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Pepperdine University
Graduate School of Education and Psychology

NATIVE AMERICAN WOMEN LEADERS' USE OF INFORMATION AND
COMMUNICATION TECHNOLOGIES (ICTs) FOR WORK-LIFE BALANCE (WLB) AND
CAPACITY BUILDING

A dissertation presented in partial satisfaction
of the requirements for the degree of
Doctor of Education in Learning Technologies

by

Crystal C. Jensen

July, 2013

Margaret Weber, Ph.D. — Dissertation Chairperson

This dissertation, written by

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under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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DEDICATION

I dedicate this dissertation to the numerous Native American women leaders in my family and all other Native American and Indigenous women leaders; who have shown great strength, grace, resilience, foresight, and humility, while preserving and revitalizing their culture for future generations and the benefit of our entire globe. Your integrity-filled lives have inspired me to a life of community-based service, purpose, and leadership for the greater good. For this and more, I am eternally grateful to all of you that have been and are yet to come... “We do not inherit the Earth from our Ancestors; we borrow it from our children” (Native American Proverb).

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“I will lift up mine eyes to unto the hills, from whence cometh my help” (Psalm 121).

“It takes a whole village to raise a child” (African Proverb).

This dissertation is the result of immense love, mentoring, graciousness, and concern from a lifetime of amazing people and organizations. While the complete list of people that I need to thank is very lengthy, I offer the following abbreviated version. First, I am beyond grateful to my Pepperdine University Dissertation Chair, Dr. Margaret Weber and committee: members: Drs. Paul Sparks, Jack McManus, and Jake Dolezal (Choctaw Nation – OK, Director of Tribal Research). I am also extremely grateful to the Pepperdine faculty (Drs. L. Polin, K. Davis, M. Goodale, R. Garcia-Ramos, E. Hamilton, N. Harding, R. Helford, S. Kirnon, F. Madjidi, K. Rhodes) for their never-ending commitment to my development. The Pepperdine GSEP Staff (J. Baker, A. Cadres, C. Dailo, C. LaCour, R. Meister, B. Wysocki) has also been treasured sources of support. My eternal gratitude goes to my dissertation participants and entire Native American community, especially my Choctaw (OK) Chief G. Pyle, Dr. J. Jackson, Tribal Council, and others. I also am beyond appreciative to my parents (Don Koons - Dad, Linda Fuller-Koons – Mom who passed away in 2012, and Pannee Koons - Stepmom), my entire large, extended family (especially my Joy Joy), colleagues (C. Branchflower, J. Bowen, C. Doba, D. Fewell, E. Krymis, V. Kim, X. Ryan-Klevecka, P. Cwiko, A. Smith), teachers (Dr. P. Gathercoal, Jan Knutson, R. Prell, Dr. J. Sieger), elders (Dr. J. Kalec, J. White, Mary & Eric Lloyd-Wright), my K-20 students, and vast community of friends. Last but not least, I wish to thank my sponsoring organizations: AERA, AICF, AIGC, AISES, CSTA, CUE, EPA, NIEA, NNI, and PDK. I could not have completed this degree at this without every one of you. I hope and pray that you are all ready for the next phase of our journey...

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- 2011 TED-ED Brain Trust Scholar
- 2010 Environmental Protection Agency (EPA) Scholar
- 2010 Alice Programming @ Santa Clara University Scholar
- 2010 Computer Science/Information Technologies Summit (CSIT) @ Google Headquarters Scholar
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ABSTRACT

Native American women's leadership, information communication technologies (ICTs), work-life balance (WLB) and human capacity building (HCB) are grounded in social justice issues due to their long history of overall cultural decimation, inequitable access to technology, monetary resources, and social power (agency), and influence. Currently, there is a lack of research regarding Native American women leaders' use of ICTs for WLB and HCB. Thus, the purpose of this qualitative, phenomenological study is to explore ways in which ICTs can enrich Native American women's leadership aptitude, work-life balance, and overall capabilities. Grounded in Giele's (2008) life course research and President Obama's (U.S. White House, 2011) recently signed, "The Executive Order (13592) on Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities". This order re-asserts his *cradle to career* (Galbraith, 2012) commitment to all Native Americans and Alaskan Indians, this study seeks to answer the following research questions: How are Native American women leaders utilizing ICTs for WLB and capacity building. To answer these questions, narrative life-story framework (Giele 2008; Weber, 2010) based interviews were conducted and coded for the following themes: Identity, adaptive style, and ICT use. The researcher's intent is to help bridge the existing literature gap and potentially inform culturally ICT use for Native American and global Indigenous women's WLB and capacity-building to empower their efforts for preserving and revitalizing their culture.

Keywords: Native American, global, Indigenous, women, leaders, information communication technology, technologies, ICTs, work-life balance, WLB, capacity building, cultural preservation and revitalization

Chapter 1: Introduction to the Problem

The recent increased availability of information and communication technologies (ICTs) (I.T.U., 2011) has empowered women leaders around the globe to achieve a balance between their professional and personal obligations, or achieve a work-life balance (WLB), and build their overall capacity (Akanji &Nwagbara, 2012; Chauhan, 2010; Yerkes, Standing, Wattis, & Wain, 2010). These global examples can serve as a restorative model for Native American (and other Indigenous) women leaders as they are regaining their traditional place of leadership in their tribes (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003). This is important because the Native American women leadership model can help address the current, dire needs of Native American cultural preservation and revitalization. To support these Native American women and other leaders, many inter-agency stakeholders have offered their capacity building support. Some of the supporters include the United Nations, its sub-agencies (U.N. Permanent Forum on Indigenous Issues – UNPFII & UN for Women - UNIFEM), and strategic partners (Calvert Investments, 2009), the US Federal government (President Obama, Senate Committee on Indian Affairs, & Department of Interior - DOI), advocacy groups, and corporations. All of these entities have simultaneously communicated the importance of ICTs to empower Native American women leaders' WLB needs.

Despite Native American's overall lack of access to technological equipment and Internet connectivity, otherwise known as the digital divide, ICT tools can be especially empowering to Native American and other Indigenous women leaders living on remote, rural reservations that are geographically distant from their places of work and influence by increasing their potential for efficiency, connectivity, and productivity (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003; U.N., 2010; UNGOC, 2011; USAID, 2005; UNESCO, 2012). With this

enhanced potential to work remotely, Native American and Indigenous leaders can also enhance their WLB and strengthen their traditional, culturally valuable connections to their culture and family (Heyle, LaFramboise, & Ozer, 1990; U.N, 2010), while empowering them to be recruited and retained in the 21st century workforce (Calvert Investments, 2009; UNIFEM, 2011; U.N, 2012; ODF, 2010).

Native American women's leadership issues relative to ICT and WLB are rooted in the overall Native population's tremendous losses and hardships over the past several hundred years due to colonization (Ackerman & Klein, 1995, Allen, 1992; EEOC, 2003; Heyle, et al., 1990; Lajidomiere, 2006, Music, 2006; NCAI, 2012; Snyder, Dillow, & Hoffman, 2009; Trennert, 1983; UNPFII, 2010). Since the beginning of the Western European colonization of the United States, Indigenous Peoples have suffered centuries of cultural and population decimation. In the late 1800s, many Native American tribes were forcibly removed, i.e., Trail of Tears (Green, 2012), by the Federal government from their traditional homelands and relocated to reservations throughout the United States. This coordinated action resulted in many U.S Indigenous Peoples living on remote reservations throughout the U.S. with sparse or no access to communication technologies, hence a lack of current information and disconnection from/to other Indigenous Peoples and the world in general. Simultaneously, many Native American tribes, as well as their languages and customs, are becoming extinct. The result is an irreversible loss of language, cultural knowledge, and in some cases entire tribes of people. According to the Massachusetts Institute of Technology (MIT) Indigenous Language Initiative (2012), almost half of the languages are close to extinction and will likely be lost as soon as the elderly speakers die; the other half could be considered endangered.

The pressures of acculturation and assimilation into the dominant Western European culture have had severe negative impacts on the Native American population, customs, languages, traditional Indigenous knowledge, and overall culture. Now that there are only 1.9 million Native Americans left (U.S. Census, 2010), numerous governmental, non-governmental organizations (NGOs), corporations, and advocacy groups have asserted their commitment to revitalize and preserve the Native American culture and people (U.N., 2010; U.S. White House, 2011). During President Obama's (U.S. White House, 2010) address to tribal leaders, he affirmed his commitment to these priorities in his statement:

We know that, ultimately, this is not just a matter of legislation, not just a matter of policy. It's a matter of whether we're going to live up to our basic values. It's a matter of upholding an ideal that has always defined who we are as Americans....And I'm confident that if we keep up our efforts, that if we continue to work together, that we will live up to the simple motto and we will achieve a brighter future for the First Americans and for all Americans. (p.1)

The literature suggests that Native American women leaders' power levels were dramatically reduced as a result of colonization, which has caused gender-based WLB issues in other cultures as well. "One goal of the colonization that Native North American societies were forced to endure was the reduction of the cultural valuation of women" (Ackerman & Klein, 1995, vii). Despite women's devaluation, Ackerman & Klein (1995) offer that, overall, American Indian (AI) cultures still de-emphasize power, dominance, and control, while encouraging a gender power balance. One of the ways this gender power balance is achieved is through Native American females' use of indirect power or behind-the-scenes influence to balance overt authority and power. Despite their indirect power, Native American women leaders face many

tensions around gender-based leadership and WLB. These include personal independence versus social responsibility, complementary versus hierarchy, and personal preference versus innate capacities (Ackerman & Klein, 1995). Native women's cultural devaluation due to colonization has had lasting negative effects on tribal culture and in general. Despite their empowerment setbacks (Ackerman & Klein, 1995), Native American women are returning to their places of leadership in the home, community, and in employment organizations, changes which require strategies to maintain a WLB. ICTs training and access hold promise as one of these strategies.

This complex history and continued degradation of the culture has contributed to the present-day dire Indian education and employment statistics of both genders. The National Center for Education Statistics (NCES) "Digest of Education Statistics 2008" (Snyder, et al., 2009), based on data gathered in 2005, reported that Native Americans have the highest dropout rates of any ethnicity in our country (p.167). In partial response to these disturbing statistics, President Obama (U.S. White House, 2011) recently signed, "The Executive Order (13592) on Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities". This order re-asserts his *cradle to career* (Galbraith, 2012) commitment to Native Americans and Alaskan Indians. This commitment has strong potential to address the lack of Native American women leaders by supporting their ICT empowered educational, occupational, WLB and overall capacity-building efforts.

As asserted, Native Americans in general and women leaders in particular also experience lower educational attainment rates. This lack of academic preparedness can lead to increased rates of economic disempowerment and the need to work more to provide for even basic needs, which ultimately results in a decreased WLB. According to the leading Native American research institution, the National Congress of American Indians (NCAI, 2012), only

14% of Native Americans and Alaska Natives earn college degrees. A likely consequence of these low college educational attainment rates, are high Native American rates of poverty (25 %) and unemployment (22 %), which are almost double the overall U.S. rates. These dire statistics and circumstances have contributed to U.S Indigenous Peoples leaving their reservation homelands and Tribal communities to seek education and economic opportunity in the more advantageous urban environment. This solo migration trend goes against the time-honored custom of U.S Indigenous Peoples staying connected to their homelands and communities as a priority. The U.N.'s (2010) Declaration on the Rights of Indigenous Peoples reiterates this tradition of Indigenous culture being locally situated. Their culture is strongly tied to their land and customs, that is, to their locally situated social and physical environments. This study seeks to determine if ICTs can empower Native American women leaders' WLB and capacity building, which may contribute to their recruitment and retention in positions of power and lead to the overall, much needed Native American cultural preservation and revitalization after many years of disempowerment.

Contributing to Native Americans disempowerment, their forced relocated to reservations caused a complete segregation of many of the 566 federally recognized and other non-“recognized” tribal communities. This separation forced them to find ways to make the best of substandard living and accept changes in their WLB (Music, 2006; Trennert,1983; UNPFII, 2009). This caused a vicious cycle of poverty, low education rates, isolation, and now, more recently, a problematic lack of access to ICTs, also known as the digital divide (NCAI, 2012). The U.S is working to address this issue (FCC, 2012; NCAI; 2012). While the cultural problems have intensified over the past 125 years, the digital divide and Native American women's WLB is more of a recent issue that has surfaced in the past 20 years, concurrent with the growth of ICT

integration and Native American and Indigenous women recruitment and retention in positions of leadership throughout the U.S and global Indigenous populations.

ICTs, such as mobile technologies, digital and social media, and teleconferencing, have significant potential to support Native American women's WLB. It is especially important for the Native American population to seek out empowerment strategies now, while achieving and maintaining a WLB, since there is a dire need for cultural preservation and revitalization (NCAI, 2012). As historically powerful community leaders, Native American women leaders have the opportunity to, once again, resume their leadership position. These empowered leaders can then help address tribal issues from a locally-situated, culturally responsive perspective, especially since the issues manifest in different ways and degrees, generally based on a tribe's economic status and residential location.

The need for locally situated, cultural preservation is especially true because many Native Americans still live on remote tribal reservations, as well as in non-reservation based rural, urban, and suburban locations. To this end, Native American research suggests that scalable, capacity-building efforts must be localized (grounded in the local community and context) and culturally - responsive to produce long-term, systemic and authentically supportive change (U.N., 2010; NCAI, 2012; U.S. White House, 2010).

Purpose Statement

Native American women's leadership, ICTs, WLB, and capacity building can all be considered social justice issues due to the effects of colonization and present-day lack of cultural and gender-based equal access to monetary and technological resources and socio-political power (influence). According to Creswell (2009), an advocacy/ participatory worldview suggests the researchers/authors actually engage in activities to help bring about change regarding current

social justice and equality issues. Therefore, from an advocacy/participatory worldview, the purpose of this qualitative study was to explore ways in which ICTs are capacity building Native American women leaders in preserving and revitalizing their culture, while maintaining a healthy WLB, thereby enabling them to acquire additional tools to solidify their commitments to roots and family while joining the 21st century work force.

This exploratory study involved phenomenological, narrative life story (Giele, 2008) interviews to illuminate Native American women leaders' use of ICTs for work-life balance and capacity building. Each subject was interviewed individually utilizing a modified version of the narrative life-story framework (Giele, 2008; Weber, 2010). The resulting qualitative data will be used to inform and advocate for Native American women leaders as they use ICTs to build their leadership capacity and manage WLB. The objective is to inform future capacity-building efforts for Indigenous women leaders' throughout the globe that embraces new technological advances, and ensures a healthy WLB and supports the preservation and revitalization of family and culture. The resulting qualitative data will also be used to inform and advocate for improvements in the information and communication resources available for Native American women leaders' WLB and generalized to Indigenous women leaders' ICT empowered WLB and capacity building.

Research Questions

Based on Giele's (2008) life-story research, this study's research questions were grounded in the following four themes: Identity, relational style, adaptive style, and drive and motivation. Given the potential benefits of using ICTs for WLB (U.N., 2005) this study added the variable themes of coping strategies (Weber, 2010) and ICT use to determine what, if any, effects these variable has on Native American women leaders' WLB. The research questions are

as follows:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs into both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community?

Conceptual/Theoretical Focus

The theoretical foundations for the study of Native American women leaders and work-life balance involve several conceptual areas. First, as the desire is to preserve cultural knowledge and promote leadership capacity for this, exploring the historical and current Native American cultural literature is essential. To assist in the preservation and revitalization of Native American culture, exploring what Bruner (1990) calls *folk technology*, the spiritually and culturally-based elder wisdom accumulated over centuries can lead to capacity building and revitalization for Indigenous Peoples. The United Nations Declaration of Human Rights of Indigenous People (UNDRIP) echoes this idea:

Being 'Indigenous' means to live within one's roots. The collective consciousness of Indigenous peoples, often expressed in creation stories or similar sacred tales of their origin, places them since time immemorial at the location of their physical existence. (UN, 2009, p.4)

The second conceptual foundational area for this study involves information technology, specifically ICTs. Present-day advances in ICT' impacts on both work and personal life is described and analyzed. Therefore, these the connection between many Native American women

leader's home life on remote, rural reservations and the necessity to participate in a work-life in a more urban and global setting make it important to capacity build this population to operate from their often remote, reservation homeland with tools such as ICTs.

Significance

The existing literature provides evidence that Native American women are resuming their historical place of matrilineal leadership in their tribes and society in general (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 1999, 2003). It also identifies leadership barriers and offers cultural, political, and educational suggestions as possible empowerment support of Native American women leaders with ICT integration for WLB. While there is no existing literature dealing specifically with Native American women leaders' use of ICTs for WLB, one can logically extrapolate regarding WLB issues from empirical studies on the individual and on distinct categories of Native American and global Indigenous women's leadership struggles and ICTs and similar International populations in Nigeria (Akanji & Nwagbara, 2012), India (Chauhan, 2010), the U.K & Netherlands (Yerkes, et al., 2010). The data from this study provided evidence for the urgent need for improvements in ICT access and, in addition, it will inform Native American and global Indigenous women leaders use of ICTs for WLB and capacity building.

Again, the recent global advancements in ICTs, such as high-speed Internet, mobile, and social media tools have provided-new capacity building opportunities and examples for Native American women to create and maintain a WLB. These advancements are especially important to Native American women because they are historically and culturally tied to their land, which is dispersed throughout the United States and often in rural reservation settings. Due to these remote residential locations, Native American women have an increased opportunity to be

recruited, retained, and to serve in local, national, and international positions of leadership when empowered with such non-locale specific tools as ICTs to help attain a WLB, while they working to support Native American cultural preservation and revitalization efforts.

Summary

U.S Indigenous Peoples are an endangered culture (less than 1% of the total population) that is caught in a cycle of poor health, sub-standard education, impoverished living standards, and higher than the U.S standard death rates (U.S Census, 2010), resulting in the immediate crisis of language and cultural extinction. This is especially important now because Tribal elders, the last “keepers” of the language and culture, are aging and passing away without the cultural knowledge being transmitted to others. One promising remedy is the utilization of ICTs, such as mobile computing and virtual communities, and inter-agency stakeholder advocacy for Native American women leader capacity building and WLB. Many Native American women now have the necessity and opportunity to (re-) assume positions of professional leadership, while maintaining their roles of leadership in their homes and personal communities. In a greater context, this affords them a strong locally–situated and culturally relevant position to address the dire Native American cultural need for preservation and revitalization. Simultaneously, this increased influence and responsibility has elevated their need to improve their overall efficiency and capacity to maintain and/or establish a WLB, while promoting the recruitment and retention of more Native American women leaders.

Definition of Terms

The following terms are defined for this study:

Adaptive style: The innovative versus traditional manner in which a person adjusts to his/her setting" (Giele, 2009, p. 256).

Capacity building: The process through which individuals and communities enhance their abilities and achieve their goals (UNDP, 2009, p.5).

Identity: The manner in which the study participant views and portrays herself to others, such as being different versus conventional. (Giele, 2008) "Identity is associated with a person's location in time and space and cultural milieu" (Giele, 2009, p. 256)

Information and Communication Technologies (ICTs): Hardware and software tools primarily used for communication, such as wireless networks, mobile computers (including cell phones and tablets), social media, and other web/cloud-based applications" (USAID, 2005).

Native American: An enrolled, recognized, and or voting member of Native American or Alaska Native tribe or band of people (Federally recognized or not) living on or off the reservation/tribal lands; A person that selects Native American, American Indian, or Alaska Native as his/her official race for demographic and U.S purposes (Census, 2010).

Narrative life-story interview framework: A focus on the following four themes: identity, adaptive and relational style, and motivation and based on the four life stages: (a) Pre-adolescent, (b) adolescent, (c) adult - current, and (d) adulthood – future (Giele, 2008).

Women leaders: Females that are esteemed by their peers or colleagues for their abilities, knowledge, and/or ethics, which can be demonstrated by a title, awards, publications, public speaking, educational degrees, or position within an organization/community (Jensen, 2011).

Work – life balance – The appropriate amount of time spent between professional and personal efforts as to achieve overall satisfaction (Giele, 2008).

Chapter 2: Literature Review

This chapter provides an in-depth review of the existing empirical studies and resources regarding Native American and global Indigenous women leaders, their use of ICTs for WLB and capacity building. It also provides a brief overview of the historical underpinnings of the effects of colonization on Native American women leaders, as well as the theoretical background and evolution of capacity building and work-life issues from imbalance toward balance, within a narrative life story framework (Giele, 2008). Ultimately, the Native women's leadership literature review conducted for this study suggests that Native American women are resuming their historically held place of matrilineal leadership in their tribes, and in society in general. The literature identifies leadership barriers, such as work-life imbalance, and offers cultural, political, and educational suggestions, which support and empower Native American women leaders' WLB and capacity building.

The existing literature depicts the current state of Native American (and global Indigenous) women's leadership and WLB as being rooted in the overall populations' tremendous losses and hardships over the past several hundred years due to colonization. Colonization after-effects have decimated many of the traditional customs, languages, and knowledge through the pressures of acculturation and assimilation into the dominant Western European culture. Now that there are only 1.9 million Native Americans left (U.S. Census, 2010), the United States federal government and the United Nations have communicated their intention to protect and preserve this population (U.N., 2007, 2010; U.S White House, 2010). During President Obama's (U.S. White House, 2010) address to tribal leaders, he affirmed his commitment to these priorities in his statement:

We know that, ultimately, this is not just a matter of legislation, not just a matter of policy. It's a matter of whether we're going to live up to our basic values. It's a matter of upholding an ideal that has always defined who we are as Americans. E pluribus unum. Out of many, one. That's why we're here. That's what we're called to do. And I'm confident that if we keep up our efforts, that if we continue to work together, that we will live up to the simple motto and we will achieve a brighter future for the First Americans and for all Americans. (p.1)

Based on this widespread support commitment, from an advocacy/participatory worldview (Creswell, 2009), this study's literature review explores Native American women leaders' use of ICTs for WLB and capacity building, while they help empower these proposed cultural preservation and revitalization efforts.

Native Women Leaders' WLB Challenges

According to the literature, Native women suffer many colonization-based barriers to professional success and WLB. One of the barriers is an extremely low employment rate and economic status. According to the Equal Employment Opportunity Commission (EEOC) (2003), Native American women have the lowest employment rate of women in major ethnic groups (0.3%), compared to Asian women (2.1%), Hispanic women (4.7%), and African American women (7.6%). This low employment rate also contributes to social isolation (Johnson, 1997; Lajimodiere, 2006). Employed Native American women have unique challenges to face since they are often caught in the middle of living in a traditional tribal setting, while working in an often more Anglo cultural and progressive environment (Lajimodiere, 2006).

Overall, women have had a dramatic increase in both economic and educational status (Pew, 2010). Within the 49-year period, women went from being only 33% of the work force in

1960 to 49% in 2009, which was an equal rate with men (p.6). In 1960, less than 6% of women had college degrees; whereas by 2008, that figure increased to 29%. Similarly, over the past 20 years, women have been the majority of new college graduates and more women than men ages 20-30 have graduated college. As a result, more wives are part of the work force. In 1960, 32% of wives worked and by 2008 that number had almost doubled to 61% (Pew, 2010, p.6). This report also showed that in 1977, 43% of surveyed adults said that marriage was more satisfying when the husband was employed and the wife took care of the home and children; whereas, 48% of respondents said that marriage works best when both spouses have jobs and share caretaking of the household and children. By 2010, these numbers had shifted to 62% in favor of the dual income/shared homemaker model and 30% for the wife being a stay at home caretaker (p.26).

The review of the literature also consistently reflects definite community-specific cultural expectations of all Native American women that are not conducive (challenging) to WLB, especially to women in leadership positions. According to anthropology professors Ackerman & Klein (1995), culture and gender are intricately interwoven. “Native North America is intriguing because gender is center to culture, not biology and power” (p.231). Echoing this statement, the literature suggests that Native American women display the following cultural characteristics: (a) Humble behavior, (b) non-ego based demeanor, (c) respect, and (d) humility (Ackerman & Klein, 1995; Johnson, 1997; Mankiller & Wallis, 1993). According to the literature, a female’s behavioral adherence to this Native American cultural code of conduct will more likely result in her evolving as a community leader. Several of the main types of women’s leadership positions are the school board, tribe, and municipal and state government (Prindeville, 1999). Prindeville (1999) continues to suggest that the common trajectories Native American women leaders follow as their capacities increase are: Non-governmental organization (NGO)

volunteer, grass roots volunteer, school board trustees and/or steering committee, and founding organizations.

Prindeville (2003) also reports many common characteristics specific to Native American female political leaders. Her study reveals that Native American female political leaders share the following: (a) Desire to speak for the disadvantaged, (b) highly educated, (c) median age 45-50, (d) empowered, (e) sense of group consciousness, (f) belief in collective, multiracial activism, and (g) commitment to key tribal issues (tribal sovereignty, cultural and environmental rights, and self-determination policies). In her doctoral dissertation (1999), Prindeville offered that Native American female political leaders commonly use the following goal achieving strategies: (a) Education and reform (b) community relations (c) partnership building (d) resource development [ICTs] and (e) utilize existing systems (p.220). While Prindeville's (1999) work focuses on Native American female political leaders, the same themes resonate with the other types of Native American female leaders, suggesting an overall cultural tendency toward these leadership traits and a need to maintain a WLB.

While there has been progress toward gender inclusion throughout numerous Native American tribes, many women still experience gender discrimination within their communities and overall culture. In a separate publication, Prindeville & Gomez (1999) describe three types of tribes: *Inclusive, transitional, and traditional*. The Acoma, Laguna, and Tesuque are considered *inclusive* tribes and women are treated equally. The Isleta, Santa Clara, and Zuni tribes are examples of *transitional* tribes that have granted women some limited participation rights over the past 10-15 years, while the Bad River, Comanche, Kiowa, Natambe, and Pojuaque are considered *traditional* and prohibit women's participation in leadership activities (Prindeville & Gomez, 1999, p. 21). In her doctoral dissertation, Prindeville (1999) summarizes

the experience of many Native American women leaders, “Whether or not they personally experienced sexual discrimination, the New Mexico leaders maintained that women generally must work harder, and jump greater and more numerous hurdles than men, if they wish to attain influence and respect in politics” (p. 101). She later adds, “[Despite their efforts, they were still] considered outsiders by the status quo” (Prindeville, 1999, p. 233). As reflected in their literature, there is still much work to be accomplished to support Native American women to regain their once held community/tribal leadership position and oftentimes women must work much harder to maintain a WLB. Johnson (1997) added,

Whereas both women and men have the capacity to alter their leadership styles to suit the new demands, many barriers to equal opportunities in leadership remain. Structural barriers include legal, educational, cultural, social, and historical factors. The major psychological factors influencing equal acceptance of women as leaders include not only cultural and societal attitudes toward women, but also the socialized perception of women and women’s own self-perceptions. (p. 45)

Not only do Native American women face barriers specific to the effects of being part of an Indigenous community in a colonized land, they also face barriers based solely on their gender.

A common term in referring to leadership gender-based barriers for women is *glass ceiling*, however, Eagly and Carli (2007) feel that it is an incorrect metaphor. They prefer using the metaphor of a labyrinth. They say that, while in the past the barrier was absolute and the ceiling metaphor was appropriate, now the fact that some women have become chief executives, etc., shows that the barrier is not complete. In addition, they point out that women don’t just run into difficulties at the highest level; often they are dealing with the effects of discrimination at every level. Eagly and Carli (2007) argue that, “If we can understand the various barriers that

make up this labyrinth, and how some women find their way around them, we can work more effectively to improve the situation” (p.2). Helping Native American women, who serve in multiple community, family, and work-place roles to balance their lives – achieve work-life balance, successfully navigate this labyrinth will alleviate one important barrier to success.

Throughout the existing literature of Native American women serving as leaders in both work and life is the recurring theme of their being motivated by a sense of civic obligation as mothers to the community, as well as their personal families (Prindeville, 2003). Prindeville (1999), an expert on Native American female political leaders, terms this the “politics of care” (p. 158) and states, “...women’s movements around the world have, in recent years, incorporated peace and environmental causes in their agendas, uniting women globally in a politics of survival” (1999, p. 33). Numerous articles contain conflicting narratives about their identity as women and overall gender roles in our present day society (Chauhan, 2010; Giele, 2008; Slaughter, 2012). This echoes previously mentioned Native American women leadership issues. Giele’s (2008) attempts to reconcile these competing narratives in her research with mothers that are both employed and are homemakers. Her cross-national research has shown that women desire to act as a provider and that marriages have become more egalitarian due to historical, cultural, economic, and political factors (Giele, 2008, p.394). In her article “Why women still can’t have it all”, Slaughter (2012), a previous high-ranking federal government official and now homemaker, suggests that a woman must decide her true, life goals. She sees women as often pressured to conform to a male model of managing, which is to work extra long hours and hire domestic help. As a personal example of having to choose, she relates her fear at age 35 of almost waiting too long to have children and running the risk of not being able to have them at all.

As women are becoming more educated and employed, they are able to contribute equal resources (financial and other benefits) to the household. It is suggested that the transformation of the relationship between education and marital status occurred primarily as a result of the decreasing likelihood of marriage (and remarriage) among less educated women (Torr, 2007, p.27). Slaughter (2012) also asserts that, “If women are ever to achieve real equality as leaders, then we have to stop accepting male behavior and male choices as the default and the ideal. We must insist on changing social policies and bending career tracks to accommodate our choices, too. We have the power to do it if we decide to, and we have many men standing beside us” (p.102). At the same time, we must also create family friendly policies for women and men without children who also have demanding family care needs, such as an elderly parent (Rose, as cited in Slaughter, 2010, p.94). This more egalitarian gender relationship based on increased financial earnings by women also has a positive impact on WLB, since there are additional resources to hire extra domestic help while the couple works longer hours (Yerkes, et al., 2010). This literature reflects previously mentioned Native American literature.

ICT Integrated Native American Women’s Leadership Model for WLB

The current literature lists the following culturally based, leadership traits of professional and highly educated (politicians, teachers, healthcare providers) Native American women: (a) Bi-cultural - Anglo and Native, (b) reflective thinkers, (c) deep connection to present time, (d) spiritual, (e) balanced, (f) understanding of natural world, (g) circle/inclusive community builders, (h) relationship focused, (i) egalitarian, (j) organic/need based, (k) an interweaving of life components, (l) community (environmental and social) need-based service perspective, (m) resilient/healthy self-esteem, (n) integrity, (o) high expectations, (p) courage of convictions, (q) profound experiences (early poverty, near death, death of a loved one), (r) commitment to

physical health (addiction avoidance), (s) conscious risk-takers, (t) education a priority, and (u) empowered (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003). The existing literature also suggests that Native American women are resuming their historical place of matrilineal leadership in their tribes and society in general (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003). It also identifies leadership barriers and offers cultural, political, and educational suggestions as possible empowerment support of Native American women leaders with ICT integration for WLB. While there is no existing literature dealing specifically with Native American women leaders' use of ICTs for WLB, one can logically extrapolate WLB issues from empirical studies on the individual and on distinct categories of Native American and global Indigenous women's leadership struggles and ICTs.

Recent global advancements in ICTs, such as high-speed Internet, mobile, and social media tools have provided new opportunities for Native American women to create and maintain a WLB. These advancements are especially important to Native American women because of their often remote, rural reservation settings. The United Nations Permanent Forum on - Indigenous Issues and the United Nations Declaration of Human Rights of Indigenous People (U.N., 2010) echo this idea:

Being 'Indigenous' means to live within one's roots. The collective consciousness of Indigenous peoples, often expressed in creation stories or similar sacred tales of their origin, places them since time immemorial at the location of their physical existence.

(p.4)

Due to some of their remote residential locations, Native American women have an increased opportunity to be recruited and retained in local, national, and international positions of

leadership. This enhances the need for increased work-life balance strategies, while these women are supporting cultural revitalization and capacity building.

Although some studies exist specific to Native American women leaders in education (Keway, 1997), politics (Mankiller & Wallis, 1993; Prindeville, 1999; 2003, 2004) and other specialized areas (Ackerman & Klein, 1995; Allen, 1992; Barkdull, 2009; Lajimodiere, 2006; Stauss & Taylor, 2006), there is a gap in the literature regarding Native American women leadership and specifically their use of ICTs to create and maintain a WLB. According to the research, Native American women leaders share common humanitarian leadership characteristics (Prindeville, 1999, 2003, 2004), which may be further empowered with ICTs for WLB and utilized as a model for an ethical, sustainable, and egalitarian 21st century global community. Several themes surfaced that suggest a model, including: (a) Native American women leaders' characteristics; (b) Native American women leaders' characteristic motivations to serve; (c) Native American cultural consideration and traditional practices both in pre-colonial and post-colonial eras; (d) Native American women leaders' advice for building other Native American women leaders' capacity; and (e) barriers to success.

The article entitled "Ways Women Lead", Rosener (1990) points out that there has been an evolution in the ways that top women managers lead. The first female executives, because they were breaking new ground, adhered to many of the 'rules of conduct' that spelled success for men. Now a second wave of women is making its way into top management, not by adopting the style and habits that have proved successful for men, but by drawing on the skills and attitude they developed from their shared experience as women (p. 119). Rosener (1990) says that instead of fighting what might be considered their feminine nature, the new women leaders use their feminine side to become successful. The literature demonstrates that Native American women

are using the more feminine, collaborative leadership methods that not only are seen as “more recent” but also have ancient societal roots in Native American culture.

Native American women serving as leaders of national organizations provide an important and distinct model of leadership, while illuminating key areas that need to be addressed for WLB and possible ICT integration. Characteristics of women in this leadership model (and their key areas) are: (a) Motivation to serve; (b) a clear grasp of cultural norms in pre and post-colonial eras; (c) able to provide capacity building advice; (d) able to identify and deal with barriers to success; (g) provide suggestions for future research. In one study, six leadership styles: Charismatic/value-based, team-oriented, participative, humane-oriented, autonomous, and self-protective (House, Hanges, Dorfman & Gupta, 2004) were “used to assess the different ways in which various cultural clusters viewed leadership” (Northouse, 2010, p. 348). The cultural leadership categories from “GLOBE Study of Societies” (House, et al., 2004) provide a useful framework for organizing cultural themes and context of the Native American and global Indigenous women’s leadership styles.

According to the literature, Native American women leaders value their followers, and work to capacity build their strengths – including WLB. The leaders feel that by learning the feelings and suggestions of group members, they will create better solutions. Also, by discerning what is important to their followers, leaders can use this information to stimulate creativity and motivation for change. Recent interviews of women leaders of Native American non- profit organizations conducted by this studies PR indicate a leadership style focused on nature and the environment, egalitarianism, community-need, spirituality, cultural tradition, Indigenous ways of knowing (IK) described in further detail in the Ethics section), balance, humility, and a general concern for others. All of these qualities suggest the need to utilize all relevant strategies (ICTs)

to promote Native American women WLB in order to recruit and retain them as leaders. The literature review accompanying the interview findings drew similar conclusions, but also included the need to further develop leadership-mentoring programs to train future leaders and instill in them the importance of WLB.

Each of the aforementioned interviewees recognized that they are members of a culture, which is collectively facing barriers including issues of WLB. They are concerned with developing opportunities for all women and strengthening them in general, while specifically advocating for Native American women. One interviewees' life theme is balance. She states, "I think it is about having to get in balance, about the healing process, because women are the healers. We need more heart to balance out all the head stuff that has been going on for years and centuries" (personal communication, Nov. 2011).

The major findings of the interviews were that women leaders of Native American non-profit organizations possess a leadership style focused on nature and the environment, egalitarianism, community-need, spirituality, cultural tradition, Indigenous ways of knowing (which will be discussed further under the ethics section of this literature review), balance, humility, and a general concern for others. As a result of examining the interview responses of women leaders of Native American non-profit organizations and a review of the literature with regard to the research questions, the leadership model illustrated in Figure 1 below was offered.

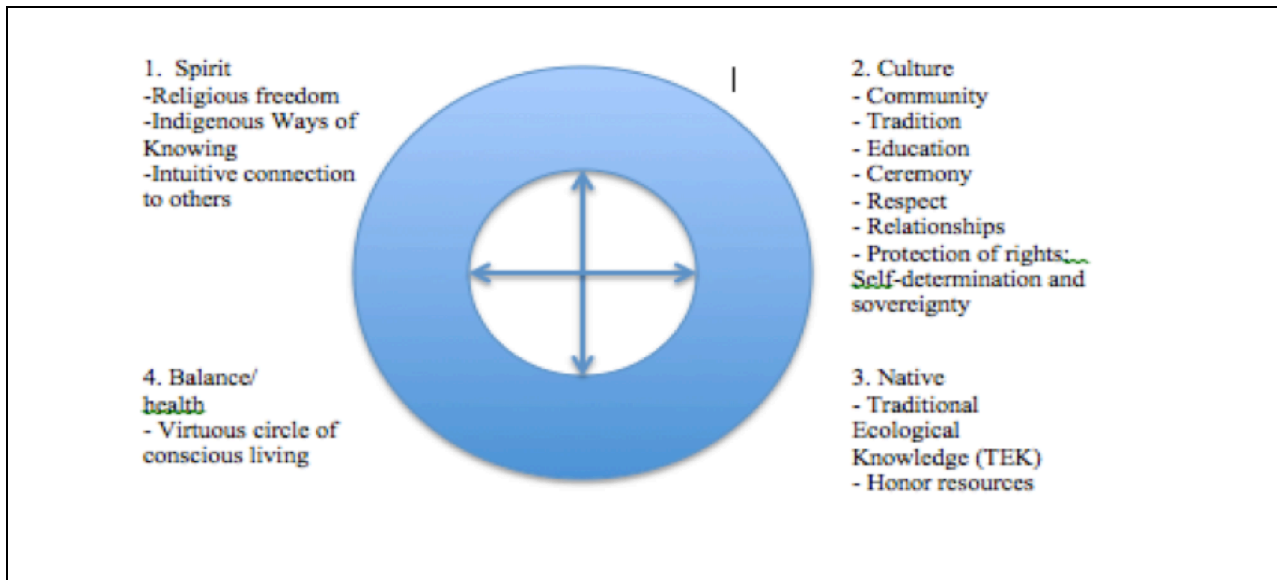


Figure 1. Native American women's leadership model.

Note. Native American women leadership traits focused around four domains: Spirit, culture, Native, Traditional Ecological Knowledge (TEK), and Balance. Used with permission from author, C. Jensen (2011).

There were numerous surprises regarding the existing literature of Native American women leaders. Although Native American women lost a considerable amount of direct power (shift from matriarchy to patriarchy) due to colonization practices of Western European cultures, many still retained indirect power by influencing their male spouses/partners who were in positions of leadership. Another surprise was finding a vast disparity between the leadership opportunities in the various tribes. Some tribal women experience few obstacles to their ability to rise to high levels of tribal leadership based on the culture, such as in the Cherokee and Iroquois Nations, while other tribes still operate on a more colonization-based patriarchal system. It was also unexpected that the themes found in the interviews aligned naturally with the literature. Although the study participants come from widely differing backgrounds and are unrelated, their responses consistently matched each other's, as well as the existing literature.

This suggests an underlying foundation and possible model of Native American female leadership.

In conclusion, the findings from these recently conducted interviews of women leaders of Native American non-profits have the potential to significantly impact the field of organizational and community leadership. Especially since, Native American women have, since ancient times, provided important models of highly conscious leadership. They have determined that this style of leadership significantly contribute to solving many of our world's pressing problems and help our global humanity to evolve into a more egalitarian, balanced, empathic and sustainable place. Native American women's leadership is an ancient leadership model that can be applied today in order to help support the evolution toward a 21st century ethical, and egalitarian global community. This study seeks to determine how, if at all, ICTs can empower these efforts as well as the efforts of those who recruit and retain these Native American women leaders via a sustainable WLB.

Based on the interview responses of women leaders of Native American non-profit organizations and a review of the literature, a corresponding leadership model (Jensen, 2011) was formulated based on the aforementioned GLOBE categories. Native American women leaders are guided by a connection to Nature, desire to protect the environment, egalitarianism, community-needs, spirituality, cultural tradition, Indigenous ways of knowing (IK), balance, humility, and a general concern for others. Since this highly evolved and conscious style of leadership could help the world solve many of its problems, this field of research has the potential to significantly impact studies on Native American women leaders' use of ICT for WLB and possible other capacity building strategies.

Work-Life Balance Theories

While there are no existing empirical studies specific to Native American women leaders and WLB, the concept of WLB has been studied by numerous scholars with well-documented literature dating back to the 1950s. Since this study’s scope is a very specific practical view of WLB and capacity building utilizing ICTs, *Native American’s Women Leaders’ Use of ICTs for WLB and Capacity Building*, a brief overview of WLB theories and corresponding theorists is included in this section.

The narrative life story framework is based on historical research starting in 1955 with seminal thinker, Elder, who continues to contribute to the evolving field. Giele has collaborated with Elder and they both remain leaders in this research method. Giele (2008) has recently adapted the life story framework to encompass four focus themes, including: Identity, relational and adaptive style, motivation, and drive. While there is much general WLB scholarly literature, this study focuses on WLB and ICT related issues, where there is very little existing literature. Therefore, the evolution of general WLB theories is summarized in the Table 1 below.

Table 1

Work-Life Balance Theories/Framework Chart

Theory	Year	Definition	Author	Relevance
Systems Theory	1955	All parts are part of a system connectedness of all things	Parsons	Using the life-course framework, we can see the connectedness of an individual to family and others in their work-life decisions
Framework of Inequality	1976	The male-female relationship is based on a dominant-subordinate concept	Miller	Understanding the relationship a woman has with males in her work-life balance decisions.

(continued)

Theory	Year	Definition	Author	Relevance
Political, Judicial, & Social	1989 & 2003	This perspective considers the historical events, such as the feminism movement	Olkin and Ingelehart, & Norris	Across the lifespan there are different social structure, laws, and political atmospheres that contribute to the woman's decisions
Cultural Schema	2006	There is a cultural schema of either being a full-time worker or a full-time mother in American	Blair-Loy	The cultural schema has not pressured organizations to re-examine policies and work schedules for women trying to balance work and life.
Marriage Models	2006	Egalitarian vs. assigned and separated gender-specific roles	Wilcox & Nock	While examining the work-life balance issues, gender roles and household duties for married women will be important.
Life-Course Framework from a social psychological perspective	2008	These are four themes in this perspective: Lives and historical times, the timing of lives, linked lives, and human agency	Elder	These four elements drive part of the foci for this study and are related to Giele's study, as well.

Note. The data in this table is from “Women and work-life balance: A phenomenological qualitative analysis of identity, relational style, adaptive style, and drive and motivation, and the role of faith from the narrative life-story framework,” by Krymis, 2011, Pepperdine University, p.17-19. Copyright 2011 by E. Krymis. Adapted with permission.

The chart above describes the evolution of WLB theory from Parson's systems theory in the mid 1950s that all things are connected - that home and work-life efforts and gender-based divisions of labor were not mutually exclusive and should be looked at as a whole system – to

the next 50 years of analyzing WLB from gender-specific roles. Finally, Giele (2008) describes the life course framework as an overall system to be described in stages of growth.

Authors Greenhaus and Beutell (1985) describe WLB issues in terms of conflict. They assert three main forms of work-family conflict: (a) Time based conflict, (b) strain-based conflict, and (c) behavior-based conflict (p 77). To accompany this literature, it is also important to note that according Nwagbara and Akanji (2012), there is no one primary definition of WLB.; These doctoral researcher also state that WLB is a concept that suggests a person's life has two main components, that of work and that of personal (home) and that a person's work life often has negative effects one's personal life. Relevant to the study at hand, Zedeck (1992) offers an important key ICT and WLB concept. His "spillover" theory describes how emotions and behaviors from either the work or family domain can "spillover" often causing negative effects in the other setting.

In addition to this theoretical literature, Pew Research Center's (2010) "The Decline of Marriage and Rise of New Families" report clearly demonstrates that WLB is an important practical issue for women and men. Their findings indicate, "The modern family, in all its forms, is highly valued and remains a source of great satisfaction for the vast majority of Americans" (pg. 5). This assertion is derived from the 1960-2008 Decennial Census and the 2008 American Community Survey (ACS) report, which included the following data: (a) 76% reported family as the most important life component; (b) 22% reported family as an important component, just not the *most* important; (c) 1% of adults reported that family is not an important component of their life; (d) 75% are very satisfied with their family life; (e) 19% are somewhat satisfied; and (f) 6% reported dissatisfaction with their family life. Based on these statistics, adults reported family life as more satisfying than their social or community life, or career (p.5).

Mentorship for Native American Women Leaders Use of ICTs for WLB

The literature also points to a need for all women leaders to enlist the help of mentors to guide them to a WLB (Heyle et al., 1990) with or without the use of ICTs. Vygotsky (1978) states a learner acquires knowledge most effectively at the stage just beyond his/her level of current expertise. Throughout this process he/she is often assisted by a “more knowledgeable other” or mentor as needed to progress to his/her next stage of development. This concept is also often referred to as cognitive apprenticeship and legitimate peripheral practice and is a key component in all situated learning (Lave & Wenger, 1991).

The literature also suggests that virtual communities of practice can support the locally situated nature of Native American women’s leaders use of ICTs for WLB. In their book *Digital Habitats*, Wenger, White, and Smith (2009), “Here we begin our argument about the mutual influence of community and technology in digital environments by looking back at some examples in recent history, first looking at how community was a factor in the development of new technologies and then at how technology was a factor in the development of new communities” (p.13). Indigenous Knowledge has historically been in the context of *situated learning*, which authors Lave and Wenger (1991) define as informal learning specific to a particular time and place. Seminal mentorship authors, Lave and Wenger (1991) also describe the importance of mentoring or *legitimate peripheral practice* (Lave & Wenger, 1991) to locally - situated learning in their book *Situated learning: Legitimate peripheral participation*. Lave & Wenger (1991) assert that a novice has repeated opportunities to slowly adjust his/her identity to that of more of an expert and eventually takes on that role after a period of *apprenticeship* (mentoring). The master-apprentice model is an ancient tradition for the development of Native American (and global Indigenous) women leaders.

Similarly, virtual community of practice experts Wenger, White, and Smith (2009) offer the chapter on “Trends in digital habitats: Reconfiguring community polarities” (p.173-174). They assert the following four, more recent, trends within technology and communities: (a) Increased connectivity across time and space, (b) new modes of engagement, (c) changing geographies of community and identity, and (d) movement toward a socially active medium (p.174). Wenger, et al. (2009) also detail nine “orientations”, or “pattern of activity and connection” (p.69) that can, and often do, contribute to people learning together in online communities, which are typical of actual Native American communities. Those orientations include: (a) Meetings (b) open-ended conversations, (c) projects, (d) content (e) access to expertise (f) relationships (g) individual participation (h) community cultivation, and (i) serving a context (p.70). Other virtual communities of practice experts, Polin and Riel (2004), offer the four dimensions of online learning communities as: (a) Membership, (b) task features and/or group learning goals, (c) participant structures, and (d) reproduction and growth mechanisms. They also add that the key characteristics of the “practice-based” learning community are identity development and embodied knowledge; whereas, the knowledge-based learning community focuses on knowledge shaping and knowledge creation (Polin & Riel, 2004, p.40). These orientations can be informative to Native American women leaders’ use of ICTs (i.e., virtual communities of practice) for WLB and capacity building.

Many statistics point to the shifting narrative regarding global Indigenous women and WLB. In the article, “Indian corporate women and work-life balance”, researcher Chauhan (2010) argues,

By definition WLB is about people having measure of control over when, where and how they work. There is a view that WLB occurs only in the framework of what the company does for the

individual. However, WLB is a two-pronged approach. The other prong of WLB, which many individuals overlook, relates to what individuals do for themselves. The core of WLB could also be summed as achievement with enjoyment. (p.184)

Yet, as the Pew (2010) study found, the family remains an important societal construct and highly satisfying for most Americans.

Again, The ICT-empowered globalization of our markets is also having a profound pressurizing effect on WLB. Employees are feeling more of a requirement to perform at higher levels and compete with highly skilled workers, often willing to work for less money, on a 24-hour time frame (Akanji & Nwagbara, 2012; Guest, 2002; Schor, 1991). While ICT provide workers with the benefits of increased ability to learn, collaborate with others, and perform work tasks from the comfort of their homes with flexible schedules, these benefits also make it more difficult to prevent *spillover* from work to family life and therefore cause conflict (Burke, 2002; Schor, 1991). Researcher Guest (2002) noted three modern work-life factors that cause work-life imbalance. First, work related factors include: (a) Information overload, (b) information technologies advances, (c) quest to provide superior customer service, and (d) extensive flexibility with labor force. Second, personal life factors that can provide imbalance are: (a) Work spillover to private life (e.g., telecommuting), (b) societal affluence, (c) privatizing family life, (d) single-parent family demands, (e) absent fathers, and (f) wealth management and materialism. Third, the psychological-emotional states of: (a) Awareness, (b) attitudes, and the person's personality disposition to harmonize these imbalances across a variety of life-related situations (Guest, 2002, p.39-40). Researcher Chauhan (2010), from the University of Lucknow, Uttar Pradesh, India, echoes the pressure put on the WLB of professionals by the rapidly evolving global markets,

By definition WLB is about people having a measure of control over when, where and how they work. There is a view that WLB occurs only in the framework of what the company does for the individual. However, WLB is a two-pronged approach. The other prong of WLB, which many individuals overlook, relates to what individuals do for themselves. The core of WLB could also be summed up as achievement with enjoyment. The struggle is to create a new identity. The marketplace has changed the rules for business, but family life has changed to keep up... and should it? (p.184).

Many countries around the globe are taking WLB very seriously and are looking at new and improved way to continue to address the issue. Both Nigeria and India are also considering ways to address the WLB needs of women in what is still considered a very patriarchal society (Akanji & Nwagbara, 2012; Chauhan, 2010). These researchers assert that a very strong male-dominated society is a root cause of workplace problems with motivation and commitment. "Given the urgency of WLB in rethinking the nature of contemporary organizations for better performance, motivation and commitment, this paper considers the womenfolk as its focal point in order to contribute to the evolving conceptual as well as scholarly meditations on addressing the dynamic of WLB on women, who are oftentimes victims of societal arrangement couched in the tenets of patriarchy" (Akanji & Nwagbara, 2012, p.39). According to Dube and Palwriwala, (1990), "Women are expected to be chaste and especially modest in all actions, which may constrain their ability to perform in the workplace on an equal basis with men" (as cited in Chauhan, 2010, p184). India's technology call centers and telework industry have added additional pressure to WLB issues in that country. Employees are pressured to work as many hours as possible, 7 days a week to keep up with the demands of this industry (Doble & Supriya, 2010). These studies

highlight that if a society is not careful and conscious, ICT use can also contribute to a work-life imbalance, instead of helping to create a WLB.

This need for conscious ICT integration for WLB and capacity building is a concern of many global leaders. When Harvard Business School Professor Palepu was asked, “Can a hyper growth economy like India afford to talk about WLB issues?” His reply was, “Probably right now there isn’t that much appreciation. But I see Indian companies learning to acknowledge it very quickly. Companies will need to learn to manage their managers. I see the balance issues affecting the managers quite a bit. Corporate leaders will have to work over time on it, as I do not think the current state is sustainable” (Economic Times, 2008, p.184-5, as cited in Chauhan, 2010). Organizations throughout various countries are working to improve WLB conditions for women by adopting more family friendly policies. Human resources departments in Nigeria have instituted improved working conditions such as: (a) Flexible working hours, (b) maternity/family care leave time, and (c) more significant employee assistance/compensation packages (Akanji & Nwagbara, 2010, p.39). Organizations in India have offered employees’ flexible and part-time work and child-care facilities (Doble & Supriya, 2010).

Similarly, researcher Chauhan’s (2010) study of Indian (Asian) corporate women and WLB provided the following findings: (a) WLB was a gender specific issue; (b) family was most important and they were not willing to compromise family time; (c) a large number of women in industry said that they were not able to balance their work life; and (d) most of the women were not satisfied with their present achievement and enjoyment in both the sectors. This dissatisfaction on both fronts clearly defined the imbalance issue. Recommendations for employees included: (a) Accessing existing work, personal, and hired support systems [mentors, home help], (b) effectively managing time, and (c) learning effective stress management

techniques. Recommendations for organizations included: (a) Educate employees about WLB; (b) give employees increased flexibility (rotating shifts) and control of scheduling and requirements; (c) provide paid leave days for family care; and (d) support women's career progression. Recommendations for governments included: (a) Provide employee paid time off, even if requested on short-notice and without "justification"; (b) revise maternity leave policies; and (c) develop a national age appropriate child-care program (p.191-193).

While the focus of this paper is on Native American women leaders' WLB and capacity building issues, the literature generalizes women's WLB around the globe. It was also clear that while companies are trying to determine ways to support WLB, their primary focus remains on earning a profit. The way in which an employee's satisfactory WLB can contribute to profits is not always recognized. Lastly the literature demonstrated that ICTs can help empower WLB, while at the same time cause a conflict if it is not used properly. This section will inform the next section's discussion of the current and possible integration of ICTs especially for the WLB of Native American women leaders.

While there is little existing research on Native American women leaders' use of ICTs for WLB, the United Nations (UN) and their partners have published numerous studies on initiatives that address the global issue of using ICTs for all women (while highlighting Indigenous women) for WLB and overall capacity building. According to the United States Agency for International Development (USAID), ICTs have the potential to enable women to become equal stakeholders in the growing knowledge economy. Low income women have successfully used ICTs for their own interests by forming peer networks through employment interest groups such as the Self-Employed Women's Association (SEWA) in India, the umbrella of micro-credit activities like the Grameen's Village Phone Program in Bangladesh, and through business collectives like the

Tortas bakers in Peru. Bangladesh can capitalize on these lessons and explore new approaches based on the positive experiences of women working in and with ICT sectors elsewhere (USAID, 2005, pg. 8). USAID has efforts in numerous to empower Indigenous women's use of ICTs for WLB and capacity building.

One of USAID's Bangladeshi efforts is detailed in their report, *Supporting Gender and ICTs: Opportunities for Women in Bangladesh*, which describes their initiatives to train the Bangladeshi people to use ICTs for a wide variety of women empowerment needs, such as monitoring labor standards and creating websites for rights groups, which can also be used to empower their WLB. In support of these and other efforts and as part of their 2010 Millennium Development Goals (MDG), the UN is in the early stages of developing a virtual community portal named the MDG eNabler, which is "intended to be a one-stop shop portal" (UNGAID, 2011, p.1). MDG goal number three focuses on the need to empower all women (especially leaders) with all means possible (WLB), including ICTs (UN, 2010), which is especially relevant to this study.

The UN has developed several organizations to specifically develop and disseminate ICTs worldwide. One such organization is the International Telecommunication Union (ITU). ITU began in Paris in 1865 as the International Telegraph union, changed its name to ITU in 1934, and then became part of the U.N. in 1947. According to the ITU (2011),

ICTs underpin everything we do in the modern world, and today each and every one of us is dependent on ICT networks and applications. They help manage and control everything from emergency services, water supplies, power networks and food distribution chains, to health care, education, government services, financial markets and local and international transportation. Tremendous progress has already been made, with

well over five billion mobile cellular subscriptions worldwide, and more than two billion of the world's people now having access to the Internet. (p.1)

ITUs extensive ICT infrastructure, implementation research, and development efforts can help inform all Native American women leaders' ICT integration efforts, including those for women's WLB and capacity building issues.

This literature suggests the benefits of collaboration between Native American tribal governments, the US government, corporations, and UN based organizations to empower Native American women leaders' use of ICTs for WLB and capacity building. UN leaders recognize that a majority of our global population, especially those living in undeveloped nations does not have access to high-speed Internet and other ICTs. The UN is a significant and untapped non-governmental organization (NGO) resource for this cause. The UN asserts this commitment in the UN Declaration on the Rights of Indigenous People, Colonial conquest and the more subtle, but sustained impact of the modern-day lodestar of scientific and technological progress have pushed Indigenous Peoples and their cultures to the brink of extinction. Nation states often adopted policies of assimilation and integration, of *divide et impera*, that left First Nations fundamentally uprooted, marginalized and dispossessed. Still, many Indigenous Peoples did not vanish; they did not abandon their culture, their inner worlds. Assisted by modern communication technologies, they overcame their cultural and political isolation and joined together to reclaim their essential identity as well as their role on the global stage of decision-making. This remarkable comeback has found its most comprehensive expression in the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UN, 2009, p1).

To continue to empower the Indigenous *comeback*, The UN suggests building Indigenous populations' infrastructure through crowd-sourced ICT funding campaigns, such as the Millenium Villages Project (UN, 2011). They codified this intention in their ICT-based MDG *Target 8.F – Develop a global partnership for development* suggests collaborating with the private sector to share the benefits of ICTs for public good and identifies the UN as an additional funding source (UN, 2012). Thus, in cooperation with the private sector, the UN asserts the need to make the benefits of new technologies available, especially ICTs, to all.

To support US based women's empowerment needs, including Native American women leaders and their WLB needs, UNIFEM has partnered with the Calvert Group. The Calvert Investments group (2009) operates "The largest family of socially responsible mutual funds in the United States" (p.3). Their mission is, "Advancing the first comprehensive attempt to apply those [well-established labor and human rights norms and standards affecting women] standards directly and specifically to corporate conduct" (p.3). To that end, along with numerous different stakeholders, Calvert Investments (2009) has published seven women's empowerment principles. Principle 2.0 - WLB and Career Development states, "Corporations will take concrete steps to attain gender equality by adopting, implementing, and promoting policies and practices that enable WLB and support educational, career, and vocational development" (p.9).

To ensure that these efforts are culturally relevant, UNIFEM also has efforts to support publishing an Indigenous women's rights manifesto. This conversation was started at the *Regional Conference of Indigenous Women* in Mexico City in June, 2005, where U.N. agencies proposed the creation of an Indigenous woman's ICT database and training program to support their sustainable development based on the U.N. Millenium Development Goals (MDGs). This effort informs United Nations Development Fund for Women (UNIFEM) Administrator, Dervis'

Annual Report (2007-2008) message also emphasized empowering women leaders, "Gender equality is not only a goal in itself, but a prerequisite for reaching all the other international development goals, including the Millennium Development Goals" (UNIFEM, 2008, p.3).

Similarly, to assert the importance of using mobile ICTs for WLB, the United Nations Education, Scientific, and Cultural Organization (2012) recently published a report entitled, "Turning on Mobile Learning in North America: Illustrative Initiatives & Policy Implications." It noted that, "As districts and schools begin to plan for mobile learning programs, they must ensure several critical components are in place before moving forward with programme implementation" (UNESCO, 2012). Therefore, they make the following recommendations based on existing global ICT - mobile learning programme and related policies reviewed in this document: (a) Focus on Native American/Indigenous leadership and a common vision before embarking on a mobile learning initiative; (b) shift from acceptable use policies to responsible use policies; (c) consider how the use of mobile technologies can create a 1:1 learning environment; (d) consider a variety of approaches to implementing mobile learning initiatives; and (e) consider expanding broadband connectivity to ensure 24/7 access for students; and (f) establish a job-embedded professional development programme.

On a worldwide scale, United Nations declaration on the rights of Indigenous Peoples (UNDRIP), published by the United Nations Permanent Forum on Indigenous Issues (UNPFII) is an important document that asserts Indigenous sovereignty and other rights, while citing ICTs as a source of empowerment for Native Americans and Indigenous Peoples' work-life balance and capacity building worldwide (U.N., 2009). The following U.N. (2009) statement shows the conflict between forces of assimilation on the one hand and preservation of tribal identity on the other – and notes the progress facilitated by new technologies,

Colonial conquest and the more subtle but sustained impact of the modern-day lodestar of scientific and technological progress have pushed indigenous peoples and their cultures to the brink of extinction. Nation states often adopted policies of assimilation and integration, of *divide et impera*, that left First Nations fundamentally uprooted, marginalized and dispossessed. Still, many indigenous peoples did not vanish; they did not abandon their culture, their inner worlds. Assisted by modern communication technologies, they overcame their cultural and political isolation and joined together to reclaim their essential identity as well as their role on the global stage of decision-making. This remarkable comeback has found its most comprehensive expression in the 2007 United Nations Declaration on the Rights of Indigenous Peoples (U.N, 2009)

These tribal priorities are echoed in the UN (2010) MDGs. Specifically, MDG Goal 8 – *Develop a Global Partnership for Development* states, “In cooperation with the private sector, make the benefits of new technologies available, especially information and communication” (UN, 2012, p.63). They recognize that a majority of our global population, especially those living in undeveloped Nations, does not have access to high-speed Internet and other ICTs. Our underserved populations want access to ICTs and we collectively have the resources, knowledge, and ability to provide these resources. Ultimately, these policies demonstrate an ongoing and ever-increasing commitment to Native Americans and Indigenous People worldwide. They are a culmination of the work of many community members to preserve Indigenous culture and take a stand for the public good.

Informed by ITU, the UN has empowered several of its other sub-agencies to explore how ICTs can be used to empower women globally via all means, including WLB efforts. As an example, the United Nations for Women and the UN Global Compact Office (2011) recently

published an updated *Women's Empowerment Principles - Equality Means Business* report. In this publication, UNIFEM and the UNGOC, outline seven main global women empowerment principles, which include:

1. Establish high-level corporate leadership for gender equality.
2. Treat all women and men fairly at work [WLB and equal access to resources]– respect and support human rights and nondiscrimination.
3. Ensure the health, safety and well being [WLB] of all women and men workers.
4. Promote education, training and professional development [ICT training] for women.
5. Implement enterprise development, supply chain and marketing practices that empower women [ICT training and implementation].
6. Promote equality through community initiatives and advocacy [ICT training and implementation].
7. Measure and publicly report on progress. (p.1)

Women's Empowerment Principles - Equality Means Business principle number two and four are specific to Native American women leaders' use of ICTs for WLB and these are their sub-points:

2.0 Equal Opportunity, Inclusion, and Nondiscrimination

- 2.1 - Pay equal remuneration, including benefits [WLB], for work of equal value and strive to pay a living wage to all women and men.
- 2.2 - Ensure that workplace policies and practices are free from gender-based discrimination [WLB and equal access to resources].
- 2.3 - Implement gender-sensitive recruitment and retention practices [WLB policies] and proactively recruit and appoint women to managerial and executive positions [leadership roles for women] and to the corporate board of directors.

2.4 Assure sufficient participation of women – 30% or greater – in decision-making and governance at all levels and across all business areas [women’s leadership].

2.5 Offer flexible work options, leave and re-entry opportunities to positions of equal pay and status [WLB and equal access to ICT and other resources].

2.6 Support access to child and dependent care by providing services [WLB], resources and information to both women and men (p.4).

4.0 - Education and Training

4.1 - To open opportunities for women’s career advancement in its fields, a U.S.-based multinational technology company maintains strategic partnerships with women’s organizations in many of the countries where it operates, to promote education and training and *recognize women’s accomplishments in IT* [diverse women leaders’ use of ICTs (p.7)].

How to Make & Measure:

Has the company designed flexible work options that incorporate the specific and different needs [leadership, WLB, and resources –ICTs] of women and men? (UNIFEM & UNGOC, 2011, p.8)

All of these standards point to UNIFEMs and UNGOCs ongoing commitment to improving women’s WLB and to using ICTs as one strategy to help accomplish that goal.

Costa Rica is an International example of an entire country utilizing ICTs for work-life balance and capacity building. Although it is a developing country, Costa Rica enjoys Nation-wide information and communication technology (ICT) integration, with its global, corporations-interagency ICT integration program, which is supported by the Omar Dengo Foundation (ODF, 2010) ICT for development program. The ODF is an inter-generational, multi-agency, private,

non-profit organization established in the late 1980s and is a collaboration between the Costa Rican government (then President Arias), Massachusetts Institute of Technology (M.I.T), seminal technology leaders (Dr. Papert), and corporations (IBM). ODF's mission is to utilize digital technologies to create opportunities for Costa Rican citizens (including those with special needs), while empowering social change.

Costa Rica reports a 95%+ literacy rate and enjoys exemplary healthcare, economic and educational opportunity, and has no need to maintain a police force or national military, according to their *Products and Services Portfolio* (ODF, 2010). The ODF provides courses that can empower women leaders and all others in the fields of education, evaluation, research, and socially - centered educational projects. They currently carry out initiatives in the following areas: (a) Education; (b) pedagogy; (c) computing; (d) entrepreneurship; (e) knowledge management; (f) digital media and learning; and (g) programming and robotics. To support those initiatives, The Omar Dengo Foundation (ODF) offers culturally responsive, localized, technology-based course offerings for: a) All age groups - children youth, adults, and seniors; b) sectors – small & medium enterprises (SMEs), students & educators, youth entrepreneurship; c) initiatives – corporate and research partnerships, student-led initiatives, and business and e-learning workshops. As a result of their global position as a nation and inter-national think-tank, the ODF's digital media and learning content is highly regarded and sought after as international education technology and computing-based *best practices*. This information is available via the Internet, interactive CDs and DVDs, and software applications. They also publish copious amounts of research and other informational materials designed to facilitate entrepreneurship and inter-agency collaboration.

Other examples of a global corporate government partnership for ICT integration that can empower WLB are Intel and Microsoft's China division's innovative rural, mobile technology integration programs, which can serve as a model for similar Native American efforts. One successful program is located in Nepal where ICTs for Community Development (ICT4Dev) are used to help rural communities integrate ICTs (Lee, 2011). This plan utilizes technologies requiring little or no infrastructure, and youth managed resource centers and women's sewing centers. All of these efforts affirm that there are currently resources in every sector available to assist with Native American women leaders use of ICTs for WLB and other areas of need, while providing added value to all stakeholders.

In addition to NGOs, corporate stakeholders are also investing technology-based resources to empower entire Native American tribes capacity building (and WLB) via the use of ICTs. One such example is Google's Navajo project to use the Google Earth application to map and monitor their territories. The Google Scholars program provides full financial support for Native American Computer Science and Engineering students. Intel is another corporation that has invested in U.S Indigenous tribes, such as the Pasqua Yaqui (AZ) youth-run computer lab (Betts, 2006). Digital and social media is one of the ways that technology is being utilized by Native Americans to address serious social issues and connect with one another. Some of the major Indian Country news outlets that are providing support and resources via the web and social media are Indian Country Today Media Network, Kili Radio, Indian Me, and Native News.

Corporate and Tribal partnerships are a key support of Native American use of technology. The Intel Corporation and the U.S. Department of Commerce Telecommunications helped fund the Pasqua Yaqui Tribe's *Tech Ania* Program located in Tucson, Arizona as well as

their Intel Clubhouse for ICT-based inter-generational collaboration and digital content creation. The Community Resource Lab attached to the Intel Clubhouse provides technology support to the community for items such as internet access, application/program training, and routine computer assistance (Betts, 2006). A second example of Native American Tribal and corporate partnerships is the American Indian Science and Engineering Society (AISES). AISES was founded in 1977 and its mission is to increase American Indian and Alaskan Native inclusion in the science, technology, engineering, and math (STEM) fields. AISES' has many corporate and private partners. As a result of these partnership, AISES is able to provide its members with significant scholarship and internship opportunities, while supporting Native Americans working in the STEM fields.

Intel and Microsoft's China division also has innovative rural, mobile technology integration programs to empower ICT integration for capacity-building (WLB) that can serve as an example for similar Native American efforts. All of this support affirms that there are currently resources and partnerships available to assist Native American women's use of ICTs for WLB and other capacity-building efforts.

U.S Tribal leaders and the U.S Federal Government and tribal governments agree that private, public, and governmental agencies need to partner to increase access to ICTs for the Native Americans and others living in undeveloped areas. President Obama and Tribal leaders outlined the five main categories of Native American consultation priorities during the recent United States White House Tribal Nations conference (United States White House, 2010), *Working with Tribal Nations to Build a Brighter Future*. Those categories include U.S Federal and Tribal consultation policies, social and educational services, economic and infrastructure development, protecting tribal resources, and tribal land safety and security.

The funding for increasing Native American women leaders' access to ICTs for WLB can be sourced from several stakeholders. One such group is the U.S Federal government. In their Key Points on Indian Education (KPOIE), the National Indian Education Association (2010) asserts,

Much of the harm inflicted upon Native peoples is being undone by Natives themselves - and yet the legal and financial resources needed to complete this task can only be found with the originator of the harm – the Federal government, which has a trust for non-renewable, project specific resources, and resulting range of policy after-effects are ultimately positive. (p. 445)

There are also numerous agencies that already have significant resources mobilized to help address the Indian Country digital divide, specifically the access to Internet communications. The Federal Communications Commission (FCC) is attempting to address the right of Native American access to adequate communications via several recent initiatives. The “Report and Order and Further Notice of Proposed Rulemaking” is one such initiative that is part of the FCC’s 2012 Fiscal Year Financial Services Appropriation Bill (FCC, 2012). The National Congress of American Indians (NCAI, 2012) asserts that it is, “The most significant telecommunications regulation overhaul in nearly a century”. This initiative builds on the Public Broadcasting Act of 1967 comments, “It is necessary and appropriate for the Federal government to complement, assist, and support a National policy that will most effectively make public telecommunications services available to all citizens of the United States” (NCAI, 2012). This initiative specifically addresses the Native American digital divide by providing a \$2 million permanent fixed budget to fund the Federal Communications Commission’s Office of Native Affairs and Policy (ONAP). NCAI (2012) also asserts that “Meaningful rights and

responsibilities have been created in the rulemaking process to bridge the digital divide in Indian Country, but without adequate resources FCC-ONAP will not be able to assist tribes in these efforts” (p.2). This recent FCC publication also calls for increased funds to consult Tribal leaders regarding economic opportunities. In their Indian Country Budget Request, the NCAI (2012) further asserts the importance of ONAP’s role in bridging the digital divide.

Native American communities have a distinct opportunity to harness the power of emerging technologies to not only reclaim, but to make significant cultural, environmental, and economic strides toward a more sustainable and healthy future. Some Native American tribes are currently utilizing technology through mobile phones (some smart) online classes, and web streaming of tribal events. The literature suggests the following ICT enabled solutions to impact women’s WLB: increased mobility and accessibility (Guillaume & Pochic, 2009), mobile tools and social networking to delegate work (Guillaume & Pochic, 2009) telework (Hunter & Valcour, 2004), and videoconferencing (Slaughter, 2012). However, depending on the monetary wealth of the Native American individual and/or tribe, there is a vast discrepancy in technology access – the disappointment of the digital divide (NCAI, 2012). Higher socio-economic Native Americans living in urban and suburban territories, like the Choctaw, enjoy better access to high-speed Internet and more advanced equipment.

Alternately, Native American with a lower socio-economic status living in remote and rural areas, such as the Hopi, currently do not have the physical infrastructure to support modern technology. Many rural reservations lack basic communication access such as, LAN, satellite, or Internet access or even to basic conveniences like running water and electricity. Some Southwestern United States tribes are an example this, such as the Hopi People. Consequently,

while ICTs are providing new opportunities to help Native Americans move into the 21st century, there are those who first need help addressing the foundational infrastructure issues.

Again, the entire Native American organizational system contains many socio-cultural *disconnects* and divides due to the legacy of colonization. Therefore, the literature suggests that inter-agency collaboration is necessary for increasing Native Americans access (including women leaders) to ICTs for empowerment strategies such as WLB. In a recent case study of Native American school principals, *Technology Leadership in Native American Schools*, authors Richardson and MacLeod (2010) describe three major categories of challenges to technology integration in Indian Country. Those challenges are: (a) Unreceptive staff, (b) lack of technology coordinators, and (c) isolation and poverty. The principals also, “Stressed that their leadership was constrained by systematic challenges such as regulations of the BIE, isolation, culture, and funding streams” (p.11). These authors suggest that current ICT innovations could help Native American education efforts. They specifically cite using WiMax to provide mobile broadband Internet access to remote communities. They also assert that more effective K-12 technology leadership, professional development, online learning, and support for local economic development through encouragement of entrepreneurial activity would be a significant improvement upon current practice (p.12).

The Choctaw Nation of Oklahoma (CNO) is the third largest federally recognized tribe. It is an example of one that enjoys greater access to ICTs and has developed economic stability and a higher standard of living than many other tribes, which - as earlier research pointed out – promotes a greater chance of their women leaders obtaining a satisfactory WLB and opportunities for capacity building. The CNO headquarters are located in Durant, Oklahoma. Many of the tribal leaders (women and men) are using ICTs as a WLB an overall capacity

building strategy. The CNO provides a K-12 boarding school for children enrolled in Native American tribes - the Jones Academy. Its students are taught how to use ICTs for purposes such as producing a digital newspaper and video. The Choctaw Nation has recently opened an institution of higher learning – Choctaw University, which focuses on educating and developing Indigenous leaders. Due to the Choctaws matriarchal history, there is a particular emphasis on women leadership issues. Choctaw University and Nation has several ICT-based educational resources available to their community, such as existing research and support partnerships with Oklahoma State University (OSU) and Kiamichi Technology Centers. The KTC is an adult career technical education regional school. These are just two of the institutions of higher learning with technical emphasis that can furnish existing partnerships with the Choctaw Nation and provide technical training and support for Native American women leaders’ current need for significant web presence and technology use.

The Choctaw Nation of Oklahoma (CNO) utilizes ICTs to provide a wide variety of services coordinated through their robust efforts, which can empower tribal members’ WLB and other capacity building efforts. Their main website contains information such as tribal news, member resources, and tribal history. The Choctaw Language Department provides distance-learning classes on language, history, and culture through their One-Net service. This service is utilized in approximately 40 high schools and two colleges that service a high percentage of tribal members. The CNO provides a virtual Career Development Program that utilizes Internet-based technology assessment testing, computer-assisted instruction, and virtual assistance with any aspect of career training and acquisition of employment.

The OneNet distance learning technology is utilized to provide Tribal members with live and interactive distance learning GED classes. OneNet is Oklahoma’s telecommunications and

information network for schools and government. The Choctaw Cinema is a virtual cultural library of digital videos on topics such as Choctaw Films, Code Talkers, Economic Impact, Education/Training, Health Services, History/Culture, Military/Fire/EMT/Law, Special Events, and Water/Eco/Green. Visitors can subscribe to the site's RSS feed for automatic updates of new videos. All of these services can also be found on Facebook, Twitter, and/or via RSS. The availability of these resources on the Internet is a great way for Native American women leaders to connect to each other and their community.

The Choctaw Nation of Oklahoma enjoys more ICT access, infrastructure, and overall higher socio-economic status than most other U.S Indigenous Tribes. Therefore, leaders in Tribal communities with little or no ICT access and physical infrastructure can use the CNO as an ICT integration example. The Oglala Sioux Native American tribe located on the Pine Ridge Reservation is an example of a low economic and ICT infrastructure and access tribal nation. This reservation has very little and, or physical infrastructure, sub-standard living conditions, and little access to ICTs. Therefore, an ICT integration plan should include efforts to address their poor infrastructure-based ICT connectivity issues, power supplies, and technology support and training to a much higher degree than is needed by the higher resourced Choctaw Nation. Therefore, organizations such as Tribal Colleges & Universities (TCU's) could serve as an ICT integration mentoring community for these types of low socio-economic tribes.

Serving as models of ICT integration, Tribal Colleges and universities (TCUs) infuse technology for work-life balance and tribal capacity building. One TCU example is the Southwestern Indian Polytechnical Institute (SIPI, 2011), a National Indian community college and land grant institution funded by the BIE. SIPI offers online, blended (Blackboard) and two-way videoconferencing (ITV) classes. One of their six strategic goals is to, "Expand the use of

instructional technology to enhance student learning” (2011, p.7), in support of their Vision Statement:

By the year 2020, Southwestern Indian Polytechnic Institute (SIPI) will solidify its position as a preeminent higher learning institution, providing a range of career and transfer opportunities for Native learners throughout the united States including Science, Technology, Engineering, and Mathematics (SIPI, 2011, p.7)

The university of Arizona’s School of Information Resources and Library Sciences (SIRLS) maintains the *Knowledge River Program*. One of their main projects is utilizing technology to record, store, and share in a culturally relevant manner projects such as *Stories of Arizona’s Tribal Libraries: An Oral History Project*. These stories preserve Native American Tribal elders’ and other influential community members’ thoughts on the importance of Native American Tribal libraries.

Northern Arizona’s University’s Anthropology Department’s Footprints of the Ancestors is a learning project that strives to preserve Hopi traditions, languages, and culture by bringing together Hopi high-school youth, elders, cultural specialists including archaeologists, and anthropologists. The project includes three main components: a) An intergenerational group traces the footprints of Hopi ancestors by visiting places of cultural significance, namely at archaeological sites across the American Southwest, such as Homolovi State Park, Navajo National Monument, Mesa Verde, Chaco Canyon National Park, and the San Juan River b) The Hopi youth participate in service-learning projects in modern Hopi villages. c) The youth create technology-based Digital Hopi Youth Guides in the form of DVDs, websites, podcasts, and museum exhibits. Such ICT-media tools can also be used to facilitate WLB.

Native Americans are also utilizing the various features of iTunes in innovative ways to meet their WLB needs. One example is the Colorado State University Native American Cultural Center iTunes U presence. This is a student-produced series of informational topics related to college life as a Native American in a kind of virtual apprenticeship model. iTunes is also being utilized to share digital recordings of Native American music, photos, stories, language and other cultural information through paid and free iPhone and iPad apps and regular downloads. Again, these types of ICT tools and resources can help Native American women leaders achieve a WLB.

There are also non-tribal, private technology centers that support the ICT education of Native Americans ICT integration for WLB and other capacity building opportunities. As an example, the Kiamichi Technology Centers (KTC) are located in and around the ten Oklahoma cities of Antlers, Atoka, Durant, Hugo, Idabel, McAlester, Poteau, Spiro, Stigler, and Talihina. Some of the services they provide are: (a) College and high-school elective and academic credit for high school students (b) free tuition for public, private, and home schooled students (c) free 13th year tuition (d) flexible class schedules (e) transfer credit towards degrees at Oklahoma State university-Okmulgee and several other universities (f) and, online learning.

The KTC Online Learning program is powered by *Ed2Go* and has two tracks. The first one is Instructor-Led Courses that consist of professional development and personal enrichment courses, with sessions starting each month in a six-week format, an interactive learning environment, and awards of completion with a passing score. The second track is the Career Training Program comprised of: (a) Preparation for industry certification or start of a new career (b) programs start anytime (c) many programs can be completed in less than six months (d) in-depth study, all learning materials provided (e) personal instructor assistance (f) certificate of completion with passing score. The KTC offers classes in areas such as accounting and finance,

business, computer applications, design and composition, health care and medical, language and arts, law and legal, personal development, teaching and education, technology, and writing and publishing. The cost of these courses ranges from approximately \$75 - \$100 each and the technology-specific offerings include certificate preparation, computer fundamentals, computer programming, database management, graphic and multimedia design, networking and communication, security, and web technology.

KTC partnered with Gatlin Education now owned by Ed2Go to offer online career training (OCT) courses. The career strands that are supported by this program are: (a) Healthcare and fitness (b) business and professional (c) information and technology and software development (d) management and corporate (e) media and design (f) hospitality and service industry (g) skilled trades and industrial (h) sustainable energy and going green (i) and, career online high school. The main benefits of OCT are that students can start at anytime, go at their own pace, pay affordable prices, and learn current, in-demand job skills. All of these services are available to CNO members and non-members.

Some existing and emerging ICTs and applications that could prove useful for Native American women leaders' use of ICTs for WLB and empowerment are resources for safety, government info, and health app, Ushahidi (crowd-sourced, participatory democracy) Skype (phone), Wordpress (blogging), iTunes (iTunes U, eBooks, audio), Google Apps, Facebook, and Dropbox for sharing files. For example, file sharing may be used for items such as Indigenous family videos, photos, digital stories, and music, which may be shared with others. Other key emerging technologies categories that could prove helpful are: (a) customized profile interfaces for key stakeholders (b) Imbedded online language learning school and knowledge repository (c) cultural preservation and revitalization apps (d) scholarly research tools (e) participatory

democracy information (f) store, trading; (g) economic/entrepreneurial empowerment (h) entertainment (i) social networking (j) health (k) and, key dynamic updated resources.

Other available design and content affordances which can support Native American women leaders use of ICTs for WLB include: (a) Cultural content creation (b) free massively open online learning course (MOOCs) learning environment (c) crowd-sourced news (d) education video content and badge system (e) high quality video-based curriculum content (f) robust image-base user-interface portal of portals g) school (tribe) based social networking suggestions (h) culturally responsive, highly engaging, virtual-reality user-interface (i) scholarly, high-quality video creation (j) community-based education portals (k) real-time video streaming (l) primary navigation dashboard (m) deep semantic searching and themes (n) altmetrics (o) up-voting, social ranking of community created content (p) online education (q) embedded social gaming (r) Facebook ticker notifications of all site updates (s) scholarly research portal (t) interoperable digital content accessible to all stakeholders (u) shared integrated calendar of all Tribe related events (v) multimedia capture (w) inter-agency virtual collaboration (x) knowledge management Wiki and (y) robust community forums.

There is also the possibility of a cloud-based, inter-operationalized system that can be intuitive searched and aggregated into meaningful reports and other schematics of a member's personal data and searches. These compilations can be utilized to create search suggestions and assessments for the member. Effectively, this will create a dynamic and *just in time* learning, with content powered by a highly relevant learning profile. Ultimately, what is created are customized ontologies based on a person's most recent interests and choices maximizing Native American women leaders' time and therefore create more of a WLB.

Ethics of ICT Integration in Native American/Indigenous Communities

While there is global potential benefits to all with ICT integration, in his book, *The Wealth of Networks: How Social Production Transforms Markets and Freedoms*, Benkler (2006) cautions humanity against helping populations in need with ICTs. He cautions that attempts at helping developing nations progress should carefully avoid adding another layer of colonization – a virtual one, meaning the use of the Internet to impose a dominant cultural frame on Indigenous and other vulnerable populations. He asserts, “There is enough truth in this insightful observation to require us to tread lightly in embracing the belief that the shift to a networked information economy can indeed have meaningful effects in the domain of justice and human development” (Chapter 9, Justice and Development, para. 1). Benkler is suggesting that dominant cultures maintain a high level of respect for the local culture, while trying to *help* less fortunate or previously colonized ones to integrate and use technology.

While all of these examples of multi-sector collaboration can be useful to support Native American women’s use of ICTs WLB, authors Emery and Ohanian (2004), *Why is Corporate America Bashing Our Public Schools?*, caution about educational and cultural leaders retaining agency to ensure any technology integration is helpful and not harmful. They assert that Native American community leaders should retain decision- making power, not other special interests or corporations, in all instances regarding all efforts to integrate ICT and other innovations. In other words, the government, corporations, and NGO’s may be helpful in providing ICT access, but only when and how the cultural leaders deem appropriate. To this end, they caution that it is extremely important to maintain open and transparent communication and action to avoid priorities and decisions that are not in the best Native American interests.

When creating an ICT enabled empowerment program, it is important to be sensitive to the ethics of providing new technologies to Native American Indigenous Peoples that have not previously had access (Benkler, 2006). Therefore, Hosmer's (2010) model of ethical decision-making can help guide these decisions to ensure that the ICT integration efforts in a culturally responsive manner are actually empowering, not disempowering this population. The components of Hosmer's model are as follows: (a) Understand different standards (morals, personal goals, norms, beliefs, and values), (b) recognize varying impacts (benefits, harm, rights), (c) define moral problem, (d) determine outcomes (economic, legal, cultural, environmental), and (e) propose convincing moral solutions. While the implications of this Native American women leaders ICT use example could be the source of numerous further publications, only a brief overview of the steps will be provided below.

First, *understanding the different standards*, as previously mentioned, both Indigenous and Western European scientific ways of knowing must be taken into account because most U.S Indigenous Peoples have assimilated both thought systems after centuries of colonization. Second, while attempting to recognize the varying impacts, there are no direct risks of physical or mental harm or rights violations by closing the U.S Indigenous digital/communication gap by providing a virtual community portal and necessary infrastructure so that technology can be used as a tool to help preserve and revitalize culture.

Second, there are significant possibilities for *rights exercised* as U.S Indigenous People gain more access to knowledge stored online and to other empowered communities - Indigenous and otherwise. Next, *define complete moral problem*, which in this case includes the potential cultural and social harm that could result by providing Internet services to communities that have

previously not had access to unfiltered web content, which could lead to another layer of subjugation and colonization - a digital one (Benkler, 2006).

The fourth step is to *determine economic outcomes*, which includes considering the legal requirements and evaluating and applying the ethical duties regarding religion, culture, and environment. Calculate the financial costs to the individual, communities, and government for providing ubiquitous technology access. These are significant ethical considerations because many U.S Indigenous People are economically impoverished and added technology expenses are not possible nor financially prudent for them. Since there is a limited supply of resources in any system, all stakeholders must consider the most efficient and effective ways to bridge the U.S Indigenous People digital divide. Due to the importance and large scope of the financial aspect of wide-scale, ubiquitous ICT integration, the monies will be discussed in much more details in the paragraphs following this Hosmer's (2010) ethical model description. There are the environmental costs of increased Internet and cell phone distribution lines and connection sites, as well as the disposal or recycling of the technological equipment once it is outdated.

Lastly, providing ICTs to Native peoples, while honoring existing constitutions, treaties, statutes, case law and other commitments, is a primary another ethical issue. To further address the details of funding, one of the typical methods of analyzing and justifying policy creation and/or adjustment expenditures is via the cost-benefit analysis model. According to public policy expert, Peters (2009), his model includes considering: (a) Overall societal benefit – otherwise known as utilitarianism; (b) consumer surplus (actual value more than perceived value or cost); and (c) opportunity costs or accounting without proper training to the entire community can increase the division between the generations and families, as the younger generations are usually more ready to adopt newer technologies gain. Therefore, an overall plan should also

address training needs for all users. Lastly, step five of the plan is to “propose a convincing moral solution by calculating possible systemic outcomes and impacts” and then continually reassess the overall effort. Hosmer and Peter’s models provide a more detailed view of the overall ethical and financial aspects of possibly providing Native American women leaders’ increased access to ICTs for WLB and other empowerment resources.

The unique and often traumatic history of Native Americans requires that the preservation and revitalization of their culture be the primary consideration of any empowerment or capacity building efforts. The literature points to Native American women leaders cultural work-life and technical knowledge being based on a hybrid of both Western Scientific and Indigenous Ways of Knowing or Indigenous Knowledge (IK). Vygotsky’s (1978) concept of utilizing mediating signs, symbols, and tools for comprehension and meaning-making can help inform U.S Indigenous People Ways of Knowing and are important to understand when studying Native American women leaders use of ICTs both virtually and actually. Vygotsky (1978) also asserted that reality and culture are socially created and mediated constructs; that the cultural interpretation of an experience creates the reality - a socio-cultural reality. This is also the concept that we learn by doing, or as a subject is acting out his/her task or role he/she makes meaning, which then becomes knowledge/learning. These cognitive and social learning theory aspects are important to WLB empowered by strategies such as ICT’s and virtual communities because of the combined nature of personal and communal aspects of participation in a virtual community with virtual (abstract) tools.

It is also important to consider Indigenous Ways of Knowing or Indigenous Knowledge (IK) and cultural considerations for Native American women leaders while integrating ICTs for WLB. Alaska Native Knowledge Network’s (2011) *Spiral Chart for Integrated Learning*

illustrates the 12 IK components as: (a) Family, (b) language/communications, (c) cultural expression, (d) tribe/community, (e) health/wellness, (d) living in place, (e) outdoor survival, (f) subsistence, (g) ANCSA, (h) applied technology, (i) energy/ecology, and (j) exploring horizons. While IK is steeped in centuries of practice, noted theorist Bruner (1990) summarized a bridge from Western science or our traditional learning theories to IK with his folk psychology concept in his book, *Acts of Meaning*, Bruner (1990) asserts that both ways of knowing are needed: the cultural–folk and narrative traditions (i.e, IK) to complement Western cognitive, scientific ways of knowing,

Let me draw these four chapters to a conclusion. I began by decrying the Cognitive Revolution for abandoning “meaning-making” as its central concern, opting for “information processing” and computation instead. In the second chapter I urged that we take into account in our studies of the human condition what I called “folk psychology,” the culturally shaped notions in terms of which people organize their views of themselves, of others, and of the world in which they live. Folk psychology, I insisted, is an essential vase? not only of personal meaning, but of cultural cohesion (p.137)

This assertion echoes the cognitive learning concept of pendulating between poles, the abstract and concrete, to arrive at a balanced center of our circular existence (Engestrom, 1987; Vygotsky, 1978). This type of cultural knowledge is important to prevent virtual colonization via ICT integration. Similarly, Indigenous knowledge is a continuous cycle of experimentation, innovation, and adaptation (U.N, 2003). Also, according to the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2003), the key characteristics of Indigenous Knowledge are: (a) Generated within communities (b) location and culture specific (c) basis for decision-making and survival strategies;(d) not systematically documented (e) concerns critical

issues of human and animal life: primary production, human and animal life, natural resource management (f) dynamic and based on innovation, adaptation, and experimentation (g) oral and rural in nature (U.N., 2003). Each of these components are distinct concepts to understand while dealing with Indigenous cultures, both actual and virtual, and can all be further explored within community of practice theory.

Also, reflecting U.S Indigenous People's cultural values, Native American women leaders' participation in a culturally responsive virtual community should be based on the following intentions: (a) Indigenous Peoples' language and cultural revitalization and preservation; (b) culturally responsive, hybrid Indigenous and Western Scientific Knowledge systems; (c) sustainable growth; (d) innovation & design-based thinking; (e) Inclusive, participatory, and connected community crowd-sourced sharing; and (f) human capacity building. While there are several existing portals that contain helpful U.S Indigenous Peoples' resources (news and entertainment, higher education, Indigenous Knowledge repositories), one comprehensive, well-designed, virtual hub for the expressed purpose of Native American (women) leaders sharing resources for their WLB and tribal cultural preservation and revitalization does not exist.

Study Implications

Based on this literature review, Native American and Indigenous women have, since ancient times, provided important models of highly conscious leadership. These women have a current opportunity to utilize ICTs to create and maintain a WLB, which may aid in their recruitment and retention (Calvert Investments, 2009). The implications for further action are to conduct a study to determine, How Native American women leaders are utilizing ICTs for WLB and capacity building. Currently, ICTs are also providing the opportunity for stakeholders to

work together as a global community to develop and implement culturally sensitive strategic plans for the overall good. Kotter (1996) offers the following advice regarding affecting innovative cultural change: (a) *Change* culture first [in a culturally responsive manner]; (b) prove the change is superior to past practice; (c) make success visible by effective communication; (d) expect defectors; (e) incentivize new norms, offer promotions; and (f) reinforce culture with every new community member. This literature guided the entire study.

Chapter 3: Research Methodology

This chapter details this research study's specific methods and processes. It includes a review of the research questions and methodology description. It also outlines the data details including: Sources, analysis, instrumentation, gathering techniques, and IRB submission plans. In summary, this qualitative exploratory case study, phenomenological, semi-structured narrative interviews were used to measure the relationship between Native American women leaders use of ICTs and WLB from an advocacy/ participatory worldview (Creswell, 2009, Kindle Location 402), which is a social justice lens that seeks to inform the redress of previous socio-cultural wrongdoings.

This phenomenon was explored by conducting 14 of interviews of Native American women leaders. Nvivo qualitative analysis software was used to disaggregate the individual interview data via a two-step coding process into themes – identity, adaptive style, and ICT use based on a modified version (Weber, 2010) of Giele's (2008) narrative life story framework. According to Giele (2008), the narrative life story framework creates the space for study participants to describe their experience specifics, especially in the areas of gender and WLB issues. These qualities are complementary to the idea that, “Feminist research has from its beginnings been preoccupied with the politics of knowing and being known” (Lather, 2001, p.91). Overall, this study seeks to understand and know more about Native American women leaders WLB realities from their perspective – their reality, their story.

The resulting qualitative data was used to inform and advocate for improvements in the information and communication (ICT) resources available for Native American women leaders' WLB and capacity building for generalization to the entire U.S and global Indigenous population.

Restatement of the Significance

Due to the effects of colonization and other cultural factors, Native American women leaders comprise a very small percentage of our total national and global leadership community. Recent advancements in ICTs (mobile technologies including social media, virtual communities) and inter-agency stakeholder advocacy for Native American women leader's capacity-building (WLB) have provided many of these women with the opportunity to (re-) assume positions of professional leadership, while maintaining their traditional roles of leadership in their homes and personal communities. In a greater context, this affords them a strong locally-situated and culturally relevant position to address the dire need for Native American cultural preservation and revitalization from brink of extinction. Simultaneously, this increased influence and responsibility has elevated their need to improve their overall efficiency and capacity to maintain and/or establish a WLB, while promoting the recruitment and retention of more Native American women leaders in the national and global work-force.

Restatement of Purpose

Native American women's leadership, ICTs, WLB, and capacity building can all be considered social justice issues due to the effects of colonization and present-day lack of cultural and gender-based equal access to monetary and technological resources and socio-political power (influence). According to Creswell (2009), an advocacy/ participatory worldview suggests the researchers/authors actually engage in activities to help bring about change regarding current social justice and equality issues. Therefore, from an advocacy/participatory worldview, the purpose of this qualitative study is to explore ways in which ICTs are capacity building Native American women leaders in preserving and revitalizing their culture, while maintaining a healthy

WLB, thereby enabling them to acquire additional tools to solidify their commitments to roots and family while joining the 21st century work force.

This exploratory study involved phenomenological, narrative interviews to illuminate Native American women leaders' use of ICTs for building their leadership capacity and ICTs influence of their WLB practices. Each subject was interviewed individually utilizing a modified version of the narrative life-story framework (Giele, 2008; Weber, 2010). The qualitative data was used to inform and advocate for Native American women leaders as they use ICTs to build their leadership capacity and manage their WLB. The over-arching objective is to help inform Indigenous women leaders' capacity building throughout the globe that embraces new technological advances, that ensures a healthy WLB, and supports the preservation and revitalization of family and culture.

This exploratory study involved phenomenological, narrative interviews to illuminate Native American women leaders' use of ICTs for building their leadership capacity and how ICTs influence their WLB practices. Each subject was interviewed individually utilizing a modified version of the narrative life-story framework (Giele, 2008; Weber, 2010). The qualitative data was used to inform and advocate for Native American women leaders as they use ICTs to build their leadership capacity and manage WLB. The over-arching objective is to inform Indigenous women leaders' capacity building throughout the globe that embraces new technological advances, that ensures a healthy WLB, and supports the preservation and revitalization of family and culture. The qualitative data was used to inform and advocate for improvements in the information and communication resources available for Native American women leaders' WLB and generalized to the entire U.S Indigenous population.

Restatement of Research Questions

Based on Giele's (2008) narrative life-story research interview framework and women's WLB theory, this study's research questions were grounded in the following four themes: Identity, relational style, adaptive style, and drive and motivation, yet only coded for identity and adapted style. Given the potential benefits of using ICTs (ICTs) for WLB (UN, 2005) this study added and was coded for the theme – *Use of ICTs* - to determine what, if any, effects this variable has on Native American women leaders' WLB. The research questions are as follows:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs into both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community??

Research Design

The goal of this study is to explore Native American women leaders use of ICTs for WLB and overall personal and cultural capacity building. Thus, the exploratory, phenomenological, qualitative research design is appropriate for this topic because of its distinct theoretical and philosophical aspects. For example, the word phenomenology is derived from the Greek words *phainomenon*, that which appears, and *logos*, study. Similarly, seminal phenomenology thinker, Schutz (1899-1959), asserts that thoughts create behavior. According to Creswell (2012), phenomenological researchers seek to understand the essence of the study participants' common lived experiences; how the individual's and collective's consciousness influence their event. Bremme-Dorr (1984) asserts, "As phenomenologists, they [ethnographers]

assume that perspectives on the nature of reality and meaning can systematically move from one society to another” (p.13). Therefore, this study utilized an emic - participant perspective emphasis, instead of an etic - researcher perspective emphasis (Bremme-Dorr, 1984). Next, phenomenological research focuses on the contextual description and analysis of a remarkable or new event (Gray, 2009). Thus, the meaning we assign to our life experiences and events creates our reality (Creswell, 2009). Further, it is typical of a phenomenological research project that there is little or no pre-existing research in the specific field (Creswell, 2009). Therefore, the specific purpose of this study is to coalesce a new theory rather than test an existing one. Often, phenomenological research is very culturally specific in nature (Gray, 2009). As a result, the phenomenological research design is an effective way to study Native Americans utilizing ICTs for WLB, because it explores the interpreted essence of a shared-illuminated experience, that is - a phenomenon.

This phenomenological study seeks to answer the question, “How are Native American women leaders utilizing ICTs for WLB and capacity building?” Although there is literature on the mutually exclusive topics of Native American women leaders, digital divide, WLB, and ICTs, this study seeks to address the Native American women leaders’ use of ICTs for WLB and capacity building gap in the scholarly literature.

Data Collection Strategies & Procedures

Data Sources. The first step of the phenomenological data collection process is to select key informants who were able to speak to the topic under investigation. For the purposes of this study, the key informants (aka study participants) are Native American women leaders with a tribal recognized affiliation or membership. The study participant’s peers recognized her as a leader and other community members based on her title, awards, or other known

accomplishments in areas such as education, research, policy-making, entrepreneurial activities, and corporate and governmental positions. In regard to conducting interviews, Creswell (2012) recommends obtaining both a textual and structural experience of the participants by in-depth interviewing of 5-25 people, starting with questions regarding their contextualized experiences with the phenomenon.

The participants from this study were selected using a snowball sampling method. They were contacted through email and phone and given the participant letter (Appendix B – Invitation Letter to Participate) to inform them of the study. The researcher scheduled the interviews and met the interviewees at a convenient location (actual or virtual) for each participant. The interviews were taped and only the Principal Researcher and transcriptionist had access to the recordings. At the end of the interview, as part of the snowball sampling method, the interviewee was given an opportunity to suggest the names of other Native American women leaders for whom they feel it would be mutually beneficial to participate in this study. Prior to the interviews, all participants were advised of possible ethical considerations and any potential risks (Appendix C – Informed Consent), including participant anxiety related to latent anxiety regarding her family, life, work, or self struggles. Participants were advised prior to the interview that they may stop the interview at anytime and, if necessary, be referred to local psychological support services.

Interviews. Interviews were conducted and data were collected during actual site visits and phone interviews. The study participants were chosen based on her community leadership role to the study criteria. The PR's presence was not disruptive because she/he was an invited guest, and carefully followed cultural protocol and established IRB expectations. All researcher interactions and behaviors are expected to be welcomed due to the reciprocal and voluntary

nature of participation in the study. Native American communities will also receive complimentary research for their capacity-building purposes as a result of participating in the study.

Interview Questions. The researcher utilized a combination of stimulated recall, semi-structured and focused interviews (Gray, 2009, p.373). According to Bremme-Dorr (1984), "Your primary goal in framing the overall interview should be to formulate questions such that they draw on, and emphasize, the contexts in which participants know and act in their everyday roles in the setting under study" (p.140). The interviews lasted approximately one hour and fifteen minutes. This data was gathered during the socio-demographic questionnaire (Appendix E) that was administered at the beginning of every interview. Giele's (2008) interview questions (Appendix F) categories were based on the four periods of life, which include: (a) Early adulthood, (b) childhood and adolescence, (c) adulthood – current, (d) adulthood – future, and the additional categories: (e) coping strategies, and (f) information and communication strategies (Jensen, 2013). At the beginning of the interviews, basic socio-demographic data was collected to provide a context for the data during the analysis and to situate the subject in the narrative life story framework. The target sample was Native American women leaders of professional and community-based organizations. The sampling method was respondent-driven sampling, otherwise known as snowball sampling. The research environment is a combination of virtual or in person interviews with members of the Native American women leaders dispersed community.

Before each interview, the researcher reviewed the interview protocol (Appendix A), which was adhered to during each interview. This form describes the specific interview procedures, such as asking clarifying question and establishing a connection and continued

rapport with the interviewee, while maintaining a professional researcher role. Each participant received an informed consent (Appendix C), which details the participant options (i.e., further publication of interview quotes). The participants also received a socio-demographic background form (Appendix A) to provide context for the interview. Each Native American women leader study participant interviewed answered six sets of questions based on the stages of life. These questions are based on Giele's (2008) narrative life story themes, which were formulated based on action theory and life course research.

The PR conducted all interviews in person or virtually by web/tele- conference (Skype/phone), or similar technology on a one on one basis. To provide the participant with plenty of time to provide thoughtful answers, each interview was scheduled for approximately one and a half hours, at the participant's convenience. Once the interview data was complete it was coded and analyzed for themes. Some of the technology tools that was used to support the collection of data are: a) An electronic data storehouses such as Google or Evernote; b) iTalk – iPhone app for audio recording e) Skype for audio-visual teleconferencing; f) Call Recorder to record Skype call for later transcription; g) Camtasia for audio-visual screen capture during Skype interviews; h) relevant computer applications and online sites; and g) NVivo for interview coding. After the data has been collected and analyzed, the next step was to reduce the data to only the most pertinent content based on the study questions and intent.

Proposed Study Timeline. The study timeline includes: (a) Preliminary proposal presented to dissertation committee - January, 2013 (b) data collection –March - April 2013 (c) final dissertation presentation to dissertation committee – May, 2013. The report consists of study findings, conclusions and recommendations for future research to be disseminated via workshops, presentations, and submissions to scholarly and popular publications.

Proposed Analysis. The researcher coded the categories from the interviewees' answers and combine them with the literature review themes and Giele's (2008) narrative life-story framework themes: Identity and adaptive style, which are key concepts for articulating WLB goals and produce a well-defined profile for women serving as leaders of Native American women leaders' use of ICTs for WLB and capacity building. The PR also coded for the additional categories of coping strategies and use of ICTs for WLB and capacity building to answer this study's research questions. Coding is a typical qualitative, phenomenological research technique, as it correlates key data with themes, which allows for further analysis (Bryman, 2008; Saldana, 2009). The proposed data analysis was based on the following research questions question and interview query series correlation:

Research Question # 1 => Interview Query Series #1- 4

Research Question # 2 => Interview Query Series #5

Research Question # 3 => Interview Query Series #6

The research questions and correlated query series are detailed below.

Research Questions.

1. What experiences shape the life course of Native American women leaders as they utilize ICTs into both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community?

Interview Query Series.

1. #1-4: Giele's (2008) Four Stages of Life

2. #5: Coping Strategies (Weber, 2010)
3. #6: ICT Use (Jensen, 2013)

According to qualitative research methods expert Bryman (2008), the four stages of coding are: (1) Analysis, (2) read again, (3) code the text, and (4) relate general theoretical ideas to the text. The data was subjected to two levels of coding, based on an a-priori matrix (Saldana, 2009). Coding is a process that organizes the information into pre-determined and/or themes that emerge from data.

After the data was reduced, it was processed through two categories of coding. Saldana (2009) summarizes a *code to theory* model:

A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data. The data can consist of interview transcripts, participant observation field notes, journals, documents, literature, artifacts, photographs, video, websites, e-mail correspondence, and so on. First cycle coding processes can range in magnitude from a single word to a full sentence to an entire page of text to a stream of moving images. Second cycle – portions coded can be the exact same units, longer passages of text, and even a reconfiguration of the codes themselves developed thus far. Just as a title represents and captures a book or film or poem's primary content and essence, so does a code represent and capture a datum's primary content and essence (p.3)

Saldana's coding process is illustrated in Figure 2 below.

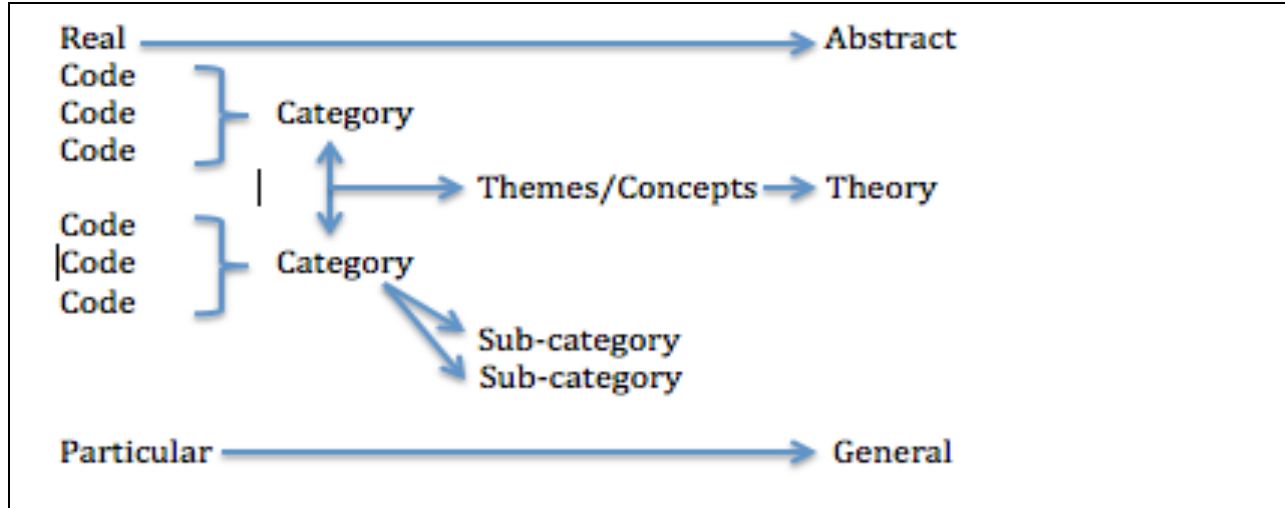


Figure 2. Streamlined codes to theory model for qualitative inquiry.

Note. Adapted from Saldana, J. (2009). *The coding manual for qualitative researchers*.

Thousand Oaks, CA: Sage.

Each interview was based on narrative life story framework themed interview questions (Giele, 2008), as well as coping strategies (Weber, 2010), and ICT use (Jensen, 2013). Nvivo qualitative analysis software was used to disaggregate and then code data via a two-step process based on the four narrative life story themes: Identity, relational and adaptive style, drive, and motivation containing four basic existing questions and a set of socio-demographic with a specific focus on identity and adaptive style (Giele, 2008; Weber, 2010) and ICT use (Jensen, 2013). The resulting qualitative data was used to inform and advocate for improvements in the ICTs available for Native American women leaders' WLB and generalized to the entire global Indigenous population.

These previously defined terms guided the data coding:

Adaptive style: The innovative versus traditional manner in which a person adjusts to his/her setting" (Giele, 2009, p. 256).

Capacity building: A process that supports only the initial stages of building or creating capacities and assumes that there are no existing capacities to start from (UNDP, 2009, p.54).

Capacity development: Refers to the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time (UNDP, 2009, p.54).

Identity: The manner in which the study participant views and portrays herself to others, such as being different versus conventional. (Giele, 2008). "Identity is associated with a person's location in time and space and cultural milieu" (Giele, 2009, p. 256)

Information and Communication Technologies (ICTs): Hardware and software tools primarily used for communication, such as wireless networks, mobile computers (including cell phones and tablets), social media, and other web/cloud-based applications" (USAID, 2005).

Native American: An enrolled, recognized, and or voting member of Native American or Alaska Native tribe or band of people (Federally recognized or not) living on or off the reservation/tribal lands; A person that selects Native American, American Indian, or Alaska Native as his/her official race for demographic and U.S purposes (Census, 2010).

Narrative life-story interview framework: A focus on the following four themes: identity, adaptive and relational style, and motivation and based on the four life stages: (a) pre-adolescent, (b) adolescent, (c) adult - current, and (d) adulthood – future (Giele, 2008).

Women leaders: Females that are esteemed by their peers or colleagues for their abilities, knowledge, and/or ethics, which can be demonstrated by a title, awards, publications, public speaking, educational degrees, or position within an organization/community (Jensen, 2011).

The data was verified via inter-rater reliability and there was a triangulation of data sources. The interview protocol's reliability and validity was previously established by work-life balance

researchers (Giele, 2008; Krymis, 2011; Weber, 2010;). This study was only coded for identity, adaptive style (Giele, 2008), and ICTs use (Jensen, 2013) themes. The coded thematic findings regarding Native American women leaders' use of ICTs for WLB was reported on a broad to specific descriptive, thematic, and interpretive analysis spectrum (Flowerday, 2010). According to Bremme-Dorr (1984), "Good ethnographic writing should, as should the analysis that underlies it, maintain contact with the social realities and systems of meaning that participants in the setting(s) studied know and experience" (p.185). Bremme-Dorr (1984) suggests in most instances, it is preferable to organize the report around some set of themes or issues that are simultaneous, which are: (a) Derived from the inductive process of ethnographic data analysis, and (b) responsive to the plans or decisions that the data are intended to inform (p.179). Another life course research dissertation student, who understood the narrative life-story theoretical framework helped establish coding inner-rater reliability. This student verified at least 10% of the interviews for consistency, which validated findings. All of these vetted practices guided this study's data analysis.

Human Subjects Considerations – Institutional Review Board (IRB)

The data about Native American women leaders use of ICTs for WLB was collected according to the IRB standards of ethical, reliable, and valid practices. As an ethical precaution, the researcher acknowledged her own personal biases and interpretations and set them aside in order to not influence the study results, which is a key phenomenological research principle often referred to as bracketing or epoche (Creswell, 2012). For example, the principal investigator of this study is an enrolled member of a federally recognized Native American tribe - the Choctaw Nation of Oklahoma, a Doctor of Learning Technologies student, ICT expert, and recognized

female, scholarly leader. All of which directly relate to this study and could create a bias toward the study variables.

Gray (2009) suggests core ethical considerations are professional integrity and relations with and responsibility to research participants and funders (p.419). Researchers also adhered to the “rules of evidence” and other ethical considerations, such as only relevant data was collected and confidentiality was protected, data interpretation was verified via inter-rater reliability. Next, triangulating the data, or inter-relating the data gathered from three different methods and/or sources verified the study’s reliability and validity. Overall, the ethical data collection and reporting is the most important component of this study due to the history of unethical policies and inappropriate research practices with Native American populations (NCAI, 2012). Some of the ethical considerations specific to interviews are: a) Promises and guarantees, b) risk assessment, c) confidentiality, d) organizational permissions, e) data access and ownership, f) mental health of informants, and g) advice exchange (Gray, 2009, p.394).

This study consists of interviews and surveys of a non-protected, adult population. Study participants are Native American women leaders who are employed in public organizations that voluntarily participate in the study without coercion. This research has the potential to benefit the entire Native American and global Indigenous population as an example of diverse women leaders’ use of ICTs for WLB and capacity building. The participants are not placed at more than a minimal risk and did not run the risk of exploitation, nor was any of their personal data be disclosed outside the study setting. Minimal risk is defined as, “The anticipated risks of harm are not greater than those ordinarily encountered in daily-life or during the performance of routine physical or psychological examinations or tests” (Pepperdine University IRB, 2009, p.11). The participants are not put at risk of criminal/civil liability or damage to their financial standing,

employability, or reputation, and no deception is used. Therefore, this study design appears to meet the requirements for exemption under section 45 CFR 46.101(b)(3) of the federal regulations of the United States Department of Health and Human Services that govern the protection of human subjects (as cited in Pepperdine University IRB, 2009, p.23). Furthermore, the only foreseeable risk in this study is imposition on the participants' time. Accordingly, an application for the claim of exemption was filed with the Pepperdine University IRB. In addition, all participants received an informed consent form (see Appendix A) containing: (a) The purpose of the study; (b) the methodology of the study; (c) the benefits of the study; (d) an estimate of the required time commitment; (e) a statement indicating that participation was voluntary and that participants could withdraw at any time during the process; and (f) a statement that the identity of participants, should they choose, would remain confidential.

The PR ensured the confidentiality of participants and plans to report results only in aggregate form. Only the researcher has access to the raw survey data. All paper-based data was stored in a locked file cabinet in the researcher's home, and all electronic data was maintained in a password protected computer and website. The principal researcher maintained the anonymity and confidentiality of all study participants and will shred all paper documents and permanently delete electronic data associated with the project after a period of five years from the completion of the study.

Summary

This chapter details this research study's specific methods and processes. It includes a review of the research questions and methodology description. It also outlines the data details including: Sources, analysis, instrumentation, gathering techniques, and IRB submission plans. In summary, this qualitative, exploratory, phenomenological study, utilized a semi-structured

narrative life-story based interviews to measure the relationship between Native American women leaders use of ICTs for WLB and capacity building from an advocacy/participatory worldview (Creswell, 2009, Loc. 402), This phenomenon was explored by conducting 14 interviews. Nvivo qualitative analysis software was used to disaggregate the individual interviews via a two-step coding process into the themes – identity, adaptive style (Giele, 2008) and ICT use (Jensen, 2013) based a version of Giele's (2008) narrative life story framework. The resulting qualitative data was used to inform and advocate for improvements in the availability of ICT resources e for Native American women leaders' WLB and capacity building and generalized to the entire U.S Indigenous population. The findings were coalesced into a final written report and presentation for the scholarly and general populace. Ideally, the result will inform Native American and global Indigenous women leaders' culturally responsive use of ICTs for WLB and capacity building.

Chapter 4: Native American Women Leaders' Use of ICTs for Capacity Building

Abstract

The individual and combined topics of Native American women leaders, information communication technologies (ICTs), and human capacity building are grounded in social justice issues due to this population's unequal access to technology, monetary resources, and social capital. Rooted in this perspective, the purpose of this qualitative, phenomenological study was to explore ways in which ICTs can enrich Native American women's leadership abilities and overall capacity building. Utilizing the narrative life-story framework and women's life course research (Giele, 2008) and grounded in President Obama's (2011) recently signed, "The Executive Order (13592) on Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities", which re-asserts his *cradle to career* (Galbraith, 2012) commitment to all Native Americans and Alaskan Indians this study sought to address the question, "How are Native American women leaders utilizing ICTs for capacity building (skill development)?" Thus, narrative life-story framework based interviews (Giele 2008) were conducted with Native American women leaders focusing on the following themes: Identity, adaptive style, and ICT use for human capacity building. The researcher intended to help bridge the existing literature gap and inform ICT human capacity building Native American women leaders, as well as other Indigenous women across the globe.

Keywords: Native American, global, Indigenous, women, leaders, information communication technology, technologies, ICTs, work-life balance, human capacity building, cultural preservation and revitalization

Introduction

After centuries of widespread decimation, the Native American culture is in desperate need of systematic preservation and revitalization. Currently, there are only 1.9 million Native Americans left in existence (U.S Census, 2010), and many Indigenous languages and customs are dying along with the elders. Based on their cultural legacy as the mothers and caretakers of both their families and communities, Native American women living in rural, reservation, and urban settings are in locally situated positions of power to support the restoration of their individual tribes and that of the entire U.S. Indigenous culture. Simultaneously, the global rise in the use of information and communication technologies (ICTs) for capacity building can serve as a model for Native American communities. Therefore, this study explored the ways Native American women leaders are utilizing ICTs to develop their skills and how that process is impacting and/or influenced by their overall identity and adaptive style.

Purpose Statement

From an advocacy participatory worldview (Creswell, 2009), the purpose of this qualitative study was to explore ways in which ICTs are supporting Native American women leaders' capacity to preserve and revitalize their culture. Thereby, enabling them to acquire additional tools to solidify their commitment to roots and family, while joining the 21st century work force.

Research Questions

To address the main study question, "How are Native American women leaders utilizing ICTs for capacity building?" The following research question was addressed throughout this particular research study: How are Native American women leaders utilizing ICTs in their professional and personal work life?

Conceptual/Theoretical Focus

Grounded in Giele's (2008) narrative life-story framework, the research questions were based on the four life stages: (a) Pre-adolescent, (b) adolescent, (c) adult - current, and (d) adulthood – future. The study participants' answers were coded for the narrative life-story framework (Giele, 2008) themes: (a) Identity and (b) adaptive style, and the added category of ICT use (Jensen, 2013).

Significance

This study's significance is based on its potential to fill the gap in the existing literature regarding Native American women leaders' use of ICTs for capacity building. The researcher also intended to highlight a model of Native American women's leadership (Jensen, 2011) and inform Native American women leaders' use of ICT for capacity building. According to Nobel Laureate in Economics, Amartya Sen (HDR, 2013)

The human development approach is a major advance in the difficult exercise of understanding the successes and deprivations of human lives, and in appreciating the importance of reflection and dialogue, and through that advancing fairness and justice in the world (p. 24)

From this goal of advancing fairness and justice in the world, this study seeks to fill the literature gap related to Native American women leaders' capacity building. **Definition of Terms**

The following terms were used throughout this study:

Adaptive style: The innovative versus traditional manner in which a person adjusts to his/her setting" (Giele, 2009, p. 256).

Capacity building: A process that supports only the initial stages of building or creating capacities and assumes that there are no existing capacities to start from (UNDP, 2009, p.54).

Capacity development: Refers to the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time (UNDP, 2009, p.54).

Identity: The manner in which the study participant views and portrays herself to others, such as being different versus conventional. (Giele, 2008) "Identity is associated with a person's location in time and space and cultural milieu" (Giele, 2009, p. 256)

Information and Communication Technologies (ICTs): Hardware and software tools primarily used for communication, such as wireless networks, mobile computers (including cell phones and tablets), social media, and other web/cloud-based applications" (USAID, 2005).

Native American: An enrolled, recognized, and or voting member of Native American or Alaska Native tribe or band of people (Federally recognized or not) living on or off the reservation/tribal lands; A person that selects Native American, American Indian, or Alaska Native as his/her official race for demographic and U.S purposes (Census, 2010).

Narrative life-story interview framework: A focus on the following four themes: identity, adaptive and relational style, and motivation and based on the four life stages: (a) pre-adolescent, (b) adolescent, (c) adult - current, and (d) adulthood – future (Giele, 2008).

Women leaders: Females that are esteemed by their peers or colleagues for their abilities, knowledge, and/or ethics, which can be demonstrated by a title, awards, publications, public speaking, educational degrees, or position within an organization/community (Jensen, 2011).

Work – life balance – The appropriate amount of time spent between professional and personal efforts as to achieve overall satisfaction (Giele, 2008).

Literature Review

While there is no empirical research on Native American women leaders' use of ICTs for personal (human) or community capacity building, data sources and programs do describe the potential of such investments in this population. The existing literature identifies items such as: Native American female leadership, ICT integration, and Indigenous knowledge and cultural affordances, and work-life balance. These scholarly resources served as a foundation for this study, which explored Native American women leaders' use of ICTs for capacity building.

Human Capacity Building. A review of the existing human capacity building (HCB) literature revealed the United Nations and sub-agencies to be a primary source of related information for this study. According to the United Nations Development Program's (UNDP) recent report (2013), there are fourteen key indexes that indicate human development, which focus on the following themes: (a) Health, (b) education, (c) access to resources, (d) environment, (e) societal inequalities (gender and financial), and (f) overall human development. It also describes twelve national and international policy intervention clusters for comparative analysis regarding demographics, democratic/stable governments, and access to resources (e.g., social, knowledge, financial); with technology as one key component. These global HCB aspects can inform our domestic efforts, as well.

Global Indigenous Women's Leadership. While there is no existing research on Native American women leaders' use of ICTs for capacity building, the UN, its sub-agencies and partners, and a few university based scholars have published some existing studies on ICT capacity building for women. For example, USAID asserts that ICTs have the potential to enable women to serve as equal partners in the emerging knowledge economy. The India-based, Self-Employed Women's Association (SEWA) has utilized ICTs to form its own peer networks

regarding employment interest groups. The U.N. (2005) has facilitated ICT-based capacity building trainings for Bangladeshi women. The U.N. (2010) has also launched the Millennium Development Goals (MDGs) online portal, eNabler, to support these efforts. The U.N. partner International Telecommunications Union (ITU) seeks to empower ICT infrastructure, implementation, and development efforts worldwide. Similarly, the United Nations Education, Scientific, and Cultural Organization (UNESCO, 2012) recently published a report entitled, “Turning on Mobile Learning in North America: Illustrative Initiatives & Policy Implications,” which provided numerous recommendations for mobile ICT integration throughout North America. This report especially emphasizes the need for a solid plan prior to actual implementation. The United Nations for Women (UNIFEM) and the UN Global Compact Office (UNGOC) recently published an updated Women's Empowerment Principles - Equality Means Business (2011) report highlighting the need for ICT empowered HCB.

Native American Women’s Leadership. In regards to Native American women leaders’ HCB, the overall literature suggests that they suffer many barriers to success based on centuries of oppression (Ackerman & Klein, 1995; Johnson, 1997; Mankiller & Wallis, 1993). Eagly and Carli (2007) argue that, “If we can understand the various barriers that make up this labyrinth [barriers to women’s leadership], and how some women find their way around them, we can work more effectively to improve the situation” (p.2). At the center of all the barriers to Native American women’s leadership is economic disempowerment; compared to other major U.S. ethnic groups, Native American women have consistently endured the lowest employment rate - 0.3% (EEOC, 2003). This lack of inclusion in the employment community also contributes to social isolation (Johnson, 1997; Lajimodiere, 2006). Employed Native American women also face issues of functioning in two very distinct cultures; one at home on their Native America

reservation and the other at work often in urban more Anglo and non-Native American culturally responsive settings (Lajimodiere, 2006). These non-reservation, more individualistic work environments are often with the typical Native American woman's more cooperative, non-egoic behavioral traits (Ackerman & Klein, 1995; Johnson, 1997; Mankiller & Wallis, 1993), which are instilled in Native American women throughout their culture and are pre-requisites to her rising to a position of leadership within her tribe (Prindeville, 1999). Native American women also typically rise up through the ranks to leadership by first serving as a volunteer and then being elected or appointed to boards in increasing importance (Prindeville, 1999). In the article, *Ways Women Lead*, Rosener (1990) points out that the new generation is utilizing this more servant, feminine, egalitarian style of leadership to ensure its success. The literature suggests that this servant-leadership style is deeply rooted in the Native American culture.

In her study of Native American female political leaders, Prindeville (1999) found that they typically use the following strategies to achieve their goals: (a) Education and reform, (b) community relations, (c) partnership building, (d) resource development (i.e., ICTs), and (e) utilize existing systems. She summarizes her study by stating that, "Whether or not they personally experienced sexual discrimination, the New Mexico leaders maintained that women generally must work harder, and jump greater and more numerous hurdles than men, if they wish to attain influence and respect in politics" (p. 101). She later adds that, despite their efforts, they were still "considered outsiders by the status quo" (p.233). Similarly, Johnson (1997) adds that Native American women still face many historical socio-cultural barriers to their developing leadership. Prindeville (1999) suggests that women across the globe are starting to band together based on what she terms "the politics of care" (p.158). This international collaboration of women is based on peace and environmental causes, also known as the "politics of survival" (1999, p.

33). Basically, despite the fact that Native American women try to work with the community as insiders, they are often still kept on the periphery of true leadership and are beginning to form powerful coalitions with other women to increase their empowered influence and capacity.

Ethical Considerations. While this paper highlights the benefits of using ICTs for capacity building, the literature also clearly demonstrates the need to consider the ethical affordances of introducing new technologies to populations that may not have had previous access to the dominant culture. In his book, *The Wealth of Networks: How Social Production Transforms Markets and Freedoms*, Benkler (2009) warns against ICTs acting as a virtual colonization tool. The literature on safeguarding Indigenous Knowledge describes the culturally responsive virtual community where both Indigenous and Western Scientific knowledge systems can be shared in a mutually respectful manner (ANKN, 2011; Bruner, 1990; UNESCO, 2003;). In *Why is Corporate America Bashing Our Public Schools* authors Emery and Ohanian (2004) caution Indigenous leaders to retain decision-making agency while their constituents adopt ICTs.

Mentoring - Virtual Communities. In addition to retaining agency, a review of the literature reflected Native American and other Indigenous elders also have an important role as mentors. It also highlighted that online communities of practice (Wenger, et al., 2009), possibly in the form of social media, can provide key virtual mentoring opportunities for Native American women leaders. Wenger, et al., (2009), assert:

Here we begin our argument about the mutual influence of community and technology in digital environments by looking back at some examples in recent history, first looking at how community was a factor in the development of new technologies and then at how technology was a factor in the development of new communities. (p. 13)

The master-apprentice, expert-novice, or elder-youth concept of legitimate peripheral practice (Lave & Wenger, 1991) is based on the ancient Indigenous concept of mentoring or apprenticeship, which Wenger, White, & Smith (2009) suggest can also be applied in online communities. Furthermore, situated learning Lave and Wenger (1991), suggests that knowledge acquisition is most effective in context and is a foundational understanding for Native American women leaders' culturally responsive leadership, as well as this study.

ICT Integration for Human Capacity Building. Aided by this locally-situated opportunity for Native American women leader's, the increased availability of ICTs in the U.S and worldwide – such as high-speed Internet, mobile technologies, and social media tools – have provided new leadership opportunities and their HCB capacity building. These ICT advancements are especially important to Native American women because they provide communication access even though many of them live in often remote, rural reservation settings, living conditions that are also important to the preservation and revitalization of their culture. The UN Permanent Forum on Indigenous Issues Declaration of Human Rights of Indigenous People (2010) echoes this idea:

Being “Indigenous” means to live within one’s roots. The collective consciousness of Indigenous peoples, often expressed in creation stories or similar sacred tales of their origin, places them since time immemorial at the location of their physical existence. (p. 4)

Due to their sometimes-remote residential locations, Native American women have often not had the opportunity to be recruited and retained in local, national, and international positions of leadership, which has the impact of lowering their economic viability.

Based on the overall devastation that Native American and U.S Indigenous Peoples have endured on the past several centuries, the U.S Federal government, the U.N, and numerous other stakeholders have committed their much-needed support to these groups (U.N., 2008, 2010; U.S White House, 2010, 2011). During President Obama's (U.S. White House, 2011) address to tribal leaders, he affirmed his and the overall inter-agency commitment to U.S Indigenous Peoples, stating:

We know that, ultimately, this is not just a matter of legislation, not just a matter of policy. It's a matter of whether we're going to live up to our basic values. It's a matter of upholding an ideal that has always defined who we are as Americans. E pluribus unum. Out of many, one. That's why we're here. That's what we're called to do. And I'm confident that if we keep up our efforts, that if we continue to work together, that we will live up to the simple motto and we will achieve a brighter future for the First Americans and for all Americans (p. 1)

In addition, President Obama and Tribal leaders delineated five main Native American priorities during the recent a United States White House Tribal Nations Conference (U.S White House, 2010), *Working with Tribal Nations to Build a Brighter Future*, including: U.S (a) Federal and Tribal consultation policies, (b) social and educational services, (c) economic and infrastructure development, (d) protecting tribal resources, and (e) tribal land safety and security.

The literature offers several global examples of countries that are successfully fulfilling similar commitments. For example, Costa Rica boasts of a nation-wide inter-generational, inter-agency (government, non-profit/NGO, and corporate) collaboration for ICT-based capacity building, coordinated by the Omar Dengo Foundation (ODF). This program can serve as a model of a collaborative, inter-agency, collaborative effort to empower Native Americans' capacity

building with ICTs. The ODF provides a variety of ICT capacity building opportunities detailed in their *Products and Services Portfolio* (ODF, 2010), many of which directly correlate to Costa Rica's 95% literacy rate. A second program is located in Nepal, where ICTs for Community Development (ICT4Dev) are used to help rural communities integrate ICTs (Lee, 2011). Intel and Microsoft's China division provide innovative rural, mobile technology integration programs.

In addition to these global ICT-based capacity-development programs, some similar programs exist throughout various U.S tribal reservations and regions. The Google Scholars program fully funds selected Native American computer science and engineering students higher-education degrees. Intel supports the Pasqua Yaqui (Arizona) youth-run computer lab (Betts, 2006). Indian Country news outlets are providing support and resources via the web and social media, some of which include: Indian Country Today Media Network, Kili Radio, Indian Me, and Native News. The Choctaw Nation of Oklahoma offers its tribal member numerous ICT-enabled capacity development opportunities, such as on-line language learning classes, social media outlets, and a robust website. Tribal Colleges and Universities (TCUs), such as Southwestern Indian Polytechnical Institute (SIPI), also provide additional ICT-based higher-education opportunities. Lastly, several non-tribal, private technology centers support Native American capacity building via ICTs, such as the Kiamichi Technology Centers (KTC) throughout Oklahoma.

Although these programs are helpful, Native Americans must have adequate access to telecommunication services in order to use ICTs for capacity building. The Federal Communications Commission (FCC) is attempting to address the digital divide issue via several recent initiatives that created the Office of Native Affairs and Policy (ONAP) and by allocating

additional funds for increasing tribal communication access. In the policy brief, “Key Points on Indian Education” (KPOIE), the National Indian Education Association (NIEA, 2010) asserts, Much of the harm inflicted upon Native peoples is being undone by Natives themselves - and yet the legal and financial resources needed to complete this task can only be found with the originator of the harm – the Federal government, which has a trust for non-renewable, project specific resources, and resulting range of policy after-effects are ultimately positive. (p. 445)

Addressing the digital divide for Native American women leaders and all U.S Indigenous People could be one of the tasks that help “undo” the wrongs of the past.

Methodology

Design. This phenomenological study, based on the narrative life-story framework (Giele, 2008), explored Native American women leaders’ use of ICTs for human capacity building. Typical of phenomenological research (Creswell, 2009), there is no (or scarce) existing scholarly literature in this field. Since phenomenological research is often culturally specific (Gray, 2009), this is an appropriate design to address this study’s main research question, How are Native American women leaders utilizing ICTs for work-life balance and capacity building?

Data Collection Strategies and Procedures.

Data sources. The study sample consisted of 14 Native American women ranging in age from late 20s to early 70s. They were elected, appointed, and/or recognized as leaders in their community, fulfilling leadership roles such as executives, directors, presidents, professors, teachers, department heads, chiefs, board members, entrepreneurs, and similar positions in corporate, academic, non-profits, health and governmental organizations entities throughout the United States. The participant respondent-driven sampling method, otherwise known as snowball

sampling, was used to identify study participants. The researcher initiated the snowball sampling process by contacting potential study participants from Native American organizations with which she has as an existing membership or affiliation.

Interviews. The principal researcher conducted the stimulated recall; semi-structured, focused interviews (Gray, 2009, p.373) via phone and Skype, while strictly adhering to the IRB approved protocol. The interviews lasted 45-120 minutes. The participants also completed a socio-demographic questionnaire to provide added context to the interview. The interview contained six sections of questions. The first four categories dealt with regarding the four stages of life – (a) early adulthood, (b) childhood and adolescence, (c) adulthood – current, (d) adulthood –future, and the last two addressed the additional categories: (e) coping strategies (Weber, 2010) and (f) information and communication use. Once the interviews were transcribed, they were analyzed with NVivo software. The study participants’ answers were coded for emergent as well as the as the a priori categories of: Narrative life-story framework (Giele, 2008) themes: (a) Identity and (b) adaptive style, and the additional category of ICT use (Jensen, 2013). The PR utilized Saldana’s (2009) code to theory, two-step coding model. Another doctoral student in dissertation phase, who was familiar with life course research helped to establish coding inner-rater reliability by sampling 10% of the interviews for coding consistency to validate the study findings.

Key Limitations and Assumptions

Prior to the study, the PR was aware of the key limitations and assumptions and acted in due diligence to mitigate those affordances, which are described below: The relatively small sample size (14) of Native American women leaders may or may not be entirely indicative to the entire

population. To help mitigate this, the PR intentionally invited study participants with widely varying socio-demographic backgrounds.

Due to the short time frame of the study and ever-changing nature of ICTs, the results may or may not be highly relevant to this particular point in time. The participant and referring person (snowball sample) assured the PR that each participant was both a recognized leader and recognized tribal member by the referring entity. Therefore, the PR did not further verify the participant's socio-demographic (tribal membership or leadership).

The PR can be considered a Native American female leader, therefore a coding and reporting bias should be considered. To address this, a second doctoral-level student familiar with life course research (Giele, 2008) verified the thematic coding.

Results

This section reports the overall findings of this phenomenological study and highlights the key findings, based on the narrative life-story framework (Giele, 2008), that explored how Native American women leaders are utilizing ICTs for WLB and capacity building. This article focused on answering the research question, *How are Native American women leaders utilizing ICTs in their professional and personal work life?* The results were determined based on interviews with 14 women that are recognized members of Native American tribes located throughout the United States serving in a wide range of tribal and non-tribal organizations and communities (tribal and non-tribal) and in various levels of leadership levels and types, i.e., councilor, executive, administrative, entrepreneurial, servant, and spiritual.

Population Description. Overall, the Native American women represented in this respondent-driven (i.e., snowball) sample reflected wide variety of leaders with diverse tribal affiliations, marital statuses, educational attainment, and professions. They ranged in age from

late 20s to early 70s. The respondents were recognized members of tribes located in various regions throughout the United States, including: (a) Two from the Northern Midwest, (b) seven from the Southern Midwest, (c) two from the Southern West Coast, (d) two from the Southwest, and (e) one from the Northern West Coast. Their highest level of education attainment fell into two main categories: (a) Nine respondents had higher education graduate level degrees (Master's and Doctoral), and (b) five had some college and/or professional certificates. Many of the participants engaged in several professions simultaneously, such as entrepreneur (business owners) and educator, or writer and professor. Their primary professions included: (a) One K-12 educator, (b) four entrepreneurs, (c) one higher-education professor, and (d) two higher-education administrators. Many respondents also serve as community leaders of non-profit organizations, including: Cultural centers, churches, tribal councils, and advocacy groups (Native American and other). Six respondents reported serving on governing boards. Twelve of the 14 participants reported having children ranging in age from early adolescent to mature adult, several of the respondents have grandchildren. Lastly, the interviewees' marital statuses also varied: (a) Five respondents are currently divorced and not re-married, (b) seven are married, and (c) two are single. This sample of socio-economically diverse Native American women provided an overview of how this population may be using ICTs to empower their capacity building throughout the U.S.

Methods Review. The 14 interviewees were identified by a respondent-driven or snowball process. The 45-120 minute recorded interviews were conducted via Skype and phone. The transcribed interviews were imported into QSR's NVivo and Microsoft Excel and Word software for further coding and analysis. The PR coded and verified all of the interviews for ICT and adaptive-style narrative life-story framework themes (Giele, 2008) of identity and adaptive

style. Identity was defined as the manner in which the study participant views and portrays herself to others, such as being different versus conventional (Giele, 2008). According to Elder and Giele (2009), “Identity is associated with a person's location in time and space and cultural milieu” (p.256). Adaptive style was defined as the innovative versus traditional manner in which a person adjusts to his/her setting (Giele, 2008). ICTs were defined as: Technology tools used for Internet based communications (USAID, 2005). To provide an initial insight into the overall study key words and themes, a word frequency query was generated and a key word cloud below (Figure 3) was produced.



Figure 3. Nvivo key word cloud.

Note. The larger the words, the more frequently the participants used them during the interview.

The same word frequency query produced a list of most used vocabulary throughout the study. The nouns related to identity and their frequency (in parentheses) included: family (170), home (156), job (136), education (131)/college (164)/learning (121), community (121), native (97), and business (106). The most frequently used verbs related to adaptive style included: helping (211), service (203), learning (121), balance (69), and moving. (60). These words

correlated to the themes found throughout the existing literature related to Native American women leaders’ identity and adaptive styles.

Table 2 presents the number of participants’ references to ICT use found throughout the study. Each participant was assigned a number that is listed under the Name column. Within that same numbered row, the chart list the number of times that participant made a reference to ICTs. The coverage column details the percent of each interview that was covered by ICT references. For example, participant #1 made 16 references to ICTs, which covered 18.40% of her interview transcript.

Table 2

NVivo Coding – Participant Mentions of ICT Use

Name	References	Coverage
1.	16	18.4%
2.	6	8.54%
3.	23	11.81%
4.	6	10.07%
5.	17	14.76%
6.	2	9.7%
7.	15	8.1%
8.	5	6.95%
9.	14	20.69%
10.	37	5.3%
11.	18	15.55%
12.	17	8.1%
13.	11	13.66%

Table 2 shows the participants’ ICT use. Each participant was assigned a row; For example, participant #1 reported utilizing all ICT categories, except web/tele-conferencing. Overall, this chart demonstrates that all, 14/14 or 100% of participants are using some form of social media, handheld device, and web-based productivity tool. It also shows that 12/14 (86%)

respondents are texting and 7/14 (50%) of respondents are utilizing some form of web/tele-conferencing, such as Skype or Facetime.

The Native American women leaders' ICT use detailed in 3 was graphed (Figure 4 below) to provide a pictorial representation of the data.

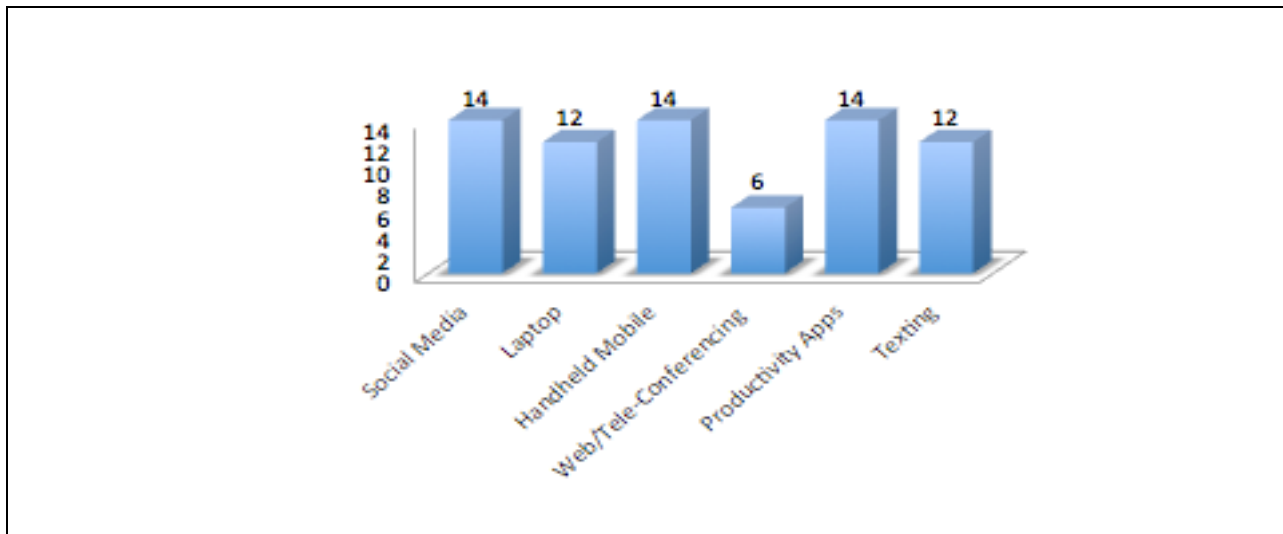


Figure 4. Study participants' utilization of ICTs.

Key Insights.

Key insight #1. All respondents (14/14 or 100%) reported using some form of social media (Linked, Pinterest, You Tube, and Twitter) for their personal and/or professional work-life capacity building.

To provide further context to this fact, Participant #10 stated:

And I agree, you need to watch my public image that shows up on Facebook. What is really nice is when there are some things that people will find out about me and put it on Facebook. My mentees, some of the women out there who know me, they will put something on Facebook about me, because I'll never be the one to say I'm one of the top # of women in ___[edited for confidentiality]. Now, my PR person will probably put that on Facebook and someone will pick it up. I think it's -- I'm on Facebook, but I don't -- you know, I have to worry about what I say, because I'm a president. So I don't use it in the right way I could use it. If you say, [edited for confidentiality] and I are..., check us out and we're rafting or something. I can't use it like it's worked for ..., because it could work against me. And I have a public image and I have my own Facebook account, but I

was told by my administration, be very careful, you can do it to promote ____ (our organization)... [edited for confidentiality].

Participant #10 also stated:

But I haven't opened my Facebook account until I get a dozen messages saying, you've got some postings. And then it's like, okay, I'll go in and then I'll start to look at what it's saying. But I also want to look at what my other girlfriends are doing as they're working through a PhD program or where are they at in their career lives. And so I can get sidetracked when I go to Facebook and I want to look at the latest pictures or latest vacation and it gets me sidetracked.

Participant #6 stated:

It's the new hot thing. It's the new wave of things. It's like, look at Pinterest, pin what you like. It's the phase that everyone is looking into now and how you can organize ideas into pictures. I don't really care, but it's still what I want so that people know what I'm doing, so it doesn't look all disorganized.

Participant #4 stated:

... and with the whole business of technology I've been able to get closer and create a network of my community from people in Virginia, Connecticut, Chicago, Nebraska, Arizona, Texas, Missouri and on and on. New York, Washington, Oregon and all over California. New Mexico. Do you know what I mean? I'm just having this -- that's my community and they're a community of all the people in my life are people today -- most all of them in my circle are people that are generous, kind and compassionate.

Participant #2 stated:

Oh, I get updates through LinkedIn. I belong to a number of emergency manager groups on LinkedIn and I see what others are working towards as far as what needs to be done after large disasters to help people and how we work with FEMA, the Federal Emergency Management Administration. So I'm able to keep up with my education requirements there, because I know what's going on. I learn about meetings, I learn about disasters, I contact other volunteers.

Although every respondent reported using some form of social media, all of them cautioned about one or more of the following items: Privacy, time drain, social pressure and learning curve, etc.

Participant 14 stated:

And I know the everyday person who's on Facebook doesn't encounter that probably. They are in touch with their friends and their family and it's great for that. But when you're in political life, Facebook is just the bane of my existence because I'm just getting dragged through the mud right and left, and all kinds of rumors and speculation. Just horrible egregious crap that is out there.

Key insight #2. Thirteen out of 14 respondents (93%) reported using a laptop for their personal and or professional life capacity building.

Participant 11 stated:

So really technology enabled me to continue having the job that I had, given the sort of challenging circumstances of connectivity and things, and coverage also, where we lived for that year.

Participant 13 stated:

Well, I'll tell you we just turned over to be Mac user. And that has been very interesting for someone that's only used PC. But then a lot of language people are using Apple because of all the creative programs that they have. And it's just -- I don't know why. Everyone I see working with language has an Apple. So anyways when we -- we received a huge grant for language and part of that grant we decided we were going to try to switch it over to Apple.”

Participant #13 stated:

We have a used dictionary [Native language] and it's on the program called Lexique Pro. It's a free program we came – our linguist came across. And he was able to create an -- not online, but it's a program you actually download onto your computer, a PC-based computer. And we're able to look up words. And also we made tons of sound clips and attach it to it. So it's better than just a dictionary. It's something -- you can actually hear the language.

Key insight #3. All of the respondents (14/14 or 100%) reported utilizing one or more handheld mobile devices such as a smart-phone, tablet (iPad), other e-reader (Kindle/Kindle Fire) for their personal and/or professional work-life capacity building.

Participant 13 stated:

I use an iPad. I use it actually for work and personal. We have our [Native] language actually loaded up on my iPad [app]. It's very convenient. Instead of carrying all my

language books with me I just have my iPad and I can pull open tons of information and culturally on my iPad. It's been a huge – I love it.

Participant #10 stated:

You get a lot of board packet information and I'd rather download them on my iPad so that when they're talking about a document I'm saving paper, but I can go into my bookcase and say, I've got this PDF file and I'll be all setup and look like I'm savvy. But it's really my assistants who have setup all my documents for me. So I can go to major meetings with less of a paper load and notebooks taking up weight with my luggage.

Participant 9 stated:

I have an iPhone and I do an awful lot of work on it, all my business mails, ... documents, all that. I don't know if I could do the amount of work I do now without having that capability. And that allows me to wherever I am I get my emails, I can respond right away. I get messages and – but me, it's really important when I give out a business goal, because that's just one of the many jobs I do here, my clients can get a hold of me no matter what time. They all have my cell phone. They all text me. I mean, it's just huge. And I have a zero percent delinquency rate right now on my loan fund. And I was told by a bank, it shouldn't be zero percent. And I said, no, I'm a very high-risk lender and I'm very grateful they're all paying.

Participant #8 stated:

We need our cell phones at all times to carry on our person at all times. Because we do have some difficult consumers sometimes. So those are relied on. And texting. We rely on texting at work, too. So that technology is very important to us to be able to pick up a cell phone and say, "I need a police officer." "You have a new appointment. We just scheduled you a new appointment. They're waiting. They're in the lobby waiting for you."

Key insight #4. 7/14 respondents (50%) reported utilizing at least one teleconferencing tool (such as Skype or Facetime) for their personal and/or professional work-life capacity building. Participant 13 stated:

Skype with some tribal – different tribes. And we've had some discussions on language. We don't do that too often, but other than e-mailing a lot and basically having conversations through e-mail. But we have done some Skyping and we actually have done some language classes with Skype as well.

Participant #9 stated:

And then our office here has just purchased I think it was \$30,000 equipment where we can do – because our organization covers four states: Montana, Wyoming, South Dakota

and North Dakota. And there's a huge amount of travel time. And with all the budget cuts, our travel budget is getting cut. So we invested in this technology so we'll be able to still hold classes and we're working with the tribal colleges out there that we can have -- the people can just go to the tribal colleges and we can all have one class.

Key insight #5. All respondents (14/14 or 100%) reported utilizing at least one productivity app (such as email, calendar, and document/file creation and storage) for their personal and/or professional work-life capacity building. Participant 14 stated:

I'm constantly recognized for that work. The things I count as achievement, I am constantly recognized and reinforced for it. And – but it's in small personal individual ways. I mean, I don't get awards for it or things like that. But the – to me, what is very gratifying is when I send these things out and people read them. Every time I send something out, I get 60 to 80 responses. And I sent out to about 1,200 people, so maybe that's not much in the scheme of things. But I think – I doubt if any other council [member] is getting – .

Participant #3 stated:

Well, we have everything. iPhones and we're connected all the time and a few e-mails. My company has clients all over the world, basically, because we're a [big corporation] contractor. So we're basically on call 24/7 and we like to be that way so that we can maintain business.

Participant #1 stated:

But somebody within the tribe was sending out email information fairly regularly about scholarships that are available and how to access scholarship information if you are a member of a Native American tribe, so that was helpful. And she – I know I've seen some follow-up like I mentioned again before we turned this back on about scholarship writing seminars and things like that. But I did go to the websites that she provided and my daughter applied for a couple of scholarships that were specific to Native American citizens. They were initiated through the tribe and then they were scholarships that you just, you needed to be a member of a native tribe or nation in order to qualify. But they were – the information was provided through the tribal Nation so that you don't have to – it's just you don't have to do as much research, they sort of help you.

Key insight #6. 13/14 of the respondents (or 87%) reported texting for their personal and/or professional work-life capacity building. Participant 1 stated:

Because we have such a short lunch hour and I don't want to necessarily want to have to go to the office to check the Internet. So I do check the Internet on that or I can send text

messages. Now that I'm doing the coordination with the after school program I send [edited for confidentiality] her text messages from time to time.

Participant #1 also stated:

It's just a very quick and easy way to communicate without having to wait until the end of the day to take care of those things so you can take care of things in real time, which is important if you're trying to -- we're doing a family literacy night. And we did a family fitness night last month and so we have to coordinate with the cafeteria and other people, so it does really help with communication. It makes it much easier.

Overall, these key insights provided significant knowledge to help inform future Native American women leaders' use of ICTs for capacity build

Conclusions

This article presented the findings from detailed semi-structured, narrative life-story framework (Giele, 2008) interviews of how 14 Native American women leaders are utilizing ICTs in their personal and professional work-life for human capacity building. This study's results demonstrated that this population is currently using significant amounts of ICTs to empower their capacity building efforts and that they are highly interested in more training and support in this area. The results also reflected the existing literature regarding Native American women leaders' identity being strongly rooted in their family, community, culture, and homelands.

Participant #12 reflected this in her comment:

...creating collaborations with indigenous people elsewhere, particularly in New Zealand and Australia. I just -- yeah, my mind has just been opened to a lot in terms of seeing the real, real extremes on both sides, like I said, the privilege and influence and money and power to my own life.

It also showed the participants' adaptive style, which also correlated with the existing literature, as life-learners that are committed to progressing through their life changes by growing as a whole person (professionally, personally, spiritually, while maintaining their health).

Participant #5 added:

I think that the tools are absolutely building my capacity. They're building my capacity. That I learn more because I can – if I'm typing a letter, I can get online and get the definition of a word I want to use but I want to make sure I'm using it right. I want to be able to actually use the proper titles of an individual. And I want to address something to somebody personal and if I don't have their email address in my Rolodex, I can do a search Google and find them. I really think that the tools have exponentially built my capacity.

The interviewees' resilient and resourceful adaptive style was highlighted in regards to their ICT adoption and integration efforts, as they often utilized technology to support their transitions through life and sought out mentors to help guide their ICT use and overall capacity building. In summary, this study's results show that ICTs can be a powerful tool and resource for Native American women leaders HCB, while serving as the core leaders of their communities, families, cultures, and organizations.

Implications of the Study

This study's results demonstrate the potentially powerful and positive capacity-building impact of ICT use for Native American women leaders, which can be used to inform and advocate for improvements in the availability of ICT resources to empower Native American women leaders' WLB. This study certainly highlights the need for further scholarly research in the combined and individual areas of Native Americans, women's leadership, ICTs, and capacity building to fill existing gap in the scholarly literature. As Participant 2 stated:

I like gadgets and computing and I try to teach myself. Usually, I do better teaching myself, but I do take classes at the [edited for confidentiality] organization and I would sign up for adult education or something if there's something I needed to learn there. It's exciting.

Recommendations for Future Research

After a thorough review of literature, it is evident that Native American women are in a strong, community-situated position to invoke their highly-regarded style of leadership to help

further Native American cultural preservation and revitalization. The literature also suggests that ICTs have the potential to empower Native American women leaders' personal capacity building while they are simultaneously working to build capacity in their communities. Lastly, the few international studies and reports conducted in this area can illuminate the path for Native American efforts. All of this literature served to inform this current study and future research. In summary, these women's combined and individual interview responses present a guide for future research regarding other Native American women leaders and society in general for what ICTs are currently available for capacity building efforts. Ideally, the results will help inform culturally-responsive ICT integration for Native American and global Indigenous women's capacity building to empower their Indigenous cultural preservation and revitalization efforts.

Chapter 5: Native American Women Leaders' Use of ICTs for Work-Life Balance

Abstract

Native American women leaders' information communication technologies (ICTs) and work-life balance (WLB) are grounded in social justice issues due to historically inequitable access to technology, monetary resources, and social power and influence. In attempt to help address this issue, President Obama's (2011) recently signed, "The Executive Order (13592) on Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities". This order re-asserts his *cradle to career* commitment to all Native Americans and Alaskan Indians. Thus, the purpose of this qualitative, phenomenological study is to explore ways in which ICTs can enrich Native American women's leadership abilities and WLB. Utilizing the narrative life-story framework and women's WLB theory (Giele, 2008), this study seeks to answer the overall study question: How are Native American women leaders utilizing ICTs for WLB? To answer this overarching question, narrative life-story framework based interviews (Giele 2008) with 14 participants were conducted and coded for the following themes: Identity and adaptive style (Giele, 2008), and ICT use. As a result of this study, the researcher intends to help bridge the literature gap and inform Native American and other Indigenous women's ICT use for WLB across the globe.

Keywords: Native American, global, Indigenous, women, leaders, information communication technology, technologies, ICTs, work-life balance, WLB, cultural preservation, and revitalization

Introduction

The Native American people and culture have been consistently decimated over the past several hundred years. Recent resurgence in several societal factors may help address the need to

preserve and revitalize Native American culture. One encouraging factor is the increased overall availability of information and communication technologies (ICTs; ITU, 2011). Moreover, Native American women are re-establishing their identity as empowered leaders in their tribes and other organizations throughout the United States (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003). Lastly, numerous organizations, agencies, and other stakeholders agencies (i.e., UNPFII, UNIFEM, U.S Federal government, President Obama, Senate Committee on Indian Affairs, Department of Interior, Microsoft, Intel, and Google) are lending their support and influence to empower Native Americans ICT use, as they serve in pivotal roles to restore their culture for the greater good.

One of the key considerations for all stakeholders in the Native American preservation and revitalization effort is the lack of access to technology tools and the Internet (i.e., ICTs). This concern is especially evident throughout many Native American rural reservations, since these remote territories often lack Internet access and monetary resources to purchase the necessary equipment and connectivity. Additionally, these reservations are often geographically removed from the residents' places of employment and other services (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003; U.N., 2005, 2009, 2010; USAID, 2005; UNGOC, 2011; UNESCO, 2012; UNGAID, 2010). With the successful bridging of this digital divide, ICTs can serve as powerful tools to help Native American women leaders address their WLB issues as they support the preservation and revitalization of their culture (Ackerman & Klein, 1995, Allen, 1992; EEOC, 2003; Heyle, et al., 1990; Lajidomiere, 2006, Music, 2006; NCAI, 2012; Snyder, Dillow, & Hoffman, 2009; Trennert, 1983; UNPFII, 2009).

Purpose Statement

According to Creswell (2009), scholars and researchers with an advocacy/participatory world-view must engage with their study population/community both theoretically and practically in order to actually invoke sustainable social change for the greater good. Therefore, from an advocacy/participatory worldview, the purpose of this qualitative phenomenological study is to explore Native American women leaders' life-story narratives (Giele, 2008), based on their identity and adaptive style, of how they are utilizing ICTs for WLB. The overall goal of this study is to inform culturally-responsive ICT integration to empower Native American women's personal and professional lives as they: (a) Serve as leaders of local, national, and international organizations; (b) maintain connected personal lives; and (c) contribute to their cultural preservation and revitalization.

Research Questions

Grounded in Giele's (2008) narrative life-story research framework, this study's research questions were based on the four stages of life: (a) Early adulthood, (b) childhood and adolescence, (c) adulthood-current, (d) and adulthood-future. The participants' responses was be coded for two of the narrative life-story framework themes – (a) identity and (b) adaptive style – as well as (c) ICT use (Jensen, 2013). The research questions were as follows:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities?
2. How does Native American women leaders' ICT use impact their WLB and ability to build capacity (develop skills) in their communities?

Conceptual/Theoretical Focus

As the overall intent of this study was to seek to identify ways to empower Native American cultural preservation and revitalization, one theoretical focus was the Native American cultural and spiritual knowledge (i.e., Indigenous Knowledge [IK]) and practices that have been accumulated over the centuries. The United Nations Declaration of Human Rights of Indigenous People (U.N., 2010) echoes the idea that the Native American/Indigenous cultures are locally situated:

Being “Indigenous” means to live within one’s roots. The collective consciousness of Indigenous peoples, often expressed in creation stories or similar sacred tales of their origin, places them since time immemorial at the location of their physical existence.

(p. 4)

This culturally relevant Indigenous/Native American focus guided this study.

Significance

This study is especially important at this time since there are approximately only 1.9 million Native Americans left in existence (U.S. Census, 2010). Based on those statistics, the U.S. Federal Government and the United Nations have agreed to protect and empower this population (U.N., 2009; U.S White House, 2010). During his address to tribal leaders, President Obama (U.S. White House, 2010) asserted his commitment to Native Americans and Indigenous Peoples:

We know that, ultimately, this is not just a matter of legislation, not just a matter of policy. It’s a matter of whether we’re going to live up to our basic values. It’s a matter of upholding an ideal that has always defined who we are as Americans. E pluribus unum. Out of many, one. That’s why we’re here. That’s what we’re called to do. And I’m confident that if we keep up our efforts,

that if we continue to work together, that we will live up to the simple motto and we will achieve a brighter future for the First Americans and for all Americans. (p. 1)

Grounded in the aforementioned ICT and IK conceptual focus, this study's significance is based on the immediate need for innovative, and possibly technology-based, ways to preserve and revitalize Native American culture. Based on their locally situated position of influence, Native American women leaders are in an ideal position to empower this crucially important social justice movement. While these women are fulfilling their numerous leadership roles in the home, at work, and in the community, they must also enlist strategies to maintain a WLB for long-term sustainability of their efforts. It is the goal of this study to determine how, if at all, ICTs currently support or detract from this goal and also make recommendations for how Native American women leaders can utilize ICTs in their professional and personal work life to empower their WLB.

Definition of Terms

The following terms was used throughout this study:

Adaptive style: The innovative versus traditional manner in which a person adjusts to his/her setting" (Elder & Giele, 2009, p. 256).

Capacity building: A process that supports only the initial stages of building or creating capacities and assumes that there are no existing capacities to start from (UNDP, 2009, p.54).

Capacity development: Refers to the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time (UNDP, 2009, p.54).

Identity: The manner in which the study participant views and portrays herself to others, such as being different versus conventional. (Giele, 2008). "Identity is associated with a person's location in time and space and cultural milieu" (Elder & Giele, 2009, p. 256)

Information and Communication Technologies (ICTs): Hardware and software tools primarily used for communication, such as wireless networks, mobile computers (including cell phones and tablets), social media, and other web/cloud-based applications" (USAID, 2005).

Native American: An enrolled, recognized, and or voting member of Native American or Alaska Native tribe or band of people (Federally recognized or not) living on or off the reservation/tribal lands; A person that selects Native American, American Indian, or Alaska Native as his/her official race for demographic and U.S purposes (Census, 2010).

Narrative life-story interview framework: A focus on the following four themes: identity, adaptive and relational style, and motivation and based on the four life stages: (a) pre-adolescent, (b) adolescent, (c) adult - current, and (d) adulthood – future (Giele, 2008).

Women leaders: Females that are esteemed by their peers or colleagues for their abilities, knowledge, and/or ethics, which can be demonstrated by a title, awards, publications, public speaking, educational degrees, or position within an organization/community (Jensen, 2011).

Work – life balance – The appropriate amount of time spent between professional and personal efforts as to achieve overall satisfaction (Giele, 2008).

Literature review

A review of the literature suggests that ICTs have the potential to promote or defeat WLB efforts. While there is no existing scholarly literature on the combined topics of Native American women leaders' use of ICTs for WLB, existing publications do address: (a) ICTs' impact on WLB, based on recent International studies; (b) the role of leadership, mentoring, and ICT use;

and (c) inter-agency collaboration for Native American (and other Indigenous) cultural preservation and revitalization. It is the purpose of this study to fill the gap at the intersection of all these topics by answering the main study research question, “How are Native American women leaders utilizing technology for work-life balance and capacity building?”

Native American Women’s Leadership. According to existing literature, Native American women still experience significant barriers to success, despite overall governmental and social efforts to correct the systematic disempowering practices of the past several hundred years. For example, Native American women continue to experience the lowest employment rates (0.3%) of all significant ethnic groups. Due to the remote, rural locations of tribal reservations, Native American women also experience additional challenges of geographical access to employment and social isolation (Johnson, 1997; Lajimodiere, 2006). They also have dichotomous experience being a participant in two distinct worlds, meaning living in a traditional Native American cultural home setting on the reservation and working in a more progressive, Anglo environment in a town or more urban setting (Lajimodiere, 2006). The United Nations’ Permanent Forum on Indigenous Issues’ (U.N., 2009) echo the importance of Native Americans and Indigenous People maintaining a close connection to their land:

Being “Indigenous” means to live within one’s roots. The collective consciousness of Indigenous peoples, often expressed in creation stories or similar sacred tales of their origin, places them since time immemorial at the location of their physical existence (p.5)

Another existing barrier to Native American women’s leadership is gender discrimination within the tribe. Prindeville (1999) describes three types of tribes in regards to women’s participation in leadership activities: (a) Inclusive, tribes that treat women equally; (b) transitional, tribes that, over the past 10-15 years, have granted limited participation to women; and (c) traditional, tribes

that are prohibitive of women's leadership. Prindeville asserts that women's self-perception and limitations are also significant factors in women's leadership roles. As a result of these issues, Native American women leaders face historical, cultural, and personal barriers to their development as leaders.

Work Life Balance. While there is no existing literature on Native American women's WLB experience, the overall WLB field is well documented starting in the 1950s. Elder is the seminal present-day thinker in the field in the field of life course research. Elder's main life course co-author, Giele, (2009) who has recently adapted the life course research method to include the narrative life-story framework and age-based stages of growth, which is the basis of this study's interview protocol. Giele is also a seminal thinker on the study of WLB and feminist research. Alternately, Greenhaus and Beutell (1985) describe WLB in terms of conflicts based on: (a) Time, (b) strain, and (c) behavior. Doctoral researchers Akanji and Nwagbara (2012) assert that while there is no single definition of WLB, oftentimes one's professional life has a negative affect on one's personal life. Lastly, Zedeck's (1992) spill-over theory describes the spillover between work and home-life as the cause of negative effects on work-life balance.

The existing scholarly literature describes Native American women as being motivated by a sense of motherly responsibility to their personal families and community, otherwise know as the "politics of care" (Prindeville, 2003, p. 158). While there are no existing studies on Native American women and WLB, Giele (2008) attempted to reconcile the conflicting narratives in the literature regarding present-day overall gender roles and expectations (Chauhan, 2010; Downing & Roush, 1985; Giele, 2008; Slaughter, 2012). Giele's (2008) cross-national study shows that due to historical, cultural, and economic factors, Native American marriages have become more egalitarian. This increased egalitarianism is often based on women's increased financial

earnings, which has provided women the ability to hire extra help and support their WLB while they work longer hours (Yerkes, Standing, Wattis, & Wain, 2010).

In her famous article, “Women Can’t Have it All,” Slaughter (2012) suggests that women must choose their true life goals to avoid conforming to a male model of work and create more family-friendly policies. In contrast, a recent report by the Pew Research Center (2010) states that women in the workforce doubled from 31-62% between 1960 and 2008. This report also showed that 62% of respondents preferred a dual income/shared homemaker model of family life. According to The 1960-2008 Decennial Census: 2008 American Community Survey (ACS), the adult participants reported that their family life was more satisfying than their social/community or career life. Chauhan (2010) asserts that WLB can be summarized as “achievement with enjoyment” (p. 184).

Native American Women’s Leadership ICTs for WLB. The existing literature also suggests that some Native American women are resuming their historical place of matrilineal leadership throughout many tribes and in society in general (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003). One of the possible strategies for empowering women’s WLB is to enlist mentors to help guide their WLB (Heyle et al., 1990), which can also be achieved via a virtual community. This mentoring via virtual communities’ affordances is clearly detailed by communities of practice expert Etienne Wenger in his seminal works *Cultivating Communities of Practice* (Wenger, et al., 2002) and *Digital Habitats: Stewarding Technology for Communities* (Wenger, et al., 2009).

The availability of ICTs has also reportedly had a negative impact on WLB globally because employees are feeling more pressure to compete on a 24/7 time frame with more highly skilled workers around the world (Akanji & Nwagbara, 2012; Guest, 2002; Schor, 1991).

Workers are also reporting a negative spillover effect on their personal life by being able to work from home via their ICT capabilities (Burke, 2002; Schor, 1991). Guest (2002) suggests that numerous factors rooted in modern work-life, personal life, and psychological-emotional states contribute to a work-life imbalance. Chauhan (2010), a Professor at the University of Lucknow, asserts that rapidly evolving global markets are putting additional pressure on workers' WLB. Researchers from Nigeria (Akanji & Nwagbara, 2012) and India (Chauhan, 2010) assert that patriarchal societies are the base cause of work-life imbalance. Many organizations across the globe are working to integrate more family-friendly policies, while still focusing on profit earnings (Akanji & Nwagbara, 2010). However, most people report that work-life imbalance remains an issue (Chauhan, 2010).

The United States Agency for International Development (USAID) reports that ICTs can potentially empower women as equal partners in the global knowledge economy. For example, the report *Supporting Gender and ICTs: Opportunities for Women in Bangladesh* (USAID, 2005) details efforts to train Bangladeshi women with ICTs to empower their WLB as part of a larger effort to meet the U.N. Millennium Development Goals (MDGs). Specifically, "MDG Goal #3: Promote gender equality and empower women" (UN, 2010, p.20) is especially relevant to this study. To support the dissemination of ICTs worldwide, the UN has partnered with numerous organizations, such as the International Telecommunication Union (ITU). The United Nations Development Fund for Women (UNIFEM) recently partnered with the Calvert Investments Group, which represents the largest collaboration of U.S.-based socially responsible mutual funds. Calvert's (2009) mission is: "Advancing the first comprehensive code of corporate conduct focusing on gender equality and women's empowerment, unleashing women's economic capacity as essential to alleviate poverty, spur equality, and achieve the Millennium

Development Goals (MDGs)” (p. 1). For example, UNIFEM and the U.N. Global Compact Office (UNGOC, 2011) recently published an updated “Women's Empowerment Principles - Equality Means Business” report, in which the authors outline seven main global women empowerment principles, including ICTs for WLB. Calvert’s (2010) also partnered with the San Francisco Department of State, whose *Women’s Empowerment Agenda* outlines seven Gender Equality Principles (GEP) based on Calvert Women’s Principles. Principle 2.0 - WLB and Career Development states: “Corporations will take concrete steps to attain gender equality by adopting, implementing, and promoting policies and practices that enable WLB and support educational, career, and vocational development” (p. 9). This declaration also resembles UNIFEM’s Annual Report (2007-2008) message, which also emphasized empowering women leaders. “Gender equality is not only a goal in itself, but a prerequisite for reaching all the other International development goals, including the Millennium Development Goals” (2008, p.3). In concert with the ITU, the UN has encouraged all its key collaborators to determine how ICTs can be used to empower women globally, including their WLB efforts.

The literature also suggests the following ICT-enabled solutions to impact women’s WLB: increased mobility and accessibility, mobile tools and social networking to delegate work (Guillaume & Pochic, 2009), telework (Hunter & Valcour, 2004), and videoconferencing (Slaughter, 2012). In *Technology Leadership in Native American Schools*, Richardson and MacLeod (2011) describe three major categories of Indian Country schools’ technology integration challenges: (a) Unreceptive staff, (b) lack of technology coordinators, and (c) isolation and poverty. They also stress that Native American “leadership was constrained by systematic challenges such as regulations of the BIE, isolation, culture, and funding streams” (p. 11).

Many possibilities exist for Native Americans capacity building. For example, the Choctaw Language Department provides distance-learning classes on language, history, and culture through their One-Net service. This One-net service is utilized in approximately 40 high schools and two colleges that service a high percentage of tribal members. The Choctaw Nation of Oklahoma provides a virtual Career Development Program that utilizes Internet-based technology assessment testing, computer-assisted instruction, and virtual assistance with any aspect of career training and acquisition of employment. Tribal Colleges and Universities (TCUs) could act as virtual mentors for tribes in need. There are also non-tribal, private technology centers that support Native American ICT training in both face-to-face and online formats, such as the Kiamichi Technology Centers. Native American women can greatly benefit from the ICT-enhanced skills for WLB that these centers can provide, especially as they are assuming and continuing to fulfill significant leadership roles in their tribes and other organizations (Johnson, 1997; Keway, 1997; Lajidomiere, 2006; Prindeville, 2003) and simultaneously maintaining significant leadership roles within their families and local communities.

Indigenous Knowledge Considerations. In her book, *Decolonizing Methodologies*, noted author Dr. Tuwhai-Smith (2012) highlights the important of culturally appropriate, non-imperialistic methods of research to support the restoration of Indigenous ways of knowing. In *The Wealth of Networks: How Social Production Transforms Markets and Freedoms*, Benkler (2006) cautions humanity against helping populations in need with ICT integration. He warns that attempts at helping developing nations' progress should carefully avoid adding another layer of colonization – a virtual one, meaning the Internet – to impose a dominant cultural frame on Indigenous and other vulnerable populations. Similarly, authors Ohanian and Emery (2004)

assert that community leaders should retain decision-making power when dealing with all special interest groups, governmental agencies, corporations, or other organization that have *helpful* intentions. This collective cautionary advice to maintain locally situated, culturally relevant agency authority should especially considered in all instances regarding the integration of ICTs and other *innovations* for the all efforts to integrate ICT and other innovations for their *benefit*.

Since the topic of agency and unethical, unnecessary, and possibly counter-productive technology integration is a significant concerns to this population that has already endured centuries of oppression and decimation, an ethical decision-making model, such as Hosmer's (2010), can help guide decisions to ensure that ICT integration efforts are done in a culturally responsive manner and serve to empower, not disempower, this important group of people and their culture.

Methodology

Design. This phenomenological study, based on the narrative life-story framework (Giele, 2008) explores Native American women leaders' utilization of ICT for WLB. As per usual with phenomenological research, there is sparse to no existing literature in this specific field (Creswell, 2009). Phenomenological research is often culturally specific (Gray, 2009) and is therefore an appropriate design to answer the main research question, "How are Native American women leaders utilizing ICTs for WLB?"

Data Collection Strategies and Procedures. *Data sources.* The study's data sources consisted of 14 women ranging in age from their late 20s to their early 70s who were recognized members of a U.S Native American tribe or band of people. They were elected, appointed, and or recognized as leaders in their communities and were fulfilling leadership roles such as executives, directors, presidents, professors, teachers, department heads, chiefs, board members,

entrepreneurs/business owners, and similar positions in corporate, academic, non-profits, health, and governmental organizations entities throughout the United States. Leaders were also identified based on awards received. The respondent-driven sampling method, otherwise known as snowball sampling, was used to identify the study participants. The researcher commenced the snowball sampling process by contacting potential study participants from Native American organizations in which she has as an existing membership or affiliation.

Interviews. The PR conducted the semi-structured, focused interviews (Gray, 2009) via phone and Skype, while following the IRB approved protocol. The interviews lasted 45-120 minutes. The participants also completed a socio-demographic questionnaire to provide context to the interview. The interview contained six categories of questions based on the narrative life-story framework (Giele, 2008). The first four categories dealt with the four stages of life – (a) early adulthood, (b) childhood and adolescence, (c) adulthood-current, (d) and adulthood-future – and the last two focused on the additional categories added for the specific purposes of this study: (e) coping strategies (Weber, 2010), and (f) information and communication strategies use (Jensen, 2013). Once the interviews were transcribed, they were analyzed with NVivo software and coded for emergent as well as a priori themes of identity and adaptive style (Giele, 2008) and the variable of ICTs use (Jensen, 2013) utilizing Saldana’s (2009) code to theory, two-step coding model. Another WLB dissertation student sampled the interviews for coding consistency to validate the findings.

Key Limitations and Assumptions

Prior to the study, the PR was aware of the key limitations and assumptions and acted in due diligence to mitigate those affordances, which are described below:

1. The relatively small sample size (14) of Native American women leaders may or may not be entirely indicative to the entire population. To help mitigate this, the PR intentionally invited study participants with widely varying socio-demographic backgrounds.
2. Due to the short time frame of the study and ever-changing nature of ICTs, the results may or may not be highly relevant to this particular point in time.
3. The participant and referring person (snowball sample) assured the PR that each participant was both a recognized leader and recognized tribal member by the referring entity. Therefore, the PR did not further verify the participant's socio-demographic (tribal membership or leadership).
4. The PR can be considered a Native American female leader, therefore a coding and reporting bias should be considered. To address this, a second doctoral-level student familiar with life course research (Giele, 2008) verified the thematic coding.

Results

The section provides the data and key learning findings of this narrative life-story framework based, phenomenological study on how Native American women are utilizing ICTs for work-life balance. The described results are meant to address the two key study research questions: (a) What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities?; (b) How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community? These study results informed the overall conclusions and implications for future research.

To answer these questions the 14 study respondents' interview answers were coded for the narrative life-story themes of identity and adaptive style and ICT use. The Identity code was defined as the manner in which the study participant views and portrays herself to others, such as being different versus conventional (Giele, 2008) "Identity is associated with a person's location in time and space and cultural milieu" (Giele, 2009, p. 256) The adaptive style code was defined as the innovative versus traditional manner in which a person adjusts to his/her setting (Giele, 2008) To provide additional grounding to the results, the Native American concept of balance in mind, body, spirit, and social relationships were referenced throughout the study via relevant quotes and other study data. This concept was a key learning from study Participant #10.

Population Description. This study population consists of 14 Native American women leaders from a variety of: tribal affiliations/memberships and their locations, leadership and educational level, servant-leadership/volunteerism, marital and parental status, backgrounds, professions, and employment. The participants' identity was revealed throughout their interview and by the information offered in their socio-demographic questionnaire (SDQ). Selected results from the SDQ are contained in Table 1.

The following SDQ-based quotes related to the coded identity and adaptive style themes (Giele, 2008) are meant to enhance the data with the study participants' actual words. Participant 10 shared the importance of her Native American identity in regards to the use of ICTs in various settings, such as professional, cultural, and spiritual venues.

Study participant 10 stated:

Well, that's what I'm saying, it goes against the traditional songs. It's like someone saying, do not tape record or do not take pictures of certain things at a powwow. And so I'm saying for ceremony it would be so inappropriate for me to pull out my iPad around my medicine people. Now, what I have done, say I'm doing a leadership ceremony, is I will have my iPad closed and say, these are the tools that help me at work. Or I'll say, these are the documents I want you to -- these documents, like a phone list,

organizational chart or whatever helps me to center my prayers for my community. But I don't open an iPad and start using it in front of a traditional person. So it's going to be – you know, I think it's very important for women to understand protocol around using technology with our traditional ways. You don't do it. There are some things that we have to turn that off and have deep respect for the traditional ways and ceremonial ways without technology, because you lose – it's just not right. You know what I'm saying?

Participant 10 also noted the important role of ICTs in maintaining her familial connections and in her identity role as a grandparent.

Study participant 10 also stated:

I can text my son and say, send me a quick video clip of my granddaughter laughing. She's ready to walk and when I'm having a bad moment I can click on the video and see my granddaughter laughing, because she's trying to brush her hair the first time. And my sons will send me things that will help me to keep my balance.

Research Question #1 Results. This section highlights results related to Research

Question #1 - What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities? To determine the language that the Native American women leaders were using regarding their identity and adaptive style, a word frequency query (Figure 5) was generated in NVivo. The words with a larger font represent words that were used more frequently by the participants during the course of their interviews. These results corresponded to other interview findings regarding these study participants identity and adaptive style (Giele, 2008).



Figure 5. Nvivo key word cloud.

Note. The larger the words, the more frequently the participants used them during the interview.

This same NVivo word frequency chart produced numeric value results. The most frequently used words related to identity were: Family (170), home (156), job (136), education (131)/college (164)/learning (121), community (121), native (97), and business (106). The most highly used words related to adaptive style included: helping (211), service (203), learning (121), balance (69), and moving (60). The NVivo word frequency query was also used to create Table 3 below, correlating the resulting high frequency words with the overall narrative life-story framework themes of identity and adaptive style and the Native American concept of balance, which focuses on a balance between the spiritual, emotional [mental], physical, and social aspects of a person’s being – including identity and adaptive style.

Table 3

Correlation of Native American Balance Concept with Interview Themes and Most Frequently Used Words

Native American Concept of Balance Theme	Correlating Interview Themes	NVivo Word Frequency
Spiritual	Ceremonies	Native (97)
Emotional/mental	Education, mentors	Learning (121), education (131), college (164)
Physical	Exercise, diet, health, nature, home, work	Moving [resilience] (60), job (136), business (106)
Social	Community, family, professional, mentors	Helping (211), service (203), family (170), home (156), native (97)

The following participant statements further illustrate their viewpoint of their traditional Native American identity and adaptive style.in regards to the importance of culturally relevant ICT during Native American ceremonies.

Participant #10 stated:

Yes. And one of the places I see it used disrespectfully is taking the cell phone out and using it to take pictures and not asking permission of the people. So I was a head woman dancer for a powwow and these are Native young kids, they didn't ask permission of the people ... [They didn't] [edited for clarity] ask, "Can I please take your picture?" They were taking pictures. And it's like ... someone didn't teach them.

Participant 10 also stated:

But I can see it with people who should know better and probably the should know better are my nieces who would be at ceremony and they think it's cool. And they're taking pictures of maybe part of a ceremony, the altar or whatever. And even a cell phone, using that function of the phone is inappropriate. Okay.

These results provided important insight for answering Research Question #1. In summary, these results show that the Native American concept of balance components (spiritual, emotional/mental, physical, and social) has shaped the life course of Native American women as they utilize ICTs for both personal and professional activities. Participants' reported ICT use for personal and professional activities is further detailed below in Table 4 below, which shows the number of times (References) and total % of their interview (Coverage) that she mentioned using ICTs.

Table 4

NVivo Coding – Participant Mentions of ICT Use

Participant #	References	Coverage
1.	16	18.4%
2.	6	8.54%
3.	23	11.81%
4.	6	10.07%
5.	17	14.76%
6.	2	9.7%
7.	15	8.1%
8.	5	6.95%
9.	14	20.69%
10.	37	5.3%
11.	18	15.55%
12.	17	8.1%
13.	11	13.66%

This described data was further analyzed and used to generate Figure 6 below, which illustrates the participants' ICTs use, such as: Social media (Facebook, LinkedIn, Pinterest, YouTube Twitter), a laptop, handheld mobile device (smartphone, iPad, Kindle, or Nook), teleconferencing (Skype, Facetime), web/cloud-based productivity apps (email, calendar, docs, research tools – Zotero), and texting. This table demonstrates the participants' unanimous use of social media, a handheld mobile device, and web-based productivity tools. It also shows that

12/14 or 86% of respondents are texting and 7/14 or 50% of respondents are utilizing some form of web/tele-conferencing tools, such as Skype or Facetime. Overall, this sample of Native American women leaders shows a significant utilization of ICTs in their personal and professional lives.

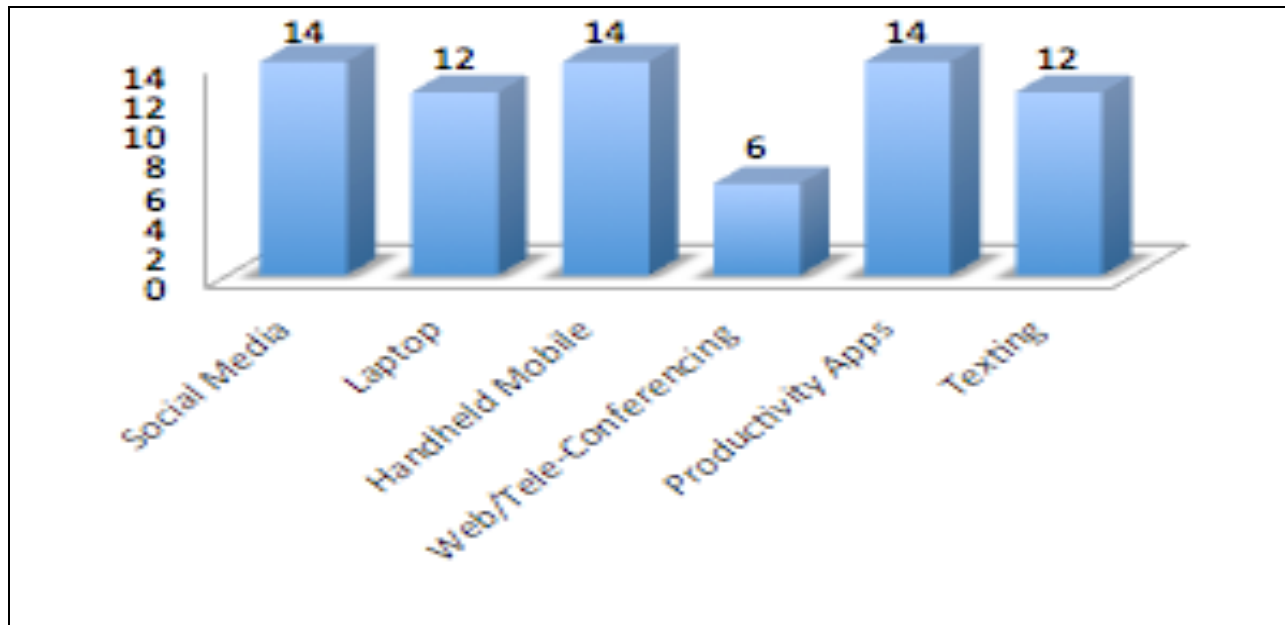


Figure 6. Study participant's utilization of ICTs.

Additional study participant quotes are presented to further illuminate the study participants' life course experiences, in terms of their sense of identity and adaptive style, as they use ICTs for their personal and professional activities. Several participants noted the use of ICTs (web/tele-conference and email) to stay connected to their geographically diverse family members.

Participant #10 stated:

The plus side of using my private e-mail is I can say to my sisters, we have this cute thing that we do, send me some [positive, encouraging messages] [edited for confidentiality], a thing we saw on a TV show, a stupid character, but some [positive, encouraging messages] [edited for confidentiality] would do something and she'd have [inaudible] sent to her. And so I can easily get online or on the phone or text my sisters and say, send me some [positive, encouraging messages] [edited for confidentiality] And one of the some

[positive, encouraging messages] [edited for confidentiality] will come and she will have my picture at her home and she will do a prayer for me.

Participant 10 offered that ICT use is a point of interest connection and conversational topic between her and her grandchildren stated:

We've done conference calls, my sisters and I, because we're all over the country and we're all really close to each other. So my sisters will line up a call, but it takes time. And so Skyping helps. And my grandkids say, grandma, you've got to keep up on your updates, because my Skyping is slow or things freeze and my grandkids who are only 9, 13 are telling me I'm doing a bad job of keeping up with my updates and what I could do to make my iPad run faster. Or grandma, can you please get Wi-Fi in your house so you can have more bars on your iPad?

Participant 11 stated how social media (Facebook) was an important point of connection between her and other adult communities when she was a stay-at-home mom with young children. She also mentioned the social media's (Facebook) potential addictive power:

And in that year I would say a big shift – you know, I use Facebook regularly, check it multiple times a day. My husband says I'm addicted. I'm less addicted than I used to be, though. Really, when my kids were really little Facebook was a way to connect to other adults.

In summary, these quotes and study data illustrate the experiences that shape the life course (past, present, and future), in terms of their identity and adaptive style, of these Native American women leader study participants as they utilize ICTs for both their personal and professional activities. As previously referenced, many of those experiences are grounded in the Native American concept of balance between the spiritual, emotional, physical, and social aspects of human nature (Participant #10).

Research Question #2 Results. Building on the previous result and key learning regarding the identity and adaptive style-based life course experiences, the following section will address this study's second research question, How does Native American women leaders' ICT use impact their WLB and building capacity (developing skills) as a leader in their community? To answer this question, the participants' interview reports regarding their ICT use's positive or negative impact on their work-life balance. As represented in Figure 7 below, all participants

reported that their ICT use is having an overall positive impact on their WLB, i.e., increased access to knowledge, community, and ability to work from home. Eight respondents reported some negative impacts, as well as positive impacts, from their ICT use on their WLB, i.e., learning curve, expectation by employers to be accessible 24/7, and high cost of equipment. The other six respondents reported that ICTs had no negative impact on their WLB. The ICT use impact on WLB and socio-demographic data of Table 4 was then utilized to create a pictorial representation seen in Figure 7 below.

The ICT use impact on WLB data was then utilized to create a pictorial representation of the same information in Figure 7 below.

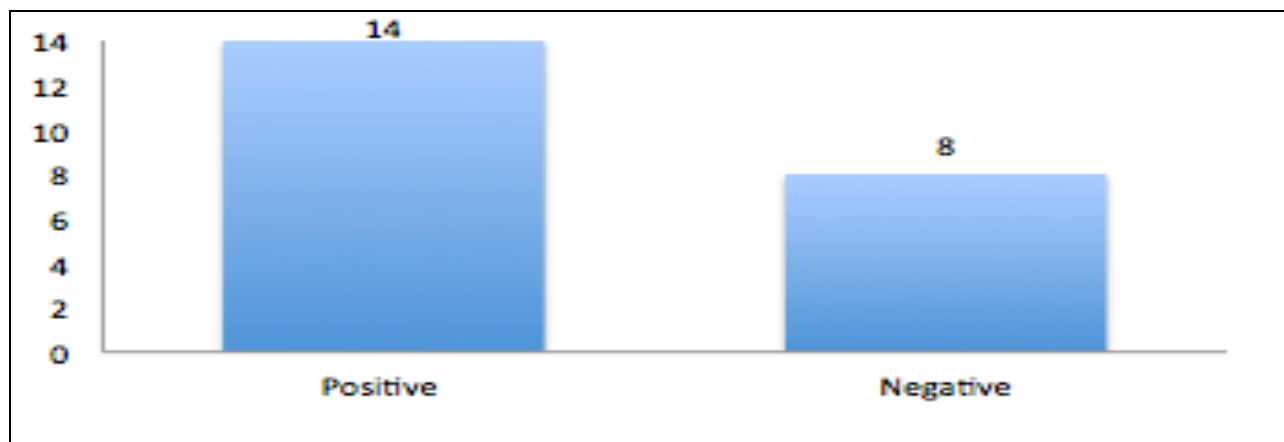


Figure 7. Participants' ICT use effect on her WLB.

The following quotes further illustrate the positive impact that ICTs are having on the study participants' WLB. Interviewees noted that they are often more professionally productive while working from home because there are less distractions, more flexibility, and it takes less time to dress for an official office setting:

Participant 12 stated:

I can just put on jeans and a t-shirt and sit at the computer and be productive for 7 or 8 hours straight. I like that. I like the comforts of being able to just work from home. And I'm real disciplined. If I say I'm going to work from home I can -- I exceed the eight-hour

work day, I'll do 10 or 12 hour work days and my husband will come home after five and he'll say are you still working? Or we'll be trying to make dinner and he says you know you really just need to get away from that. You put in a full day. So I like that flexibility.

Participant 11 stated:

And so my work-life balance would have been impossible without the Internet and a laptop. And so I had a laptop. I think my husband bought a laptop when I was in grad school; I don't know. He's really into technology. So I use more technology than I would have if I had married a different person, I am sure. So laptop and being able to remote in to work allowed me to have a job that paid rent when my husband was in grad school, and I could take care of my kids and stay home with them, which was really important to me. So yeah, technology was great. And so what I did that year was I would take my laptop, once a week I took my kids to a preschool enrichment thing at the public library and I would spend a few hours working there. I used my iPhone to do all of my work email from home because I could get iPhone signal and could do that. And when I had to [inaudible] into my desktop, I would have to take my laptop somewhere with Wi-Fi. We also at that point lived about 10 minutes away from my in-laws and so there would be one or two days a week where I would take the kids over and my mother-in-law would help watch the kids while I did all of my work on the laptop, using their Wi-Fi.

Alternately, interviewees also communicated the negative impact that ICTs are having on their WLB. Respondents shared frustrations about the constant pressure to be professionally accessible, productive, and accountable.

Participant 10 stated:

Quite honestly, a cell phone... it does not keep the work/life balance in check, because when I was issued my cell phone in this position five, six years ago they said, we give you this and we want to have 24/7 access to you. That's our vice chancellors calling us or emailing us, ... "the sky is falling". And sometimes I will look at it and say in my head, I'll deal with it Monday, but I'll look at it, I'll try to respond with a few words to my [supervisor] that I got it. But that is the worst thing that is like a ..., that I constantly have my cell phone with me. So it works against me, cell phones, but I understand it's issued to me and I have it all the time.

Participant 5 stated:

But now, there are no boundaries around – like, you really have to be deliberate about saying – either putting a message on your email that says I'll be away at a session and unable to answer your email because people's expectation is like, oh my God, I emailed her an hour ago and she hasn't emailed me back. There's a new expectation in the workplace about accessibility.

Participant 5 also stated:

So the problem with that is I have these 50 things that really need to be guiding my work today. But if I get emails from people saying I'm going to talk to you in an hour and take an hour of your time, I just subjugated my own work to somebody else's. And there's no negotiation in this.... So we're imposing deadlines on each other and I – instead of – there's no way – at first I would tell my people, get on in the morning and check your email, set another time to check mid-day and check in the evening.

Participants also communicated the how they address the learning curve that accompanies integrating new ICTs. The time that it takes to progress through this learning curve often has an effect on their WLB.

Participant 11 stated:

I think the user interface is probably the biggest factor in my reaction to an ICT. Is it easy to figure out? Is it easy to work with? I've tried some apps on my iPhone that I thought sounded like a good idea, but maybe they were really glitchy and they shut down or they don't save or they don't upload correctly or it's not -- and I just think, forget it. And I delete it... But initially I'm always skeptical because, my goodness, technology is so expensive. And I just think, really?

Several interviewees mentioned the importance of Internet connectivity in rural (reservation) areas to their ICT and its overall impact on their WLB. Participant 4 stated:

I have to be really aware of what town is next and make sure that I'm in place that I can get connection. Although I have - - it doesn't happen very often, I have roaming... I can get all the time so usually I can get my phone out. But there have been times where it's been not good and then what I do is I just reschedule it, say we're having a little technological problem.

Participant 3 stated:

So that's been a big problem, making sure we have enough bandwidth for everything....A lot of the access, though, is cost-driven.

Participant 3 also stated:

...I helped them [Tribe] get more Internet. Before I got there, we had a Sprint tower. So we were out in the middle of nowhere where the first -- one of the first groups to really offer cellular service. I think 1,200 people in the tribe had tribal cell phones working for us. We had to cut that back because it got out of hand. You know how people can ... want to take advantage of it and they get excited. But at least we were able to offer the

people that lived on the reservation, whether they're a Native or non-Native, service where they had none before. So we were one of the first tribes to get a really good cellular service and that was a long time ago...

Overall, these study results related to Research Question #2 demonstrate that ICTs are simply a tool that can be used to empower or disempower Native American women leaders' WLB. Similar to every other technical and non-technical tool, a person's identity, ability and willingness to learn (adaptability), and cultural/community affordances play a significant role in the overall impact of ICTs' effect on WLB.

Conclusions

From an advocacy/participatory worldview, the purpose of this qualitative phenomenological study was to explore how Native American women leaders are utilizing ICTs for WLB and capacity building. The overall goal of this study based on the narrative life-story (Giele, 2008) framework was to inform culturally responsive ICT integration and to empower Native American women leaders as they: (a) Serve as leaders of local, national, and international organizations, (b) maintain connected personal lives, and (c) contribute to their cultural preservation and revitalization. This study presented the findings from 14 in-depth, semi-structured interviews of Native American women leaders. The research questions were based on the four stages of life: (a) Early adulthood, (b) childhood and adolescence, (c) adulthood-current, (d) and adulthood-future. The participants' answers were coded for two of the narrative life-story framework themes – (a) identity and (b) adaptive style – as well as ICT use. The study research questions were as follows:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities?

2. How does Native American women leaders' ICT use impact their WLB as a leader in their community?

The results clearly demonstrated that the experiences inherent to the Native American concept of balance – spiritual, emotional, physical, and social relationships– which correlate to the life course (Giele, 2008) themes of identity and adaptive style shape Native American women leaders' use of ICTs for both personal and professional activities. Additionally, the results clearly demonstrate that ICTs have a both an empowering effect on social connectivity and overall productivity.

Participant 4 stated:

It's really about refocusing people on not what a problem is but on what the solutions are and what the tools are that can -- that can help them, help them [inaudible] solutions about.

Participant 3 stated:

So it's pretty intriguing. Talk to people, again, in business a lot times, there's a lot of peer-to-peer sharing of information and tricks.” At the same time, the study results showed that ICTs can also circumvent Native American women leaders' WLB due to constant pressure to be accessible and productive.

Implications of the Study

As a result of this review of literature and the results of this study, it is evident that Native American women are in a strong locally situated position to invoke their overall highly conscious style of leadership to help support Native American cultural preservation and revitalization. The literature also implies that ICTs have the potential to empower Native American women leaders' WLB during their efforts to restore their communities. Lastly, international studies can serve as models and references to help inform programs that empower Native American women leaders' use of ICTs for WLB. All of this work served to inform the current study.

This study's results report ICTs' contrasting potential to simultaneously empower and disempower Native American women leaders' WLB. One especially notable finding was the need for more widespread Internet connectivity throughout rural areas. It also highlighted the unanimous interest in further widespread ICT training. Another significant implication was the need for organizations to develop culturally responsive policies regarding the expectation for employees to be available and productive on a 24/7 basis and therefore have little to no WLB. Lastly, this study demonstrates the need for further investigation in to the individual and combined field of Native Americans, women leaders, ICTs, and WLB and the strong community of Native American women who will support these efforts.

Participant 12 echoes this sentiment:

Well, Crystal, I wish you well. I know at times it probably gets a little bit challenging but I – we've got to stay in this together and I think every person has their own reason but I think – and a more sort of broader push, it's so much needed to have our representation out there. So know that you have a lot of support and – which is why I want to get these other women's contacts to you and have you get closer to completion. So just know that I'm 100 percent behind you so stay the course.

Participant 4 summarized the theme of this study well: “I think it's opened up a whole new world of recognition of how this stuff is like magic.”

Recommendations for Future Research

The review of literature and results of this study clearly highlight that further research regarding Native American women's leadership, work-life balance, and culturally relevant ICT integration. This future research is especially needed because these Native American women leaders are in a strong, community (locally)-situated position to empower the desperately need preservation and revitalization of Native American and Indigenous cultures. This entire study also illuminates ICTs immense potential to empower Native American women leaders' work-life balance, while they are simultaneously working to build capacity in their communities and

maintain their personal identity. The existing International studies and reports conducted by several UN agencies in this area can also guide the path for future similar research regarding these aforementioned core issues. Ideally, the results will help inform ICT integration efforts for Native American and global Indigenous women's work-balance as they contribute to their cultural preservation and revitalization efforts.

Chapter 6: Conclusion

This chapter offers an overall study summary, conclusion, recommendations, and review of the key literature. The main study limitations, assumptions, and implications are also contained in this section. These components reflect the core components of this phenomenological study, which explored how Native American women leaders are utilizing ICTs, such as social media, laptops, handheld devices, web/tele-conferencing, web/cloud-based productivity applications, and texting for work-life balance and capacity building.

Summary of the Study

From a participatory/advocacy point of view, the purpose of this qualitative study was to gain insight into the impact of ICTs on Native American women leaders' work-life balance and capacity building. This knowledge is especially important now as Native American women leaders are currently serving as focal points for their culture's preservation and revitalization. The study reflects that the participants are also synergistically building capacity to maintain their connections to their family, community, and tribal homelands, while acquiring the necessary skill-set to maintain their leadership in the 21st century workforce. This exploratory study was based on Giele's (2008) narrative life-story framework, which included semi-structured interviews based on the four stages of life: (a) Early adulthood, (b) childhood and adolescence, (c) adulthood – current, (d) and adulthood – future (Giele, 2008). The interviews were coded for the life-story themes: Identity, adaptive style, and ICT use. The study's research questions are as follows:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities?

2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community?

Overall, the study participants reported a high-level of ICT use, 100% of respondents used some form of social media, a handheld mobile device, and web-based productivity applications. They all reported wanting more ICT use training and support. In regards to their identity, all interviewees mentioned the importance of their family, Native American cultural roots and community connections, education, empowering themselves and others via servant leadership and balance. Participant #10 defined the Native American viewpoint of balance as: Spiritual, emotional [mental], physical, and social [connections]. In regards to their adaptive style, all of their life stories also reflected strong, resilient spirits; they were determinate to not only survive, but to thrive, while maintaining a strong desire to preserve and revitalize the Native American culture in general.

Key Limitations and Assumptions

Prior to the study, the PR was aware of the key limitations and assumptions and acted in due diligence to mitigate those affordances, which are described below:

1. The relatively small sample size (14) of Native American women leaders may or may not be entirely indicative to the entire population. To help mitigate this, the PR intentionally invited study participants with widely varying socio-demographic backgrounds.
2. Due to the short time frame of the study and ever-changing nature of ICTs, the results may or may not be highly relevant to this particular point in time.

3. The participant and referring person (snowball sample) assured the PR that each participant was both a recognized leader and recognized tribal member by the referring entity. Therefore, the PR did not further verify the participant's socio-demographic (tribal membership or leadership).
4. The PR can be considered a Native American female leader, therefore a coding and reporting bias should be considered. To address this, a second doctoral-level student familiar with life course research (Giele, 2008) verified the thematic coding.

Demographics and Findings

The study population consisted of 14 Native American women leaders that were recognized members/participants of Native American tribes dispersed throughout the United States. They ranged in age from late 20's to early 70's. Their educational levels coagulated into the two main categories of post-graduate (Master's and Doctoral degrees) and some college/professional certificates. They reported professions such as educators (K-12 and higher-education), counselors/therapists, executive leaders, and entrepreneurs/business owners.

The findings of this study, *How are Native American women leaders utilizing ICT for work-life balance and capacity-building*, are demonstrated in the answers to the study's three research questions. First, research question #1, *What experiences shape the life course of Native American women leaders as they utilize ICTs for both their personal and professional activities?* The participants answers coagulated around the themes described by a Native American definition of balance: (a) Spiritual, (b) emotional [mental], (c) physical, and (d) social, which is a definition offered by Study Participant #10 during her interview.

Regarding research question #2, *How are Native American women leaders' utilizing ICTs in their professional and personal work life?*, reflected that 100% of the participants are using

some form of social media, handheld mobile device, and web-based productivity tool, 86% text message and have laptops, and 50% web/tele-conference.

The findings from research question #3's, *How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) as a leader in their community?*, all participants reported that ICTs had a positive effect on their WLB; nine participants also offered comments on how ICTS has also negatively impacted their WLB.

Implications of the Study

The implications of this study are three-fold. First, the study results clearly demonstrate that the Native American women leaders interviewees are utilizing high amounts of ICTs throughout their personal and professional lives.

- 100% of respondents used some form of social media, a handheld mobile device, and web-based productivity applications
- 12/14 or 86% of respondents are texting
- 7/14 or 50% of respondents are utilizing some form of web/tele-conferencing tools, such as Skype or Facetime.

This significant ICTs utilization is also reportedly empowering their ability to maintain connection to their families, other tribal members, communities and organizations, thereby impacting their overall identity and WLB as a Native American woman leader. This correlates to the overall global rise in ICT, which is resulting in overall human development and capacity building (ITU, 2010) and possibly implies further human and community capacity building potential for Native Americans/Indigenous women leaders and other related populations.

Second, ICTs are enhancing these participants' adaptive style of resiliency through change, which includes seeking out new, innovative learning opportunities, tools, and resources

for personal and tribal (community) capacity building. Participant #13 shared about her and her tribe's resilience through their use ICTs for language preservation and revitalization:

What else are we using for language [preservation]? Well, I mean, I think it's mainly the iPad. We just are -- we're archiving a lot of our language electronically as opposed to just paper. So we can easily go through all the information. We have done videos, so where we're actually doing -- we do filming. And then we upload it onto our Apple computers. And then we're doing a lot of work with technology as far as being able to edit the work that we're doing. So we never thought we would be doing that with language. But I think technology is really coming in handy as far as being able to make some tangible documents. I'm sorry, documenting certain things and then being able to give it back to the tribe. That's been really beneficial.

This story demonstrates how Native Americans are able and willing to adapt both individually and collectively to address challenges such as MIT-Indigenous Language Initiative's (2012) charge to rescue and restore Native languages,

Language loss has a profound impact on indigenous and minority communities and revitalization and maintenance efforts by concerned people can make a big difference in the way the community values not only its language but, even more, its entire culture.

Hence, the Native American women leaders interviewed and many others (Native American and minority/diverse) reflected in the literature (AISES, 2012; SACNAS, 2012, UN, 2005) are using ICTs as one more set of tools in their resiliency "toolbox" to not only survive, but to thrive (with enhanced WLB and CB) in their 21st century world.

Colonial conquest and the more subtle but sustained impact of the modern-day lodestar of scientific and technological progress have pushed indigenous peoples and their cultures to the brink of extinction. Nation states often adopted policies of assimilation and integration, of *divide et impera*, that left First Nations fundamentally uprooted, marginalized and dispossessed. Still, many indigenous peoples did not vanish; they did not abandon their culture, their inner worlds. Assisted by modern communication technologies, they overcame their cultural and political isolation and joined together to reclaim their essential identity as well as their role on the global stage of decision-making. This remarkable comeback has found its most comprehensive expression in the 2007 United Nations Declaration on the Rights of Indigenous Peoples (U.N., 2010)

This UN Declaration for Indigenous Peoples statement highlights the power of Native American and other Indigenous women's resilient ability to achieve a global vision that includes

technological affordances in a system-wide (social, economic, cultural, geographical) collaboration that can help solve the grand challenges of saving our U.S and global Indigenous populations and their cultures.

A third implication of this study was highlighted in the literature of how Native American and Indigenous People view balance as the multiple facets of work and life converging in various aspects to form a circle(s) (ANKN, 2011; Bruner, 1990), which correlated to the study results of their view of balance as a holistic blending of mind, body, spirit and social relationships. This well-rounded, inclusive view of reality is in contrast to the Western European depiction of time and work-life balance being reflected and measured in more linear terms with discrete starts and stops and precise amount of time spent personally and professionally to achieve balance.

Lastly, All participants reported that ICTs are increasing their ubiquitous access to work and family and therefore empowering these women's WLB and CHB. This result possibly reflects their aforementioned circular view of balance. 8/14 participants reported that ICTs are having simultaneously having a negative impact on their WLB also show that the employer and overall societal expectation to be constantly available and productive is also causing a work-life imbalance. This finding correlates to ICT and WLB study finding in Nigeria (Akanji & Nwagbara, 2012), India (Chauhan, 2010), and the U.K & Netherlands (Yerkes, Standing, Wattis, & Wain, 2010). It may also speak to what the literature suggests that Native American women have had to learn to live in two world; their personal, Indigenous tribal world and professional, Western European world. Overall, this study implies the need to develop culturally responsive, *balanced*, socio-cultural expectations for our current 21st century diverse, hyper-connected, digital world.

Recommendations for Further Research

Based on the aforementioned implications, future research recommendations based on this study are as follows:

1. Expansion of the current study to include more participants and sub-studies focused on specific demographical sub-groups, such as: (a) Particular tribes, (b) occupations, (c) educational levels, (d) women with children at different stages of life, (e) women at different stages of life, and (f) economic status.
2. A study regarding the role of mentoring in ICT use for WLB and capacity building.
3. A study regarding the cultural affordances of ICT integration with Native American populations and the potential issue of virtual colonization.
4. Further studies on the role of Native American women and their leadership style in general and in the 21st century, global work force.

Summary

This research highlights that Native American women leaders are utilizing ICTs for WLB and capacity building in many empowering ways. At this same time, this study also highlights the impacts that ICTs are having on the participant's cultural identity and adaptive styles (Giele, 2008). The findings suggest that this is an important area of research that needs to be investigated further, especially since prior to this study, there was no existing literature. The PR hopes that this study can serve as an informative source for future similar studies.

Lastly to summarize the importance of this work in the words of a Native American woman leader, Study

Participant #5 offered:

One of the things that I tell people is that I'm the first woman in my family, four generations, that raised her own children. I raised my two daughters and I adopted my niece, so I raised three girls. Now, I'm the first woman to be an active grandmother and I'm enjoying it. I just feel so blessed that the relationship I have with my little grandson is -- he's only 18 months, is powerful. I can just see the gifts that I can bring to him. I was really happy to raise my own children, I'm even more mesmerized about playing a role in my grandson's and my future grandchildren's lives. It's powerful.

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APPENDIX A: Faculty Supervisor IRB Review Form

Available upon request.

CITI Collaborative Institutional Training Initiative (CITI)

Social and Behavioral Responsible Conduct of Research Curriculum Completion Report Printed on 1/31/2013

Learner: Crystal Jensen (username: ccjensen)

Institution: Pepperdine University

Contact Information PO Box 2001

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Social and Behavioral Responsible Conduct of Research: This course is for investigators, staff and students with an interest or focus in **Social and Behavioral** research. This course contains text, embedded case studies AND quizzes.

Stage 1. Basic Course Passed on 12/18/12 (Ref # 5756911)

APPENDIX C: Invitation Letter to Participate

The recent increased availability of information and communication technologies (ICTs) (I.T.U., 2011) has empowered women leaders efforts to achieve a balance between their professional and personal obligations, or achieve a work-life balance. These increased availability can serve as a restorative social model for Native American (and other Indigenous) women leaders as they are regaining their ancient, traditional places of leadership in their tribes, which is important because the Native American women leadership model can help address the current, dire needs of Native American cultural preservation and revitalization.

For many years, my scholarly interests have focused women's leadership, capacity building, and leadership, especially for Native American women. As a Doctor of Learning Technologies candidate at Pepperdine University's Graduate School of Education and Psychology (GSEP), I would like to invite you to participate in my research study that I am conducting to complete my degree entitled, "Native American Women Leaders Utilization of Information and Communication Technologies (ICTs) for Work-Life Balance (WLB) and Capacity Building." The purpose of this study is to answer the three main research questions:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs into both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?

3. How does Native American women leaders' ICT use impact their WLB and coping strategies for building capacity (develop skills) as a leader in their community?

To answer these questions, I will be conducting one-to-one, in person or phone interviews with Native American women serving in leadership roles in a wide array of organizations. I anticipate the interviews will require about 75-90 minutes of your time. With your permission, the interviews will be recorded. To protect your confidentiality and anonymity, I will assign your name and responses a unique identifier. I anticipate interviews to take place between March, and April 2013. The interview data will be analyzed in April 2013, with a study completion date of May 2013. Upon completion of the study, all study participants will receive a copy of the findings upon request.

Therefore, I would like to invite you to voluntarily participate in the study. You are free to decide not to answer specific questions, participate in only part of the study, or withdraw completely at any time without affecting your relationship or status with me or any other entity. Thank you in advance for your help. If you have any questions or concerns about this study, please do not hesitate to contact me at the information provided below.

My warmest regards,

Crystal C. Jensen (Choctaw of OK), Principal Researcher, Pepperdine University

APPENDIX D: Participant Initial Interest in Study - Thank you Letter

Dear Potential Study Participant:

I am grateful that you have expressed interest in serving as a participant in my dissertation study on Native American women leaders' use of information and communication technologies for work-life balance and capacity building. This study of work-life balance issues and capacity building strategies for Native American women leaders is the last step in fulfilling my doctoral degree requirements. More important, it has the potential to contribute to the significant knowledge gap in research related to these topics: (a) Revelation of strategies these women use to succeed in their personal and profession lives; (b) enlightenment of historical and socio-economic impact of balancing work and family and capacity building from a Native American women's perspective; and (c) enhancement of Native American women's understanding of their careers, available strategies, and how they relate with other aspects of their lives.

I will be contacting you shortly to schedule a date and time to conduct an in-person or teleconference interview, which will take approximately 75-90 minutes. Prior to the start of the interview, you will be asked to complete a socio-demographic questionnaire and informed consent document acknowledging your understanding of your participant rights and responsibilities and return it to the PR, Crystal C. Jensen, by the end of the day of the interview. A verification of your study participation will be provided upon request. As your participation is voluntary, you may decide to withdraw from the study at any time without any adverse affects to you, the PR, or any other entity. If you have study-related questions or concerns, please contact my chairperson, Margaret Weber, Ph.D. or me via the information provided below. Thank you in advance for your interest in this study, Crystal C. Jensen (Choctaw of OK), Pepperdine PR

APPENDIX E: Informed Consent

In partial fulfillment of the requirements of my Doctor of Learning Technologies degree at Pepperdine University's Graduate School of Education and Psychology (GSEP), I am conducting an interviewed-based, qualitative research study entitled "Native American Women Leaders Utilization of Information and Communication Technologies (ICTs) for Work-Life Balance (WLB) and Capacity Building." The purpose of this qualitative study is to explore ways in which ICTs are capacity building Native American women leaders in preserving and revitalizing their culture, while maintaining a healthy WLB, thereby enabling them to acquire additional tools to solidify their commitments to roots and family while joining the 21st century work force. The research questions are:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs into both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and coping strategies for building capacity (develop skills) as a leader in their community?

This study is important because it can provide: (a) Revelation of strategies these women use to succeed in their personal and profession lives; (b) enlightenment of historical and socio-economic impact of balancing work and family and capacity building from a Native American women's perspective; and (c) enhancement of Native American women's understanding of their careers, available strategies, and how they relate with other aspects of their lives. In addition, this study can contribute to the significant knowledge gap in research related to these topics.

Your study participation will consist of one-to-one interviews with the Principal Researcher (PR) - Crystal C. Jensen - which will take place either in person or via phone and is expected to last approximately 75-90 minutes. As your participation in this study is voluntary, you do not have to answer every question and may decide to withdraw from the study at any time without any adverse affects to you, the PR or any other entity. This study is considered *minimal risk*. Minimal risk is defined as, "The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests" (as cited in Pepperdine University IRB, 2009, p.11). The only foreseeable, possible risk of participation in this study is the imposition on your time to complete the required forms and interview. You will not run the risk of exploitation; your personal identifying data will be kept confidential and your anonymity will be protected by the PR's assignment of a special identification not associated with your name.

Upon your request, I will provide a copy of any published papers that occur as a result of this study. The PR will retain sole stewardship of the data and plans to use the data collected in this project for subsequent analyses and publication. She may also share the raw data with other graduate-level researchers as part of the larger study on women and work life balance. If you have study-related questions or concerns, please contact my chairperson or me via the information provided at the end of this document. I will provide verification of your participation in the study upon request.

Before I can begin your interview, please sign and return this informed consent form to the PR (for tele-conference interviews please mail, email, or fax to PR via information noted at the bottom of this form) acknowledging that you understand the previously described details of

this study, which includes my use the data from your interview.

If you agree with the following statements, please initial the appropriate line below:

_____ I agree to participate in this research and would allow appropriate quotes and data to be used in publications. These individual responses would not be associated with my name or workplace, and would be referred to only by a pseudonym. **OR**

_____ I agree to participate in this research but do not wish for any of my quotes to be used in publications.

In either case, your participation in this study is voluntary and that the PR has taken steps to ensure the potential risks or discomforts to you as a result of **participating in this study are minimal** and not beyond the scope of a normal conversation.

_____ Please initial if you consent to these plans. If not, please leave the line blank.

Since longitudinal studies can provide some important additional understandings to life histories, the **PR may contact you in the future to invite you to participate in follow-up studies** regarding the same topic as this study.

_____ Please initial if you consent to these plans. If not, please leave the line blank.

The interviews will be recorded, stored on a portable hard drive, and transcribed for further analysis. The PR will maintain data anonymity and confidentiality. Your mother's maiden name will be assigned to the interviews and demographic form, which should maintain anonymity for your responses. All relevant data collected within the jurisdiction of the PR, including interview notes, recordings, transcriptions, and the hard drive will be placed in a locked cabinet and destroyed after all interviews are transcribed and analyzed. Please initial below if you consent with the interview session format.

_____ May I **record** this interview? If yes, please feel comfortable asking us to stop or resume

recording this discussion at any point in our conversation. If no, please know the interview will not be recorded.

____ May I take **notes** during the interview using a personal computer and pen and paper?

If you have questions about this study prior to or during the course of the study, please contact me or Dr. Margaret Weber, Dissertation Chairperson via the contact information provided at the bottom of this form. For general information regarding your rights pertaining to this study, please contact Pepperdine University's Graduate School of Education & Psychology (GSEP), Dr. Doug Leigh, IRB Chairperson at 310.568.5600 or Doug.Leigh@pepperdine.edu.

Please acknowledge fully understanding of the information contained in this informed consent by signing and dating the lines below.

Signature

Date

Sincerely,

Crystal C. Jensen

Crystal C. Jensen (Choctaw of OK), Pepperdine University Doctoral Dissertation Student PR

APPENDIX F: Interview Protocol

Interviews are structured conversations. In the interview, I am looking for depth and detail. These can overlap. Detail means going after the parts, the lists in an item. The depth is where you are seeking explanations about the diverse experiences the individual has had. I want to elicit vivid anecdotes or examples that allow a picture that is both intellectual and emotional in response. To get vivid responses, I may ask for narratives or step-by-step descriptions of what happened. It is important to listen carefully, probe, and ask questions of the interviewee. I am seeking their responses, so it is important that I continue to ask for their thoughts and input.

As the interviewer, I will not share my insights as that might bias or color the response received from the interviewee. An interviewer's emotions do affect what one hears and understands. It will be important for me to go through the questionnaires first and answer the questions as truthfully as possible. I will take an hour and go through the questionnaire and write down my own responses. I will note my biases and those issues that might be emotionally stimulating for me. This will help get a sense of your emotions out of the interview process so that I can be positive and listen for understanding.

I want our interviewees to interpret how they view an event and the meaning that they give to it and its impact on their life. I would expect people to participate in the same experience but see the experience in somewhat different ways and even come to different conclusions based on where their "steps have taken them". It is important for me to form a relationship with the interviewee. We are both human beings, not recording machines. The goal is to generate depth of understanding, rather than breadth. Both of interviewer and interviewee have feelings, personality, interests, and experiences. Although I understand that I am not neutral, it is important to minimize my own involvement in the responses. It is important to keep my opinions

to themselves, not be challenging. However, when an interviewee contradicts herself or engages in finger pointing, it is important to probe, ask questions, and mention the conflicting information in a conversational manner.

Being personally involved in the interview process is a great strength. Empathy encourages people to respond, yet active involvement can create problems as my biases can influence how you ask questions and how the interviewee responds.

As the interviewer, you may also find yourself being affected on a personal, political, or social level by the responses. You may become emotional at some responses. Or you might feel empathetic with the interviewee. It is important to be self-aware. In that way, you will be able to see how your questioning and non-verbal responses may be biasing the interview. As the interviewer, you take on deep ethical obligations. These include the obligation to report the interviews accurately and fairly, the responsibility to keep promises made when getting the interview, and the commitment not to harm the interviewee.

As you meet to begin the interview, it will be important to be sure that everyone is comfortable. You will want to introduce yourself and ask the interviewee to introduce herself. You might begin with some basic questions, like how their program is going, how they learned about the program - these questions are ice breakers and help you begin to establish the relationship with the interviewee. Now it is time to begin the interview. Give a brief introduction of the research study.

The purpose of this study is to explore the narratives of women's lives as they balance their work activities with the demands of home life. It is to understand how educated women's lives are changing. To accomplish this, we are interviewing female professionals.

This interview will take about 75 minutes. We will begin with reading the consent form

and obtaining your signature that you wish to participate in the study. The questions at the beginning are very brief to get a snapshot of you, your present work, your education, and your living arrangements. Then I will ask four big questions that are designed to help you recall several different periods of your life. I would like for you to tell me what stands out as being significant about them. Most people find this an interesting and enjoyable conversation. If, however, at any time you would rather not answer, you are free to decline.

First, you will administer the consent form. In order to continue with the interview, we need your written consent on this form, which has been approved by the IRB at Pepperdine University, and which assures you that there is no major risk to you in answering any of the questions. If you are uncomfortable with any question, you may decline to answer it, and you may terminate the interview at any time for any reason.

Go over the form with the interviewee and answer any questions the interviewee might have. You could have them read it and then ask if there are questions or you could go over each section with them. You will have two copies of the form. You will collect one of the forms and then leave the other copy with the interviewee.

Brief Introduction of the research study

The purpose of this study is to explore the narratives of Native American women's lives and the strategies, such as information and communication technologies (ICTs), they use to balance their work activities with the demands of family and develop their capacity. Overall, it is to understand how ICTs are influencing Native American women leaders' personal and professional lives. To accomplish this, I am interviewing Native American females in leadership roles in an array of organizations.

This interview will take approximately 75-90 minutes. I will begin with reading the consent form and obtaining your signature that you wish to participate in the study. My initial, brief questions are intended to help me get acquainted with you, your present work, your education, and your living arrangements. Then, I will ask four categories of questions that are designed to help you recall significant events throughout different periods of your life and two additional categories of questions regarding coping strategies and ICT use. It is my hope that you find this to be an interesting and enjoyable conversation. If, however, at any time you prefer to not answer, you are free to decline and/or discontinue the interview.

Administration of the consent form

In order to continue with the interview, I need your written signature on this informed consent document, which has been approved by the IRB at Pepperdine University, and which assures you that there is no risk to you in answering any of the questions. Again, if you are uncomfortable with any question, you may decline to answer it, and you may pause or terminate the interview at any time for any reason.” The PR goes over the form with the respondent and answers any questions. The PR collects the form and leaves a copy with the interviewee.

Background questions

I would appreciate you providing me with your basic, personal information by completing the study socio-demographic questionnaire that will accompany our interview. It includes information about your occupation, marital status, age, etc.

The interview instrument [turn on recording]

Conclusion [turn off recording]

Do you have anything to change or add, or any questions or suggestions that you would like to offer? If something comes to mind later on, I would be glad to hear from you. You can find a mailing address, phone number and email address on the initial letter and on your copy of the consent form.

Thank you very much for your time. I appreciate your valuable contribution to my research.

Sincerely,

Crystal C. Jensen (Choctaw of OK), Principal Researcher, Pepperdine University

APPENDIX G: Socio Demographic Questionnaire

Dear Interviewee: These background questions are the beginning of the interview and will be used to provide context to interview answers. Please fill out some basic information about yourself on this form that will accompany your interview. It includes information regarding occupation, marital status, age, etc. Your mother's maiden name is for identification only to connect it to the interview responses. This information will be kept confidential and stored securely.

Birth date _____ Place of birth _____

Country of residence _____ Education level _____

Current occupation _____ Employer _____

Race/Ethnicity _____ Marital Status _____ Birth Year _____

Spouse's (partner's) education and occupation _____

Children (gender and year of birth) _____

Mother's education and occupation _____

Father's education and occupation _____

Siblings (gender and year of birth) _____

Religious background _____ Second language(s) _____

Number of people living in your household _____

Number of generations living in your household _____

Percentage of total household income that you earn _____

Health, illness, accidents, disability _____

Lived in foreign country (name of country or countries) _____

Travel outside of U.S. (name of country or countries) _____

APPENDIX H: Interview Instrument

Interview Instrument

Your participation in this interview is strictly voluntary; you have the option of not answering any of the questions and discontinuing the interview at will. The interview will last from 75 to 90 minutes based on the length of your answers and will be recorded with your permission.

Your privacy, confidentiality, and anonymity will be protected because no reference will be made to your name throughout the interview or on any data materials, and your personal identifying interview information will be assigned a unique code. Immediately following the completion of the study the materials will be destroyed.

Query Series #1– Early Adulthood

Our first question is about the period in your life immediately after school or your early twenties. Here are some background questions first: (a) In regards to your college (if any): What was your major, name of your college, and year of graduation, what about graduate education? (b) What did you think you would like to become in terms of occupation; what type of lifestyle or family life were you hoping for? (c) What were you thinking then about your future life and how did things actually turn out?

Query Series #2 - Childhood and Adolescence (earlier life)

This next question concerns period in your life before college and the goals that you and your family held. (a) What was your family's attitude toward: (1) women's education, (2) your going to college, and (3) what you would become in the future? (b) What was the effect of: (1) your parents' education, (2) presence of siblings, (3) family finances, (4) involvement in a faith

community, and (5) family expectations? (c) How was your education different from, or similar to, that of your parents and siblings?

Query Series #3 - Current Adulthood

(a) Since college, what kinds of achievement and/or frustration have you experienced? (b) What type of mentors have you had? (c) What has happened that you didn't expect-in: (1) employment, (2) family, (3) faith, and (4) further education? (d) Has there been: (1) equal work opportunity, (2) children, (3) changes in marital status, or (4) lifestyle changes for yourself or a family member? (d) What about: (1) moves, (2) membership in the community, (3) faith community, (4) housing problems, (5) racial integration, or (6) job loss? (e) How are you currently feeling about yourself? (f) Have there been good things such as particular rewards, satisfaction, or recognition?

Query Series #4 - Future Adulthood

(a) Looking back at your life from this vantage point and ahead to the future, what are your main concerns at the moment? (b) Looking further out into the future, what are your goals, hopes and dreams for the next few years? (c) What, if any, problems do you hope to solve? (d) Where do you hope to be a few years from now with respect to: (1) work, (2) finishing graduate school, (3) family, (4) faith, (5) community, (6) mentors, (7) health, (8) finances, etc.?

Query Series #5- Coping Strategies

(a) What coping strategies do you use to respond to concerns related to the plurality of roles? (b) Have you ever felt pressured to choose between work and home?; What made you think that you could do both successfully? (c) Do you feel that your family life or work life have suffered because of your involvement in work or family? (f) Have you felt any guilt related to either family or work? (g) Are there times that you felt particularly successful at juggling the demands

of both work and home? Why or why not? (h) Were you prepared for the demands of work and life balance? (i) Why or why not? (j) What strategies do you implement in your own life in order to remain balanced between work and home.

Query Series #6 – Information Communication Technologies

(a) What information communication technologies are you currently utilizing to maintain/establish work-life balance? (b) How is your current use of ICTs affecting your WLB? (c) How is your current use of ICTs affecting your other capacity building efforts? (d) What ICTs would you like to utilize (i.e. that you observe others using) to establish or maintain a WLB? (e) How will you, or do you, currently address any anticipated challenges, such as lack of access, in implementing your chosen ICTs to maintain/establish WLB? (f) What are your reactions when encountering a new technical device such as an app, online strategy, or new computing object?

Conclusion

Do you have anything to change or add, or any questions or suggestions that you would like to offer? If you would like to share any additional information in the future, I would be glad to hear from you. You can find my contact on the initial letter and on your copy of the consent form. Thank you so much for your time. I appreciate your sharing your personal story and for your valuable contribution to this research.

APPENDIX I: Narrative Life Story Framework Themes Description

Identity:

1. How does the respondent see herself?
2. Who does she identify with as being like herself?
3. Does she mention her race, ethnicity, social class, [religion], or how she is different or similar to her family?
4. What qualities does she mention that distinguish her - intelligence, being quiet, likeable, innovative, outstanding, a good mother, lawyer, wife, etc.?

Adaptive style:

1. What is her energy level?
2. Is the respondent an innovator and a risk taker or conventional and uncomfortable with change and new experience?
3. Does the respondent like to manage change, think of new ways of doing things?
4. Is she self-confident or cautious?
5. Used to a slow or fast pace, to routine and having plenty of time, or to doing several things at once.

Drive and motivation:

1. What is the respondent's need for achievement, affiliation, and power.
2. Is the respondent ambitious and driven or relaxed and easy going?
3. Is she concerned to make a name for herself?
4. Focused more on helping her husband and children than on her own needs (nurturance vs. personal achievement)?
5. Mentions enjoying life and wanting to have time for other things besides work.

6. Enjoys being with children, doing volunteer work, seeing friends.
7. A desire to be in control of her own schedule, to be in charge rather than to take orders.

Relational style:

1. What is the respondents' typical way of relating to others?
2. As a leader, follower, negotiator, equal colleague?
3. Taking charge: Is she independent, very reliant on others for company and support, has a lot of friends, is lonely?
4. Nature of the relationship with her husband or significant other [and her children]? (p.401-402)

APPENDIX J: Participant Follow Up Thank You Letter



Dear _____:

Thank you for participating in my study: "Native American Women Leaders Utilization of Information and Communication Technologies (ICTs) for Work-Life Balance (WLB) and Capacity Building." You have shared a valuable portion of your life story with me regarding the following three main research questions:

1. What experiences shape the life course of Native American women leaders as they utilize ICTs in both their personal and professional activities?
2. How are Native American women leaders utilizing ICTs in their professional and personal work life?
3. How does Native American women leaders' ICT use impact their WLB and building capacity (develop skills) coping strategies as a leader in their community?

Thank you again for your participation. I hope and believe that participants' collective contributions will make a valuable contribution to my study, the existing literature, and overall community. If you have additional questions or concerns about the study, please feel free to contact me via the information included below.

Warmest regards,

Crystal C. Jensen (Choctaw of OK), Principal Researcher, Pepperdine University