken the daughters to *work and use their* [the school's computer with internet access] *computers* when the girls needed to research something on the internet.

In her spare time Josephine enjoyed writing poems. She found the computer could help her hobby.

> *I am a writer and do a lot of poems. I had a friend she's living, and her husband, they do computer work. She's a lawyer. She's at home, home schooling her daughter, but she's a business lawyer. She was telling me to get what you call it when you don't want someone to, when you write a poem and you don't want anyone to take it away from you?* [Copyright] *Well she used to put it on computer for me and she used to charge me $2.75 each for that for the sheet. So I have to write it and she put it on her computer right? And then I remember I did like quite a few because I was giving them to people before asking for it. And then, I give her $80, she said $80. And then she said I could deduct it from my income tax which I did. So that's another because I have a lot of poems, and uh, if she takes my poems, she has a disc and she can keep it there, you understand.*

Word Search

```
I M V R S X Y Q E W K E A K G          AFTER
S H I J T N F V E D W H U U M          AGAIN
U A G H A R E L K A Q B L O Y          ANY
K D B W I R E L Y D G V V E Z          ASK
D N K O Y E T W F R V A A U C          COULD
M L B H S V T A F T E R I L D          EVERY
C O R E H I V T X A S H L N C          FLY
Y N R M U G P T S Q A V G C X          FROM
J B K F C W Q J Z S S F P O B          GIVE
G T U I F Z G W B W H T S U M          GOING
F D I S K Z S U Q Z U N V L M          HAD
G N I O G J B X U D T W Y D A          HAS
P G H O K U V T T G H C S P X          HER
U G H C I N E R E Q D A U T F          HIM
X Z Y G Z K B H D E A S K A P          HOW
```

Word Search Solution

```
+ M + + + + Y + E + + + + +            (Over,Down,Direction)
+ H I + + N F V + + + + + +            AFTER(8,6,E)
+ A + H A + E L + A + + + +            AGAIN(10,3,SE)
+ D + W + R + + Y + G + + +            ANY(5,3,NE)
+ + + O Y E + + + + A + + +            ASK(11,15,E)
M + + H + V + A F T E R I + +          COULD(14,8,S)
+ O R E H I + + + + + H + N +          EVERY(9,1,SW)
+ + R + + G + + + + A + + C +          FLY(7,2,SE)
+ + + F + + + + + S + + + O +          FROM(4,9,NW)
+ + + + + + + + + + + + U +            GIVE(6,8,N)
+ + + + + + + + + + + + L +            GOING(5,12,W)
G N I O G + + + + + + + D +            HAD(2,2,S)
+ + + + + + + + + + + + + +            HAS(12,7,SW)
+ + + + + + + + + + + + + +            HER(5,7,W)
+ + + + + + + + + A S K + +            HIM(4,3,NW)
```

Figure 6.2. Word Search Created by Josephine To Use with First Graders

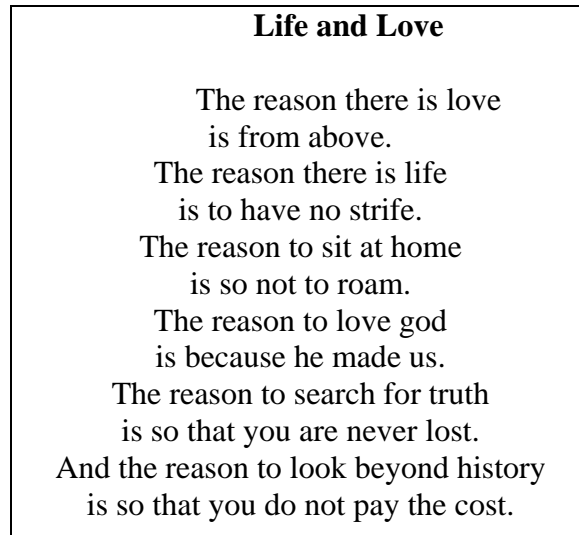A sample of one of Josephine's Poems is in Figure 6.3.

Life and Love

The reason there is love
is from above.
The reason there is life
is to have no strife.
The reason to sit at home
is so not to roam.
The reason to love god
is because he made us.
The reason to search for truth
is so that you are never lost.
And the reason to look beyond history
is so that you do not pay the cost.

Figure 6.3. One of Josephine's Poems

Within class, Josephine liked to work on a variety of projects such as fliers, and cards. Figure 6.4 shows a card that Josephine made for her nephew, and Figure 6.5 shows a flier Josephine made and sent back to her friends in Guyana.

Figure 6.4. Valentines Card Josephine Made for her Nephew
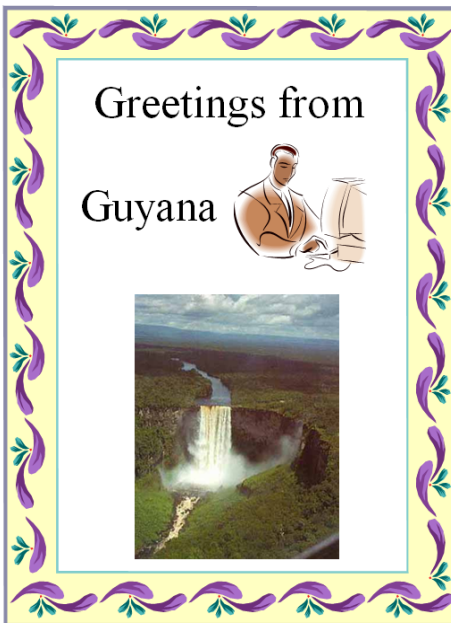
Figure 6.5. Flier Josephine Made for a Friend

Josephine's desire for computer skills was also a result of her perceived inadequacies at home towards technology, as compared to the rest of the family. Josephine sought to add to her computer skills to be more self-sufficient, and assist her children. She wanted to have the knowledge to help her children use computers properly for school, with the ultimate goal of having them succeed in future careers. *He* [Wesley] *actually, he build computer. He build one for my neighbor.* Everyone in the house used a computer except Josephine. *I'm the only one* not using the computer. Actually Josephine's mother did not use the computer, although *she would watch the girl's type or play math games.* Like many immigrants, Josephine depended on the knowledge of her children to help navigate unfamiliar terrain. In her case, her husband was also in possession of information that she needed.

All her children used the computer. Josephine's husband helped their children with homework especially if it involved doing something on the computer, like using

the Internet or typing papers. *But he doesn't have time all the time. I need to learn to help them and also to see what they are doing. It is very important for them* [her children] *to understand how to use the computer to get ahead. If they want to go on to college,* something her and her husband felt was a must. Josephine explained when talking about her children how digital literacy was important in order to do well in school. During the discussion she brought up her story about wanting to go into nursing but having to drop out because of grades. Part of the problem was the file print problem discussed earlier, which she repeated several times during our visits together. Josephine's oldest daughter wants to go into

> *…what you call, is it Internal Medicine. You know into rehab, you know if you have a stroke they teach you how to walk again* [physical therapy]. *She doesn't want to be on call, as a woman, I mean, if you have a family it's hard on call. And my second one wants to be a psychiatrist.*

Josephine explained that the schools her children attended *do a lot with computers but that Wesley has taught them the most* [related to technology use].

Staying Connected

Staying connected with family and friend back home in Guyana is another reason for Josephine becoming digitally literate. Josephine's family, including her mother-in-law who returned to Guyana when they moved to the U.S. from Canada, communicates by phone and letters. At the time of the second interview, through an AOL account, Wesley tried to get the family in Guyana and Josephine to communicate through email. Wesley was already communicating with his family and friends through email. *My husband gave me an email but I never use it. I am so excited about it. He is helping me now, and I say thank you. And after I say thank you*

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I say I want my own computer so he say this computer was here a long time so why

don't you use it.

While the Parks and Recreation was not set up to allow for email accounts to be set up, Josephine was excited to learn more about using Google to search for news back home and search for images and pictures. Josephine was always hoping to find someone she knew. It also allowed her to keep up with news and current events. She found the news and pictures from the Internet a great way to keep in touch, and found information about the Guyana Flood of 2005 as shown in Figure 6.6. She showed me an image of her old school she attended that she found through Google images (Figure 6.7). The use of email would allow her to communicate with friends and family back home. No longer was she limited to conversing with her local community; she could exchange emails to her home community. She could try to connect with long lost friends, and keep up with news from home as shown by her search of pictures from Guyana.

Reflections

Josephine sought to add to her computer skills to further her career, assist her children, and make aspects of her life easier and move productive. She was not seeking to learn difficult programming or worksheet applications; she searched for instead basic word processing skills to assist in papers and essays, and basic communication skills such as email. Computers gave her a way to retain some of her ethnic origin as communication shrinks the perceived distance between your place of residence and place of birth. Distance may be large in terms of space, but is small in regards to information.

Figure 6.6. Screenshot of Pictures She Found from Guyana Flood
SOURCE: http://www.bryanmaxx.netfirms.com/index3.htm

Figure 6.7. Josephine's Old Primary School During 2005 Flood Found
While Searching Images from Google.
SOURCE: Google 2005 images

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Chapter 7: Milessa's Story

Milessa's story is one of a struggle to overcome poverty and provide for herself, and her family in a country which only provided a minimal education. It is a story of hard work, a story of familial separation, but ultimately a story of sacrifice in order to succeed. Milessa took advantage of the tools available to her, most importantly networks of family, friends, and fellow churchgoers, who assisted her financially and aided her in finding job opportunities, and places to relocate.

In Jamaica, everyone received a free primary education (first through sixth grade), for most people, payment was required for secondary education. This inequitable educational setting lead to a focus on not just having enough money to live, but finding a way to pay for education as well. Within Milessa's life, men seemed to have a minimal impact; for short periods of time they may have contributed to the household, but in the long run they couldn't be depended upon.

Milessa took her family responsibilities seriously; she worked to support her family and helped obtain an education, and also contributed to the child rearing. Both Milessa and her mother felt that obtaining the best education they could obtain was a priority. Family connections were also important, as they provided support to improving one's life, and provided the foothold needed when one sought to move to a better area. Family was key to her being able to move to the U.S., finding a place to live, and getting a job. Milessa's priority of getting a better education for her children, even allowed her to accept her children living apart from her in a separate country, if it would provide them the best future prospects. Milessa's story is one of immigration and sacrifice in order to obtain a better future for herself and her family.

As a Jamaican native, Milessa was raised with certain values, goals, and supportive networks that shaped who she was and directed her choices in relocations and careers. She had close family and community ties which played an important role in Milessa's story. She was raised to value education, to be dedicated to her family, and to work hard in support of these goals. Thus, her life was a series of choices alternating between education, work, and child rearing as directed by the position her family was in. As a result, her attitude was characterized by dedication to her family, hard work to meet goals, and persistence of effort to succeed.

Milessa was born and raised in the village of Siloah, Jamaica in the Parish of St Elizabeth in 1975. Siloah is located *in the middle of St. Elizabeth Parish,* located in the southwestern portion of Jamaica. *A parish is like a state.* It is a *good place to go...not so many tourists.* Her description portrayed a farming community and a rural landscape. The main employer at the time and *one of the main ones today* is the local *Rum Factory*. The local landscape consisted of *small roads, sugar cane fields* and *vegetable gardens.* Nearby Milessa's home was the small school she attended which was housed next to the local church she also attended.

Milessa was the second of five children and had two brothers (one older) and two younger sisters. In the small house they all shared, the girls shared one room and the boys another. Most activities took place either in the kitchen or outside. Her father was there until she was ten, when he began to travel back and forth to Canada to find better employment. She later raised her two children (one boy and one girl) in this same house.

Milessa's mom instilled her with a strong work ethic, as in addition to caring for the children her mother worked at odd jobs such as cooking, and making both jewelry and bags to sell *in other places ..like Montego Bay.. about an hour no more…ah less than two hours to drive* for extra money. Milessa, like the other children in the family, went to primary school from ages 7-12 which consisted of first through sixth grade. *Primary school was free but Kindergarten and secondary you had to pay for. At the end of the sixth grade students took a common entrance exam for secondary school placement. Some students who did well could go to secondary school for free otherwise you had to pay.* They attended *Siloah Primary School* which as Milessa describes *was attached* to *St. Barnabas church.*

There were both free public primary schools and private schools which required tuition. *Private schools were* considered *better and students who went to private schools did the best on the exam* (secondary entrance exam) *and usually got to go free.* Milessa, like her siblings, did not attend kindergarten nor did she or her other siblings pass the entrance exam with high enough marks to enter the junior secondary school (academic track).

From her birth until the mid 1980s, her father *worked in various jobs like some restaurants and as a handyman and in construction.* He also worked in the sugar cane fields *off and on*, but it seemed *like a lot of work for what they pay*. Her father had a friend from the same village who moved to Canada, and in the late 1980's, *he* [her father] *started to go back and forth to Canada…sometimes 3 months, sometimes 9 months. He would send back money in the beginning but then only when he returned. He says he sent money and it must have been stolen in the mail, but we*

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didn't believe him. The family was thus left for long periods of time without a father figure. However, there was enough money being sent home in combination with her mother's earnings to allow her to attend secondary school, although it was the *All Age School track* which was focused more on vocational education and less on academics. But it did allow her to learn more about *nutrition* [cooking and food services]. The Jr. Secondary All Age School ended at ninth grade. Her older brother did not go to secondary school and instead worked on local farms harvesting *yams, calaloo—leafy greens and plantains, mangoes, and I think sometimes he helped a friend with coffee.* He also *worked in a restaurant for a while before starting to work in a metal plant* [Bauxite-Aluminum Plant] *but that was after he moved* (to St. Ann Parish).

In 1990, at the age of 15 and at the end of her Jr. Secondary School education, Milessa became pregnant with her first child, a girl. For about a year she stayed home taking care of her daughter and her siblings while her mother took on additional jobs to help support the family. *Living in Jamaica, it's hard to get by. You can have a regular job but have to do lots of other things to really get by.* Her father who was spending more and more time in Canada would send money intermittently. In 1992, Milessa started back *working various jobs…you had to work 3-4 jobs to make it.* She would *cook (*like her mother to cater to local construction workers in the nearby town of *Aberdeen* as well as *in a restaurant and would work teaching cooking and nutrition while taking some nutrition classes* [cooking classes]. *I taught nutrition. … to older children, adults and even past that…like how to bake, how to cook.* In 1994 at 19 she had her second child her son. She never talked much about her children's father except that *he was useless…I was young.* Both children had the same father,

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but Milessa and her children's father were never married. Milessa was never able to attend Senior Secondary School as *my mom couldn't afford to send me*. Milessa did attend additional vocational training (cooking classes) *here and there* later in her life.

When asked if they had technology classes in the schools she attended she replied…*Yes. But I couldn't afford it. My mom couldn't afford it*. She was referencing the vocational school where she took classes years after she had finished secondary school. They did have a few computers in some vocational tracks

> *…but you had to pay. At the time, when I was in school, I remembered the computer was like, an option for us. You had to pay for it, and at the time when I was in school* [vocational school]*, in '90's….'93, that was like $200, $300, and that was a lot of money for my mom. You have to pay. Remember, in Jamaica, we are sort of a poor culture, so computers simply aren't accessible to us. So, it was like technology started coming, but it came slow. You have a lot of computers compared to what I remember when I was in high school. We had maybe four, and we had a limit to, we had a limited amount of children taking options, and you have to pay.*

In addition to the birth of her son, 1994 was a critical time in Milessa's life as her younger brother was graduating from public primary school. While they had hoped he would do well on the exam and attend public junior secondary school, he was not selected. They had hoped and planned on her father sending back money from Canada, but *in 1993 or 94 sometime around that …yes 93 he left and we never heard back from him*. Milessa and her mother *think he met someone else. We* [Milessa and her mom] *worked extra hours taking care of kids* [babysitting for tourists] *and cooking and teaching some cooking classes* to help cover living expenses and to allow her younger brother to continue in secondary all age school.

Networks of friends and the church were critical to both finding and getting to jobs and job opportunities. Babysitting work was done for tourists visiting the Rum

factory and depending on the tourist season at nearby towns such as *Black River, White Hall and Montego Bay*. Many of the arrangements were made through the local church Milessa attended. While they lived in a rural area, friends, mostly from the St. Barnabas Church, would drive into the towns together. This network of friends and family would support each other and stay together while they found job prospects. For Milessa's family, this extra money was used not just to survive, but to pay for the extra education they needed to get ahead and find a way out of poverty. In spite of their efforts, with her younger sisters soon to complete primary school, Milessa and her mother knew they needed to find another solution if they wanted her siblings to attend secondary school, as it became obvious that they would not be able to continue to support the family and pay for three children to attend school. When asked how they were able to support her siblings she replied, *you just make it work. Some things you have to go without …you make it work. But back then it was easier, cheaper …now it is too expensive.*

Clearly, education was very important to Milessa and her mother. As their options for education in Jamaica shrunk, they decided to find a way to get a better education for their family. Her mother had friends at church who talked about the availability of good nanny jobs in England, which would result in extra money to send back to Jamaica, as well as the possibility of bringing other family members to England where schooling was free. Many of her mother's friends were doing this, and Milessa and her mom could see the evidence of the families benefiting financially. Additionally, many entire families were starting to relocate. In 1995, Milessa's mother moved to London and stayed with a friend who had already moved there.

My mom left two years before, my mom was leaving, she left my younger siblings with me, and I grew them up. Then I worked tremendously, be the mom to them.

Things were hard in Jamaica. She [Milessa's mom] *wanted to make a better life for herself and she didn't have anyone to watch the kids, and I was the oldest one, so I said I'll give you that break, but if you get that break, I'll go to school. And she went there and she wanted work and she didn't get a job for awhile so I had to work to maintain the kids.*

Milessa's mom had to work comparatively more hours than other workers in England to get the *connections to find a good house* [she did child care temporarily until she was able to find a good nanny position]. *But then she had to work harder. Because when you are from Jamaica and you've never traveled before people can tell you anything.* Her mother had to learn how to negotiate the system, to acquire a full time position, to learn what wages were, to learn what was expected and what was considered extra. The people would take advantage of new immigrants by asking them to work extra long hours, and taking care of a large number of children for the same pay.

Within a year, Milessa's mom was able to find a *good house* [good paying nanny position]. Again, it was *the friend from the church my mom started attending that helped her find the position. She said a friend of her* [mom] *friend who was a nanny knew that another family would be moving to the area soon and needed a nanny*. After getting the position, plans were put into place to send Milessa's younger siblings and her daughter the following year to live with her mother. Emigration would take place by "visiting." The younger siblings and her daughter were able to *come visit* in 1997 and then ended up staying in London.

Networking to America

Unfortunately, immigration rules to England were starting to tighten and since Milessa was over 18, she had to have a legal British citizen sponsor her *in order to even visit* London (for any length of time). While Milessa continued to love Jamaica, it was getting harder and harder to make a living. School costs were becoming *more expensive* and it was becoming harder to find a good local job which she had to have in order to take care of her son. Her mom could send back some money but most of her mom's income was going to support her three siblings and her daughter now in her mother's care. Many in her network of friends had already emigrated from Jamaica. Her friends from church and her mother's friends in England talked about the opportunities available in Canada and the U.S. which had fewer restrictions at the time on coming and going from Jamaica. She was very determined that her son would go to kindergarten so the benefits of moving were strong. Since London did not seem possible, she decided to take a friend's offer to *come visit* in the *United States.* Through the church network, *a sister of one of my mom's friends* helped make the arrangements for Milessa and her son *to visit* in *Miami. We stayed several months* (9 months in all) with the *family friends*. But her son would soon be starting school and *Miami was not a good location for small children.* Her son had a hard time adjusting at first. *When I brought my son here he was five years old and he was culture shocked.* Milessa was conscientious to make sure she had a safe and secure location for her son to grow up in, and most importantly a free education. She also valued a consistent environment greatly. Consistency for her daughter was also

important because moving from Jamaica to England wrecked havoc with her daughter.

> *Because, remember, you imagine you live in a society for all of your life and you come in a different society, everything is different. For one, when we were in Jamaica, when we came she were supposed to be in first grade and they put her back a grade and that messed up her grades, totally, okay, she was relearning everything that we already learned.*

Not attending kindergarten had presented a problem for her daughter. She was not prepared to enter first grade so she had been held back. This consequence was one of the reasons Milessa was so determined to have her son attend kindergarten and be prepared. While Milessa spoke mostly about her daughter, and how *its hard for her to adjust at times,* it surfaced in our conversation that her two younger sister siblings had had some adjusting as well, but were able to cope. Her younger brother however, *never really adjusted* and after several years *went back to Jamaica* and lived with her older brother. It was never really discussed whether some of her daughter's issues also derived from being separated from Milessa.

Milessa looked beyond Miami to provide a safe and nurturing environment for her son. She had a network of fellow Jamaican friends at the local church in Miami who traced back to the same Siloah village she grew up with. She had kept in touch with them by telephone and letters. She had other friends in Pemberley Station, and decided to move there with her son and live with yet another friend. She stayed with her friend for several months and helped cover some expenses by providing child care to fellow Jamaicans and residents of the neighborhood. Milessa attended the local Church of Christ, whose congregants were mostly Jamaicans. *The priest is Jamaican as well.* While not from Siloah, he was *from St. Elizabeth Parish*. Through

connections at church Milessa was able to find a care taker position for an elderly

person. The position started out as temporary (while her son began school). She

worked with an *agency connected with the church* that *gets you a position.* Milessa

worked helping care for one elderly person *the entire day 7 to 5 or later sometimes.*

There were times when she would *work 5-6 days* a week. She was with the same

elderly lady for *over four years.* But by 2005 she was only

> *…working 4 days a week. What happened, the agency get a job for you, and
> then they send you into their home, and my agency closed down, my boss gave
> them an option, you can keep her if you want or whatever you want, reassign
> somebody or whatever. And they were like, no, we're not moving her, so it
> was a thing like you work, not really to impress, but you worked and they
> really like the way you work and they decide to keep you.*

Health care for the aged seemed to be a far cry from cooking and child care.

When she switched careers, she was working at *nothing, just roaming. Taking care of*

kids, which is enough. But…when you get broke, you got to go [look for other job

options]. Thus, Milessa always maintained the drive and determination to do what

ever it took to provide for herself and her family.

Milessa's sacrifices enabled her son to attend the local elementary school

where he adjusted well. Her daughter still attended school in London and lived with

Milessa's mother, but visited on holidays and during the summer.

> *In England right now* (end of 2005) *she was almost in high school* (8th grade)
> *because she was advanced under the British school system, so it is a little
> difficult if I let my daughter start school in London, I'm going to have to let
> her live there and then come and stay with me on the holidays until she
> reaches a certain age and I say okay, the culture thing will make a real
> difference for her and I don't want it to be hard, so I won't do that. She is
> coming home in August, and she is going to come home for Easter.*

So once again, Milessa put the needs of her family ahead of her own desires.

Technology's Place in Milessa's World

Although not directly needed for her job, Milessa independently saw a need to learn more about computers. Prior to coming to the United States, Milessa did not use computers at all. When first pressed for a reason for attending the class, she was somewhat noncommittal; she just wanted to be computer literate. It was through conversation, that it became apparent that she viewed computers as part of the modern world and a way for her to be more knowledgeable about things in the community, to learn about employment opportunities, and to be able to help direct both her own and her children's future. Before the class at the technology center, *I didn't use the computers* [before in school]. *I didn't do computers at all. Like I said, I just decided I wanted to get computer literate. I want to move with the flow, that's why I decided to do this class.*

Although not specifically looking for a computer class, Milessa had already recognized the importance of computers for jobs and for her children's success. She found out about the class by seeing an advertisement posted on a bulletin board, seemingly by chance.

> *You know, after you have kids, and everybody is in a computer field and I wasn't computer literate. So one day I went by my Aunt's and my aunt lives close by here, and I saw the notice on the board out there, and I'm like, oh there's a computer, maybe I should go check it out. I was passing by one day and I saw the notice on the board out there on the notice board, saying…It is at the front of the school…they were advertising that they have a computer class Friday, so I just came in and investigated and checked it out. So, I just wanted to become computer literate. I'm not really doing it for a job. It is a more personalized thing.*

In the work she is currently doing she could not see how she could utilize the computer skills directly but did like the way the agency she worked for utilized the

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computer. *They give me, I call it an invoice.* The invoice looked like it was generated

by a computer. Milessa wanted to be able to produce the professional looking

documents others were making and participate in the technology revolution.

Milessa recognized that technology was becoming ubiquitous in the modern

world, and was becoming a requirement of most employment locations. Without

computer knowledge, you couldn't meet the entry level criteria.

> *Eventually to what I've gotten to see, is you have to be computer literate.*
> *You're going to have to know something. It is very irritating, but you go*
> *through the door, technology. So it is very important to have some form of*
> *knowledge of what is actually happening. So it is very important. Because*
> *you, out there technology is taking over and if you don't have a clue or the*
> *faintest idea of what it is, you have to know ….*

Milessa sought to advance her opportunities within the health care field.

> *I'm trying to get something, some certification, and a class on practical*
> *nursing, which is more advanced than I am right now. Practical wise, I'm*
> *equipped, but certification wise, I'm not. I lack a practical nurse. It's almost*
> *like an RN. It's maybe a year or two from an RN, a registered nurse.*

In order to get the certificate she wanted, she knew she would need to get a

GED which would require her to become more comfortable with computers. While

there were some classes held through local organizations nearby, much of the content

and practice tests she had heard were being done on the computer. A computer class

would allow her to have the basic skills needed to practice and pass the test.

Ultimately, she wanted to move back to her original passion and love, cooking

and catering. *I told you that nutrition, food stuff, is my thing.* While nursing or health

care paid the bills cooking was her real love and she wanted to try first to earn some

extra money (just like back in Jamaica, extra jobs) *Yeah, catering. I'm just trying to*

get some extra money now. I love my nursing thing. I love putting a smile on

somebody's face. Not that my catering wouldn't do it, or I would do my catering on the side, but my nursing thing, you know, has become such a part of me. She wanted to use the Internet to explore resources and search the local Parks and Recreation's online catalog for classes she found interesting. *I want to do a decorating class, but I've been looking in the books here and I haven't seen anything like that.* She wanted *a cake decorating class, because when I bake, nobody hates my stuff. Right, and I just want to get this little brushed up on decorating skills. I thought I need some decorating skills.* Her idea was to take a few more decorating classes and start a catering service. She used the Internet to search for potential classes (Figure 7.1).
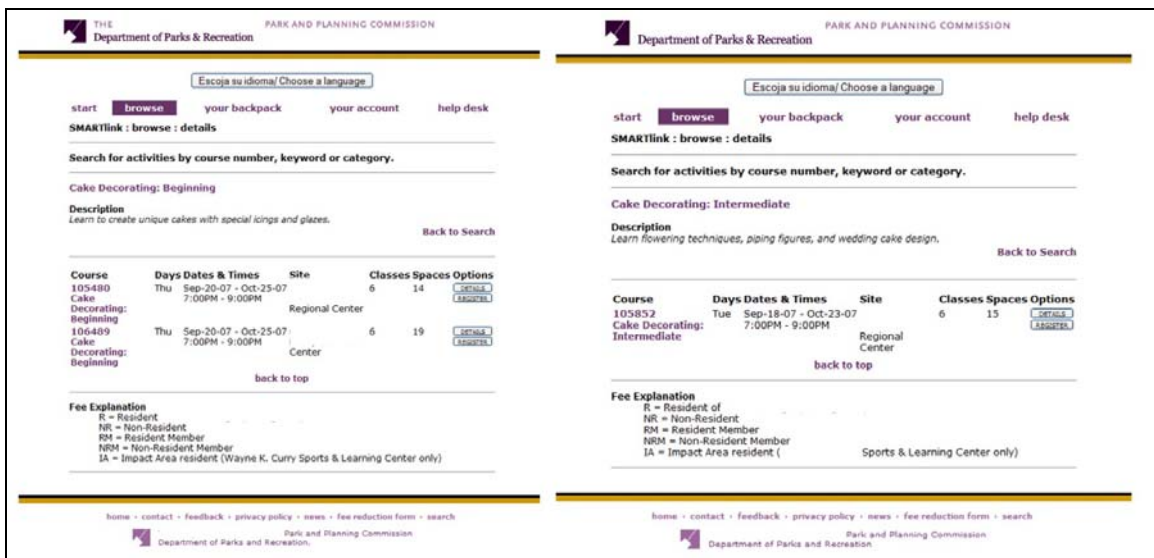
Figure 7.1. Cake Decorating Classes Offered Through Parks & Recreation

Additionally, a means to advertise was seen as important. She made the business card shown in Figure 7.2 to hand out to potential customers.

> *I just want to be able to show everybody I have some fliers that I'm trying to make. I'm trying to grow a business. I'm trying to work with this catering business. So I'm going to try to make a flier with these stuff on it. So I'm trying to do this.*

Figure 7.2. Business Card Made by Milessa

Milessa had specific skills she wanted to learn that would directly impact her work life. What she didn't want was basic computer skills that many of her friends had learned through computer classes…typing or keyboarding. She felt this was a *waste of time and money*. She wanted to learn how to use the computer programs, not learn how to just type.

> *I mean the typing is not the problem because I did that at school. So the typing isn't my problem, I mean I haven't done it in awhile but eventually you know the ASDF or whatever you hold your fingers on, but I'm not versed with those keys because I haven't done it …But you know that is not going to be a problem, it isn't like I'm trying to hold a job to do it, so it is just a skill of the computer itself.*

Technology and digital literacy skills would also allow her to stay connected with friends and family, including her daughter and mother. *Yeah, I could do that with my mom with email and friends in Jamaica.* Right now *I call them.* Staying connected was an important piece for Milessa.

> *Well, one of my girlfriends, she just left in January. She came and stayed with me for two months. She is going to go to Canada. Her husband lives in Canada so he is waiting for her, so she is going to Canada. She likes it. I've never been to Canada. My uncle lives in Canada but I've never been there. It's too cold. Very cold.*

Canada seemed to be the last easy access point for Jamaicans. England has tightened up its visa and immigration policies and the U.S. was also becoming increasingly more difficult. *It's hard to get a visa. You got to go to the U.S. Embassy*

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and they give you a card so many people don't want to push it. It was becoming even

harder to just visit or go back and forth from the U.S. to Jamaica.

> *Since 911 and then that, that's another thing, being that a Jamaican was involved it is becoming tedious for us. They will give it but there is a lot of stipulations. There is a lot of, you got to have to have a certain amount of money in the bank, you got to have a certain property, you got to say I'm coming to see this person. You got have a lot of questions.*

In class, Milessa enjoyed searching the Internet for items related to Jamaica,

particularly items like pictures of locations she remembered (Figure 7.3), and on-line

newspapers from Jamaica (Figure 7.4). Additionally, she searched for items that

could help with her future. For example, at the time of the class, she was very

interested in learning more about cake decorating, and searched for methods she

could use and classes she could attend.

Figure 7.3. Pictures of Y.S. Falls and the Bamboo Walk in Jamaica found by Milessa in Class
SOURCE: http://www.destinations2discover.com/microsite/?id=82 and http://www.great-adventures.com/destinations/jamaica/StEliz.html .

Figure 7.4. Screenshot from On-line Jamaica Gleaner
SOURCE: http://www.jamaica-gleaner.com/gleaner/

Milessa also shared how she was able to use the Internet to make life easier,

via cheaper price comparison/shopping and information gathering.

> *A little internet knowledge has been great. Internet skills. Like suppose now*
> *you want to buy a plane ticket. Going on the internet because that is what my*
> *cousins do. They bought a computer and when you shop on the internet you*
> *get it cheaper. If you go to the travel agency it is more expensive, so stuff like*
> *that is importan*t. *Suppose you wanted to go shopping you have to go on to the*
> *internet. Restaurants, where are they located? To shop. Like at*
> *victoriassecret.com, you know, stuff like that. How to get into Mapquest. For*
> *example, how to do travel. Travelocity. Mapquest, I said shopping? Yeah,*
> *basic internet skills.*

Milessa did not have a computer at home and therefore found it hard to retain

information from week to week. She wanted her own computer to practice.

> *I'm planning on trying to get one. I need to buy one. And that is my big*
> *problem too because I'm here doing the class and not having a computer at*
> *home, is like, it hard helping because I'm not able to practice. So I'm trying*
> *to get a computer. … they have a sale and they were like a computer was*

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$300, but I'm not very well versed in choosing a computer. So I don't know if it is a good computer, or how.

The price for home Internet access was another barrier to overcome. *You have to pay for the internet access.* However, she was determined that she would be able to save up and find a way to purchase a computer and be able to pay for Internet access. She thought with her own computer and an instruction booklet she could do everything she wanted.

> *What I really want to do, that I could do here is like, have some form of booklet, that say's okay, these are instructions, all the rules, that you can tell us that we can follow, but it is good to have a little note here and there saying …so that when you go home, you're going home and you're going to the computer and you don't remember what it is to come back … Yeah. I'm going to get me a computer or a home, and that way I can practice and right, that's why a book that would be very important.*

As important as Milessa began to feel that technology was for her daily life, she felt even more strongly about technology and education for her children.

Education and Technology for the Future

Throughout Milessa's life, her family always made choices that were directed toward providing the best possible education. Hard work and emigration were the means to provide food, but also provided the means for a strong education. Milessa felt the growth of her children's education was the most important factor for her and their future, and felt expanding her knowledge would help them as well. Obtaining the best education possible was the key to success. Like other participants Milessa had learned how to negotiate the local school systems to allow her son to attend the best school possible. Two counties with separate school systems served the local neighborhood. One had a much better reputation then the other and Milessa was

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determined that her son would attend that school system. The county line zig-zagged

back and forth causing a complicated determination of school zones. The friend she

lived with when she first came to this state resided on the Steal County side, and

therefore Milessa used that address for school selection even though Melissa rented

an apartment on the Coty County side. *I can walk here. It would take me maybe*

twenty to twenty five minutes a day. Her son attended a local elementary school in the

other county, although they were able to *walk to school. He goes to* [Meade]

Elementary and is in fifth grade.

Technology was an important part of her child's education and Milessa

understood the importance of her children being able to research on the Internet.

> *Eventually they are going to have to be able to go on the Internet, look up
> here and there, you know, files, do this and do that, it is important even if you
> aren't say, going into technology field full time but it is okay if you have some
> sort of knowledge of what it is based on.*

She expected her son to focus on school as a way to a good future. She had already

investigated his progression through the school systems. *Yes, within that school*

[Meade Elementary]. *He's going to get to use technology. Then he is going to go to*

Evans [the feeder middle school]*, and then university.*

Not going on to college was not an option that she considered. When asked

about access and opportunity to take technology in schools, Milessa already had a

plan for her child. *…in middle school, that is what he is trying to take as an option.*

That is what he likes. Computer skills, as an option. Having enough knowledge to

help her children (both her son, as well as her daughter when she comes to visit) was

an important component of her decision to attend the technology class.

Like my daughter, have a lot of disks, a lot of games for math and reading and stuff on the computer, and that would be good. I now know [from the class] *how to stick them in and now that I'm at least familiar with a little bit of the computer I can go, okay, this is what you do and I can get excited for them or whatever.*

While she understood that her kids knew more about computers than she did, and that they might not want to listen to her, she did feel it was important to know enough to not seem completely ignorant. She was also extremely worried about their online safety.

Well, they are doing it all school, because I know my daughter won't be right now but my son is already doing some stuff at school, some basic stuff, so it is okay for me as a mom, at least I don't seem like a dummy. To be more aware too. So I can put the code on it [filtering] *and say if you don't know the code you can't go to certain internet, you know, certain places. Internet predators. Right, important for virus, right. Spyware.*

So, the pervasiveness of technology and its ability to be a productivity enhancer and information deliverer was seen at Milessa's level. Computers were required by her son to succeed in school, they allowed one to produce more professional documents and apply for additional jobs, they provided a means for communication, and they allowed one to acquire knowledge not just knowledge in the sense of news and education, but also knowledge of prices and shopping information that allows one to save money.

Reflections

In Jamaica, education is a means people see to get ahead, and Milessa was no different. The need for education drove the choices she made for her family, and utilizing the networks of family, friends, and churchgoers she knew, she pursued jobs and locations which would result in the best education for her and her family. When

needed, she would even split the family, as shown by her daughter growing up separately from her in England. Even as their opportunities grew, Milessa realized that technology would become a limiting factor toward her and her children's continued advancement.

Milessa came to the U.S. with the desire and drive to expand the opportunities for her family. Possessing only a limited education, and not many marketable skills, Milessa used her determination and willingness to do whatever it took to provide for her children. She has managed to find consistent employment and an educational system that provided a strong future for her son. She allowed her daughter to live with her mother in England as it provided excellent opportunities and minimized the turmoil in her daughter's life.

Milessa searched for digital literacy skills to provide her with the ability to do things for herself, such as online shopping, looking up directions, looking for courses, and generally maneuvering in the online world. Additionally, she sought to be able to help her children, at least at a basic level, but more importantly to keep them safe. Milessa felt the focus of technology courses should be on doing, not simple things like parts of a computer and keyboarding skills. She wished to learn how to make fliers, invoices, and advertisements, and generally negotiate the Internet; skills that many introductory courses do not begin to approach.

Chapter 8: Marisha's Story

Marisha was born in 1959 in Jamaica into a stable and large family. Although not rich, her parents considered education a priority and sacrificed for her to attend parochial private kindergarten and junior high school. This sacrifice instilled in her a lifelong understanding that education leads to opportunity and a better life. Her choices in life were directed toward building networks and moving to locations that would enable her and her family to become better educated, and subsequently to do well in life. For example, as her own family grew (she had eight children), she found herself unable to earn enough money to provide them with the education she desired for them, and therefore moved to the U.S. Although poor, her struggle does not focus on poverty. Instead, like other Jamaican women that were interviewed, her story focuses on sacrifices to improve ones lot in life and benefit the next generation. No sacrifice is too great; familial separation, movement to another country, or long work hours. Opportunities were pursued with the help of members of her extended family, and sacrifices for the good of that same group. In the U.S., she has recognized that computers and technology are becoming ubiquitous and are required for many jobs, to search for household items, to communicate with friends, and to help her children do well in school and subsequently be ready for their future careers.

All About Me

Marisha's life was characterized by a struggle for additional education to improve future opportunities, for herself and her family. The methods to accomplish this pursuit were exposed in the technology class where I met Marisha. The students

prepared a basic PowerPoint presentation to become familiar with the software. Marisha decided to share a presentation called *All About Me* that serves as a good introduction to her life and is shown in Figure 8.1. She chose to present slides on her home country, her education, her family, her work, and her love of reading, dress making and gospel music. These ideas, country-education-work-church, are fundamental keys to her life.

Marisha was from St. Elizabeth Parish, Jamaica. She attended Aberdeen All Age School from six to fifteen which equated to the kindergarten through 9th grade. While primary school (first through sixth grade or age 12) for students was free, parents had to pay for kindergarten and public junior high school (seventh through ninth grade). In addition to the free public primary schools, there were private primary parochial schools (and private parochial kindergarten and secondary as well) which were considered to be of much higher quality and rigor than the public schools, required a fee, and would prepare them for the high school entrance exam. Those who did well on the high school entrance exam could be chosen to be one of the few to attend the free public high school. While public primary school was free, it still cost a lot…*oh, you have to have uniforms, pencils, paper, books…everything you must pay for. If you don't…you don't get to go.* Marisha's parents found a way to pull together enough money for six children in Marisha's family to attend private parochial kindergarten to give them a solid educational start and hopefully a way to attend the upper grades for free. Although the family could not afford the private parochial primary school, Marisha's mom helped out in the classrooms the children attended

Figure 8.1. PowerPoint Presentation Made by Marisha

and *would help us learn things. She would come and help and find out what we*

learning. This jump start and academic support seemed to help, as Marisha and her

five siblings all passed the junior high entrance exam enabling them to *went* [go] *on to public secondary junior high school through the ninth grade for free.* This made her parents very proud. *They worked very hard …mom worked hard with us to make sure we get it…you know you have to have it* [education] *to get anywhere.* Marisha and two other siblings, one brother and one sister also passed the senior high school entrance exam and attended Yallahs High School in both 10th and 11th grades focusing on academic subjects such as Math, English, History/Social Studies and Science. Computers and technology were not taught when she attended school, although *now they do, not when we were there.* Marisha was thinking about becoming a teacher. Although unable to afford to attend the University to become a fully certified teacher over the years she worked as a substitute on occasions and a teacher's aide.

Marisha's father worked in local construction as an electrician and her mother *took care of the kids* and in addition did *extra jobs* like working *making dresses to sell* [in a local factory] *and working as a teacher* [teachers' aid] at the schools the children attended. During the time the children attended the private parochial kindergarten she worked in exchange for a reduced cost in the children's tuition. While they were able to budget enough money to pay for their children's education (tuition and supplies), they did so by accepting numerous sacrifices, including very cramped living quarters in a *small house. Just a few rooms, large family room…but most of the time we spend outside* [front and back patio area]. Additionally, while there was always time for church activities and family and community gatherings, most of the extra time by her parents was spent working. Siblings were in charge of

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taking care of many of the house chores and each other. Recreational activities *included football* [soccer] *and we did board games like dominos and checkers.*

Marisha graduated senior high school (11th grade) at age 17 in 1976. The following year she married the man she had been dating and soon after they had their first son. Marisha lived with her husband and his mother and five of his seven other siblings all between 8 and 17. There were nine living in the house after their first child was born. Marisha's husband worked as a *taxi driver at nearby towns of Lacovia, White Hall and Black River.* Her mother in-law did *housecleaning at area business offices and hotels* and also did child care mostly through tourist agencies. *People go on trips and need someone to watch the kids…hotels arrange.* In 1977 she also started working off and on in a local school [substitute teaching] and the year after that (1978) she also started working full time teaching [teacher's aide] at Aeobis Valley All Age School where she *taught* [substitute and teacher's aide] off and on *for 21 years* before coming to the U.S. She taught *all subjects different grades.* Although she taught for 21 years, this time was interspersed with breaks, as during the period from 1977 to 1998 she had seven children and had to take off time to care for them, along with caring for her husband's younger siblings at times. Marisha also had other temporary jobs, for example *pressing shirts* in a local *laundromat* and working in a *dress factory* where she sewed dresses and also gained a passion for dress design.

Familial Diaspora – England and the U.S.

Unlike Marisha's family her husband's family, could not afford to pay for kindergarten nor secondary school. The main income for this household was coming from his mother and her husband. Her husband's two older siblings who lived on

their own also tried to provide support but their income was minimal. Marisha never

shared details about her husband's father. Her mother-in-law was married but the

husband had been less than supportive and out of the picture for quite some time. As

the family grew, cleaning jobs were becoming more and more scarce in Jamaica as

labor was readily available, and as the Marisha's mother-in-law realized that to have a

better income, support the family, and provide a better education, she needed to

move. It was becoming difficult to be able to purchase all the items required even for

"free" schools, for example school supplies, and uniforms. Knowing that Marisha and

her husband could watch the family while she searched for a job, she decided to go to

England to look for better job opportunities. One of her mother in-law's friends had

moved *about two years before* and found a good job. *She talked …talked it up for my*

mom [mother in-law]. *She* [her mother in-law's friend] *was able to send back things*

to the family and many family started being with her. It was decided that her mother

in-law would move to England, staying with her friend to look for employment. If

things worked out she would *send for the younger siblings* that would soon need to

enter secondary school. Marisha's values and background in education made her very

supportive of this decision. In 1982, Marisha's mother-in-law moved to London.

While she was gone, Marisha and her husband cared and provided for her husband's

siblings. Marisha's mother in-law lived with her family friend in London for *about 8-*

9 months. During that time she became involved with *the local church where many of*

the other Jamaicans attended. She became involved with the *choir and taught Sunday*

school. Through teaching Sunday school she was able to find a full time nanny

position. *One of the girl's parents* [girl that she taught in Sunday school] *who worked*

for the group [nanny locating organization] *told me about a couple who needed a nanny and housecleaner.* After a few months of full time work she was able to find *her own rental flat,* and over the next *several years sent for all five* of her husband's siblings. While the absence of her mother-in-law and her husband's siblings provided more space in the house, employment opportunities were getting fewer and farther between for Marisha's husband and money was tight. Her brother-in-law and his family moved in which helped with expenses. Although Marisha worked part time at school, pay was minimal. *Teaching was good* [respected] *but did not pay a lot.* And as was usually the case in Jamaica, additional jobs were required to cover the cost.

> *In Jamaica I did laundry, like pressing shirts. And then, that's when I was young and dresses* [sewing at a local dress factory]. *I was mostly taking care of the kids. The last job was working at the Airport. At the Airport they have all kinds of computers* [although she never used them at this time].

Marisha's husband worked as a *taxi driver and fix it …he fixed things for them like leaks, or cleaning up outside things* [maintenance/handy man] at a local hotel. Without having to support the other siblings and financial assistance from her mother in-law they were able to pay for their son to attend kindergarten (1983) and parochial private first grade. *I send him to a private school.* Marisha and her husband felt a parochial education was a priority. While private parochial was *expensive* she was given a discount by working as a teacher substitute and teacher's aide. Originally,

> *… it was not so expensive as now. But for High School you have to pay the beginning of September like you here now going to college and you pay for college. Well for High School you pay, and you have to buy books, and rent books. And you have to buy the uniforms. The correct uniforms. Every school has uniform.*

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Her mother in-law told her about the excellent reputation of the English

education system. In 1985, with her second child on the way she anticipated a

temporary reduction in funds when she would have to stop working (both salary and

school discount). Although hesitant, she agreed to allow her son to go to England to

attend school under the supervision of her mother-in-law. *But he would come during*

the summer and stay and sometimes on holidays. Thus, she was using her familial

network to ensure educational opportunities for her family.

In 1986, she had her second child a daughter. This was a difficult time as there

were months when she could not teach and they *didn't pay you if you didn't work.*

Her mother-in-law tried to send money to help support the family. Meanwhile,

Marisha's older sister in-law decided to move to the U.S., and using connections

based on church friendships, found out about a Jamaican enclave in Pemberley

Station, and moved there with her family. As her mother-in-law's nanny job ended

(the children she was taking care of grew older), she began to look for a new position.

But as more and more Jamaicans had immigrated to London, finding a new job was

getting difficult, and as a result she decided to relocate with her daughter to the U.S.

> *You know people always want to travel from Jamaica. They are in a hurry to*
> *reach the earth. People are always traveling, especially to England, and she*
> *went to England, and then she came to America. She have three of them*
> [children – Marisha's husband and his two older siblings, including the older
> sister who moved to the U.S.] *in Jamaica and five of them in England. And*
> *then she came and visited the U.S. I guess she lived here 20 years. I think it*
> *is better than England in getting a job.*

In 1987, Marisha's mother-in-law moved from England to Pemberley Station. Her

younger children meanwhile remained in England, where the eldest children had

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begun working, and took care of the younger children. They did not want another major upheaval.

Marisha's son now in the fourth grade remained in London and *lived with my sister-in-law.* After being in the U.S. a few years, in 1989, her mother-in-law talked her husband into moving to the U.S. *When she came here she sent for him. Much more work* [employment possibilities]*.* But he would go *back and forth, back and forth. He would come sometimes nine months time.* In the U.S. he received a cabby license and when living in the U.S. drove a cab and still *he drives a cab.* Marisha had her 3rd, 4th and 5th children (all daughters) in Jamaica in 1990, 1992 and 1994, respectively.

In 1995 her son graduated the British educational system at age 17. After his 18th birthday, he joined her husband in Pemberley Station and applied to a local University and with financial assistance and a partial scholarship he was able to attend.

> *When he come here he was big, when he came here he was eighteen. So he went to* [the local University]*. When my son came here he was going to High School* [in England] *and he was ready to go into college you know they have this ESE, England Standard Education . They have these hard exams to do. He passed all five of the subjects. Then he came here. When he came here he called and said mom there's no education here in this America. Everybody is dumb. At that time he was living here with his dad, they came before I came.*

Her son graduated with a Bachelor's of Arts degree and works in a local retail store. Her mother-in-law, husband and herself all liked Jamaica better than either the U.S. or England, but *we like it here, because of the kids. Jamaica not so good for kids.* It seems all of other siblings remained in England. *They like it there. They do*

different things…I'm not sure what all they do but they like it there. They visit here

once and go back and forth to Jamaica.

The most important thing for Marisha was for her children to have access to education and go onto college. Therefore, no matter what the arrangements, whether staying with relatives in England or moving to the United States in cramped quarters she was determined to give her children access to free education.

Landing in Pemberley Station

As Marisha's family continued to grow the demands of a split household and simultaneous desire for education grew to be too much. Her husband continued to travel back and forth between the U.S. and Jamaica, and by 1997 she was pregnant with her sixth child, a son. Her ability to work, and therefore her income continued to dwindle as most of her time was spent caring for the children. She was able to work only part-time, but even with her husband sending back money from the U.S., it was becoming harder and harder to cover the expenses for school and parochial kindergarten. They were able to pay for kindergarten for her oldest two daughters, as well as two years for their eldest daughter to attend private parochial school but as the tuition and their expenses increased, their income stagnated and they could no longer afford these educational advantages. The eldest girl attended public school for the fourth and fifth grades and Marisha would supplement her studies. In 1998, her eldest daughter was entering secondary school, and although *she did well on the entrance exam she did not make the selection* for free tuition. At the same time, Marisha's third daughter was getting ready to start kindergarten and Marisha was pregnant again.

New arrangements were needed to allow her children access to educational opportunities the family felt were critical to their future.

Her extended family was the key to her family's move to the U.S. With her husband in the U.S. her family decided to move to the U.S. in 1998, pregnant with her seventh child. Since her husband was not a citizen, she came as a visitor. Marisha came straight from Jamaica to Pemberley Station. *I came into* [Pemberley Station] *the first time I was visiting someone* [a family friend her mother-in-law had met at church]. *I was visiting here eight years.* Technically she was still visiting in 2006. *My husband was living here.* He traveled back and forth between the U.S. and Jamaica. *So he sponsored me* [actually her mother's friend sponsored her but the financial background that was required was provided by her husband]. Her husband's sister had been in the U.S. since 1985 and had helped her mom move here. Through relatives and Jamaican connections her sister-in-law was also able to help her husband find a house to rent and the relatives were able to pool their financial resources together to afford the rent. *My sister-in-law find it for my husband, so we both came here.* Marisha and her friend/cousin came together with their family members and they all lived in the same small quarters. The house at that time included Marisha, her husband and seven children, plus her cousin and her two kids. This put twelve people under the same roof. In 1999, at the age of 40 Marisha had her last child, a son. The number in the household increased to thirteen. By 2006, her son and older daughter had moved out on their own, but the house was still full. *Yes they all here. They mostly kids. I think eight of them. Yes my cousin and daughters.*

Finding work in the U.S., which would fit around the schedules of such a large household was one of Marisha's first challenge.

Finding Work

In addition to her familial network, the search for work was facilitated by a local church which had congregants from her home country and expanded her network of friends. She did not have a lot of time to search for work, as with so many kids to watch most of Marisha's time was spent on their care, but to help cover expenses for her kids she set out to earn wages. Marisha shared the story of how she ended up working with autistic children.

Once in the U.S., Marisha began to attend the local Church of Christ with her sister-in-law, which included a large congregation of Jamaicans. There she made some friends who were also from her home country. *Someone from Jamaica that I never knew. We start talking, get together, go together, start praying together and we met someone that worked at this school. So she told this person to find me a job and that person referred me and I got a job.* At first she started temporary work around the children's school schedule. When needed, her cousin would watch the children or be there when they returned home. Later the older daughters were able to watch the kids after school. Thus, slowly, Marisha's job grew from a part-time to a more permanent full-time position. *I'm working with them for five years. I'm with them, I used to do like relief work, and then regular. But I been working continually for more than five years.* As her older children were able to do more of the day care for their siblings, this allowed not only Marisha, but her cousin to have more time for a job. Marisha helped her cousin find a job with the same agency.

Although some aspects of Marisha's work could clearly benefit from the productivity enhancements that technology could provide, computers were not part of the center's business model. Marisha worked with autistic students and helped monitor their progress and performance.

> *We pick that person up from the house and take them to work exchange at the office, because I take two ladies from one hostel and go to the office and meet my guy that is coming from another hostel that's called job code. At the office I take my plans, we call them plans, and we call the clients now.*

Lesson plans and activities for the autistic students to do are given to Marisha to carry out with the students. At the time of the interview in her work they did not use a computer although

> *…we have computers like we have training there. We have a training room for the students. The computers are used with the autistic children. Since they don't have jobs they type in their names because they are really autistic. Some don't even understand the system. Some have jobs. And after they finish their jobs they just come back to the children's center. We keep a watch over them. Some of them are quite sharp in some areas. Some of them can read. I have one guy and he can read and he can type things. He can write me a letter. But then sometimes he not stay for long. He just walks away from it.*

There was not much time for Marisha to work on the computer although she wished there was. *Yes I would like to do work with computer later. It is not even relative, because the simpler it seems computers there are for the autistic.* [what is available for students is specific for their needs and not necessarily relevant to Marisha] *We have a little time for sneaking in something. People don't have a whole lot of time.*

Rather than using a computer, Marisha's observations and notes had be hand written and given to the center coordinators. Observing and recording daily reports about the students' interactions was the focus of the work Marisha and others in her

position did. *We control that one section of it. I have to write for everything.* Clearly

this could be made more efficient if Marisha's observations and notes could be

uploaded directly to the computer, but at the time of my interview, she did not have

the knowledge or equipment to make this happen. When asked if she thought one day

instead of hand writing it could be typed on a computer she replied

> *I don't think so. They usually have to have that to send to the DED. To the*
> *state.   So what we have to do is to reinforce them. We give them*
> *reinforcement and then we just write what we do…give to the coordinators at*
> *the end of the month. What we do we give to the coordinators.*

> Then the coordinators type it in. *Yeh, they do the graphs on the computer and*

all of that stuff. When asked if they could type it in, she replied, *we are not paid to do*

that.

> Marisha juggles work, home and church demands, as,

> *I work Thursday, Friday, Saturday evening, and Monday is my free evening*
> *but sometimes we go out to the church group to pray.   On Saturdays, I work*
> *8 to 8. It's almost the same thing, but these people are retiring from jobs, and*
> *I give medication. And Tuesday we go to ladies' meeting or choir practice.*

Wednesday nights were reserved to take her children to extra activities such as Boy

Scouts and gymnastics practice. In 2006, Marisha continued her work with two

students she has taught for the past five years. *Just two* [same two students] *Every day*

yes.

> The demands of work in the U.S. were sometimes frustrating for Marisha who

did not have to work such long hours in Jamaica. In the U.S., she worked Saturday

from 8 to 8.

> *At home when you were in Jamaica, you didn't have to work so many hours,*
> *to get the amount of money to get a bunch of stuff. I don't think we had all that*
> *to do the many jobs. If you are working shift at a factory. Its now in Jamaica.*
> *One job cannot do you because it is so expensive, but you can do other little*
> *stuff. And sometimes there are not enough jobs that you can work just here,*

and then you might have another. Because the people who work at night just work to help care for people.

Although work was difficult to find in Jamaica, *back home we have more time. Because, we hardly do night work. We go to work from morning till evening and we don't work weekends.* But as Jamaica became more expensive, there weren't enough jobs to maintain the same living standard and send the children to school. The long work hours in the U.S. are seen as a hurdle to learning new skills and exploring new opportunities that computer knowledge may provide.

Computers are the Future

Marisha saw computers providing future opportunities for her children and saw existing jobs increasingly requiring computer skills. She came to the computer class to expand her knowledge for both employment and for basic life skills. *I saw it in the advertisement and I wanted to do the computer, I don't know nothing about computer.* This was her first computer class and she signed up for it because *well basically wanted to learn more about computers. Because I know that the world we are living now is a fast world so the computer is very important for all of what you need to know about.* Marisha felt it was needed in all areas of life in today's world; *at home, at work* and even recreation.

Her oldest daughter *had her first computer when she was fifteen* (2001). Her daughter had received a computer through a special project with the local school system. Parents and students from the local high school were given a chance to receive a refurbished computer which included standard software and typing software. Families qualified to receive a computer if they also financial qualifying to

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receive free and reduced meal service (FARMS) and then it was first come first serve.

She remembers

> *waiting in line for hours to receive the computer* for her daughter. *She is eighteen and she went to college. She take it to college with her and then she came back and had a new updated one. She has an updated version, I have an older one.* Her daughter *she set up my computer and told me that it was important for me to try it out and not to be afraid to use it.*

But she wanted to learn more at class and then start trying things at home. She planned to use it for a variety of productivity and communication based items. *I need to use email. I need to do home buying, online banking, faxing, sending back and forth to Jamaica. I think it will let me email my friends and relatives back home.*

> Marisha and her cousin also teach Sunday school at the church.

> *I want to learn Word Processing. I want to make the fliers for church. And cards….Like invitation cards…..And I would love to make the programs for church……front and back two parts, front, inside and the back….So get some little cards and do Bible verse for the little kids.*

Marisha tried to find time at home to practice what she had learned. She practiced *when I have the time.* She made both the bookmark shown in Figure 8.2. and the program in Figure 8.3 for her Aunt's funeral. She worked on these projects in class. For the program, I helped her find the pictures to paste in and we put the program together while the class watched. After doing these projects, Marisha thought that she might be able to create fliers such as these in her spare time for extra money.

Figure 8.2. Bookmark created by Marisha for her Aunt's Funeral

Her children were learning some computers in school, her *daughter who go to middle school say they are going to put computers. My daughter said they are going to give them laptops.* Her children helped her on the computer as well. *Each one helps.* Although Marisha did feel that the younger children were not learning about computers yet. She said they were learning *not enough, I was telling her that I would like her to come here.* Her eldest daughter didn't learn computers until high school. *I think she learned it when she was going to* [Evans High School]. Her eldest daughter recently had a child and was doing real estate. *Yes, now she is doing real estate. So now she is working from home. I think she is doing a computer job.* Marisha's twelve year old son learned *computers in a special class* [technology class] *in middle school.*
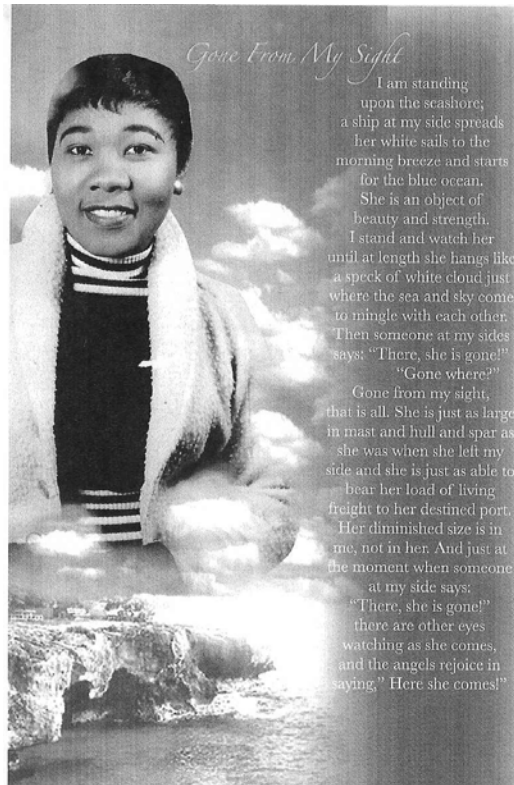
Figure 8.3. Selected Portion of Funeral Program Marisha Made for Her Aunt's Funeral

Similar to other students, Marisha likes the direction and goals of the

community based computer course which focused on using practical applications on

the computer, at times convenient for a working population. Regarding the costs,

> *I think it is reasonable, and the time is okay, the location is good. Sometimes we go to choir practice right after. I need to expand. And as for the way you are teaching us I know, I just love the way you teach, but I need to advance now. Learning is important to me. Now that I come and you are teaching us so much things that is so interesting, that I am fitting my time so that I can do more my computer. For my daughter says, if you want to learn you have to do it first. So I said before I go to bed I will run the computer.*

Marisha was open to learning a variety of programs.

> *I don't really know, exactly what I want on the computer, but anything that I can learn I want to know. Yes the internet, and searching. We are living in a world that is a fast world, so we need to learn. I know that many say you don't want to learn about computers because you don't know and you don't want to know. But let me tell you my daughters say, you hear that mom. You have to learn about computers, it will help you.*

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Marisha had a sense of pride when she learned new skills and was able to show her

children that *she could do it*. She showed off her skills by making the business cards

shown in Figure 8.4 for herself and her husband.

MARISHA BROOKS **2345 Maple Dr** **Pemberley Station** **Dressmaking** 333-333-3333	**David Brooks** **Cab** **St. Elizabeth Office** **US Office** 2 Malt Street 2345 Maple Drive St. Elizabeth, Jamaica Pemberley Station Tel: 2222222222 333-333-3333

Figure 8.4. Business Cards Made by Marisha for Herself and Her Husband
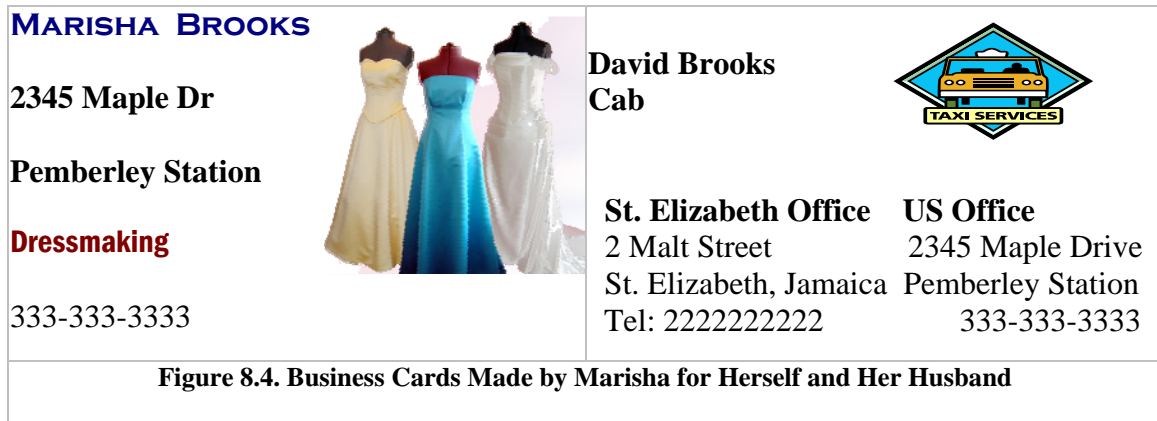
Although Marisha was a teacher's aide in Jamaica, her qualifications did not

meet those of the U.S. education system, and in fact she wanted to get a GED. If she

received her GED, she said *I may go to college* and learn *designing dresses.* She had

sewn in the dress factory earlier in her life in Jamaica. That experience had given her

the desire to think about designing her own dresses. Designing her own dresses was

also a way to stay connected with her *past roots* and make dresses that matched what

she wore in Jamaica. When asking what she would design, she answered, *Dresses*

mostly, but with color. We miss the color.

With her extensive experience in working with schools I asked her about the

possibility of teaching. Marisha was not interested in teaching in the U.S. *Well I*

didn't like teaching here. Marisha had been into her children's schools to help,

similar to her previous teacher's aide job. However, *they do not pay.* Even teacher's

aides in the local school system have to be certified or have certain qualifications.

The help she could do in schools was primarily as a parent coming in as a volunteer. *I*

don't know how well I could get just to the discipline area. She was unsure of the

requirements for teaching at any level. If the requirements could be met she wanted

no part of it. *No! They unruly. No discipline for the older kids, but the younger kids*

are usually pretty good.

There were many programs in the local area that offer GED preparation

programs, but many assumed little education and were often *taught* predominantly *in*

Spanish. Marisha wanted to be able to study for the GED via the Internet.

> *You can go on line and there are a lot of free sites that tell you what you need*
> *to know and practice in the GED test so that you can tell which area you*
> *need more work with and then there also online GED courses. You pay a fee*
> *and you go on line too.*

Reflection

Marisha's story is one of struggling to provide both sustenance and education

for a large extended family. Connections of family, friendship, and church provide

the support and information needed to negotiate difficulties in job search, family care,

and education. Members of Marisha's extended family took advantage of these

networks to first relocate to London, England, and then Pemberley Station. Marisha

relocated her family from Jamaica to Pemberley Station as well. In all locations, the

networks allowed her to take care of her family, find jobs, and provide an education.

Currently, Marisha is looking for computer knowledge to continue her pursuit of a

better life, by giving her additional abilities to connect with friends, give her the

ability to ease her life through online shopping, provide additional job skills and a

means to enhance her education, provide additional income, and a means for her

children to obtain a better education and subsequently a better job.

[1] U.S. Geological Survey. *Significant Earthquakes of the World: 1982*
http://earthquake.usgs.gov/eqcenter/eqarchives/significant/sig_1982.php
[2] U.S. Geological Survey. *Significant Earthquakes of the World: 1986*
http://earthquake.usgs.gov/eqcenter/eqarchives/significant/sig_1986.php
[3] U.S. Geological Survey *Historic Worldwide Earthquakes*
http://earthquake.usgs.gov/regional/world/historical.php
[4] The website can be found at http://www.uscis.gov/
[5] Education Intelligence Agency, 1996

Chapter 9: Mining Their Voices

In this chapter I will share what I learned from the interviews, observations and interactions with the participants in order to reveal the value they placed on technology and digital literacy as a social, political and economic tool for advancement. They've told stories of hopes and dreams. What they shared reveals a community whose residents are located between two worlds and have discovered the advantages that technology and digital literacy affords them in obtaining new types of employment, raising their community status, enhancing the possibilities for their children's future and staying connected with family and friends.

Understanding Participants' Goals

The perceived goals and the digital literacy content revealed by participants will be shared in this section. Themes, issues and concepts emerged from the participants' stories and are described to give insight and order to their dreams.

Daring to Hope and Dream

From a personal perspective, each participant had specific ideas they thought technology could assist them with in their every day lives. These tasks ran the gamut from obtaining citizenship, choosing the best educational institutions for their children and themselves, enhancing their earning power, developing and maintaining interactions among friends, family and religious cohorts, and helping their children.

Being Competent in the 21st Century

The beliefs revealed by participants' voices that technology *was everywhere,* and knowledge about technology and digital literacy was needed for almost all jobs, are consistent with the earlier work of Castells, Cooper, Warschauer.[1] The realization that computers were becoming ubiquitous in the U.S. society was an insight that echoed Castells' statement, "the entire planet is organized around telecommunicated networks of computers at the heart of information systems and communication processes. The entire realm of human activity depends on the power of information, in a sequence of technological innovation that accelerates its pace by month."[2] "Technology per se does not solve social problems. But the availability and use of information and communication technologies are a prerequisite for economic and social development." [3] Participants in the study perceived that most occupations, including cashiers, bank tellers, fast food restaurant servers and construction workers all have technology components. Milessa said *it is very important. Because out there technology is taking over.* Josephine had similar sentiments. *Soon everything is going to be on the computer. I don't want to be left behind.* Milessa felt that digital literacy would help her get her foot in the door for new opportunities. Josephine also felt her future possibilities were limited without technology. School systems expected technology competency, and she feared that without such knowledge, she would not be able to continue at her current job (substitute teaching). Josephine, Marisha, and Yadira saw their lack of computer skills as hampering their future success as virtually all jobs were becoming dependent on computer skills, even minimum wage and entry level positions. Josephine recognized that even simple

jobs needed computers. *Even the book store and receptionist jobs now probably require you to know about computers.* Yadira noted that the local grocery store asked if she *had computer experience*. She also shared that the church recommended *taking a computer class,* since most employers required some *basic computer skill*[s] sets. Josephine felt like everyone in her house knew more about computers than her. *I'm the only one not using it* [computer]. Carmelo shared, *every job you apply, it use computers. It's a must now. You have to speak English is a must for a job. Same for computers. You have to have that.* Carmelo felt that by learning more about *how to use* computers, he would be able to move up to a higher paying, higher status job.

Participants spoke almost in awe of family members and friends who had acquired computer skills and were able to enter the lucrative field. As shared by Camelo, *I had a friend. He had a degree in computers and he in New Jersey and he makes big bucks.* Locally, a friend of Carmelo's wife *took a computer class…and now she's the one running anything for the pastor, anything he needs to do.* Yadira spoke about *friends from Miami* and *they all have good jobs* and how *they use to write* but *now they want to email.*

Thus, technology has reshaped work opportunities and requirements in this Mid-Atlantic community, mimicking Blakely's,[4] and Zellmer's[5] theories that technology can effect urban economy and Lenhart[6] and Servon's[7] conclusions that theorize that digital literacy skills required to fully engage with the technology are necessary to compete in a technologically literate work force and engage in a technologically literate society. Participant voices also support Autor[8] and Brenahan's[9] data that indicates that rise of technology has resulted in fewer blue collar jobs suitable for those with minimal

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education, as many menial jobs can be done outside the urban area, or outside the country. Their stories add to the literature base by illustrating how even the low wage labor positions require, in many cases, at least minimal technology competency. The ideas uncovered also concur with earlier business and government reports'[10] rationalization for promoting a digital literate citizenry. As shared by Rodrigo Baggio, the founder of CDI[11], "knowing how to use a computer substantially increases chances of competing in the job market."

Starting Your Own Business

Participants also felt technology might help them start businesses in fields for which they had a strong passion. Although Marisha was working with autistic children she wanted to return to her first love, *dressmaking*. Milessa was a *health care worker for the elderly*, but longed to start a *cooking* business. Both felt the advertising and invoicing they could do via technology would help them stand out from the crowd, show potential customers that they were professional, and ultimately be successful. Carmelo believed that in the future he might be able to teach computers to others and even return to El Salvador in this new career field and open a computer school.

Personal Tasks

Learning more about technology and digital literacy were ways participants perceived to "get ahead", but participants also wanted to learn more to complete personal tasks. Milessa stated *I'm not really doing it for a job; it is a more personalized thing.* Milessa wanted to be able to produce the invoices her employer made. She also wanted to grow her catering business and used her new skills to create business cards which she

started handing out to potential clients, and created invoices for existing ones. Josephine wanted to write and publish her own poems without having to pay someone else to help her. She spent time before and after class writing poems and reformatting the text with different font styles and colors. In the past, an acquaintance *put it on computer for me and she used to charge me $2.75 each for that for the sheet.* Josephine wanted to do this for herself. Marisha wanted to be able to make business cards and fliers so that she could advertise her dressmaking business, and her husband's taxicab business, and she also wanted to create fliers and materials for Sunday school. *I would love to make the programs for the church….and do bible verses for the little kids.*

All participants developed multiple cards to share with family and friends. Birthday, anniversary, graduation and general friendship cards were popular with all participants. Not only did they enjoy making them to share, but more importantly they enjoyed sharing and "flaunting" their newly developed skills. As Carmelo shared, *I show her* [his daughter] *the card with the picture. She said, how did you get that up there? I want to go to that class to! I told her we started already. …we finish and when I go into the advanced, you go in the beginner if you want.* Josephine, became just as excited sharing new skills with her husband. *I showed him what we learned last week. He said show me that again. He didn't know that…made me feel good*.

Knowing What They Wanted

Each participant came to the class with preconceived ideas of what they wanted to learn. Participants desired instruction in line with their goals rather than the more grandiose goals of industry and government which often set the content of courses

directed at this group. For all participants, word processing skills were at the top of the list of desired skills to learn more about. Marisha, Yadira, Milessa, Josephine, and Carmelo wanted to understand how to change fonts and colors, align items, include pictures/clip art, insert page numbers and use templates. They wished to save files to both a default location, or to a disk or thumb drive. Additionally, they wanted to use Excel, and understand not just how to do simple arithmetic, but how to set up fully formatted tables, and use templates. They also wished to learn skills for PowerPoint, including how to use different predefined templates to make presentations look professional. Marisha made a presentation describing her life. Melissa used a template to craft a Sunday school program. Yadira used the Microsoft Word template to complete several different resumes. While they enjoyed learning new content offered each week, they also came each time with specific questions to be addressed. *How do you do this?* Josephine asked, regarding how to create an align right heading for her daughters homework assignment. Week after week, Carmelo would have specific questions related to the U.S. Immigration website. *Why doesn't this work?* referring to text on the website that wasn't linked. *How do you get* [download] *this*? he asked. Milessa wanted to know *how do I print it*? [recipes from a website].

All participants wanted to learn search strategies for finding specific information on the Internet. This included general searches using sites such as Google and Yahoo, product searches and research using sites such as Amazon, and directions using Mapquest and Google Maps. Study participants wished to learn to do consumer research, purchasing, look for jobs, and search for bargains and best prices for retail items using the Internet. They also wanted to look for news from their home country, email friends

and relatives. They recognized that on-line maps would allow them to plan their routes to stores and customers. Josephine relied on the Internet to search for new substitute opportunities, and find and complete the paperwork needed for each position. Status of the assignment, and attendance were also entered via the computer. She also wanted to find online lesson plans and wanted to create puzzles and word searches for the class she would be subbing for and to investigate a variety of free educational sites such as lesson plans from Kathy Schrock and various rubric, worksheet, and puzzle generators. Carmelo wanted to find out more about acquiring citizenship. Yadira searched for lingerie from Victoria's Secret and searched for employment opportunities. Milessa spent time each week searching for recipes and cake decorating tips. Marisha followed happenings back in Jamaica by reading one of the online Jamaican newspapers and blogs. The participants also wanted to know how to use email, both through a separate application such as Outlook or Thunderbird, or via browser integrated application such as AOL, Gmail, or Webmail enabled accounts. Email served as an important component in the maintenance of their transcultural identity by allowing them to communicate with family and friends around the country and ultimately around the world. The transculutural aspects of these uses will be discussed in more detail in another section later in this chapter.

While some would describe search strategies, using the internet, emailing, how to create documents in Microsoft Word and managing and organizing files as "basic skill sets" other "basic" topics were not desired by this group. Participants were savvy about what "they didn't want" and were open in describing the faults of other courses they had heard about where they taught *how to type*, and not how to use the full features of the computer programs. Since they were not planning on personally writing papers or

reports, participants were not interested in practicing keyboarding skills. As Milessa shared *and keyboarding is a waste of time and money.…I haven't done it in awhile … but eventually you know the ASDF or whatever you hold your fingers on.* Josephine spoke about topics that did not interest her that were covered in a class her friend had taken. *The class was a one day course. First of all they teach you the hard drive, how much bytes all these things and what's in the hard drive, whatever, you know? and parts of the computer. …what will I do with that?* However, they were interested in using the tools that could help improve their text including the spell check and grammar check features.

There are different types of introductory technology and digital literacy courses. Some may focus on parts of the computer, while others might focus on using a computer. Participants might not have been technology savvy in the beginning, but through their strong network of family and friends, they were mindful of what they did and did not want to learn more about. Carmelo found out about the course offered through the Parks and Recreation from a friend who *told me what activities takes place here.* Thus, the course was selected not just because it was a computer course, but because of the specific skills it taught.

Seeking courses that teach usable skills corroborates earlier adult learning studies by Lyman and others[12] who confirmed findings from the U.S. National Household Education Surveys[13] that shares reasons why adults seek learning outside of traditional higher education have remained fairly consistent over recent decades with "work-related knowledge and skills and gaining personal development and fulfillment" [14] listed as the top two reasons. Lyman also shares adult learners are relevancy and goal oriented. "They must see a reason for learning something. Learning has to be applicable to their work or

other responsibilities to be of value to them."[15] Indeed, the flexibility to "learn" skill sets (word processing, formatting etc.) while at the same time allowing participants to choose projects that reflected their own interests and desires, such as, creating birthday cards, fliers and business cards, and searching the internet for resources about citizenship and news from their home town and country were more inline with their personal goals than parts of the computer or keyboarding.

Enabling Educational Success

All the participants had aspirations for their children and saw education and knowledge about technology and digital literacy as key parts of that future. Participants were seeking to learn more about technology to help their children do better in school, and to have the skills they might need for their own future studies.

All participants had children who were in public schools, and they realized that technology and digital literacy skills and access were a key requirement for their children's success. Study members wanted to be able to help their children succeed; by helping them do research on the internet, write and format papers on the computer, and assist in the completion of a variety of assignments that may have required other skills such as Excel, or PowerPoint to do calculations or presentations. Josephine stated that *it is very important for them* [her children] *to understand how to use the computer to get ahead. If they want to go on to college.* She wanted to be able to help her children with their classwork assignments and asked specific questions such as how to create a header so she could help her children make their homework format meet teacher demands. Milessa recognized that *it* [digital literacy] *is important even if you aren't say, going into*

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technology field full time. Yadira shared that her children had to *go to the internet and find out …like for their homework, the dictionary.* Although her children were required to use the computer to produce papers and do research, they were never taught these skills; schools assumed *they already knew them*. Yadira wanted to be able to provide this knowledge to her children. After beginning the course, Carmelo was able to apply his knowledge to help his daughter. *What happened is sometimes my daughter has homework to do, and I can help her.* Similar to other participants, Yadira was frustrated with the school system and felt they weren't teaching her children the skills they needed to use computers. She was determined to teach them herself. Marisha also helped her daughter with her homework, and much like Josephine, she helped her daughter with formatting issues to meet the teachers' requirements. All participants saw the importance of education to their children's future, and saw digital literacy as a key enabler of future educational success.

Additionally, participants saw technology as facilitating their own education, not just their children's. Both Marisha and Yadira wanted to study for their GED via the Internet. Marisha stated *you can go on line and there are a lot of free sites that tell you what you need to know and practice in the GED test so that you can tell which area you need more work with and then there are also online GED courses.* Participants came to view computers as not something extra, but something required.

Acquiring Citizenship

Some participants wished to either obtain legal status or obtain their citizenship for both themselves and for people within their circle of family and friends. Carmelo

believed that on-line was the best source for obtaining this information. He spent time before and after class visiting the U.S. Citizenship and Immigration Services (USCIS) website as it seems that obtaining his citizenship was a high priority for him. Computer skills and Internet access, made it easier to negotiate this complex process—at least once he figured out how to navigate the non-user friendly USCIS website. Yadira also found that much of the information needed to negotiate the citizenship process was easier viewed online.

Making Hopes and Dreams

Participants' desires support the earlier works of such scholars as Kilpatrick[16] and Foshay[17], who have asserted that engaging learners in purposeful activities that they help to select, plan, create, evaluate and share facilitates comprehension and helps them solve problems and acquire the skills necessary to function as adults in a democratic society. Applications, activities and uses of technology participants chose to explore were authentic and structured with real-life problems that engaged them in hands-on work which they could use outside the classroom in their everyday activities (both personal and professional).

Pemberley Station is a transcultural community consisting of a heterogeneous group of people from different countries, ethnicities and religions. Their educational background is mixed, but is often limited. Despite their different backgrounds, study members were united in their desire to participate in mainstream aspects of U.S. society. They saw technology as a key to achieving this goal. They saw technology as a way to increase their earnings, and "improve" their status both in the U.S. and back home, as

their networks of family and friends would see their successes. They might not have known the skills coming into the class, but they knew very well what specific tasks they wanted to learn more about.

<u>Building Transcultural Communities</u>

In the past, transcultural communities were kept viable across national boundaries by letters, and physical travel. News between current and home country traveled slowly. Maintaining cross national connections has become easier with the ubiquitous use of email, easy access to webcams, and the proliferation of on-line newspapers from around the world. Groups at all levels have their own websites: nations, states, counties, schools, churches, businesses, and individuals. This easy exchange of information serves to maintain and enhance the complex network of people study participants used to enable their job and residence searches.

Many residents of Pemberley Station participate in one of its many churches, and in fact it was a central meeting place for family and friends, often with similar cultural backgrounds. Marisha taught Sunday school at the local church, and she wanted to *make the fliers for church. And cards….Like invitation cards…..And I would love to make the programs for church……front and back two parts, front, inside and the back….So get some little cards and do Bible verse for the little kids.* The other study members also participated in the local church, and used the network of people it provided to help find educational and job opportunities. For example, Milessa's church was comprised of mostly Jamaicans, and through church connections she and Marisha obtained their jobs.

In the course of acquiring digital literacy skills, participants in this study

solidified their standing with both the local transcultural community and with family and friends across the globe. Their new Internet based communication skills (email) provided them with an inexpensive means to "talk" with friends and family. Their abilities to create fliers, brochures, and cards made the participants an important resource for others to access and a source for peer tutoring as their new skills enhanced the abilities of their transcultural network of family and friends. They were able to teach their children new skills. Their abilities allowed them to better access civil information which would help them acquire their citizenship, and help others do the same. Although technology provided new opportunities, it also provided a means to support and strengthen their ties to their local and global networks.

Milessa's mother and daughter were in England, and email allowed her to more easily converse with them. Additionally, one of her girlfriends was moving to Canada, and she still had friends back in Jamaica. Although she currently spoke to them by phone, she felt email would provide a much better and cheaper means of communication. Milessa stated that visas to the U.S. were getting more difficult to obtain, and therefore, forms of communication like email were becoming more important. Milessa also used the Internet to stay connected with her home by searching for items related to Jamaica such as pictures of her hometown, and reading on-line Jamaican newspapers.

Connections were key to Josephine finding the computer course I taught. Within Pemberley Station, people from her home country lived in a tight knit community and attended the same church. When this group found out about the material covered within the computer course, and realized it would benefit them, its existence was spread through word of mouth. After learning about email, Josephine began to use this method to

communicate with family and friends. For example, her mother-in-law returned to

Guyana when Josephine moved from Canada to the U.S. Josephine's husband had

already been communicating with his mother via email, but Josephine didn't have the

confidence to use this medium herself until she acquired the digital literacy skills.

Josephine also used Google to search for news, and pictures from Guyana. She was

particularly interested in the Guyana Flood of 2005, and showed me images of her old

school. This ability allowed her to reconnect her thoughts with her home country without

having to physically travel there.

Like the other participants, Marisha learned to use email to reconnect with her

friends and relatives back home. Yadira wanted to communicate with her friends, many

who live in *Miami and New Jersey*, and her family who was still in *Nicaragua*. Without

a computer, Yadira was afraid of being cutoff from friends as email was replacing letters

as the communication medium of choice. *Everybody is using computers now. Actually it*

is cheaper to communicate to the family. My girlfriend she moved to Miami, but we can

talk through computers. These participant goals concur with Glick-Schiller, Basch,

Szanton and Levitt's notion of transmigrants maintaining bi-identities.[18] Technology for

these participants aided as a communication bridge spanning the geography gap and

allowing the maintenance and cultivation of long-distance networks of friends and family

at minimal cost. Email communication is significantly faster than mail, and can be as

quick as telephones, especially if one includes missed phone calls, and the need to

coordinate schedules across time zones. Digital literacy skills helped participants in this

study facilitate dual identities. While they may be considered to have only a low

technology competency as compared to others in the general U.S. populace, within the

transcultural community and specifically for the Hispanic members of the study, when compared to their homeland, digital literacy allowed them to rise to a higher status. This supports Glick-Schiller and Fouron's theory that transmigrants can maintain multiple layers and dimensions within their transnational social spaces.[19]

The transcultural community in which Carmelo lives understood that computer skills were needed to succeed in the U.S. Like the others, word of mouth provided Carmelo with information about the computer course. Carmelo wanted to gain computer knowledge to improve his standing in the community, and ultimately, *when I go back one day, retire, I plan to go back home and maybe open a computer school.* During class, Carmelo was focused on learning new skills that he could apply in a job and searching the USCIS website. Unlike the others he did not speak about using email to communicate with friends. Participants used technology to tie together their community, which was not limited to the local area, but instead stretched, around the world to their homeland, and to other countries to which family and friends had emigrated. Participants used email to communicate, and read on-line newspapers from their home country to keep current with news. Carmelo enjoyed reading the local Salvadorian newspaper…especially *the sports*. Milessa and Marisha stayed connected with family and friends in *Jamaica, Canada* and *London*. Yadira enjoyed staying connected with friends in *Texas, Miami, New Jersey* and *all over the place.* It is ironic that this population, which is viewed as lacking technologic proficiency, has used technology as a communication means to establish and expand a worldwide support network.

The reasons these transmigrants pursued digital literacy skills and knowledge acquisition, and the activities they did in and out of class with the skills and knowledge

gained supports previous research, such as Gordo's work, that suggest more attention should be given "to the conditions under which community-level interventions can benefit ethnic groups living in urban low-income communities."[20] There have been many community-driven technology-based education efforts, where a conscious effort has been made to integrate the acquisition of technology skills with cognitive skills, however, the majority have focused on "community" initiatives, or the needs of residents in the broader community setting. For example, McCoy's story production community digital storytellers process,[21] civic engagement through multimedia technology,[22] and other groups offering low cost computer training, certification, and job placement assistance focus on such community efforts.[23] While these efforts have produced positive impacts, study ideas indicate the additional need for knowledge about technology and digital literacy for individual personal benefit— not just work related projects and group civic programs, something often left out of community driven initiatives. As participants shared, instruction should have curriculum flexibility allowing for activities to be individually based.

Reaching for Access

Over the last fifteen years, access and the nature of the digital divide has been a subject of much debate, culminating in an examination of the gap between the haves and have-nots. However, for the transmigrants who participated in this study, access is significantly more than simply a question of whether or not there is a computer with Internet access they can use.

Study members did not want to be *left behind*, and this perception played out

considerably as participants viewed technology as quickly spreading throughout society: *it's everywhere.* They saw employment opportunities being impacted by technology, even low level entrance positions such as fast food workers, cashiers and receptionists. As Yadira shared, *the church suggested I needed to learn more about computers.* Marisha agreed, *…everywhere…grocery store, the bank...it's everywhere.* Josephine, echoed their statements, *you know…now to be first* [first at getting a substitute teacher job] *you sign up online.* This awareness and perception by participants supports Graham's,[24] Blakely et al.[25] and Castell's[26] work that proposes that technology can amplify inequality. Interpretations also support Zellmer's[27] idea that technology helps to deepen segregation; the economic base is lost as more and more jobs go the technology route and fewer blue colored labor jobs become available. However, I argue this study does not support research from Zellmer, Autor, and Bresnahan[28] which proposes that many less educated are not able to take advantage of economic opportunities that technology can present, due to lack of technology skills which rely heavily on education, work readiness and language. Participants in my study were able to find ways and means to improve their personal and their family's life chances using technology and by acquiring digital literacy skills in spite of their limited education and other barriers such as language.

For this group, any instruction must be scheduled around their work, family and church obligations. Those in labor intensive jobs may need extra time after work to shower and change from grimy work clothes before attending classes. Church is not limited to Sundays, as there are meetings, social occasions, volunteer activities, and bible study scheduled throughout the week. Study participants often had children to watch which further constrained their time. The availability of child care was needed to enable

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class attendance. In some cases, other family members filled this role, but the flexibility to bring children to the class added to its attractiveness. As Milessa shared, *it's nice they can attend* [the children] *…can't just leave them alone. They learn as well.*

All of the participants in this study had been in the U.S. for several years, and had moved beyond a simple desire to get by. They considered themselves part of the U.S. and saw digital literacy as essential to moving to the next level of success. At the time I met them in Pemberley Station, they recognized this need. As Yadira stated, *it's* [technology] *everywhere. It's taking over. Don't want to be left out.*

Many in this community did not have their own transportation, but instead they walked, traveled with others or used public transportation. Instruction needed to be at a venue that was easily accessible. As Marisha shared, *sometimes I leave at 5:30 AM and get back late…like 8PM.* Milessa concurred, *it* [the location of the class] *has to be close…we can walk from the bus. It would be nice if it were closer to church. We'd just go from here right to choir practice.*

Providing access in places like the library does not seem to satisfy community needs because they do not offer the flexibility needed. Yadira mentioned that computers can be accessed in the library, *but they will only let you use it for about, like half an hour.* Additionally, libraries hours are not flexible and do not match the needs of people who may be working two jobs, or have other constraints on their time. It was also difficult if they had to take all the children with them to the public library, as Josephine mentions, *it's hard to get them to sit…be still…with just one computer.*

Because of their low socio-economic status, study participants had limited disposable income. Cost was critical. They looked for inexpensive classes. As Carmelo

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noted, a friend of his wife had taken a course, it *was for eight weeks and she paid $500.00…and they didn't teach much.* Milessa and Marisha shared similar opinions; *other training was offered elsewhere but was $200.00- or $500.00…way too much…a rip off.* However, they did not necessarily pursue the cheapest or most convenient course. Instead, networks of family, friends, and fellow church members would share information about opportunities in the area. They would share what classes cost, and what they taught. Study members used this information from trusted networks to find the class that would provide the best value for their money. They wanted to acquire skills from the class that they could directly apply to their needs and used their transcultural network to identify the best location.

Finally, access may be dependent on instruction and support in multiple languages. Some community members attending the class were poor English speakers, and therefore, accessibility to translators was required prior to their selecting the course. Although at times unneeded, the translators provided reassurance in class, and when needed, were critical to their learning. Additionally, these students made use of online tools to help translate information. Sites such as Yahoo! Babelfish (babelfish.yahoo.com) and Google Language Tools (www.google.com/language_tools) provided them a means to translate material on their own. For designers of digital content, in order to best reach the community I studied, readability should also be a major component considered as many lack a formal education. Rather than viewing the limited education of this population as a barrier, it should be approached as a challenge to overcome. Their limited financial resources make them value the time and money they devote to digital literacy and they therefore pursue only the information that they feel will benefit them.

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Thus, although their lack of education is a disadvantage, they still find information that fits their needs.

Participants' voices support the earlier work of Warschauer,[29] van Dijk,[30] Burbules and Callister,[31] Kling and others[32] who have argued, that access alone is of limited value. Instead, "social context, social purpose, and social organization are critical in efforts to provide meaningful… access," indeed, "the context of broader purposes that have relevance and meaning to those being trained" is critical.[33] Themes identified in this study suggest for transmigrants, time, location, cost, and in some cases language options or translation are of paramount importance. Thus, discussions of access should include physical, as well additional dimensions. Ultimately, access to technology can lead to access to jobs, education, and information.

<u>Linking Trust, Community, and Family</u>

Experiences with this group revealed that issues of trust were paramount and ran through everything they did. Trust can be described in two ways: trust of the physical, i.e., people and locations, and trust of technology in terms of privacy and security. As a result of issues in their past, growing up in a civil war, physical abuse, infidelity, and their undocumented legal status to name a few, they looked for the familiar. They required a sense of trust with the organization sponsor and instructors. Community and family were the mechanisms they used to reach out to their environment, explore its offerings and choose where to connect.

Familiar has the latin root *famil*, meaning family. Community includes the root *common*, indicating something that is shared by all. In order to trust an educational

environment, these participants sought confirmation from their most trusted sources of information: their community and family. Word of mouth spread news of the course, and gave instant credibility and a sense of trust with the organization sponsor and instructors.

The Community Center was a more trustworthy environment than the library as some participants mentioned they felt uncomfortable and were scared to use the library computers as they felt concerned with the privacy of such use. As one participant shared, *You just never know what they are really having you use it for…or if looking* [they were concerned about viewing citizenship status information online at the library]. Many class participants were concerned with their immigration status, and only would attend if the class was at a location they trusted, such as a church, or community organization. The Community Center which hosted the technology course participants were involved in was located less than 100 yards away from a Community Technology Center (CTC) housed within a local elementary school with a state of the art computer lab. Yet, the lab sat unused for years for this very reason: community members did not trust the organization or the instructors.

The design of the informal learning environment supported the needs of the community. When asking participants what they hoped to learn from the course, Milessa answered, e*verything*, Marisha seconded the response. Yadira wanted to learn more about creating *a resume*, and more about *using Word and other* applications required by employers. *Business cards. Birthday cards. Church programs. Advertisements. How to email,* were participants' requests. Participants wanted to know *everything*, but also had short term specific goals in mind for immediate needs. The course created a familiar and comfortable environment by using peer support and tutoring. Course attendees arrived

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from referrals from church and family members, and therefore came to the course with positive attitudes and viewed the computer lab as a safe place to learn and interact. Wrapped within a cocoon of familiarity and friendship, they were not afraid to fail and ask for help, which ultimately helped lead to their success. In a familiar environment, they were not concerned with revealing their immigrant status, struggling, and revealing their difficulties, whether directly or indirectly related to technology. They were not shy to share with the group that they were in need of employment. *Do they need anyone else?* Yadira asked Milessa and Marisha one evening. Carmelo and Yadira spoke openly to the class about citizenship requirements. All participants brought in artifacts they had created on their own and shared with members of the class. Josephine wanted to learn how to format a resume, and she also wanted insight into resume content and how and where to submit them. Participants' comfort with the classroom environment allowed them to share their need to learn more about the citizenship process, and when reviewing information online, they felt comfortable in asking the instructor and others what something meant. Each student had trouble with some of the skills, yet together they overcame all obstacles. Familiarity with the instructor and the center gave them the confidence to ask questions if they didn't understand the discussion or ask for help if they were not proficient at the current activity. Thus, although they came in to the class with limited human capital resources in technology, they built a wellspring of information within the confines of their secure classroom and community.

Participants would network and share their learning not just within the class, but also within organizations and groups they belonged to outside the informal educational setting. After building their proficiency in the classroom, they would share their new

skills and products made with those skills with others in their transcultural world. For example, Milessa and Marisha made fliers and brochures to be used in the church, and all participants made and shared birthday and holiday cards for their friends and families. Many cards were made and mailed to the families back home. Since these groups were part of their community, it was safe to share their skills with them. They were admired and applauded. It was not apparent at the completion of the study whether this same comfort extended to their work experiences. Certainly participants had new skills which affected their personal productivity and communication skills. It was not clear whether they were confident and proficient enough with the technology to use it either in their current job or to obtain future employment. However, every journey begins with one step, and it appeared they had begun the journey which would lead to such a future. This sharing and peer tutoring went beyond their particular ethnic, national, church, and educational backgrounds and even transcended language barriers. I argue that the concept of social spaces can be expanded to include informal technology settings, as members form new groups united by a common interest in technology.

Technology and digital literacy has served the participants in several unexpected ways. Rather than being simply a path to new areas of employment and success, technology can be seen as a means for community building, networking, geo-political awareness, and self satisfaction. Although technology made participants feel more included in the U.S. society, it simultaneously provided an inexpensive and effective means to stay connected with their homeland and build a global network of friends and family. In the distant past, immigrants were essentially cut off from their homeland, and would exist solely in their new locale. As technology improved travel and

communication methods, boats to trains to airplanes, and mail, to telegraphs to phones, and then email, transculturalism has come to flourish as the information flow accelerates allowing one to easily exist culturally in both places at once.

Finding Safety and Security

Participants pursued locations of comfort in the physical sense, as well as the ability to avoid places of fear in the digital world. They sought locations, instructors, and computer access to gain knowledge without worrying about revealing personal information. Additionally, the group was concerned with topics of cyber safety and security such as spam, filtering, phishing, antivirus software, firewalls, online theft and keeping their kids safe from online predators. This community is exposed to the dangers of the Internet via print ads, public service announcements on television and radio, and increasingly by signs and warnings posted and provided at schools. Milessa shared that she hears *a lot about identity theft on the news.* Marisha added, *one of the ladies at work… her computer got a virus and now she can't use it for two weeks.* Josephine and Carmelo both wanted *to know more* [about safety and security] *before* their children *use it.* However, even with all the news coverage, participants did not know how to protect themselves or their children from these dangers. These topics are often viewed as too advanced, and either referred to higher level classes or not taught at all. Study participants expressed an interest in learning these skills early on as they are worried about the protection of their personal information, and even more concerned about the safety of their children. Participants concern about safety sometimes precluded them from purchasing a computer until they were more comfortable with its use, and able to

understand how to provide themselves basic protection.

Participants viewed safety and security of their children of paramount importance. Parents exerted substantial control over their children's activities. For example, while Marisha had allowed her child to get a *free computer* from a *special school program*, she was very concerned about *how she would use it*. Others were delaying the purchase of a computer until they understood these issues. Milessa was concerned about *Internet predator, virus, ... and spyware.* Carmelo also expressed specific concerns about online safety. *One friend caught her daughter on chatline. She moved the computer into her bedroom.* Study members wanted to have the skills to keep their children safe and were interested in computer safety and security issues, and how to protect and limit their children online. In order to have students from low-income families participate in school based computer programs, it is important to provide parents with the information necessary to make them feel comfortable with their children's computer use. This can have substantial practical implications for programs that give away computers as additional training expenses may be needed to alleviate parents' concerns.

Understanding Participants' Perceptions

This study amplifies the voices that illustrate that regardless of the personal, social, cultural, historical, and economic contexts people grow up with; they often end up with similar needs, albeit with different goals. Class participants had taken a long and/or difficult journey to reach Pemberley Station. Poverty, lack of education, abuse, circuitous/illegal travel to reach the U.S., and overcrowded living quarters are just a few of these difficulties. As a result they faced the challenge of tackling a new skill set,

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technology, head on, while juggling the demands of work, family, and church.

For these participants, technology became a means to build community, communicate at multiple levels, enhance education, support children, advance within current employment, and/or search for future employment. They felt the skills they learned would help them further their careers and improve their status in the transcultural community and become part of the American 21st Century citizenry.

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Chapter 10: Empowering Voices for Change

I entered this study with an interest in understanding immigrants' use of and perspectives about technology and digital literacy within a transcultural community. However, I found out as much about the construction of their community and support structures as I did about their technology use. I learned how participants have emerged from struggle. I learned how they rely on large and complex networks of family, friends and church to help them move, find jobs, provide child care, negotiate a complex state and county infrastructure, and understand the path to success in the U.S. They have discovered technology as an enabler of their desired future, and they have taken steps to gather the needed skills.

Implications for Pedagogy and Policy

Definitions of digital literacy vary, but this study has revealed components that are highly desired by the transcultural community explored. The ability to navigate websites, both complex and simple, to find needed information, shop, obtain directions, and search for employment is a key component of 21st century society. As stated in the definition of digital literacy in the first chapter, digital literacy for this study's purpose focuses on the ability of an individual to use technology to enhance their education, career, community, and family. The deeper understanding of transmigrants' perceptions, perspectives, conceptions, attitudes toward and opinions about technology and digital literacy, revealed by their voices, allows me to propose new ideas and constructs for both educating and supporting the needs and desires of

this population. These thoughts are presented to help push the paradigm of education, both formal and informal, into the inclusion of new learning constructs, definitions of access, and community building.

Parent/Child Learning Construct

Society categorizes learning into various segments such as elementary, secondary, college/post-secondary, adult, and vocational education to name a few. For the purposes of this pedagogical discussion, I break digital literacy learning into two main categories, knowledge expansion for personal use, and information for employment or career expansion. This construct is certainly simplistic, but serves as the foundation for illustrating overlaps between these two categories.

Within my technology classroom, the major focus of the participants, as well as, others taking the course was on communication skills, Internet research, and word processing for the purpose of producing personal products such as business cards, flyers, and birthday cards. In my every day life, these are certainly some of the main tasks I pursue, and therefore, it should not be unexpected that transmigrants pursue similar skills. Additionally, as a former high school teacher and current educational consultant, I understand the technology demands of the classroom. The ability to research specific topics in both the library and the Internet, write and edit papers, presentations, and lab reports are clear requirements of the 21st century classroom. The skill requirements of these two groups overlap – word processing, Internet searching, clip art, etc.

When I reflect on my own interactions with the participants in my classroom,

I recall one recurring theme that surprised me. The parents expressed a determination for their children and their children's future and education which transcended my experiences as a teacher and from my graduate courses and professional research. The perseverance and ingenuity of the parents including moving to a new country to enhance their future in spite of financial and personal hardships, being separated from family members including their own children to allow them to receive the best education, moving across county lines or "working the system" to get into what the perceive as being the best school, all reflected on their concerns for their children. Expanding their knowledge base of computers was one of the ways they believed they could best help their family.

When I focus on the content requirements of both educational spaces and see the desire of the parents to help their children I see an educational opportunity. There are significant overlaps in skill sets. Word processing, presentations, spreadsheets, and the inclusion of multi-media within associated content, search strategies and online research are all topics which both groups need and desire. In fact, I found it particularly surprising that their goals overlap. The desire that parents have to acquire these skills to specifically help their children flies in the face of the fact that stereotypically there is an image of immigrants (both legal and undocumented) of low-economic status not being supportive of their children's education. The participants of my study wanted the skills to help advance their child's academic endeavors and wanted to know more to help protect their children on the computer. They may not be supportive by "normal" U.S. teacher standards: coming to parent teacher conferences; or volunteering at school, but they went far above the norm by

seeking out opportunities to advance their own knowledge, adjusting their schedule and acquiring the resources to attend classes. What they were lacking was the knowledge, not the desire. Yet our educational system does not present an alternative that meets these overlapping needs.

My own experiences bear out what these parents expressed. My husband and I try to expose our two children (a girl and a boy) to a variety of opportunities, both academic and athletic.   At a relatively young age (five and six), we took them to learn Tae Kwon Do at a local gym. They were very enthusiastic and dove in to the program. However, as they progressed, they had difficulty memorizing some of the forms and movements they were required to learn. My husband tried to learn the movements himself so he could help them at home, but since he was watching from the sidelines it became difficult for him as well. Both my children and my husband began to get frustrated.

At about this time, the instructor introduced a new class – the family class where both parents and children learned together. My husband signed up and the three of them began to work together. Not only did it allow him to more easily learn the material, but it also gave them a shared experience, more time together, and a joint sense of accomplishment as they moved through the belts. I enjoyed watching them work together at home, going to the belt tests, and from an educational perspective was impressed with the effectiveness of the construct.

Why have we not created a similar experience for technology learning? As technology savvy parents, my husband and I serve as technology educators for our children. We know the moves and forms of technology, and can share our learning

with our children. The participants in my study also desire to learn this information

for both their own purposes and their children. Why not create a shared experience

for them where they work with their children to learn new things together? In some

cases, the children may be more open minded and pick up things quicker, and at other

times, the parents may be more receptive and focused, and may be able to learn and

retain concepts more effectively. Such a construct leads automatically to peer support;

outside the classroom parents and children work together to help each other learn.

This shared learning environment simplifies time issues as there are not multiple

drop-offs and down-time for the family. However, in order to support both groups,

definitions and concepts regarding access may need to be reexamined and expanded,

and content needs to be created to fit both requirements at a shared instructional level.

Access

In addition to expanding the concept of instruction to include parent/child

classes, similarly access, especially with regards to education, should be expanded

beyond the confines of school times or school location. The modern concept of

telecommuting expands work beyond the traditional workplace. Distance learning

expands courses beyond the confines of a physical classroom. Digital literacy skills

require computers, software, and an instructor, but they need not be confined to a

particular location, or time. Rather than establishing a location for classes, the mobile

classroom could become a reality and travel to meet the needs of target groups.

Certainly, Books on Wheels, Mobile Health Units and other "mobile" activities have

already been successfully implemented. Again, a current experience can help explore

how this could become a reality.

Through several grants, I am exploring ways to expand the interest of students in Science, Technology, Engineering, and Mathematics (STEM) activities. The concept is not limited in age. I have programs designed for students ranging from nine to eighteen. Courses are held as both after-school and summer programs in local public schools. All groups investigate a variety of concepts using software that explores programming paradigms via software such as StarLogo, Microworlds, RoboLab, and Scratch[1]. Teaching these programs in a variety of schools and school districts can be problematic as one must negotiate a variety of approvals, installation delays, and acceptable use hurdles. Additionally, even though some of the software is open source and requires no license, it may be on the school systems one year, and then deleted by system administrators prior to the next school year. I decided there must be a better way. I come with my own computer lab.

I have ten laptops and a projector that I have available as needed. I use thumb drives to move data from one computer to the next, although I may expand this to a networked environment in the future. In this way, I am not dependent on the computer resources nor am I at the whim of administrative hurdles. This lab was constructed relatively inexpensively and I have control over software versions, patches, and safety. This has eliminated many of the time consuming approvals that I needed to do previously.

It is not difficult to imagine a similar model to fit the needs of the participants of this study. As discussed in Chapter 9, concepts of trust and time are keys to meeting the needs of this transcultural community. Both parents and children do not

need to be confined to the schedule of a particular location. A course can take advantage of previously established locations of trust.

The participant voices revealed tight knit communities which had the church as a central and important place of community activity. The church serves multiple roles: a place of solace, a source of comfort, and a place of friendship. Surprisingly, it also serves as an "employment agency", "real estate agent", and "course evaluator." The churches serve as a lifeline between their home country and current location and it helps its members learn of job opportunities, housing availability, and community resources that can assist them. The church appears to be the central heart of transmigrant life. In spite of this central role, a heterogeneous community like Pemberley Station had many churches. It seemed like there was at least one church per country of origin. These churches serve a poor community and had limited financial resources and are not able to have their own computer center. Instead, for this community, the Community Center served that purpose. Although the Community Center was a place of trust to those in my class, it is clear that it was not frequented by as many people as the churches. Perhaps rather than being limited by the bricks and mortar of the Community Center, a computer course could be dispersed among the community and churches? Parks and Recreation or a similar group could supply the instructor and computers, and the churches could supply a location, translators if needed, and most importantly a ready audience. The instructor would not be limited by the capabilities of any one location; they would bring their own capabilities.

Additionally, courses would not be limited to the hours of the Community

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Center. Volunteers at the church could provide the flexibility in hours to best meet the needs of the classes. Day care could be provided at no extra cost. Mobile computing could redefine the classroom. Every room could become a classroom, and rather than create locations of trust for learning, courses could come to locations which have already established community relationships.

Schement and Forbes[2] and Hoffman and Novak[3] concluded, the lack of access to both computers and the internet is due to a lack of economic and social capital. They argue that participants like the one in this study, have neither the resources to purchase access, nor can they draw on people (friends, family, community members) to assist them. However, while the infrastructure within poor communities may be limited, the transcultural community I studied formed networks of people that function effectively in the role of social capital. Training opportunities and descriptions of course quality and cost spread through word of mouth. Child care for participants to attend sessions was arranged with family, and friends. At times, older children helped parents learn the computer skills, and family and extended family members aided as well. These are all examples of social capital that played a part in the lives of participants in this study. While the support provided by these networks may not be at the level of an IT professional, the needs of the community are simpler, and they supply computer knowledge at an appropriate level.

Community

Not directly linked to pedagogy, but a subject for consideration is the new 21st century definition of community. Much as a classroom is not limited to a physical

structure, the Internet has removed borders and created new support structures for community and family. Physical distance is no longer an impediment to information flow and communication, and is not subject to the same financial model of the past. Email provides asynchronous text based media which can also transport attachments which can contain pictures or video. Chat rooms and instant messaging provide a synchronous communication medium. Webcams can provide a videophone capability at a very low cost. Thus, immigrants can maintain their transcultural identity at little or no expense. The common roots of communication and community can work together to maintain ties of family and friends at distances which would previously cause such ties to fragment.

Even more broadly, technology does not simply maintain these ties; it can also expand them. Social networking sites allow people to post information and have become a way for people to exchange ideas and information about themselves. Blogs post general comments about any topic of interest. Imagine a community focused site that integrates the ease of social networking and blogs to create a virtual location for people to meet. Information would not be limited to those in your immediate community. Job and apartment availability, store reviews, class availability and ratings, and church schedules could be online for all to review. The online community could be segmented by nationality so that each group would have content tailored to their needs. Additionally, these online communities could be tied to other groups around the nation and world. Rather than being dependent on the information available from your immediate circle of friends, your resource base is expanded immensely. Not only could a person look for jobs locally, but they could look

nationwide, simultaneously seeing if there are apartments available in the same location. Perhaps people would not need to wait on street corners for jobs; they could hang out on a virtual street corner, learn about jobs, and then meet at the physical job location.

Likewise, the classroom can be expanded beyond the physical structure. Student access to school resources could be expanded beyond the school day. In this era of a connected world, why should the ability of students to access resources be limited by the availability of teachers? Children are already dominating existing social networking sites. Schools could provide their own, protected sites which could allow students to provide peer learning and investigate new topics not currently in the curriculum.   These first three topics, learning constructs, definitions of access, and community building are bold changes to current learning paradigms.

Practical Implications

In this section, I offer five areas in which educators and policy makers may consider a change in their routine practices in ways I believe will benefit low income immigrant populations, and will allow all citizens the opportunity to become digitally literate in the technological world that characterizes the U.S. today.

First, informal flexible training needs to accompany access. Having access to a computer at a community technology center, local library or even at school is not enough. Participants need to know what to do with the computer and feel comfortable that they can both complete the tasks and have a product they can use. Sessions need to be reasonably priced, and it is important for the program to meet the needs of the

specific community. These needs include cost, time and day of week, location, and language options. Additionally, of paramount importance, the course content must meet the specific needs of the individual transmigrant community members.

The participants in training sessions need to be able to make practical use of content learned. Most programs focus on digital literacy for youth, however adult programs focused on applied skill development is lacking. Basic digital literacy skills, such as word processing, email, Internet searching, clip art, and online maps should be a part of introductory programs. The majority of informal training options are focused on career changes or learning a specific software program, rather than product centered instruction designed to make the class members feel comfortable with computer usage. The transmigrant community is a tight network of members engaged in similar employment, church and recreation activities. Word of mouth is an important means that members learn about worthwhile activities. Instruction without relevance may result in shrinking enrollments if content does not evolve to meet their needs.

Second, basics of cybersafety and security should be considered in future content. Our society is being bombarded with warnings regarding phishing, spam, identity theft, cyberbullying, viruses and spyware. Participants in this study were understandably concerned about the dangers to which computers expose them. Many public service announcements focus on informing the population about the problem, but don't explain how to protect oneself. Additionally, transmigrants understand that their children are being exposed to computers, and want to make sure they were safe. Thus, in order to eliminate some of the fear and trepidation, courses should consider

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including the basics of anti-virus and spyware protection, and the basics of phishing and spam, describe the characteristics of secure sites, and help attendees understand how to protect their personal information.

Third, the assumptions regarding all children learning digital literacy skills via technology integration within content areas in schools may be inaccurate. Ability depends on students' access to computers outside of class, and the availability of tutoring from either informed peers, or family members. The demographic group I studied lacked these resources, and as a result their children required more targeted skills training and computer access, and parents needed opportunities to learn the information essential for their children. As gatekeepers to their children's learning, without the requisite training for parents, children's computer usage could be hampered.

Fourth, "trust" should be a key component in training design. Locations, organizations and instructors must be perceived by the target audience as trustworthy. Locations such as a community centers and churches are already utilized by local residents and have built up positive relationships with the population. Courses and instructors associated with these organizations are more often trusted than those proposed by outside organizations. Participants view the community center and church as being more attentive to their particular needs, and less focused on simply making a profit and securing immigration status. Therefore, participants are more likely to attend courses in these perceived "safe social spaces". This does not preclude offering instruction; it indicates that the ability to build trust relationships with the community should not be ignored in any instructional design and subsequent

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marketing campaign.

Last, many community based technology efforts have been grant supported, and while some seem to have been sustained over time[4] many of these efforts have ended when funding has dried up. Those that have been more successful in securing funding have focused on youth. This suggests a need for funding streams and a conscious effort to develop flexible curriculum programs that meet the needs at the individual level that help all members of the populace, including adults, to become digitally literate to meet the demands and function efficiently in an increasingly technological world.

Implications for Future Research

This study adds to the transcultural scholarly work, and also expands both digital divide and digital inequity literature that only rarely focuses on the relationship between participants and transcultural community constructs. To my knowledge, no other studies use the transcultural lens to view the participants' perspective toward technology and digital literacy. Nor am I aware of any studies that use the voices of low income immigrant participants to bring their individual perspectives to the forefront. Without the marriage of both the cultural component and the participant voices, researchers may not be able to situate digital literacy within the construct of the participants' lives, their desires, and understand the role technology and digital literacy plays in their present activities and future goals. Further research using this same approach may bring additional insight for assessing appropriate approaches to education and technology policy for diverse minorities.

Course content would be a subject for further research with transmigrants. The inclusion of authentic, relevant tasks from the perspectives of these participants proved to be a key ingredient for them originally enrolling and continuing to enroll in additional courses. Completing tangible products, rather than a skill based approach proved to be desirable for this group. Research could include an investigation of impacts of product based instruction on retention and return rates to individual transmigrants programs.

As with all research endeavors, this study was bounded by several limitations. First, this study only explored stories shared by five participants in a Mid-Atlantic urban community. The themes are not generalizable to a larger population, nor, may they be applied to a different transcultural community. Second, this study took place in a high tech area with a substantial information technology industrial base. Opportunity and advertisements dominate the landscape. Study participants cannot help but be influenced by the information that inundates them about technology use and the opportunities that result. *It's always in the news* [topics on safety and security], Milessa shared. Yadira, explained, *all of them* [jobs] *either say* [listed in the job advertisement] *you need it* [computer skills] or *they say it when you call up.* Although computers and the Internet are pervading our society, it is not known whether the degree of its inclusion within the study locale has influenced participants' desire to expand their learning. Participating in the technology renaissance helped participants' feel more American as they felt technology proficiency was an important part of being American in this community. One might ask what would happen if this was a transcultural community in a rural area in a small town? Further

research should be conducted to determine if similar themes might exist within different demographic and geographic locations or with different transmigrants groups. However, these participants' stories are real and powerful; education and policy makers may want to heed the voices of their experiences, and design programs responsive to their needs and aspirations.

Reflection

Digital literacy was seen by study participants as a requirement to fully participate in the U.S. in the 21st Century. Regardless of employment "stature", they believed technology could help them. In the course of this search, they found multiple uses for their new skills. Within their communities they assisted spouses, children, family and friends. Their skills empowered them at work, home and often provided them new opportunities to aid their church. These skills brought them enhanced status with their family, friends, work, and church.

Most digital literacy goals are aligned with those of employers who are seeking an expansion to the available IT workforce. Businesses are seeking to retrain the available workforce to fit the skills they need. However, in the community I studied, goals of the individuals went beyond employment. They used technology to help them support life goals such as citizenship, and improve education for their children. They also used technology to support activities they were doing in the community, such as advertising for church functions. Technology was seen as a means to preserve and expand their support networks via computer based communication with friends and family who reside outside their immediate

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geographic area including other states and countries.

This research should be seen as a starting point for reexamining basic assumptions about technology education with transcultural communities. The pace of technological change is rapid and continues to redefine everyday lives. It is difficult to imagine life without cell phones and the Internet. However, such revolutionary change has not been met by similar ubiquitous revolutionary changes to how low-income immigrants are educated. Perhaps it is time to take a look at the basic underpinnings of the adult centered educational system, reexamine goals, and reconstruct a system that better meets the needs of this group and provides a path from their current knowledge base, to digital literacy, and ultimately put them in sight of the opportunities that technology provides. Given the challenges of the global economy, we need to not only educate our children for the 21st century, but we must meet the needs of our adults.

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[1] StarLogo (http://education.mit.edu/starlogo/) , Microworlds (http://www.microworlds.com/) , RoboLab (http://www.lego.com/eng/education/mindstorms/home.asp?pagename=robolab) , and Scratch (http://scratch.mit.edu/)

[2] Schement and Forbes, "Identifying Temporary."

[3] Hoffman and Novak, "Bridging the Racial Divide."

[4] Digital Clubhouse; Fast Forward Youth; Community Technology Center's Network

Appendices

Appendix A: IRB and Questions for Interviews

Community and Educational Opportunity in the U.S.: The Relative Utility of
Technology and Digital Literacy in a Transcultural Community

1. *Abstract*

*Provide an abstract (200 words) that describes the purpose of this research
and summarizes the strategies used to protect human subjects.*

The purpose of this study is to explore the ways in which an informal,
community based technology education program has served more than ninety
immigrants and refugees from Latin America, Central America, South America, and
the Caribbean over the last three years. The technology program is run through the
county *Parks and Recreation* and is housed in a local community center providing
inexpensive programs for community members of all ages. The program is
advertised through the *Parks and Recreation* catalog, an online catalog, as well as
through word of mouth. Participants enroll in a variety of technology literacy classes
for a small fee. Sessions teach basic computer skills, focusing on applications that the
county program coordinators believe can enhance the life, education, and work
experience of the attendees. No grades or tests are given. Free time for technology
exploration is also provided before and after class sessions.

This study constitutes a chapter in the ongoing efforts of new immigrants and
refugees in the United States to manage the transition from one culture to another,
one education environment to another, and one economic, political, social and
cultural context to another. Specifically, the study aims to reveal the substance of
opportunities made available to participants when they chose to join this program.
Questions of interest include: *What role did the program play in their social,
political, and economic hopes and dreams? How did the program serve their
political, economic, and social interests? What skills did they hope to acquire? How
did they make use of program content?* Answers to questions like these promise to
generate a database of perspectives, interpretations and participant evaluations about
programs from which it becomes possible to assess appropriate approaches to
education policy making for diverse minorities.

2. *Subject Selection*

A. *Who will be the subjects? How will you enlist their participation? If you plan
to advertise for subjects, please include a copy of the advertisement.*

Subjects for my research will be current and former participants involved in a local
informal community educational technology program. From the approximately 90

participants who have or are currently enrolled in the two and half year old program, approximately 16 participants will be selected for the study. Those selected will be volunteers who agree to complete an information questionnaire and who sign the consent agreement (see enclosed consent form).

B. *Will the subjects be selected for any specific characteristics (e.g., age, sex, race, ethnic origin, religion, or any social or economic qualifications)?*

Other than what is described in 2(A), no.

C. *State why the selection will be made on the basis or bases given in 2(b).*

The participants described in 2(A & B above) are participants who are or have been involved in the two and a half year old technology program and who will be able to answer questions and reveal the utility of such a program.

3. *Procedures*

What precisely will be done to the subjects? Explain in detail your methods and procedures in terms of what will be done to subjects. If you are using a questionnaire or handout, please include a copy within each set of application documents.

In order to systematically explore the perspectives of this group of people about the relative utility of technology and digital literacy, I will rely on several different approaches to data gathering to include: individual interviews, on-site observations, retrieval of program relevant documents, and demographic questionnaires.

Interviews

Each participant who volunteers will be interviewed at least twice. Each interview will last about one to one and a half hours. Informal unstructured interview techniques will be conducted at locations and times based on convenience and appropriateness for the participant. All interviewees will receive an explanation of the study, and an informed consent form. An interview protocol that suggests possible questions (see enclosed) will be used to help guide the discussion when needed, will aid in taking notes during the interview, and will facilitate the organization of thoughts and themes after the interview has been completed. Interviews will be recorded (audio) with the participants' permission. Verbatim transcripts will be prepared after each interview. Reflective field notes will be kept as they provide valuable information, which may not come out in the transcript of a taped interview.

Observations

I will gather data through observation, during the technology classes run in a local community center. This will allow me to see social patterns: how they manage

to succeed and attend, and how they negotiate their educational lives. I plan to observe participant members while engaged in technology related activities. I am particularly interested in sites and activities they choose, what arrangements they make to balance home and education, how they interact, how they share computer knowledge, and how they interact with the instructor. Additionally, I will observe the participants who utilize the before and after class free technology exploration time. The protocol includes both descriptive and reflective notes.

Documentary Evidence

Documentary evidence will also inform this study. Data will be collected from advertisements and descriptions of the programs, as well as, documents generated by participants, for example, letters, resumes, job search activities, pictures, scrapbooks, cards, poems, etc. I will protect the privacy of participants and maintain the confidentiality of any identifiable information (use pseudonyms in place of real names). All documentary materials will be converted to electronic format, and returned to participants if requested.

Questionnaire

I will also gather basic demographic information a questionnaire (see enclosed). Demographics, such as country of origin, number of years living in the U.S. and in the community, educational background, familiarity with technology, occupational status, economic conditions and cultural background, will be gathered. Care will be taken not to reveal their immigration status, expose the specific nature of their employer, nor violate cultural norms.

4. Risks and Benefits

Are there any risks to the subjects? If so, what are these risks? What potential benefits will accrue to justify taking these risks?

There are no known risks to participating in this study. The type of questions asked and the way the questions are organized related to the four data collection techniques: interviews, observations, documentary evidence and the questionnaire, should not cause a threat to participants. Having a conversation with me about their experiences within an informal community educational technology program, sharing general demographics, allowing me to observe their participation in an informal community educational technology program, and sharing documents, should not pose any threat to them, nor should participants be under the impression that they will benefit from my research, other than the general satisfaction that what they have to share is being listened to and will help others.

5. Confidentiality

Adequate provisions must be made to protect the privacy of subjects and to maintain confidentiality of identifiable information. Explain how your procedures accomplish this objective, including such information as the means of data storage,

data location and duration, description of persons with access to the data, and method of destroying the data when completed.

I will inform participants that I will protect their privacy and maintain the confidentiality of any identifiable information. Participants' names will not be used. Instead, participants will be given a pseudonym. The typed transcript of the interview and observations will show this pseudonym rather than their name. I will ask each participant for permission to use documents (i.e., materials created in class and additional documentary material collected as part of the study) and questionnaire data. I will notify each participant of my intention to place transcripts (interviews and observations), documentary material and demographic information, in a protected archive as part of the public domain for future researchers to access. All transcripts, as well as provided demographic and documentary materials will be kept confidential.

6. *Information and Consent Forms*

State specifically what information will be provided to the subjects about the investigation. Is any of this information deceptive? State how the subjects' informed consent will be obtained.

Information to be provided to the participants will include: title of study, purpose and procedures to be taken during the study, and a statement about the release and use of the information they provide, as stated in the consent form. Sample *Consent Form* is attached.

7. *Conflict of Interest:*

This study does not involve a conflict of interest for potential participants or me. I am an instructor in the program, but no grades are given. Therefore, there is no benefit for answering the questions in a specific fashion. Additionally, I volunteer for this instructional activity, so the results of this study do not impact my income.

Informed Consent/Release Form

Title of Project: Community and Educational Opportunity in the U.S.: The Relative Utility of Technology and Digital Literacy in a Transcultural Community

Statement of Age

I verify that I am over 18 years of age and that I am participating on a voluntary basis in this study. I understand that this research is being conducted by Davina Pruitt-Mentle, a student in the Department of Education Policy and Leadership at the University of Maryland, College Park, under the supervision of Dr. Barbara Finkelstein.

Purpose and Procedures

I understand that this study will involve filling out a questionnaire, participating in interviews and being consulted regarding the informal community educational technology program. I understand that at least two interviews will take place, each lasting from one to one and a half hours. Each interview will be audio taped. The goal of the interviews is to help reveal what kind of educational environment this is for me and whether or not and/or how it has helped me. Documentary evidence will also inform this study. Documents may include products generated by myself in class or other documents I wish to share, for example, letters, resumes, pictures, scrapbooks, cards, poems, etc. Documentary materials will be carefully converted to electronic format, and returned to me in the original condition. I understand that this information will serve as a record of the informal community educational technology program experience, and may be used for future scholarly and educational purposes.

Confidentiality

I understand that there is no risk to individuals, like myself who participate in this research, as the researcher will hold in confidence any identifying information. My name will not be used. Instead, I will be given a code number or pseudonym in order to protect my identity. The typed transcript of the interviews and observations, the questionnaire, and any documentation I volunteer to share, will show this code number or pseudonym rather than my name. I allow the use of information and documents I provide of my participation in this study, to be used, published and copied in any current and future mediums without further approval on my part to strengthen the credibility of this researcher's work and the work of future researchers. I give permission for the submission of these transcripts and documents to public archives after the removal of identifying information.

Statement of Risk, Benefits & Freedom to Withdraw

I also understand that the research is designed not to benefit nor help me in any way, but to help the researcher to understand my interest in participating in an informal community educational technology program. I understand that I am free to ask questions at any time and to withdraw from the study at any time without penalty. **If I have any questions about this study, or my rights as a participant, I will contact the researcher or faculty advisor using the addresses listed below.**

_____   _____   _____
Signature of Participant   Printed Name of Participant   Date

Name and Address of Researcher	*Name and Address of Faculty Advisor*
Davina Pruitt-Mentle	Dr. Barbara Finkelstein
University of Maryland	University of Maryland
College of Education	College of Education
2127 Tawes Building	3112G Benjamin Building
College Park, MD 20742	College Park, MD 20742
301 405 8202 dp151@umail.umd.edu	bf6@umail.umd.edu

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Example of Possible Interview Questions

Time of interview:

Date:

Location:

Interviewer:

Taped (tape number)/not taped

1. Tell me about how you first became interested in technology? First used technology or a computer?
2. How did you find out about this program/class/course?
3. Is this your first technology class? Why did you decide to come/enroll in this program/class/course?
4. What technology skills did/do you hope or expect to get from this program/class/course?
5. Share what you have gained from this program/class/course? What else would you like to learn more about?
6. Share more about other technology programs you have attended? Looked into? Others have told you about?
7. How do you think this [informal community educational technology program/class/course] is different from others you have taken? Others have told you about.
8. Are/would you take [more] classes/training/stay in program? What barriers exist that may make it more difficult to stay in the program: cost, time, language, others?
9. What skills or technology knowledge do you feel comfortable with?
10. Tell me about technology [access/use/training/education] in your country. Do you think it's different? How? What are some differences (if there are) you can remember?
11. I would like to find out what it's like to come to the U.S., where technology is so plentiful – and if I came here (to the U.S.) how would I get involved and learn about technology-technology skills? Would I want to? What would I have to do to learn more? How would I find out more?
12. Do you use technology/computer at work, school, at home, or recreationally? How often? When and where? Individually, in a group, or with friends? Do you have a computer at work? School? Home? Friends or neighbors?
13. When you have free time what do you do (not necessarily with technology)?
14. What do you do in your free time with technology/computers?
15. What's the difference between what you learn in class(es) versus what you

"learn" on your own—on free time—or what you would like to learn?

16. With these [from answer above]- would you like to see changes in the content/language of different software/games? What items (software/internet sites) would be helpful? What other programs or topics/activities/exercises would be helpful?

17. What are your [if applicable: for siblings/children] career/educational goals?

18. What do you hope that technology skills will help you accomplish? What don't you think it can help you with?

19. Tell me about your hopes, expectations, and dreams regarding this technology program with respect to your goals?

20. What things do you feel are important for you [and others] to know?

21. What are advantages to having technology know how?

22. What could you [and others] do with technology skills and knowledge?

23. *If applicable:* What are your thoughts and feelings about your technology class [classes/instruction]?

24. *If applicable:* Tell me about your school experience—related to technology— how did things go for you there? Were you able to use technology in the classroom? Did your teachers use it? How? What did they have you do? Are there things that bothered you? Are there things you would like to be different about the schools [or classes] use of technology?

25. Do you think more programs like this could help you or other recently arriving persons from other countries? [Explain more] If you could have anything-any type of program(s) what would you want?

Thank the individual for participating in this interview.
Tell them that all their responses will be kept confidential.
Ask them if they would be available for follow up interviews in the future.

Questionnaire Type Questions

(to be filled in before/during and if needed after the interview/observation

process)

Date: Participant/Code:

1. What country are you from? [your parents from]
2. When did you [and family/others] come to the U.S.? To this community?
3. Other names and ages of persons in your family. Do they live here or back in your home country?
4. Which schools, if any, did you attend and for how long?
5. Did you participate in educational technology activities in your school/country?
6. What experiences if any, with technology did you have when you started this program?
7. Do others in your family (spouse/siblings/parents) have experience with technology? If so who and what?
8. Are you working? Are you going to school? Tell me more.
9. What are your interests?
10. Do you have a computer? Internet access?
11. How often do you use a computer if at all?
12. You use the computer mostly for….?

Appendix B: Exploring the Field: Pilot Study

Before I began my dissertation fieldwork, I had been exposed to the Pemberley Station community center that became the primary site for the study. In early 2001, as part of my work within the College of Education I was asked to do in-service training with teachers at a local elementary school focused on integrating technology into the everyday curriculum. Several sessions were held right after school while several others were done later in the evening, between 5:30 and 6:00 PM. The training took place at the elementary school in the large computer lab which housed 30 state of the art (at the time) computers. Later, I found out that the lab and equipment were acquired through a state grant for the purpose of an after hours community technology center, often referred to as CTC's. However, we could utilize the facility for in-service training because as the scheduling and lab coordinator stated, "the neighborhood rarely utilizes it." Further exploration revealed that the school had sent home parent surveys to find out what parents might want to learn and through the feedback they had set up a couple of courses including Internet 101 and Keyboarding. Parents had listed word processing as a need, but most did not know how to type, so the person in charge of the CTC had put together a basic typing class that would be offered first, prior to learning word processing. However, while the community had indicated a need, no one showed up for the courses and few utilized the lab facilities. This peaked my interest. Simultaneously, through course work from an anthropology class, I attended a local community action meeting, led by a non-profit group that worked in concert with a nearby university to improve the lives of

the local people. During the meeting, discussions took place regarding computer classes for members of the community. The Senior Center Program housed within the community center had recently acquired, through a small grant, 15 refurbished computers, so discussion began regarding using the "Senior Program" computers to begin a community program. In the meeting, discussion also took place as to why the CTC next door was not being used.

The director of the community center shared the insights she had obtained through conversations with community members and those who used the CTC and other adults who attended the English as a Second Language courses offered in the same elementary school. Residents shared a number of reasons for not utilizing the facilities. Hours were one issue. The CTC, at the time was only open after school until around 5-5:30 PM so a school employee could oversee it. However, residents were not off work by then. Another reason given by community members for not utilizing the lab was that people were asked to sign in. Many did not want to sign in. It was assumed that some residents were undocumented. In addition, few instructional sessions were offered. The lab was open to the general public however, the staff did not speak Spanish (many in the community spoke only Spanish), and little if any software was translated in Spanish. I attended two more of the community action meetings to complete my graduate assignment and along the way became more interested in the issues facing this population and remained engaged over the next several years.

Within these first community action sessions I became acquainted with the director of the community center and shared my interest in possible dissertation

research while also teaching an evening computer course. With the director's approval and enthusiasm for offering courses, I started the process needed to start teaching computer related classes through the Parks and Recreational program at the local community center. In order to teach I had to be approved and then employed by the Parks and Recreation Authority. Appropriate paperwork had to be filed and I was fingerprinted. We then agreed upon the first class being held starting in June of 2002, from 6-7 PM. Each class would run for 8-9 weeks modeled after other computer class offerings at other sites through the Coty's County Planning Department. Two courses were eventually held, Computer Skills: Adults: *Expand your horizons! Learn how to use a personal computer. Gain a basic understanding of personal computers, Word and Internet* (Beginner course*),* and *Gain a basic understanding of PowerPoint and Excel* (Advanced course). Later, a third intermediate course was offered, to bridge the two courses and provide more hands-on experience (*Computer Skills: Part II*).

While it was required that I be employed and paid by the Parks and Recreation Authority (insurance and liability reasons) it was agreed that the payment, while minimum ($12.00/hour) would be put back into the program. I used the payment for extra supplies such as decorative greeting cards, labels, business card templates, and invested in a printer/fax machine and ink cartridges, and a Quick Cam that stayed with the computer lab. I began with just the beginner course, then a second intermediate course, and by the spring, the third advanced course was started on a rotating basis. The original class had five students, but within a year, the classes were almost always at capacity (12 students), and on occasion had a waiting list. While

many learned about the course through the Parks and Recreation advertisements (hardcopy, online, and posters), most learned through word of mouth: church, family, and friends.

Through working with the students I became intrigued as to why this population, with limited disposable income, time and in many cases education chose to attend these courses. What did they hope to get out of it, how did they view technology, and why was it important? My original research questions were derived primarily from the literature related to digital divide (a hot topic during this time period). Specially, my pilot research proposal had four primary research questions: *What role does the technology program play in immigrants' social, political, and economic hopes and dreams? How does the technology program serve their political, economic, and social interests? What skills do they hope to acquire? How do they make use of the program content?* As the research became more refined and with the assistance of my dissertation advisor a pilot study took place between October 2005 and March 2006. I submitted a proposal for the study for approval by the University's Institutional Review Board (IRB). Upon approval of the study by the IRB, eight participants were interviewed once to define research questions and gain expertise into interviewing techniques. Participants included students who were enrolled in the beginner course and included female adults ranging from age 18-45 (Mean =33). Additionally, shorter, informal discussions with the children of the adults attending the classes (ages from 10-16: Mean =12) were completed. Countries of origin included El Salvador (2), Guatemala, Nicaragua, Nigeria, México, Jamaica and Tahití. All but one adult participant had children currently enrolled or previously

enrolled in the local county school system. As I interviewed the first four participants

(El Salvador, Nigeria, Mexico, and Tahiti), it became obvious that my initial

questions were too abstract to ask directly. The next major discovery revealed by their

stories was that their current existence remained tied to their previous culture and

country. In addition to their past, the current context in which they were situated (the

community they were currently residing in) seemed to also play a significant role. I

became acutely aware of the need to further refine my study's focus from primarily

drawing from digital divide or digital inequity literature to include insight through a

transcultural lens. As Hitchcock and Hughes stated, "There is a past to the encounters

and situations the researcher observes. There is therefore always a context to be taken

into account." [1] Although each participant, as defined by their attendance in the

technology course, had reached the same destination (the technology class), it was the

trip or road that made the difference.   How experiences have shaped each individual

and created the person sitting in front of the computer emerged as important as what

work they were currently doing, where they sought to go next and what they planned

to do with their newly acquired knowledge and skills. It is from this understanding

that the decision to utilize enthnobiography through a transcultural lens was chosen.

Specifically, my interest in revealing the substance of opportunities made

available to participants when they chose to participate in this digital literacy

program, metamorphosed into an interest in technologies' role in the lives of

members of a transcultural community.

From my new awareness, new questions plus as additional research question

were crafted to tap the transcultural perspective. Specifically, RQ5 *How, if at all,*

does the acquisition of digital literacy empower participants in the context of an urban Mid-Atlantic transcultural community?

Additionally, an expanded set of revised interview questions was drafted to better draw out the nuances of each individual's thoughts regarding technology and its applicability to their life. These questions were influenced by both the research questions and the study's theoretical framework.

Questions served as a framework to the interview, but neither represent a complete set nor were they intended to be a limiting set. The questions served as a guide for me to use to ensure coverage of all required topics. The specific questions asked were a function of how the discussion proceeded. In addition to the interview questions, the protocol that formed the basis of the interviews with the remaining four participants from Nicaragua, Guatemala, El Salvador, and Jamaica for the pilot phase and the final study can be found in Appendix A. This dissertation was also informed by other fieldwork participants who were eliminated from the final text of the dissertation and are shown in Table B-1.

Table B-1: Eliminated Fieldwork Study Participants

Age	Country of Origin	Gender	Years in US	Employment	Reason for Elimination
32	Jamaica	Female	5	Home Health Care	Tape in-audible at times. Accent was strong and hard to grab details for transcript
35	Belize	Female	9	Accounting Assistant	Determined not low income for the purpose of this study
24	El Salvador	Female	4	Cleaning	Translation needed for parts of transcript
38	Nigeria	Female	8	Nurse	Incomplete - would not talk about home country and lifestyle
22	Guatemala	Female	3	Cleaning	Translation needed for parts of transcript Also not available for follow up interviews. (returned to home country for the summer)
30			6		Mean

[1] Hitchcock and Hughes, *Research and the Teacher*, 169.

Appendix C: Additional Details of Methodology

Data Analysis

Per Creswell's recommendation, I kept records of all research activities, including interviews, fieldnotes, artifacts and other documents.[1] Hard copies as well as electronic folders were created for each participant. While a hard copy was created to hold artifacts, field notes and other documents, the majority of the materials were organized through electronic means. As described previously, in the interview section, each digitally recorded (audio only) interview was transcribed into a word document. Field notes were jotted down in a field notebook and then typed out later, or in many cases observations were typed directly into my field notes files. To make sense of dates, locations, and produce a chronological list of events, both a graphical visual organizer was created, and an Excel spreadsheet containing information such as dates, siblings, work, residence, children, etc. When gaps were identified, or conflicting dates appeared, follow-up interviews and/or clarification statements were sought. Updates were added to the folders and/or files. Some documents created in class that participants wished to share, for example PowerPoint slides, fliers, and business cards were saved on a flash drive in class and copies were saved to the personal folders. Other artifacts they created at home, for example, church bulletins, Christmas and Birthday cards were scanned and an electronic copy was saved. Backup files were kept and hard copies were printed and kept in their individual

folders.

As also noted above, initial interviews were transcribed and field notes and observation data were added prior to the second follow up interview. Second interviews were transcribed immediately after. Pilot studies to familiarize myself with coding techniques, software products and analysis methods were done earlier through several graduate level classes in education, sociology, and anthropology.

As several authors state, data analysis for ethnography, to include ethnobiography as a form, is an ongoing process which takes place continuously throughout data collection.[2] "The goal of data description is to make complicated things understandable by reducing them to their component parts."[3] To extract a cohesive descriptive story from the collected information, analysis must allow the "researcher [to] expand and extend data beyond a descriptive account."[4] To begin the process, I transcribed first and second interviews for the first two participants, Milessa and Yadira, and started to understand both chronology and themes within the data to craft original description narratives, by making use of two of the three possible Maxwell analytic options: adding memos and categorizing strategies.[5] The third technique, contextualizing strategies was used after all five descriptive narrative drafts were complete, and will be discussed later in this section. Memos or reflective notes related to the transcripts allowed me to brainstorm possible categories and relationships; "…memos not only capture your analytic thinking about your data, they facilitate such thinking, stimulating analytic insights."[6] Malhotra and Miles and Huberman, refer to this as first-level coding.[7] The next step was to code line by line the transcripts, along with fieldnotes, a main categorizing strategy.

Constant comparison analysis[8] "involving multiple data sources, … [began] early in the study and [was] nearly completed by the end of data collection."[9] The process was ongoing and followed closely to Bogdan and Biklen's steps involved in implementing constant comparative analysis: collecting data; examining data for key issues, ideas, recurring events, themes and activities for categorizing the data; collecting and analyzing more data; adding and combining themes; and writing about the categories being explored.[10] Although Bogdan and Biklen (1998) present the steps as a series of seemingly linear stages, "all the steps actually occur simultaneously in a completely integrated manner. The data collection and analysis continue to double back and revisit more data collection and analysis."[11] Tentative themes were teased out, keeping in mind, but not limiting myself to the study's conceptual framework.

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[1] Creswell, *Qualitative Inquiry*.

[2] Beebe, *Rapid Assessment Process*; Wolcott, *Transforming Qualitative Data*.

[3] Miles and Huberman, *Qualitative Data Analysis*, 90

[4] Coffey and Atkinson, *Making Sense of Qualitative Data*, 9.

[5] Maxwell, "Qualitative Research Design."

[6] Maxwell, "Qualitative Research Design," 78.

[7] Malhotra, *Knowledge Management*; Miles and Huberman, *Qualitative Data Analysis*.

[8] Glaser and Strauss, *Discovery of Grounded Theory;* Boje, *Narrative Methods*; Bogdan and Biklen, *Qualitative Research*.

[9] Mertler, *Action Research,* 70.

[10] Bogdan and Bilken, *Qualitative Research in Education*.

[11] Mertler, *Action Research*, 71.

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