THE USE AND PERCEPTION OF SOCIAL NETWORK SITES IN TELECOMMUTING WORK ENVIRONMENTS

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

EDUCATION

August 2014

By

Dean Tomita

Dissertation Committee:

Ellen Hoffman, Chairperson
Catherine Fulford
Curtis Ho
Meng-Fen Grace Lin
Elizabeth Davidson
ACKNOWLEDGEMENTS

I would like to take this opportunity to thank everyone who helped me on this wonderful journey. To my dissertation committee, thank you for taking the time to serve on my committee and to guide and encourage me along the way. I would like to especially thank Dr. Ellen Hoffman, who served as my committee chair and provided insight and perspectives, which helped me to develop and shape my study. She helped me to believe that I could get this done!

Thank you to my wife Wendy; my sons, Aaron, Kylan and Colby; and my parents and in-laws who supported me each step of the way. I would not have been able to get here without all your love and support.

I would also like to acknowledge all my friends and colleagues who encouraged and supported me, who provided feedback, shared ideas with me, and were always there to listen when I needed someone to talk to. Thank you!

Most of all, I thank God for loving and guiding me throughout my life.
ABSTRACT

For the past forty years, communications technologies available to the telecommuter have remained basically the same, mainly offering one-to-one communication, like the phone and more recently, email. The web brought a myriad of freely available web applications and tools including social network sites, which provided the potential to address many of the challenges that have plagued telecommuting since its inception. These included questions surrounding communication, productivity, isolation and trust. Social network sites offered rich communication and provided an avenue for social interaction and social presence, all of which could help to improve communications, increase productivity, reduce isolation, and build trust. Employing a qualitative case study approach, this study sought to find out what happened when telecommuters used social network sites in a telecommuting work environment and how they managed personal and professional activities on these sites. This study discovered that social network sites enhanced telecommuting and was used for communication and collaboration to achieve work related goals and objectives, and also satisfied the telecommuter’s social needs. However, this study found that telecommuters did not commingle personal and work online social communities, raising questions about whether it was the result of weak relationships within the team, or an indication that teams were still forming.
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................... 1

ABSTRACT ............................................................................................................................. 2

LIST OF TABLES .................................................................................................................... 7

LIST OF FIGURES .................................................................................................................. 8

CHAPTER 1. INTRODUCTION ................................................................................................. 1
  Statement of the Problem ................................................................................................. 7
  Purpose .............................................................................................................................. 8
  Research Questions .......................................................................................................... 8
  Significance of the Study ................................................................................................... 9
  Conceptual Framework ..................................................................................................... 10
  Summary of Methodology ................................................................................................. 11
    Instrumentation ................................................................................................................ 11
    Data collection .................................................................................................................. 11
    Data analysis ................................................................................................................... 12
  Limitations ......................................................................................................................... 12
  Assumptions ....................................................................................................................... 13
  The Researcher ................................................................................................................... 13
  Definitions .......................................................................................................................... 13

Chapter 2. LITERATURE REVIEW ....................................................................................... 15
  Telecommuting in the Digital Age .................................................................................... 15
    History of telecommuting ............................................................................................... 18
    Profile of a teleworker ..................................................................................................... 22
    Benefits of telecommuting .............................................................................................. 22
    Limitations of telecommuting ....................................................................................... 25
    Management’s concerns ................................................................................................. 27
  Social Media and Social Network Sites .......................................................................... 31
    Social network site concerns .......................................................................................... 35
  Activity Theory .................................................................................................................. 36

Chapter 3. METHODOLOGY .................................................................................................. 43
CHAPTER 4. RESULTS ........................................................................... 60

Participants....................................................................................... 60

Setting .............................................................................................. 64

Themes .............................................................................................. 67

  Work interaction using social network sites. .............................. 67
  Social interaction using social network sites.............................. 72
  How Facebook meets social needs. ........................................... 74
  Staying connected ........................................................................ 75
  Feeling supported .......................................................................... 77
  Supporting others ........................................................................ 77
  Managing impressions .................................................................. 78

Telecommuting Benefits .................................................................. 80

  Real estate cost and space savings ........................................... 81
  Reduced commute times.............................................................. 81
  Flexibility ....................................................................................... 82
  Focus ............................................................................................... 83
  Stress and absenteeism ............................................................... 85
Activities to build the team................................................................. 85
Other benefits....................................................................................... 86
Telecommuting Limitations................................................................. 88
Isolation................................................................................................. 88
Access.................................................................................................... 89
Other limitations shared..................................................................... 90
Summary............................................................................................... 91

CHAPTER 5. DISCUSSION ..................................................................... 92
Findings.................................................................................................. 94
Feel connected...................................................................................... 95
Managing work/life balance................................................................. 101
What Aligned with Literature.............................................................. 105
What Does Not Align with Literature................................................... 107
What Was New..................................................................................... 108
Summary............................................................................................... 109

CHAPTER 6. CONCLUSION ................................................................. 110
Discussion............................................................................................ 110
Major Themes...................................................................................... 111
Social interaction with coworkers......................................................... 112
Social network sites for work activities............................................... 113
Social network sites for personal activities......................................... 113
Friends versus acquaintances............................................................. 115
Online versus offline.......................................................................... 117
Why the Program Was Successful......................................................... 118
The Three Propositions Answered....................................................... 119
Summary............................................................................................... 121
Recommendations for Future Research............................................... 125
Limitations........................................................................................... 127

REFERENCES...................................................................................... 128

APPENDIX A ....................................................................................... 141

APPENDIX B ....................................................................................... 143
LIST OF TABLES

Table 1. Activity Notation ............................................................................................................41
LIST OF FIGURES

Figure 1. Basic activity triangle........................................................................................................6
Figure 2. Extended activity triangle ....................................................................................................6
Figure 3. Basic activity triangle...........................................................................................................39
Figure 4. Extended activity triangle ....................................................................................................39
Figure 5. Hierarchical levels of activity ............................................................................................40
Figure 6. Social network sites for engaging in impression management ........................................47
Figure 7. Social network sites for communication ............................................................................48
Figure 8. Social network sites to reduce isolation ..............................................................................48
Figure 9. Activity: Work interaction using social network sites (Google Hangouts) ..............68
Figure 10. Activity: Work interaction using social network sites (Facebook) .........................72
Figure 11. Activity: Social interaction using social network sites ....................................................73
Figure 12. Activity: Impression management using social network sites (work) ....................79
Figure 13. Activity: Impression management (personal) .................................................................80
Figure 14. Eight components of a successful telecommuting program ....................................95
Figure 15. Managing work/life balance .............................................................................................102
CHAPTER 1. INTRODUCTION

Although telecommuting has been around for over 40 years, with many studies conducted on various aspects including productivity, work-life balance, and stress, telecommuting has essentially remained the same, with employees working remotely either part or full-time utilizing communications technologies to keep tethered to the central office. Over the years telecommuting has been defined in many ways (Mokhtarian, 1991); however, for the purposes of this study, telecommuting was defined as workers who worked at least two-days a week away from the central office, and utilized information technologies to perform normal day-to-day work that would normally be done at the central office.

In the past, telecommuters were limited in how they could communicated with coworkers and supervisors, which most likely included email and a telephone; however, with the explosion of freely available tools on the web, telecommuters now have more choices than ever before to communicate and collaborate and are no longer limited to the tools provided by their employer. Gone are the days when workers were limited to technologies that included a green screen terminal and a telephone. Today’s workers are more technologically savvy, with many who carry personally owned smartphones and other portable devices that are more powerful than computers from just a few years ago. There are a multitude of free and low cost technology solutions available on these devices and on the web that can be used to communicate, consume, create and publish information. These advances in technology have altered institutions and organizations and the way work. Fredette, Marom, Steinert, and Witters (2012) stated,
“hyperconnectivity is driving monumental shifts in terms of impact on their work styles, functions, and missions in a variety of realms” (p. 114). Telecommuting is not immune to these changes as many old work paradigms from work location requirements to work hours are changing (Fredette et al., 2012). In many cases, workers with a laptop and virtual private network (VPN) access could work remotely and carry on as if they were physically in the office. The proliferation of smartphones and tablet devices provided additional capabilities and options for workers to work remotely.

New tools and technologies are constantly being introduced, including social network sites, which have taken off in popularity over the last several years. Brenner and Smith (2013) reported in a 2013 Pew Internet study, that as of December 2012, 76% of online adults were using social network sites. In March 2013, there were 655 million daily active users on the online social network site, Facebook. Statistics showed that over one billion people have at least one social network profile. According to a 2012 Nielson report, State of the Media, on social media, people spent more time on social network sites than any other category of site on the web. Online social network use now surpasses email as the most popular online activity (Benevenuto, Rodrigues, Cha, & Almeida, 2009). Harrison and Thomas (2009) pointed out that the emergence of online social networks has transformed the way we communicate. With the growth in popularity of social network sites, communication options are more abundant than ever; however, the question is, do these technologies enhance the telecommuting experience or do they create more distractions? In addition, research findings suggested that people are facing increasingly greater challenges in segmenting work and personal identities on social network sites, further adding to the potential for distractions (Hearing & Ussery, 2012).
This blending of personal and professional activities has also introduced other concerns as well, including security risks, and leakage of confidential data—intentional or otherwise (van Zyl, 2009), and as a result, many organizations today have to tackle these potential threats to security, data loss, and productivity.

From a psychological perspective, one of the areas cited in previous research that negatively impacted telecommuters is the feeling of isolation from coworkers. Although feelings of isolation do not appear to increase threats to security or data loss, it is often associated with a sense of disconnect from office-based counterparts, creating higher stress levels and concerns that office-based staff get promoted more often. With approximately 20% of adult workers who telecommute (an estimated 33.7 million teleworkers in the U.S.), isolation can adversely affect businesses with staff who work remotely. Communication technologies have served as a conduit between telecommuters and coworkers, both at the central office and with other telecommuters. While social network sites seemed like a perfect solution to complement workplace communications and address feelings of isolation for telecommuters, the question posed earlier still remains, “Can social network sites which encouraged and promoted rich communications be effectively integrated into the workplace or does it pose more of a distraction and introduce other risks?” In general, there is an on-going debate on the extent of social isolation in America, beyond just those who telecommute (Hampton, Sessions, Her, & Rainie, 2009).

The proliferation of the internet and mobile devices presented new challenges including the greater likelihood of discussing important and confidential work matters with family and friends. While the study carried out by Hampton et al. (2009) did not
identify what types of important matters people were likely to discuss, it raised concerns that telecommuters with access to the internet and a mobile device, may be more inclined to share work information with people outside of their work circle.

This blurring and blending of personal and professional communication on social networking sites is a fairly new phenomenon and one that has not received much research attention to date, particularly in the area of telecommuting. One reason for the lack of research in this area may be attributed to online social network sites (often associated within the broader context of Web 2.0 technologies), which are fairly new technologies and have only become popular within the last 10 years (Harrison & Thomas, 2009). More importantly, these technologies have only recently started to gain traction in the workplace.

Educational institutions, where this study was conducted, have also been grappling with these new web technologies like social network sites, where policies often do not apply, are grey, or have yet to be written. Concerns with privacy and intellectual property may also factor into decisions on whether or not to allow the use of these freely available and loosely managed tools, and schools have little control other than to block them altogether. Guidelines for appropriate use that are being developed do not provide strong technical controls and rely solely on the user to abide by the rules set forth by schools. Regardless, of the setting, school or corporate, having a general understanding of how social network sites are being used by telecommuters is important because telecommuting continues to be an accepted practice and a viable alternative to the traditional office work model (Gajendran & Harrison, 2007; Mokhtarian, Salomon, & Choo, 2005).
Research suggested that better communication will have an overall positive impact on telecommuter's productivity, work–life balance, stress levels and may even allow individuals to make more efficient use of their own circadian rhythms (Baltes, Briggs, Huff, Wright, & Neuman, 1999). In Hawaii, with high real estate prices, long commute times, high gas prices, and a high cost of living, which in many cases required both family members to work, telecommuting coupled with the use of social network sites appeared to be the perfect answer to address these issues. Yet, recent studies suggested that the ease of access to an abundance of new technologies that provided increased connectivity and communication may actually pose a distraction and negate some of the benefits that telecommuting promises (Leonardi, Treem, & Jackson, 2010).

This study was structured around activity theory, a psychological framework that aids in understanding the unity of consciousness and activity (Cassens & Kofod-Petersen, 2006). Torraco (2005) stated that “activity theory focuses on the actual processes of interaction in which humans engage with the world and each other” (p. 93). In its simplest form, activity theory looked at interactions in the context of an activity triangle consisting of a subject, tools and an object.
Since the time it was developed in the early 20th century by Russian psychologist Alexi Leont'ev, the activity triangle has since evolved and expanded to its current state which now includes additional components of community, rules of engagement and division of labor, and is referred to as the expanded activity triangle (see Figure 2).
This study looked into the social network sites (tools) that telecommuters (subject) used, and explored how they managed (objective) personal and professional interactions on these sites. Framing this study within the context of activity theory and the expanded activity triangle provided a framework for looking at the use of social network sites beyond just isolated worker to worker interactions, and rather took on a more holistic view which considered how a telecommuter’s entire community may have impacted the telecommuting experience.

In the past, the blending of a person’s work and social life were limited and mostly centered around face-to-face activities that occurred outside of work. Social network sites introduced a new way of interacting—virtually—and now provided the capability to communicate and socialize with friends, family, and coworkers at the same time through one communication vehicle. Social interaction is no longer bound by physical limitations. While appealing to the telecommuter, the use of social network sites has not yet been proven to enhance the telecommuting experience.

**Statement of the Problem**

Since it began over 40 years ago, telecommuting has experienced steady growth and now makes up roughly 20% of the adult workforce. In spite of its popularity, there are still concerns about telecommuting’s effectiveness, including concerns from managers who are uncomfortable having staff work remotely and out of their sight (Collins & Moschler, 2009), and staff feeling isolated due to being physically separated from their coworkers. Social network sites are fairly new technologies that have the potential to address staff and manager fears of telecommuting by enhancing media
richness, creating social presence and addressing feelings of isolation. Social network sites have become deeply rooted in users’ lives today with almost 72% or three quarters of online U.S. adults using these sites to connect with family, friends, coworkers and other acquaintances (Boyd & Ellison, 2010). However, recent studies indicated that social network sites, which promoted communication and sharing, may actually encourage greater risk taking behaviors and increase the chances of data loss/leakage (Fogel & Nehmad, 2009). This was consistent with research from a Pew Research study on social isolation and new technology which found that people who used social media were more likely to have discussions with others from different backgrounds (Hampton et al., 2009). In addition, the use of social network sites may also have some other negative impacts including the "connectivity paradox" (Fonner & Roloff, 2010; Leonardi et al., 2010), and loss of productivity as a result of distractions, thus further raising manager concerns about telecommuting’s effectiveness.

**Purpose**

The purpose of this qualitative case study is to explore how telecommuters in a distance learning division at a K-12 school used social network sites, and how they managed personal and professional interactions on these sites.

**Research Questions**

1. What happens when telecommuters use social network sites?
2. How do telecommuters manage personal and professional interactions on social network sites?
Significance of the Study

With the ever increasing challenges for office space in Hawaii, where cost and demand is high and supply is limited, the concept of telecommuting is of great interest to me in my current position as the Director of Information Technology (IT) at a private K-12 school. In the last three years alone, the IT division has grown by approximately 25% and finding office space for new staff has been challenging. Although telecommuting has been around for over 40 years, research suggested there are still concerns regarding its effectiveness. One of the concerns often expressed by managers is not knowing if employees working away from the central office are actually working, while concerns from staff include feelings of isolation and the perception of having to always be accessible.

The popularity of social network sites, which encourages communication, appear to address some of the concerns people have expressed with telecommuting. Leveraging the use of social network sites in the workplace could potentially increase communication between manager and staff thus reducing manager concerns about what staff are doing at home, and also address telecommuter’s feelings of isolation by providing social interaction while away from the office. On the other hand, the use of social network sites may increase the feeling of always having to be accessible and negate some of the perceived benefits of telecommuting, including flexibility. And, it may also inhibit the type of information that telecommuters shared on social network sites, knowing that coworkers and supervisors have access to their posts.

This research explored the social network sites telecommuters used, and how they managed personal and professional communications when using these sites. This work
has important implications for companies interested in adopting telecommuting in the workplace (Fonner & Roloff, 2012). It is unrealistic to believe that organizations, including schools, can prevent their employees from using social network sites, particularly for teleworkers who work away from the office and without direct supervision (Skeels & Grudin, 2009). Furthermore, many schools already leverage social network sites to deliver instruction, communicate with students and foster community. If social network sites were found to be more of a distraction than an effective method of communication, or if it introduced added risk, organizations and schools would have to determine how to appropriately manage expectations and develop guidelines around telecommuting and social network use while still allowing its use for work related and instructional delivery purposes.

Additionally, having a better understanding of how social network sites are used by telecommuters can help to inform an organization of any benefits these technologies bring, and help it to determine how these technologies can be leveraged for enhancing the telecommuting experience. In general, understanding how social network sites are used can provide valuable insights that go beyond just telecommuters’ use of these tools, and may ultimately help to determine whether these tools can be broadly adopted into the workplace to enhance communications and strengthen relationships for all employees.

**Conceptual Framework**

Based on the activity theory framework, this study explored how telecommuters use social network sites to communicate, how they engaged in impression management, and how using social network sites might address feelings of isolation. A more in-depth discussion will be presented in Chapter 3.
Summary of Methodology

This study employed a qualitative case study methodology and focused on identifying what happened when telecommuters use social network sites, and how personal and professional activities were managed, and described impacts on the telecommuting experience. According to Yin (2009), case studies are most appropriate when the research goal is to explain some present circumstance, and when an in-depth description of some social phenomena is being sought. This research attempted to capture the experiences of telecommuters who used social network sites for communication, and interpreted and extrapolated meaning from these experiences. It went beyond simply reporting data that were collected, but delved into understanding the telecommuter’s feelings and attitudes towards social network site use and how personal and work relationships and communication on social network sites were managed. Participants for this study consisted of technology professionals at a private K-12 institution in Hawaii. These participants were chosen because they currently telecommute, use social network sites and were proficient with technology.

Instrumentation.

Data for this study were captured through participant interviews, an online survey, and telecommuter’s social network site posts.

Data collection.

Semi-structured interviews were conducted with three of the participants in the study, online survey was completed by three other telecommuters in the division, and participants' social network site posts were examined.
Data analysis.

Data analysis followed Saldaña’s (2013) First Cycle coding and Second Cycle analytic methods. A computer-assisted qualitative data analysis software (CAQDAS) was used to consolidate and analyze data for this study. To aid with coding of data, MaxQDA11 was used. MaxQDA11 is a qualitative software tool that enabled data to be imported, coded and analyzed. MaxQDA11 was available on both the Mac and Windows platforms and contained the features and functionality necessary to complete this qualitative case study.

Limitations

Because each telecommuting scenario is unique and there are many factors to consider when deciding whether or not to implement telecommuting options in the workplace, findings from this study may not be applicable to other telecommuting situations; however, the hope is that this research provided insight into how social network sites were used by telecommuters, and may help to stimulate further research on this topic.

Additionally, this research looked at telecommuters in a distance learning division at a K-12 school which presents its own unique factors and challenges, including considerations of interactions/relations between students and faculty, student privacy, HIPPA, FERPA, and other policies governing schools. While this study did not include students, the fact that the mission of the division was to deliver instruction to students introduced circumstances that may not be present in the corporate workplace, and thus may have impacted how social network sites were adopted and used.
Assumptions

The popularity of the web and social network sites will not diminish and more schools and businesses will adopt and leverage the use of social network sites to conduct business and extend communication. Although this exploratory study focused on telecommuters in a distance learning division at a K-12 school, results may not be unique to telecommuters in distance learning, but findings may also be similar to other telecommuters and non-telecommuters alike.

It was assumed that many of today’s teleworkers had a social network profile and actively used social network sites to communicate. Although specific social network tools and functionality may change over time, the basic premise of these tools will remain the same.

The Researcher

The researcher for this study currently serves as the Director of Information Technology at the institution where this study was conducted, and has been employed there for twenty years. Prior to serving in this capacity, the researcher served as the Director of Education Technology Services. Experiences gained from these two positions provided the researcher with extensive knowledge of both the technical and educational aspects, as well as the cultural norms of the institution.

Definitions

Telecommuter:

Workers who worked at least two-days a week away from the central office, and utilized information technologies to perform normal day-to-day work that would
normally be done at the central office.

Social Network Sites:

Boyd and Ellison (2007) defined social network sites as

Web-based services that allow individuals to 1) construct a public or semi-public profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system. (p. 211)

Social Media:

Web-based internet services that enabled interactive sharing and consumption of content including ideas, activities, events, photos, videos and other things (Cavico, Mujtaba, & Muffler, 2013).

Activity Theory:

Kuutti (1996) defined activity theory as, “a philosophical and cross-disciplinary framework for studying different forms of human practices as development processes, both individual and social levels interlinked at the same time” (p. 10).
CHAPTER 2. LITERATURE REVIEW

The purpose of this qualitative case study was to explore what happened when teleworkers in a distance learning division at a K-12 school used social network sites and how they managed personal and professional communications on these sites. This critical review of the literature explored three areas: (a) telecommuting; (b) social network sites; and (3) activity theory. A broad range of studies on telecommuting were examined to gain a better understanding of its history, benefits, limitations and the tools used to mediate this form of work arrangement. Social media and more specifically social network sites were also examined to determine how this fairly recent form of communication technologies might support telecommuters in a telecommuting work environment. Finally, studies using activity theory as a framework were examined to determine how best to frame this study within the context of activity theory. As much as possible, more recent studies on telecommuting were selected and reviewed, specifically those whose research focused on communication technologies.

Telecommuting in the Digital Age

Telecommuting has been around for more than 40 years, with extensive research focused on a broad range of topics and perspectives; however, results have been mixed with many studies basing their findings on self-reported data (Butler, Aasheim, & Williams, 2007). Gajendran and Harrison (2007) suggested that the sustained popularity of telecommuting implied it produced positive results and provided benefits for organizations and their employees. One of the key tools that enabled telecommuting was the communication technologies used to connect the telecommuter with office-based staff.
Up until a few years ago, there were a limited number of communication choices available to telecommuters. However, in recent years, new web tools and sites have emerged, gaining popularity with internet users around the world, and offering a wide array of rich communication tools (many of them free) including micro-blogging, texting, video-chatting, and online social networking sites. With all the promise and potential these tools brought, there were some who felt it is a waste of time, and as one executive stated, social network sites were “a productivity killer” (Skeels & Grudin, 2009, p. 101). Understanding how social network sites were perceived and used, and how they impacted communications in a telecommuting work environment could help organizations decide how they would mediate the use of these tools in the workplace. To date, scholars have a limited understanding of who is using these tools, and how they are being used and for what purposes (Boyd & Ellison, 2007). Additionally, even less is known about how these tools are used by telecommuters and how it impacted communication in a telecommuting work environment (Fay & Kline, 2011; Ferreira & Du Plessis, 2009).

In the workplace, two worlds are colliding and lines are being blurred between enterprise communication technologies (like email and voicemail) and consumer communication technologies (like smartphones and the social web). In the business world this phenomenon is commonly referred to as the Consumerization of Information Technology (CoIT) (Hearing & Ussery, 2012); it is impacting organizations and changing the way they conduct business. The reality these days for many organizations is that the CoIT has invaded the workplace, both through work issued technology and personally owned devices. The potential to tap into this vast array of seemingly limitless choices for communication is exciting and scary at the same time. It appeared these new web
technologies, specifically social network sites, are a natural fit for telecommuting because they provide opportunities for rich communication and are easily accessed. As Turner, Qvarfordt, Biehl, Golovchinsky, and Back (2010) suggested, based on media richness theory, face-to-face communication provided the richest medium for communication by enabling rich feedback, multiple cues such as intonation, body language, language variety, and a personal focus. Gajendran and Harrison (2007) stated that face-to-face communication provided the highest social presence and media richness. Since face-to-face communication is not possible for telecommuters working away from the central office, it is important to understand if other communication technologies like social network sites can be used effectively in place of face-to-face communication.

One feature of social network sites largely absent from more established forms of business communication is the social component, which promotes informal communication and networking within one’s network of friends and acquaintances. Fay (2011) described informal communication as the social glue of the workplace and has suggested that through informal communications, meaningful relationships are formed, common ground is established, and work is accomplished. A study conducted at IBM revealed that staff who participated in an internal social networking pilot called BeeHive, reached out to meet new people in the organization, and shared details of their life outside of work with coworkers, which contrasted with how they communicated using other enterprise social software tools (DiMicco et al., 2008).

However, research has also suggested a phenomenon known as “the connectivity paradox.” Leonardi et al. (2010) described the connectivity paradox as the negative effect caused by the very communication tools that were implemented to overcome
telecommuting challenges like distance and isolation. Fonner and Roloff (2012), suggested increased connectivity affords greater social presence while also introducing and enabling stressful interruptions. The connectivity paradox also proposed that along with advances in communication technologies comes the expectation that telecommuters are more accessible, causing further disruptions, loss of productivity and reduced work-life balance. Therefore, with all the features, functionality and ease of access that social network sites provided, it is possible that telecommuters would shy away from using these tools to communicate in order to avoid the “connectivity paradox.” To date, research results on the connectivity paradox are mixed, specifically the degree to which it affected workers (Fonner & Roloff 2012), and very little research on the connectivity paradox has been conducted within the context of telecommuting.

**History of telecommuting.**

Telecommuting is a term that was coined by Jack Nilles back in the early 1970’s at the peak of the oil crisis in the United States (Bailey & Kurland, 2002; Nilles, 1998; Meyers & Hearn, 2000). Although seemingly straightforward, telecommuting has been difficult to define, and contributing to this challenge has been the many perspectives and varying aspects of telecommuting (Mokhtarian, 1991). Often referred to as the father of telecommuting, Nilles defined telecommuting as information workers who perform their work away from the central office using communications technologies (Hoang, Nickerson, Beckman, & Eng, 2008). Harrington and Ruppel (1999) defined telecommuting as carrying out normal day-to-day activities using telecommunications equipment and technologies while located physically outside the central office. Over the years, many definitions have emerged; however, the basic premise of telecommuting
remains the same: workers who use technology to conduct day-to-day work away from the central office. Today, other terms used to describe telecommuting include: virtual or mobile work, e-work, flexiwork, and telework (Hill, Miller, Weiner, & Colihan, 1998; Hoang et al., 2008; Raghuram, Garud, Wiesenfeld, & Gupta, 2001; Siha & Monroe, 2006; Thompson & Caputo, 2009). Bailey and Kurland (2002) defined virtual work as a later or evolved form of telework. More recently the term “distributed work” has been used to describe workers who participated in work arrangements that enabled them to work across multiple settings away from the central office (Gajendran & Harrison, 2007).

For the purposes of this study, the various terms listed above will be collectively referred to as telework and telecommuting. Although the definition of telecommuting today may be essentially the same as when Nilles coined the term almost 40 years ago, the information and communication technologies that support telecommuting continue to evolve, providing the telecommuter with an abundance of options to bridge the physical separation from the central office (Turetken, Jain, Quesenberry, & Ngwenyama, 2011).

From the time it was defined back in the 1970’s till now, telecommuting has grown steadily and gained popularity (Turetken et al., 2011). Only within the last two years has there been a decline in the numbers, from a high of 33.7 million teleworkers in 2008, down to 26.2 million in 2010, a drop of roughly 11% (WorldatWork, 2011). However, as Lister and Harnish (2011) noted, getting an accurate count of the actual number of telecommuters may be difficult to ascertain due to the various ways telecommuting is defined. Meyers and Hearn (2000) also acknowledged the challenges with defining telecommuting. Because there is no one “best” definition for telecommuting, knowing who is being included in these counts depends on who is doing
the counting. As Mokhtarian et al. (2005) pointed out, it really depends on who is doing the defining and their particular interest and perspectives.

Consensus on a definition may be difficult if not impossible to achieve given the many complexities of telecommuting, some of which include the frequency and duration one is away from the central office, where one works when they are away from the office, and the nature of one’s job. For example, are employees who only spend part of their day away from the central office considered telecommuters? How long must they spend away from the central office to be considered a telecommuter? Gajendran and Harrison (2007) pointed out that of those who telecommute, only a minority of about 10% actually telecommute full-time. Most are considered part-time telecommuters who only spend part of their time away from the central office. It appeared that those who consider themselves telecommuters seem to like it. In one study, respondents were asked how long they would like to telecommute, overwhelmingly (93%) said they would like to telecommute for the rest of their careers (Reinsch, 1997).

Another challenge in defining telecommuting is the varying perspectives and points of reference and interest (Mokhtarian et al., 2005). For example, those who are interested in home-office workspace design will focus on those aspects, while others may focus on work-life balance or productivity. As a result, research on telecommuting is reported in literature that spans across many disciplines, including information systems, logistics, human resource management and psychology (Gajendran & Harrison, 2007). According to Bailey and Kurland (2002), over 80 published academic empirical studies have been done covering a broad range of topics including studies which focused on transportation, organizational behavior, law, information science and sociology. Based
on the available literature and lack of a "best" definition for telecommuting, the following
definition will be used for the purpose of this study, telecommuters will be defined as
workers who worked at least two-days a week away from the central office, and utilized
information technologies to perform normal day-to-day work that would normally be
done at the central office.

Bailey and Kurland (2002) contended that each year more and more companies
are adopting telecommuting options for employees; however, to date, “empirical research
has been largely unsuccessful in identifying and explaining what happens when people
telecommute” (p. 394). The majority of studies have used self-reported surveys that have
asked telecommuters how they felt towards telecommuting. More specifically,
participants are often asked if they feel like they are more productive when
telecommuting versus working in the traditional office environment (Bailey & Kurland,
2002). Another key reason why telecommuting research has been poorly understood is
because of what was shared previously, that is, the lack of a clear definition (Garrett &
Danziger, 2007).

In spite of mixed results from studies on telecommuting, the number of
telecommuters continues to remain high, and in December of 2010, the Federal
Government passed the Telework Enhancement Act that enabled Federal agencies to
achieve greater flexibility in managing its workforce through telecommuting. The Act
outlined steps for implementing a telework program including: designating a senior
manager to coordinate a telework program, determining eligibility, and developing and
implementing telework training programs for managers and employees (Lister & Harnish,
2011). Interestingly, it was the fear of a bird flu pandemic that first motivated federal
workers to telecommute. However, since then, fears of other outbreaks and natural disasters have bolstered the government's resolve to ensure the successful implementation of telework programs (Lister & Harnish, 2011).

**Profile of a teleworker.**

According to Lister and Harnish (2011), over 70% of the work-at-home population are in management, sales or other professional fields. They also tend to be in the 80th percentile for income relative to the total workforce, are salaried workers, and most have a college or post graduate degree (Lister & Harnish, 2011; WorldatWork, 2011). Bailey and Kurland (2002) identified the following traits as most suitable for telecommuting: knowledge workers, information workers, and sales and marketing personnel. Participants for this study worked in technology related jobs, are salaried, knowledge/information workers with college degrees.

**Benefits of telecommuting.**

From the beginning, telecommuting presented many potential benefits beyond just a flexible work schedule and being able to work at or closer to home. According to Abdel-Wahab (2007), telecommuting helped organizations to save on real estate, reduce overhead costs and save on parking space. This is particularly appealing in Hawaii where the cost of real-estate has steadily risen over the years (Wilson & Callis, 2013). With limited commercial real-estate space, coupled with the premium prices businesses must pay for office space, telecommuting appeared to be a perfect solution for enabling businesses to expand without having to increase physical office space. And, with the advances in technology and communication tools, which allowed for the transmission of information anywhere in the world almost instantly, the time seems right for businesses
to embrace telecommuting as a viable solution to address rising real-estate prices (Abdel-Wahab, 2007).

In Hawaii, gas prices continue to rise and traffic congestion appears to be getting worse each year. A recently published report by Inrix (2013) ranked Honolulu 2nd on the list of most congested metro areas in North America. In 2011, Honolulu ranked 4th on the list of the 25 worst congested cities across Europe and North America (Inrix, 2013). With workers spending an average of one-hour per day traveling to and from work, it would seem that eliminating the need to commute would lead to a better quality of life, reduce stress, and provide more time to spend with family. Additionally, with fewer cars on the road, the environment can be preserved, and the beauty of the islands, where tourism is key to the island economy, can continue to thrive.

One of the most highly touted benefits of telecommuting is increased productivity (Butler et al., 2007; Hill et al., 1998; McCloskey & Igbaria, 2003). Although this benefit has been challenged and results have been mixed, Butler et al. (2007) discovered that telecommuting does increase productivity and they asserted, results from their study was based on actual measures of work productivity and not self-reported data, that gains were sustained over time. Studies that support increased productivity suggested the following as possible factors: telecommuters were selected because they were already the most productive and trusted workers (Butler et al., 2007); telecommuters tended to work longer hours (Butler et al., 2007); telecommuters had more flexible work schedules that enabled them to make more efficient use of their circadian rhythm (Baltes et al., 1999); telecommuters were able to work with less distractions thus enabling them to focus on their work (Leonardi et al., 2010); and telecommuters who engaged in tasks that are more
creative in nature are more productive (Dutcher, 2012). It is important to note that Dutcher's results were based on experiments that used students to simulate office-based and teleworkers and not actual workers who telecommute. Interestingly, Westfall (2004) posited that if reported productivity gains from telecommuting were actually increasing bottom-line profitability, then companies would be adopting telecommuting at a much higher rate, perhaps even requiring workers to telecommute. It should also be noted that Bailey and Kurland (2002) analyzed over 80 previous studies and found little evidence that telecommuting increases job satisfaction and productivity. One thing is certain, the debate will continue regarding whether or not telecommuting results in increased productivity.

Other studies suggested telecommuters experienced less stress than their office-based counterparts due in large part to physically being away from the office, office politics and other interruptions and distractions (Fonner & Roloff, 2012). Telecommuters cited concerns with productivity at the workplace due to the inability to prevent disruptions from coworkers and felt they could be more productive and concentrate better when working remotely (Wilton, Páez, & Scott, 2011). Working away from the office meant less ad-hoc meetings, impromptu visits by others, and opportunities to get caught up in office gossip (Leonardi et al., 2010). Although telecommuters may still experience stress when working remotely, telecommuting may afford greater control to reduce interruptions and distractions and telecommuters may experience a greater degree of autonomy and independence from the office (Fonner & Roloff, 2012).

Less absenteeism and turnover, and higher morale have also been attributed to those who telecommute (Gajendran & Harrison, 2007; Nilles, 1998). According to Nilles
(1998), telecommuters averaged 2 less days of sick leave per year versus traditional workers. One explanation for this may be that teleworkers are willing to work when they are sick since they are already at home versus going into the office sick (Collins & Moschler, 2009). Gajendran and Harrison (2007) found that telecommuting was mainly a "good thing" and as a result positively contributed to lower turnover intent. Hunton and Norman (2010) found in their study on the impact of telework in a healthcare organization that employees who were given a choice of telecommuting and/or working in the office produced the highest feelings of organizational commitment which can be loosely translated into lower turnover.

**Limitations of telecommuting.**

With the many touted benefits of telecommuting there are also some documented limitations and concerns. One limitation of telecommuting has been the feeling of isolation and separation from peers in the central office. Research suggested that feelings of professional isolation may negatively impact work productivity; thus eliminating one of the key benefits that telecommuting promised (Golden, Veiga, & Dino, 2008). Golden et al. also stated that professional isolation decreased with higher access to face-to-face interactions and communication-enhancing technology. Trent, Smith, and Tood (1994) suggested that perhaps frequent and regular trips to the office might lessen feelings of stress because of isolation. Additionally, they pointed out that those who are allowed to telecommute might have more understanding managers and families further lessening the feelings of stress as a result of being isolated (Trent et al., 1994). Participants in this study had opportunities for face-to-face interactions and access to communication-enhancing technologies in the form of social network sites.
Better work-life balance is often cited as a benefit of telecommuting; however, this has been challenged by some researchers who reported that work-life balance is not always better in a telework environment (Gajendran & Harrison, 2007; Siha & Monroe, 2006). Research has shown that in some cases it is more difficult to separate work and personal life, and the lines are often blurred between work and family (Hill et al., 1998). Workers reported working longer hours when teleworking versus when they went into the office (Hill et al., 1998). Whitehouse, Diamond, and Lafferty (2002) also found evidence that teleworkers felt a sense of obligation to put in extra effort in return for the privilege to telecommute. Interestingly, Duxbury, Higgins, and Mills (1992) found that in the context of after-hours telecommuting, those who owned computers tended to work twice as many overtime hours per week. Fast forward twenty years from the time the study was originally published by Duxbury et al., and almost everyone who telecommutes today owns or takes home a work-issued computer, so one could infer that teleworkers today put in more overtime hours than in the past.

With the explosion of freely available and easily accessible social network sites, it is reasonable to think that access to more technology would be a good thing for telecommuters; however, as mentioned in the introduction, telecommuting research suggested a “connectivity paradox” whereby greater connectivity often leads to less output and decreased productivity (Fonner & Roloff, 2012). The connectivity paradox suggested that being more connected also provided the potential for more distractions and increased expectations that the telecommuter is available throughout the work day, thus diminishing the experience of distance and isolation and negating some of the benefits of telecommuting (Leonardi et al., 2010). Adding to the connectivity paradox is the
incorporation of various tools and applications like instant messaging and video conferencing into work routines. As a result, coworkers may perceive telecommuters as being more available thus resulting in more frequent interruptions and adding to teleworker stress (Fonner & Roloff, 2012). Ironically, the very communication technologies that enable and support telecommuting may also encourage employees to continue working beyond the normal workday, create expectations of always being available, and increase telecommuter stress (Fonner & Roloff, 2012; Leonardi et al., 2010; Olson-Buchanan & Boswell, 2004).

**Management’s concerns.**

To date, one of the major roadblocks to supporting telecommuting has been management’s concern with allowing workers to work away from the central office (Cooper & Kurland, 2002; Reinsch, 1997). Managers who are used to working in a traditional work environment where everyone is co-located may feel like they have less control and less insight into what their employees are doing (Collins & Moschler, 2009). One of the key issues that managers must contend with is environmental changes with staff who were physically co-located in the same location and are now separated. The issue of trust often rises to the surface and managers must feel comfortable and confident that their staff who telecommute are actually working (Harrington & Ruppel, 1999); they can no longer walk across the hall or look out their door to check up on their staff. According to Reinsch (1997), telecommuting is likely to destabilize relationships due to these environmental changes and increased questions of trust.

This leads to another concern that managers must deal with what is called “impression management.” Impression management is the process by which people
managed the impressions others formed of them (Leary & Kowalski, 1990). According to Bailey and Kurland (2002), teleworkers engaged in impression management to convince others that they are doing actual work. Research does not suggest that teleworkers are putting in less than the required hours and doing less than their share of the work; however, the fact that they are engaging in impression management may cause managers and supervisors to be suspicious and to have a harder time buying in and supporting telecommuting. However, managers are not able to tell how quickly telecommuters are completing their tasks and if they are idling away time that could be spent on another task (Mokhtarian, 1991). More research in the area of impression management and teleworker output would helped to alleviate these concerns (Bailey & Kurland, 2002). Because participants in this study may be first-time telecommuters, it is not known if they or their managers were aware of impression management and what strategies, if any, both teleworker and manager would use to address this potential concern.

The ability to disconnect is also a real problem that managers must contend with when staff telecommute (Leonardi et al., 2010). Unlike office-based workers who are in the same physical location, telecommuters can “disappear” for a while and managers must trust that they are doing work without actually physically checking. The building of trust between a teleworker and their manager could be hampered if a manager felt that their staff were not always responsive and not always available. This could ultimately sabotage any efforts to build and sustain a telecommuting program (Harrington & Ruppel, 1999). This is not unique only to telecommuters; managers could easily lose trust in office-based staff if they were not always responsive or available.
The cost to support telecommuting has also been highlighted as a concern for managers. When employees worked away from the office, it is more difficult to share resources like printers and copiers and other office related supplies. The question also arises as to who should pay to equip the home office and what is appropriate to provide. Based on the results from Reinsch's (1997) study, 13% of telecommuters felt they needed to plan carefully to move supplies back and forth.

Information security has come to the forefront of many organizations, particularly with respect to the loss of sensitive data and the cost to provide telecommuters with the appropriate tools to prevent such occurrences from happening (Collins & Moschler, 2009). The safeguards required to ensure safety of corporate information could impact the overall telecommuting experience. As Hill et al. (1998) pointed out, technical tools must be selected to fit the particular job to avoid adversely impacting productivity.

It appears that telecommuters who have been telecommuting for 7 months or less had positive relationship experiences, while those in the 7 to 12 month range experienced somewhat regressed relationships with their managers (Reinsch, 1997). Telecommuter and manager relationships improved a little beyond 12 months, but not significantly (Reinsch, 1997). It would be ideal to find participants for this study who were new to telecommuting (less than 7 months) and those who have been telecommuting for longer than 13 months to better understand how relationships are impacted and whether or not they support or dispute previous research.

One other aspect of telecommuting often overlooked is the impact to staff who remained in the office. Telecommuting research provided many documented benefits of telecommuting; however, less is understood about the impact to office-based staff, and it
appears that those left behind in the office are negatively affected and are more likely to leave the company (Frauenheim, 2008). Research suggested there are communication challenges between office-based staff and their telecommuting counterparts mainly due to negative perceptions office-based staff have of telecommuters. Some of this may be attributed to the reality that office-based staff may get assigned more work including all the quick little jobs due to their close physical proximity to supervisors (Golden, 2007; Hylmø & Buzzanell, 2002). Hylmø and Buzzanell also found that due to physical separation from telecommuters, office-based staff tended to feel less need to maintain relationships with telecommuters thus distancing themselves from them and creating a "us-them" mentality. Research findings suggested a correlation between the number of teleworkers in an office and negative impact to office-based staff. As the number of telecommuters go up, the more office-based staff are negatively impacted (Golden, 2007).

Managers in a hybrid environment that include both office-based and telecommuting staff needed to contend with challenges that can impact their entire team.

In many businesses today teamwork and collaboration are keys to business success and this is especially true in the technology sector where work processes to complete a project often involve multiple departments and skill sets. According to Tremblay (2005), effective teams shared the following characteristics: task interdependence, shared responsibilities, team identity and the power to manage relationships between the team and the organization. Although Hill et al. (1998) suggested negative impacts to teamwork due to telecommuting, it appeared that the qualities mentioned above do not necessarily require all members to be co-located. If these qualities can be established in telecommuting work environments through the use of
social network sites, organizations should consider how to leverage these technologies to establish and strengthen teams.

**Social Media and Social Network Sites**

Kaplan and Haenlein (2010) referred to social media as a “revolutionary trend” and said that companies should pay attention to these technologies. Skeels and Grudin (2009) pointed out that some executives believed social networking software has potential for use in the enterprise. According to Kaplan and Haenlein, “Social media is a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow for the creation and exchange of User Generated Content” (p. 61). According to a 2006 Pew Internet Project report, the term Web 2.0 was coined by Dale Dougherty back in 2004 and was used to describe a wide range of online activities and tools (Madden & Fox, 2006). The set of online interactive technologies that make up a part of Web 2.0 are often referred to as the “social web” (Ferreira & Du Plessis, 2009). Today, the social web includes social network sites like Twitter, Facebook and Instagram, just to name a few. Since 2003, many new social network sites were created and launched, oftentimes offering different flavors of already existing functionality, but also introducing new and innovative ones (Boyd & Ellison, 2007).

This study focused on a part of social media called social network sites, which include online sites that provided both synchronous and asynchronous communication and the ability to connect and expand one’s network of friends (Boyd & Ellison, 2007). Skeels and Grudin (2009) stated that "enterprise interest in social networking is high," (p. 102) and included companies like Microsoft where "most" employees have used social network sites. Skeels and Grudin asserted that "the principle work-related benefit of
social networking software is in the easy, unobtrusive creation, maintenance, and strengthening of weak ties among colleagues" (p. 102). This study investigated how telecommuters use social network sites, how they are perceived, how they managed relationships between their personal network of friends and coworkers, and how this impacted the overall telecommuting experience. Do telecommuters assimilate coworkers into an already existing social network or do they keep these relationships separate?

Skeels and Grudin suggested that there may be challenges to building closer professional relationships if all personal life and contacts are separate.

The world is shrinking. Cell phones, tablet devices and accompanying data plans are becoming less costly, and the barriers that once existed to access the internet are rapidly being removed. Hearing and Ussery (2012) stated that access to social network sites is only limited by access to a server and the charge of a battery. According to Hearing and Ussery there are over 70 million LinkedIn users, over 500 million Facebook users, and 100 million Twitter accounts with 300 thousand new accounts added daily. In addition, 2 billion people viewed YouTube videos daily, with 65,000 new videos uploaded every day. With the rapid expansion of social network sites it is becoming more difficult to segment one's personal, work and family identities. Many people use a single platform to post updates about their personal, work, and family activities, and separating this has become increasingly untenable (Hearing & Ussery, 2012). As Ferreira and Du Plessis (2009) stated, “Through the development of OSN [online social networks], it is now possible to network much quicker and reach a much larger expert audience” (p. 3). The capability of online social networks to provide rich media communication has the potential to positively impact both office-based and remote workers, or may serve as
a distraction that hinders productivity.

Social network sites have the potential to provide organizations with another strategy for managing organizational information and data, otherwise known as knowledge management. In spite of limitations and concerns, social network sites may provide benefits beyond supplementing or substituting face-to-face communication for telecommuters. The Gartner Group, a leading technology research firm, defined knowledge management as, "A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual workers" (as cited in Koenig, 2012, para. 4). With its ability to link and tag information, and connect knowledge workers, social network sites can help to find, capture, organize, and preserve organizational knowledge (Koenig, 2012).

Participants in this study are technology professionals who are comfortable using computer technologies and thus one would assumed that they would welcome and readily adopt new technologies to help them do their jobs better and be more efficient. However, according to Turner et al. (2010), “The availability of new communication methods does not guarantee that people will use them” (p. 843). Fonner and Roloff (2012) pointed out that more communication is not always better. Rather, communication needs to be streamlined so organizations can provide environments where employees can work uninterrupted. Leonardi et al. (2010) described two aspects of telecommuting that might be compromised with increased accessibility: flexibility to balance work and personal life, and the ability to focus on work without interruption.
Social network sites looked at within the context of two theories, social presence theory and media richness theory, provide a framework for understanding how this communication technology might benefit telecommuters. Both social presence and media richness may help to reduce or eliminate some challenges as a result of being physically separated and may address limitations, fears and concerns that organizations, managers and telecommuters feel when implementing a telecommuting program.

The social presence concept was first introduced back in the 1970’s by a team of social psychology researchers. Social presence theory posited that different media provided varying degrees of “social presence.” Social presence is defined as the acoustic, visual, and physical contact that can be achieved by two communication partners utilizing media (Kaplan & Haenlein, 2010). Mason (2013) described social presence as the feeling of being in the same room when using telecommunications. McIsaac and Gunawardena (1996) described social presence from a larger social context including motivation, attitudes, social interaction and social equality. One common attribute of social presence is the degree to which one feels the presence of another through an interaction.

Media richness theory stated that the purpose of any communication is to resolve ambiguity and reduce uncertainty (Kaplan & Haenlein, 2010). This is achieved when there is a match between the richness of the communication tool and the complexity of the communication task (Flanagin & Waldeck, 2004). Turner et al. (2010) asserted that face-to-face is the richest communication medium. With the introduction of social network sites and tools, there may be a gap in understanding how this "new" media fits into media richness theory. Researchers agreed that research on media richness
supported traditional rather than new media and that face-to-face communication is more effective than through other media (Flanagin & Waldeck, 2004; Turner et al., 2010). Studying how social network sites are used in the context of telecommuting will help to better understand if these new technologies can provide communication experiences similar to face-to-face communications and reduce or eliminate challenges posed by telecommuters physical distance from the central office.

Turetken et al. (2011) presented results that strongly suggested richer communication media led to more successful telecommuting. According to Kahai, Carroll, and Jestice (2007), the more familiar an individual is with specific media, the higher their perception of media richness. Therefore, participants who used and are familiar with social network sites should experience greater media richness when using social network sites to communicate. Results from this study helped to uncover perceptions telecommuters have of social network sites and determined the level of media richness these technologies provided.

**Social network site concerns.**

The introduction of social network sites in the workplace can be cause for concern. These concerns included the highly visible nature of communications encouraged on social network sites; the blending of family, social and work spheres; and the unintended consequences of sharing information only meant for one sphere across all spheres (Binder, Howes, & Sutcliffe, 2009). Results from a study by Fogel and Nehmad (2009) suggested that people with social network profiles tend to exhibit more risk taking behaviors than those who do not have a profile, and they reported that over three-quarters of the student participants in their study had a social network profile. Sites like Facebook, which
traverse the company firewall, can serve as a conduit for data leakage of proprietary company information (Skeels & Grudin, 2009). By design, social network sites were created to connect people, and today this often included a mixture of one's social and professional contacts (Hearing & Ussery, 2012). Skeels and Grudin (2009) mentioned that past attempts to restrict work communications to employees were unsuccessful and in all cases gave way to a blend of work and personal communications. Without the benefit of costly and complicated data loss prevention tools, it is becoming increasingly difficult for organizations to ensure confidential data stays within the organization.

While social network sites provided a quick and easy way to share information, they potentially increase risk to a company, and therefore their use is oftentimes discouraged or blocked altogether. An example of this is a picture taken of notes on a whiteboard during a brainstorming session that is shared with colleagues using a social network site, and possibly exposing confidential information to other non-work contacts (Skeels & Grudin, 2009). So, Skeels & Grudin suggested that although there are benefits to using social network sites for professionals, tensions arose and risks increased when mixing work and personal connections.

**Activity Theory**

This study is structured around activity theory and Engestrom’s (2000) model of human activity referred to as the activity triangle system. One of the benefits of using activity theory is that it can be used both as a descriptive tool for understanding what is happening and also as a practical tool to help guide the overall design process (Mwanza, 2001). Kuutti (1996) defined activity theory as “a philosophical and cross-disciplinary framework for studying different forms of human practices as development processes,
both individual and social levels interlinked at the same time” (p.10). Kaptelinin and Nardi (2006) defined it as “an approach in psychology and other social sciences that aims to understand individual human beings, as well as the social entities they compose, in their natural everyday life circumstances, through an analysis of the genesis, structure, and processes of their activities” (p. 31). Activity theory is a set of basic principles rather than a highly predictive theory as its name implies (Kaptelinin & Nardi, 1997). It has transcended both international and disciplinary borders, and is used not only in Russia, where it originated, but throughout the world where it has gained popularity (Kaptelinin & Nardi, 2006). Perhaps activity theory can be best summed up as understanding human behavior within the context of everyday activity.

The use of social network sites, which promotes one-to-many communications, would be best studied in the context of telecommuting as a whole. Looking at the use of social network sites within the framework of activity theory will enable a holistic view of the role of social network sites in telecommuting. This may help to gain a better understanding of how social network tools are used for communications between telecommuter and office-based staff, how they are used for other non-work related communications, and how these activities impact the overall communication experience. Furthermore, studying social network sites through the lens of activity theory may help to discover what types of communication occurs between telecommuters and their online social network contacts and help to answer the question, "Does communication on social network sites tend to focus around work related topics, are they more social in nature, or a mixture of both?"

The basic premise of activity theory, as illustrated in Figure 3, is built around the
activity triangle consisting of a subject, object or objective, and a tool. Mediated through the use of a tool or tools, a subject engaged in activities directed towards an object or objective to achieve a certain defined goal (Cassens & Kofod-Petersen, 2006). Tools can be defined as anything material or non-material used in the transformation process, including items such as thoughts, philosophies, or frameworks. In addition to the three basic components of subjects, objects and tools, another component called “community” is included to address the relationship between an individual and his environment (Kuutti, 1996). The addition of community forms two new connections, “rules” and “division of labor” as illustrated in Figure 4. The relationship between subject and community are mediated by rules, and the relationship between object and community are mediated by division of labor. Rules are both implicit and explicit norms, conventions, and social relations between a subject and the community. Division of labor is the way in which a community is organized related to the transformation process. Kaptelinin and Nardi (2006) stated that simply focusing on the subject or the object in isolation does not lead to understanding. By design, social network sites are online network tools that promoted and encouraged social connections, oftentimes mixing both social and work networks which may include coworkers, friends and acquaintances. Therefore, studying the use of social network sites by telecommuters within the activity theory framework may help to uncover data that go beyond formal work communications and include a blending of work and personal interactions and relationships, and possibly the forming of new types of communities and relationships.
The interaction between subject, object, and tool is referred to as an activity (Mwanza, 2001). Activities are the basic unit of analysis in activity theory and is defined by Kuutti (1996) as “a form of doing directed to an object” (p. 14). Activities are dynamic and always changing and developing (Kuutti, 1996). Activities can be classified hierarchically into three levels: activity, action, and operation as illustrated in Figure 5.
Kuutti described each of the levels using the analogy of building a house. The activity of building a house included actions such as pouring the foundation and building the roof, and operations that included hammering and painting. It is important to note that the lines between activities, actions, and operations can change when there is a loss of motive or change in goals. Clearly defining what an activity or action is depends on the subject and object (Kuutti, 1996).

**Figure 5. Hierarchical levels of activity**

![Diagram of hierarchical levels of activity]

The methodology used in this study to identify components of the extended activity triangle came from Mwanza’s Eight-Step-Model, which enabled investigators to acquire a basic understanding of the situation being studied (Mwanza, 2001). In it, Mwanza derived a set of 8 questions to guide researchers in identifying each component in the extended activity triangle. Six questions aligned to each of the six components of the extended activity triangle--with two additional questions--one addressing the activity and one the outcome.

1. Activity of Interest: What sort of activity am I interested in?
2. Object or objective of activity: Why is this activity taking place?
3. Subjects in this activity: Who is involved in carrying out this activity?
4. Tools mediating the activity: By what means are the subjects carrying out this
activity?

5. Rules and regulations mediating the activity: Are there any cultural norms, rules or regulations governing the performance of the activity?

6. Division of labor mediating the activity: Who is responsible for what when carrying out this activity and how are the roles organized?

7. Community in which activity is conducted: What is the environment in which this activity is carried out?

8. What is the desired outcome from carrying out the activity?

Once the components are identified through the 8 step model, an Activity Notation (see Table 1) is used to further break down the activity triangle into smaller sub-activity triangles (Mwanza, 2001). Research questions are generated from sub-activity triangles and used to gather data for research. According to Mwanza, three rules helped to further enhance the activity notation and stated that each triangle should consist of:

1. An ‘actor’ as represented by the Subject or Community component of the triangle model.

2. A ‘Mediator’; represented by the Tools, Rules or Division of Labor component of the triangle.

3. The ‘Object’ on which the activity is focused.

<table>
<thead>
<tr>
<th>Table 1. Activity Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors</td>
</tr>
<tr>
<td>Subjects</td>
</tr>
<tr>
<td>Subjects</td>
</tr>
</tbody>
</table>
As described above, the rationale for utilizing activity theory for this research is to be able to analyze the telecommuter's use of social network sites from a broad, more holistic perspective, and to take into account that telecommuter's network of contacts may include a mixture of coworkers, family and friends. Including this broader network is critical to understanding what social network sites telecommuters use and how they are used with different groups. Hopefully, through this analysis of the use of social network sites within telecommuting, both benefits and limitations will emerge. The activity theory framework will also help to identify and articulate what telecommuting communities look like, who they are comprised of, and what types of communications take place within these communities.

This comprehensive review of the literature helped to provide a better understanding of the history of telecommuting, how it originated and evolved over the years, its proposed benefits and limitations, and how it is perceived and adopted in the workplace. Exploring the literature on social network sites provided a better understanding of this technology and its potential for application within telecommuting as well as its limitations and potential challenges. Finally, the literature on activity theory helped to shape and guide this study and helped to answer questions that will help organizations and businesses create strategies for implementing a successful telecommuting program in this hyper-connected world.
CHAPTER 3. METHODOLOGY

Telecommuting has been around for over 40 years, but only recently has there been a real change in the way telecommuters can communicate. The internet now provides telecommuters with an abundance of communication options—including social network sites. This study looked at what happened when telecommuters used social network sites and how they managed personal and professional communications when using these sites.

Research Design

The qualitative paradigm.

I have selected to conduct a qualitative case study to explore how social network sites were used by telecommuters and how they managed personal and professional communications when using these sites. A qualitative case study helped to provide a better understanding of how social network sites were used in telecommuting. Merriam (1998) described a case study as “an intensive, holistic description and analysis of a single, bounded unit” (p. 193). Costley, Elliott, and Gibbs (2010) talked about conducting case studies to “draw out points that have potential for wider application” (p. 89). This study took an in-depth look at how social network sites were used by telecommuters in one specific department with the hope that the findings would be of interest to and benefit others questioning the appropriateness of social network sites in the work environment, specifically with telecommuters, and specifically in a school setting.

According to Yin (2009), case study research is appropriate when “what” and
“why” questions are being asked, the focus is on contemporary events, and there is no requirement to control behavioral events. This study fit the three criteria. First, it sought to understand “what” happened when telecommuters used social network sites, and “how” they managed personal and professional interactions on these sites. Second, controlling behavioral events were not required as this was a descriptive study that tried to better understand how social network sites were used and how they influenced personal and professional communication behaviors. Third, this study dealt with the use of social network sites (a contemporary event) in a telecommuting environment at a school, an area without much research to date.

This study was conducted with a small group of participants which enabled an in-depth analysis yielding rich, thick descriptions—a strength of case study research (Merriam, 1998; Yin, 2009). This was achieved through analysis of data collected from interviews and participants’ social network site postings. Surveys alone does not always yield enough in-depth information to understand “how” people choose to communicate in the manner they do thus the decision to conduct interviews and collect data from social network site postings. Merriam (1998) suggested that interviews are best suited for situations when it is not possible to directly observe people’s behavior, feelings, or how they make sense of the world around them. Direct observations was not possible in this study since telecommuters’ social network activities took place outside the traditional workday and workplace. Given the circumstances of this study, data gathered though interviews and social network site postings seemed to be the most appropriate forms of data collection.
**Single case study.**

As stated previously, a case study approach was employed for this study. According to Yin (2009), there are five components of a research design that are especially important when doing case study research. They include: 1) a study’s questions, 2) its propositions, (if any), 3) its unit(s) of analysis, 4) the logic linking the data to the propositions, and 5) the criteria for interpreting the findings. Following are the five components as it pertains to this study. These are briefly described here and further detailed later in the chapter.

**Component 1: Research questions**

1. What happens when telecommuters use social network sites?
2. How do telecommuters manage personal and professional interactions on social network sites?

**Component 2: Propositions**

Proposition 1: Telecommuters will employ impression management to convince their supervisors and coworkers that they are doing their work.

Proposition 2: Telecommuters will use social network sites during the workday for work and personal communications.

Proposition 3: The use of social network sites will help to reduce feeling of isolation for telecommuters.

**Component 3: Unit of Analysis**

The unit of analysis as defined by Yin, is the “definition” of the case and is similar to the purpose of the case. As such, the unit of analysis for this case study was to explore what happened when telecommuters in a distance learning department at a K-12 school used social network sites, and how they managed personal and professional
interactions on these sites.

Component 4: Logic

Data collected through interviews and social network site postings was categorized and analyzed based on the three propositions: 1) social network site management, 2) social network site use, and 3) feelings of isolation. Once categorized, data was further analyzed to explore emerging themes to answer what happened when telecommuters used social network sites, and how they managed personal and professional communication on these sites.

Component 5: Criteria for Interpreting Findings

Criteria for interpreting findings was done within the framework of activity theory. Activity theory posits that all subject/object(ive) interactions are mediated by tools. Tools for this study was social network sites. Therefore, within the context of activity theory, this study evaluated how social network sites (tool) affect the telecommuter (subject)/communication (objective) relationship. In addition, the extended activity triangle, which includes community, rules of engagement and division of labor was also analyzed to determine how a telecommuter’s work and personal network of family, friends and associates were impacted. Rules of engagement explored how telecommuters engage with personal and work contacts on social network sites. Data was analyzed to see how roles were divided within a telecommuters social network community.

Conceptual Framework

Based on the three propositions proposed, social network site use by telecommuters was analyzed within an activity theory framework based on the following objectives: impression management, communication, and isolation. For each of the
propositions, the subject and tool remained constant, while only the object(tive) changed. Figure 6 illustrates the telecommuter, social network site, impression management activity triangle whereby the use of social network sites (mediating tool) was analyzed to see how it was used to engage in impression management.

**Figure 6. Social network sites for engaging in impression management**

![Diagram of social network sites for impression management]

Figure 7 illustrates the telecommuter, social network site, communication activity triangle whereby the use of social network sites (mediating tool) was analyzed to see how it was used for communication within the telecommuter’s social network community.
Figure 7. Social network sites for communication

Figure 8 illustrates the telecommuter, social network site, isolation activity triangle whereby the use of social network sites (mediating tool) was analyzed to see how it was used to address feeling isolated.

Figure 8. Social network sites to reduce isolation

Role of the Researcher

As the sole researcher for this study, I was responsible for conducting all aspects of the research that included designing the research study, scheduling and conducting interviews, collecting and analyzing data, and reporting findings. Based on Yin’s (2009)
model identified skills required for conducting case study research including:

1) A researcher must be able to ask good questions and interpret the answers;
2) be a good objective listener; be adaptive, flexible, and able to perceive new situations as opportunities;
3) have a firm grasp of the issues being studied;
4) and be open, unbiased and responsive to opposing views and thoughts.

Being aware of these skills served as a foundation and guide that ensured the development of a solid case study that yielded rich data to answer the research questions identified in this study. While each researcher enters a study with the best of intentions (the reality is) biases and deficiencies of a researcher may surface, particularly for novice researchers as was the case here. For that reason, it was important to be cognizant of the points described above and constantly self-reflect and solicit feedback from participants, which helped to ensure a sound study. I was aware that the research would only be as good as the researcher (Morse, Barrett, Mayan, Olson, & Spiers, 2008).

For the past 20 years, I have worked at the private K-12 institution that this study was conducted, 17 in various instructional technology roles and the last three as Director of Information Technology. I was intrigued by social network sites and their potential to supplement current communication technologies to enhance and strengthen work relationships. Although I have never telecommuted in my previous or current job and have not directly supervised any staff who have, I did have staff who worked at remote sites away from our main offices. While these staff were not considered telecommuters, I was faced with some of the same challenges found in the literature on telecommuting, mainly concerns around work productivity.
Additionally, this topic of study was particularly interesting to me because of its potential to transform current work arrangements in the Information Technology Division (ITD), and possibly throughout the rest of the organization. A broad adoption of telecommuting may lead to benefits that include, cost savings for the organization by way of reducing the number of offices and cubicles needed to accommodate staff, better work-life balance, less commute times, and an overall boost to morale.

Although the study was conducted at the site that I am employed, there was no direct reporting relationship between the participants of the study and me. Therefore, participants neither benefited nor were they negatively impacted in any way by participating in this study. In the same way, while the results of this study may help to better guide and shape telecommuting at the institution where I work, I did not personally benefit in any direct way by completing this study.

**Participants and Context**

**Participants.**

The participants for this study worked in a distance learning division at the institution’s flagship campus located on the island of Oahu and have all volunteered to participate in this study. The Distance Learning Division offered distance learning courses to Native Hawaiian students throughout the State of Hawaii and the continental United States. The department’s organizational structure consisted of a department director, two managers, ten full-time and nine part-time staff. The participants all had backgrounds in instructional technology and instructional design and used technology daily in their work. Participants were selected based on the following criteria: 1) they telecommuted at least 2 days a week, 2) they had a social network profile and actively
used social network sites to communicate, and 3) they were available and willing to participate in this study.

All participants for this study were considered “part-time” telecommuters, meaning they also worked in the central office during the week. As a result, all interviews were conducted at the flagship campus on Oahu where they worked. Conference rooms were available for use and helped to ensure that interviews were conducted without outside distractions.

According to Merriam (1998), conducting research in an ethical manner helps to assure validity and reliability in a qualitative study. Merriam also suggested that the term “participants” infers inclusion and willing participation, and is a good litmus test concerning ethics. All attempts were made to ensure this study was conducted in an ethical manner consistent with IRB guidelines, including informing all participants of the study’s intent, minimizing any risks, and protecting participant’s confidentiality wherever possible. All IRB approvals were completed prior to collecting of data.

**Study setting.**

This study was being conducted at a private K-12 institution with campuses located on three islands in the State of Hawaii: one on Oahu, one on Maui and one on the island of Hawaii with a combined total enrollment of approximately 6,500 students and 2,200 faculty and staff. In addition to its three K-12 campuses, the institution also offers pre-K education to roughly 1,500 students at 30 plus sites throughout the state, and has an extensive outreach program that serviced Native Hawaiians through its Community Education and Implementation (CEI) programs. The organization was a private charitable trust endowed by the will of Princess Bernice Pauahi Bishop, a descendant of
King Kamehameha I. The mission of the organization was to improve the capacity and well-being of Hawaiians through education, and to create long term intergenerational change. Of note, as stipulated in its vision statement, the schools were grounded in spiritual and Christian values, and prepared to practice and perpetuate Hawaiian values and traditions of Ke Ali‘i Pauahi. Since this study looked at telecommuters use of social network sites, the actual location for the study varied and included analysis of online activities both while at the office and at home.

Instrumentation.

Two forms of data collection were employed for this study: interviews, and observations of text from participant’s social network site posts. Yin (2009) asserted that interviews are one of the most important sources of case study information and should be guided conversations rather than structured queries. Rubin and Rubin (2012) suggested that case study questioning is more fluid in nature rather than a rigid stream of questioning. As a result, this study employed a semi-structured interview approach including both a set of highly structured questions that will be asked of each participant and a list of “other” questions and issues to be explored during the interview. According to Merriam (1998), a semi-structured interview approach “allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic” (p. 74). Merriam further stated that most studies include all three types of interviewing approaches: structured, semi-structured and unstructured. Therefore, a portion of each interview will also include some unstructured time to allow for new insights and information to emerge.

There were a total of 21 questions posed to interview participants covering three
main areas: 1) telecommuting, 2) social network site use, and 3) impression management. There were also a set of “other” questions that were posed to interview participants along with additional follow-up questions based on participant responses. Demographic and experience questions are embedded in both telecommuting/work and social network sites questions.

Participants for this study included three distance learning staff who were interviewed face-to-face and five who were asked to complete an online survey. The online survey included a subset of the face-to-face interview questions. Both sets of questions are included in Appendix A. Pseudonyms were used in place of real names to ensure the confidentiality of all participants in this study.

**Data collection.**

Interviews were face-to-face and conducted at each participant’s work place. A conference room was reserved and ensured confidentiality and minimal distractions. Interviews were held on days that telecommuters normally came into the office to work, and they were asked to set aside two hours for initial interviews.

Interview data were collected using digital recording devices including an iPad, iPhone and a digital audio recorder. Soon after interviews were completed, the interview files were uploaded to an online transcription service where they were transcribed and returned to the researcher in text format. Upon receiving text files of the interviews, the researcher validated each interview by listening to each recording while reviewing the transcribed text. Corrections were made as necessary. Once all interview data were validated, it was imported into MaxQDA 11, a qualitative assessment program. MaxQDA 11 was selected based on its functionality, ease of use, and its availability on the Mac OS.
platform. Survey data was captured in ZOHO, an online survey application, and responses were exported to an Excel file. The Excel file was then imported into MAXQDA 11, where the program automatically assigned codes by survey question (each survey question became a code). Subsequently, the researcher manually reviewed survey responses and further classified them into already existing codes or created new codes, if appropriate (see Appendix B for codes).

In addition to interviews, two telecommuters who were interviewed for this study volunteered to be Facebook friends, so their posts that appeared on the researcher’s Facebook timeline; these posts were also analyzed. All electronic information was stored on a password protected encrypted drive and backed up to a second password protected encrypted drive. Each participant was assigned a pseudonym (Leilani, Malia, Kimo, etc.) to protect their identity when reporting findings and in the event the drives storing the data was compromised. A database table associating participants with their assigned code was stored in a separate file and saved in a location separate from all interview data. This file was password protected.

**Data analysis.**

Data analysis followed Saldaña’s (2013), First Cycle coding and Second Cycle analytic methods. First Cycle Coding employed the Initial Coding method which “consisted of breaking down data into discrete parts, examining them, and comparing them for similarities and differences” (Strauss & Corbin, 1998, p. 102). First cycle coding yielded a total of two hundred seventy codes. These codes were reviewed and consolidated down into ninr codes. These nine codes were used as a starting point for conducting all subsequent interview and survey data. This included the first two
interviews which were recoded using these nine codes. At the end of two phases of
Initial Coding, a total of 33 codes emerged from the coding exercise. These codes with
frequency and examples are included in Appendix B for reference.

Second Cycle analysis employed the Focused Coding method which included
searching for and determining the most frequent and significant codes (Saldaña, 2013).
As a result, the 33 codes were further analyzed to determine categories. The study’s
propositions, conceptual framework and research questions were considered when
determining categories. Based on the Second Cycle analysis, two broad categories
emerged. They were 1) work interactions using social network sites, and 2) social
interactions using social network sites. These will be explored further in later chapters.

The goal of data analysis for this study was to provide a description of social
network site use within telecommuting through the analysis of codes and categories and
emergence of themes. Themes were analyzed to create a coherent narrative, or what
Saldaña referred to as an "integrative theme” (p. 176). MaxQDA11 provided the
researcher with a tool to aid in this process.

Yin (2009) used two words to describe CAQDAS: assisted and tools. He also
declared that the software, while powerful, will not do the job for you. Rather, it is the
job of the researcher to analyze and synthesize the data gathered and to tell the story (Yin,
included, the time required to learn the program, challenges with manipulating codes and
themes, and limited features and capabilities. MaxQDA presented some of these
challenges as well. MaxQDA11 helped to organize and store data, and provided easy
search and retrieval capabilities. However, the real value of the program was realized by
allowing the researcher to “play with the data,” to create concept maps, and to discover emerging themes. Ultimately, the software aided the researcher, but did not replace the need to critically analyze data.

**Verification**

According to Morse et al. (2008), “verification is the process of checking, confirming, making sure, and being certain” (p.17). In qualitative research, these processes are interwoven into all aspects of the research process through self-correcting of errors before they are incorporated into developing models (Creswell, 2007). This will be achieved through simultaneous data collection and analysis which will be iterative and continue throughout the study (Creswell, 2007; Merriam, 1998). Utilizing an iterative process for data collection and analysis will help to ensure participant data and emerging findings are accurate and depicted in enough detail to support research findings that are both reasonable and believable. Included in this iterative process are strategies presented below that will help to enhance internal validity and reliability.

**Internal validity.**

Merriam (1998) outlined six basic strategies to enhance internal validity. Two of those strategies were used for this study—triangulation and member checks. Triangulation for this study included both methods triangulation and triangulation of sources. According to Patton (1999), methods triangulation strengthens verification and validation of analysis through a collection of different data collection methods. In this case, I collected data from interviews and text from online posts to examine consistency of findings. I also validated data through triangulation of sources by comparing the consistency of interview data between different participants of this case study. Member
checks were incorporated into the study by having participants read transcripts of interview dialogue to ensure it accurately reflected what they shared. Shenton (2004), citing Guba and Lincoln considered member checks to be the single most important provision to strengthen a study’s credibility. Two other strategies including thick description and examination of previous research findings were also employed for this study. Thick description will help readers to determine whether or not the final findings seem reasonable and “ring true” (Shenton, 2004, p. 69), and examination of previous research findings will enable readers to assess this study’s findings with past studies to determine if results seem plausible. Wolcott (1994) suggested inviting people unfamiliar with your work to serve as critical reviewers of early drafts. Their feedback may help to point out inconsistencies and gaps since the images they conjure up in their minds are based solely on your write up. Colleagues unfamiliar with this study were solicited and provided feedback. Employing these strategies helped to strengthen validity and credibility of the study.

**Reliability.**

Reliability is the degree to which research findings can be replicated (Merriam, 1998). In order to achieve this, an audit trail was kept that described in detail, how data were collected and analyzed, investigator thoughts, notes, and biases that emerged. DevonThink Pro Office was used to create and store audit trail data. Devon Think Pro Office provided a means for collecting and storing various types of data including documents, recordings, graphics, and field notes. All data was tagged and organized into folders, for easy searching and exporting.

Yin (2009) suggested that researchers maintain a chain of evidence to increase the
reliability of the information in a case study. The chain of evidence allows external observers to make connections and link initial research questions to final report, similar to a crime scene where evidence collected at the scene should match the final report. Yin (2009) made a clear statement that original evidence should not be lost either through carelessness or bias. Providing rich, thick description will enable readers to determine how closely their research situations match this study and will help determine whether or not findings from this research can be transferred.

**Timeline.**

The projected timeline towards a completed dissertation and graduation was follows:

1. IRB approval: December 2013
2. Proposal defense: December 2013
4. Chapter 4: March 2014
5. Chapter 5: January - March 2014
7. Graduation: May 2014

**Product.**

The case study was written up to include perspectives from each individual participant within the overall framework of activity theory. Taking a more holistic view of social network use in telecommuting was important because of the very nature of social network sites, which in many instances blended both professional and personal worlds together. Themes were explored, and relationships between cases were analyzed,
and a final report was produced that shared perspectives on what happened when social network sites were used in telecommuting and how telecommuters managed personal and professional activities on these sites.
CHAPTER 4. RESULTS

The purpose of this qualitative case study was to explore how telecommuters in a distance learning division at a K-12 school used social network sites, and how they managed personal and professional interactions on these sites. This chapter will present background information on participants, the study’s setting, and emerging themes shared within the context of the activity theory framework.

Results from this study were categorized into two broad themes and included the role of social network sites to fulfill personal needs and the role of social network sites to fulfill work needs. The themes will be discussed within the framework of activity theory and presented as two activities—work interaction and social interaction. Within the work interactions activity, communication and impression management will be presented. Within the social interaction activity, meeting social need, isolation and impression management will be presented. The themes will address the two research questions and three propositions shared in Chapter 3.

All telecommuting programs are not alike. Each environment is unique with its own rules and guidelines and subtle nuances, thus it is important to provide context through participants’ perspectives of the benefits and challenges of this specific telecommuting program. Doing so provides a better context of the role social network sites played for individuals and the program within this environment and its potential applicability in other telecommuting programs.

Participants

Six people participated in this study. Three were interviewed and three completed
an online survey. Of the six participants, one was the director of the division, one was a manager, and four were staff. Pseudonyms were used to reference the three participants who were interviewed. The names of the three other participants were not asked for in the survey. They will be referred to simply as survey participants.

Kimo is a multimedia developer in the Distance Learning Division and has been employed at the school for two years. He has telecommuted for approximately one-year and nine months. Employees must complete a three-month probation before being eligible to participate in telecommuting. Prior to working at the school, Kimo was self-employed, running his own video production company. Kino shared,

I’m a result oriented kind of guy. That’s where I come from. Where I came from is that the bottom line is that we deliver on time, we deliver what the client wants, and we make it like it’s no stress. You do this with a lot of stress, you hide it.

Kimo talked about how he never had a 9 - 5 job before taking this job and wasn’t sure if he was going to last. Kimo prides himself in his creativity and ability to “get the job done” and enjoys the freedom and flexibility that telecommuting offers, like starting work later, watching TV while he works, and not having to commute to and from work. Kimo works from home two days a week, Monday and Friday, as is the arrangement offered to all in the department who choose to telecommute. As stated in an earlier chapter, telecommuting two days a week is the minimum number of days to be considered a telecommuter as defined in this study. Kimo pointed out an interesting point, that although he only telecommuted two days, he was actually away from the office four days out of the week (Friday, Saturday, Sunday, and Monday), while only being in the office three days (Tuesday, Wednesday and Thursday). So in essence, he
was away from office more than he was in the office. Kimo is married and has a young son and a dog.

Malia is a manager in the Distance Learning Division and has been employed at the school for one and a half years. She has telecommuted for a little over a year. Malia oversees one full-time employee and approximately eight to nine part-time distance learning instructors. Her full-time employee resides on the island of Kauai and thus works remotely every day, only coming in to the office for monthly meetings or other professional development trainings. The part-time instructors also work remotely to design and deliver their courses. At times they are required to come in to the office for meetings and other divisional activities. Malia had one full-time employee who worked out of the main office with her, but has since left the company. When reflecting on the relationship between the employee who left and her employee on Kauai, she noted that she felt closer to her employee on Kauai because of daily interactions using Google Chat. She stated,

I feel closer to her than the person that left actually even though that person was here, too. I feel much closer with her because I was working with her on something where I was talking to her almost every day for a good period of time on Google Chat. I just think it’s that like synchronous communication and the frequency of that helped to build that relationship and to feel that connection.

Malia is married, and she and her husband currently reside with her husband’s in-laws.

Leilani, who has been with the school for 11 years, serving as the Distance Learning Director for the past six years and started the telecommuting program about three years ago; however, she does not participate in her division’s telecommuting
program. My purpose for interviewing her was to gain an overall perspective of the division from her vantage point, understand any norms and expectations as it relates to telecommuting and the use of social network sites, and gain a sense of her overall leadership philosophy. Leilani is a task-oriented leader and assesses her staff based on timely delivery of milestones. This is how telecommuters were measured and assessed and it contributed to the effectiveness of the telecommuting program. Her division was one of the few at the school that has adopted a telecommuting program and she pointed out challenges with getting the program off the ground, specifically when working with the Human Resources (HR) Division who did not understand how staff could be monitored while working remotely. She stated,

I mean HR had asked me the question like how do you know the individual is doing their work and I said, I don’t – I’m in a meeting like right now…I’m in the meeting with you, I don’t know if Momi is doing her work and she’s right outside my room, right? I don’t. I can’t assess it that way, so my assessment is the milestones for the projects you know. Her philosophy for assessing staff is consistent with what others understand as their responsibility as telecommuters, that regardless of where they are working, at home or in the office, they are measured on the work that gets done.

Three other staff in the division participated in this study by completing an online survey and they included an administrative assistant, Sr. Instructional Designer, and a Graphic Designer; all three were non-management positions. The survey did not ask participants for their names to encourage more open and candid responses; however, since the division is fairly small and respondents were asked to provide their job title, this
may have impacted how much they were willing to share. All three survey participants were telecommuters who work remotely on Mondays and Fridays. The number of years they telecommuted ranged from one year to five years. The participant who has been telecommuting for the past five years, actually worked in another department where telecommuting was allowed. The length of time each has been working at the school ranged from 1.5 years to over 30 years. All three indicated that they used Facebook, and two also indicated that they used Instagram. No other social network sites were mentioned in their responses, although all Distance Learning staff were required to use Google Hangouts for work related activities.

**Setting**

The Distance Learning Division is housed on the island of Oahu in an administrative building at the elementary school on the school’s flagship campus. Staff shared first floor offices with the school’s IT Training, Multimedia and Audio Visual teams. The team occupied one side of the building that included shared workspaces for staff, and offices for the two managers and director. Staff in shared workspaces were each assigned a desk area. To maximize space, tables were situated around the perimeter of the room, with desks also in the interior sections. All staff in this shared workspace were able to see each other when sitting at their desks. Privacy was minimal and staff would have had to step out of the office if they wished to converse privately with coworkers or talk on the phone. The two managers in the division shared an office which adjoined the shared workspace. The director’s office was located down the hall from her two managers and shared office space. Situated outside her office were other distance learning staff who occupied a converted open area.
Two staff worked at the school’s corporate offices located on the outskirts of the city’s business district and one staff resided on the island of Kauai and worked out of her home. Since staff who telecommuted did so on Mondays and Fridays, these days were usually when the office was most quiet; however, those who were interviewed noted that they were often in meetings on Tuesday, Wednesday and Thursdays when they were physically in the office and available to meet with clients face-to-face. So oftentimes, the office was quiet even on days when staff were not telecommuting. Whether telecommuting or working in the office, staff were expected to keep normal work hours; however, they were able to make arrangements with management if they desired to flex their start and end times. It should also be noted that not all staff telecommuted, with some choosing to come in to the office instead. Staff did socialize during the workday and at lunchtime as noted by two of the interviewees. Malia shared, “…my understanding is those who need to go get lunch go off campus to get lunch and then they’ll kind of go together at the same time and then they’ll eat together.”

Kimo shared,

In our office which is very interesting ‘cause it’s very like this, it’s like an hour and a half of total silence of no one talking to each other and then twenty minutes of just talk, talk, talk and then back to let’s go eat lunch and then back to the two hours of silence you know ‘cause we’re all kind of like that. If you ever just kind of pop into our office, you’ll either notice we’ll all chatting it up or we’re super quiet.

The telecommuting program was available to all staff in the Distance Learning Division once they passed the school’s standard probationary period of three months.
Those who chose to telecommute needed to be performing “at standard” as determined by their supervisor during the school’s annual evaluation cycle. Leilani, the division’s director noted during her interview that telecommuting was a privilege and any staff who were on a performance improvement plan would not be allowed to telecommute, with the rationale being that they needed to be in the office to have additional support and supervision. Staff who telecommuted were allowed to do so on Mondays and Fridays with some choosing to work four 10 hour days (Monday, Tuesday, Wednesday and Thursday) and a half-day on Friday. All staff who telecommuted were expected to have access to the internet and be online during the workday, and were bound to the same work hours as those who remained in the office. According to Leilani,

So if you’re not working during the time that you’re at home, then you need to go check in with your supervisor. So if you need to start later and end later, which we allow anyway in the office, right? You can come in later and just stay later, right? Sometimes things happen, you have to – something happens with your child, you have to do an errand or what, or you have to have a longer lunch break, that’s totally fine just talk to your supervisor work it out, but just let them know that you’re not working otherwise, they could be – some – other individuals could be chatting with you or wanting to get you online with Google Chat you know or Google Hangout and you’re not there, then it’s still your responsibility that you are available during that time.

From the time it was launched three years ago, management has encountered very few problems with telecommuting staff. Overall the program has been very successful and has met its intended objectives.
Themes

Two themes that emerged from this study were work interactions using social network sites and social interactions using social network sites. Each will be presented as activities within the context of activity theory. The first, work interaction using social network sites is defined as coworker to coworker communication, and coworker to manager communication to accomplish work related tasks. For example, participating in a team meeting via Google Hangouts is considered a work interaction using social network sites. The second, social interaction using social network sites is defined as activities pertaining to non-work related activities. Examples of social interactions using a social network site include activities such as posting a picture of your child’s birthday party on Facebook or as Malia stated, “share with my friends what’s going on with me.” Two other participants who were interviewed also talked about social interactions on Facebook as ways of keeping in touch with friends and family and sharing what’s going on in their life. Social interactions on social network sites were not limited only to friends and family, but could also include coworkers as well; however, very few of these interactions were mentioned by participants. It is worth noting that there were instances where posts on Facebook generated social interactions between coworkers, but most of these social interactions were follow on conversations about a post, and occurred during face-to-face conversations.

Work interaction using social network sites.

Work related communication was a key reason that social network sites were used in the workplace. One of the primary social network sites used for this purpose was Google Hangouts. Figure 9 illustrates the “activity” called work interaction using social
network sites, with Google Hangouts as the mediating tool, the telecommuter as the subject, and work communication as the objective. The community in this activity comprised of a telecommuter’s coworkers, supervisors and clients. Rules identified in this activity included active participation in work communication and ability to facilitate/lead meetings. Additionally, all staff were expected to be available for work related communications during the normal business day. Division of Labor was similar to rules and included facilitating, participating and contributing during meetings.

Google Hangouts was used as a tool to facilitate outcomes listed in Figure 9, including conducting online meetings, collaborating on tasks, holding informal or ad-hoc meetings, helping people to feel connected, creating social presence, and providing opportunities for “water cooler” talk or informal communications throughout the day. Water cooler talk refers to impromptu conversations occurring at the water cooler, copier, or in the lunchroom.

**Figure 9. Activity: Work interaction using social network sites (Google Hangouts)**

Google Hangouts helped telecommuters to communicate effectively as evidenced by Kimo’s comments when asked how it was to use Google Hangouts for meetings, Kimo stated,
I think they’re the same [as face-to-face meetings]. I would go back to you’re hired for your job kind of thing and to be more productive, you know where you stand in that. If you really want to be here, you’d be here, I guess. If you think you can do it just as fine without it, then it’s fine. It’s a very interesting dynamic because when we do Google Hangouts, six of us are in here, we’re all at Google Hangouts.

According to Kimo, there is no difference from participating in meetings on Google Hangouts or face-to-face, and from his statement above, Google Hangouts was used even when the team was physically together. Kimo explained, “The reason why is because Google Hangout, you can share documents.” Malia shared additional insights on why the team used Google Hangouts for virtual and face-to-face meetings. She said,

We also like Google Hangouts because when we are meeting and you have your Google Doc in front of you also in the same Hangout like you can make live edits and everybody can contribute at the same time that’s definitely why we like Hangouts, too.

A majority of the participants indicated that they used Google Hangouts for work communications, with some relying on it heavily to collaborate with staff who work remotely like Mary, an instructional developer who lived on Kauai. According to Leilani, Mary participated in monthly divisional meetings via Google Hangouts and staff were able to see her [Mary] and she could see everyone. Besides Mary there were two other staff who worked out of the school’s corporate office and were not physically together with the rest of the team. With this tool, they have been able to collaborate with the rest of the team seamlessly. Managers also used Google Hangouts to collaborate with their
staff to assess progress of deliverables. A typical interaction may have started out with a chat utilizing a tool like Office Communicator, an instant messaging tool provided by the school, then moved to Google Hangouts, which enabled more functionality and media richness like video and document collaboration.

Although “social presence” and “feeling connected” were not primary drivers for using this technology, it appeared that the video component of the tool promoted a sense of connectedness and social presence as indicated by remarks made by Malia when she shared, “It’s like seeing that person, like I get to see what Mary looks like when she laughs or when we’re thinking something really hard.” Malia also shared that “things like Google Hangouts” can help make telecommuters feel connected in the workplace environment. She was referring to Mary, who commented how she sometimes feels lonely, but when she was in meetings on Google Hangouts with people, she did not notice it. Leilani shared, “So, I guess for that, I mean she’s [Mary] virtual, but still there, you know, present, yeah, synchronous. Yeah.” Another way people often felt connected in the office was through “water-cooler” conversations and a tool like Google Hangouts made these informal meetings possible. There was no need to schedule meetings in advance like other meeting tools that were provided by the school. Meetings were spontaneous, quick and required very little effort to do.

Besides using social network sites for internal use, the division also leveraged social network sites for external use as a web presence and marketing tool, and to facilitate communication and build a community of learners. When was asked about the use of Facebook for communication Kimo shared, “…but for distance learning, for business, I think it’s more of a marketing tool, more of trying to connect with the people
more intimately in that way.” Kimo also shared,

I really think our Facebook is really used strategically to get the word out for our classes and stuff like that – information – but also try to build a community, try to build a collaboration, try to build a back and forth talk story about issues… not issues but things happening in Hawaii and stuff like that which I think that’s what… all part of our redesign is. We’re trying to bring that community together.

The division maintained a Distance Learning Facebook page. Distance Learning staff were responsible for updating the division’s Facebook page regularly (using the division’s Facebook account), and included posts on course offerings, pictures of events with Distance Learning students, and other information on Hawaiian culture and language. Over a two-year period from 2012 to 2014, the site has received 1615 “likes.”

Figure 10 illustrates the “activity” called work interaction using social network sites, with Facebook as the mediating tool, the telecommuter as the subject, and work communication as the objective. The community in this activity was comprised of the consumers and friends of the Distance Learning Facebook page. Rules identified in this activity included, the expectation by management to respond to posts and inquiries on the site in a timely manner, and to keep information on the site current. Division of Labor included the telecommuter who served in both a facilitator and teacher role, and the social network community who were consumers of the information on the site as well as contributors of posts/comments and inquiries.
Social interaction using social network sites.

A second theme discovered through this research was the use of social network sites by telecommuters for social (non work related) interaction. The social interaction using social network sites is illustrated within the context of activity theory (see Figure 11), with Facebook as the mediating tool, telecommuters as the subject and meeting social need as the objective, making up the basic activity triangle. The extended triangle included the telecommuter’s social network site community (family, friends, coworkers and supervisor); rules which included, responding to others, and being positive; and division of labor, which included sharing/posting, liking and commenting on other’s posts. As a result, the following outcomes were observed: fostering conversations, staying connected, feeling supported and supporting others.
All of the participants in the study had a Facebook account and used it for social interaction, but most of this actively was with family and friends in their social network site community. While some of the participants indicated that they were friends with coworkers and even supervisors in some cases, most indicated that they did not use Facebook for active social interaction with coworkers and supervisors. When asked who they included in their social network communities, four of the five telecommuters said family, friends and coworkers. Yet, when asked who they communicated with on social networks communities, none indicated coworkers. This is consistent with participant’s responses during interviews. They saw posts of coworkers with whom they were friends, but most times followed up with them in person versus commenting online.

Those who were connected with coworkers and supervisors indicated a more passive relationship on Facebook. Kimo shared that it was more by chance that people became Facebook friends in the division and that there is a window where you might “friend” someone, but after that window passed, it became weird to ask to be their friend.

Kimo and Malia, who were both interviewed for this study were not Facebook friends with each other, but Kimo commented, “Yeah, ‘cause I never asked her. I think it
didn’t come to a point where I needed to know more about Malia’s life than I do know what I know now?” Kimo and Malia were already friends and Malia pointed out, when talking to her about the subject of pets, “Yeah. [Laughter] our dogs actually they play together sometimes.” So, although they socialized outside of work, Kimo and Malia did not socialize on Facebook.

**How Facebook meets social needs.**

For those participating in this study, the use of Facebook helped to meet social needs by achieving the outcomes as illustrated in Figure 11. These will be covered in more detail now.

**Fostering conversations.**

Although participants in this study indicated that they did not actively socialize with each other on Facebook, some were Facebook friends and as a result viewed each other’s posts, which helped to foster conversations. Leilani made the following comment when talking about being Facebook friends with Kimo. She shared,

But, for the most part you know if we’re in conversation or if we’re having lunch or something or if we’re in a team meeting and we finish, you know it’s like side conversation time, I will be like, oh, yeah, I saw that Facebook picture you know, how is Ryan [his son] doing and all of that…so that I think that part builds the relationship so you get to know an individual from another aspect that you usually wouldn’t know, you know wouldn’t know like unless you’re always conversing with them all the time.

This was an example of how Facebook helped to foster social interaction with coworkers in an informal way.

When Malia was asked how she thought social networks might benefit her as a
telecommuter. She shared,

I just haven’t experienced any sort of benefit myself as far as social networking in the workplace…but, I think it could. I mean I do think if you have that kind of environment set up where, you know I think you could get to know someone’s outside life, you know outside of work and you bring that into work right when you talk. So somebody who is Facebook friends with me they’re like, “Oh, yeah, I saw those cupcakes you made last night. Oh, those are so cool. Like how long have you been baking now?” And so, it’s a way to kind of like start up a conversation that’s not necessarily about work at work. And we always say we want to know more you know about like the person the whole person they do think it can help you do that.

Although most choose to keep their personal and professional lives separate, those who were friends did seem to benefit from their online friendship by getting to know each other better through viewing each other’s posts.

*Staying connected.*

Telecommuters used Facebook to stay connected with family and friends, and while it may not have strengthened work relationships, it did provide telecommuters an avenue to connect with other people, including their family and friends. Most commented that they did not use Facebook during the workday unless it was to check the official Distance Learning Facebook page. One of the survey respondents said she did not post on Facebook during work hours, “because I don't think it's appropriate for me to be doing personal stuff during work.” This was not a directive or guideline set by the division’s leadership, however, it may be a reason why telecommuters did not
communicate with each other on Facebook on a social level. Participants also shared that they preferred to keep their personal lives separate from work.

Malia shared that she used Facebook to keep connected to friends and family who did not live in Hawaii. It was a way to stay in touch with old college friends and those she grew up with on the mainland, and with family members who don’t live here. Malia shared about friends who post frequently and how she feels more connected to them. She said, “…but for those who are more like me who, you know, probably everyday will post something, some sort of picture or something, you know it makes me feel like we’re still there together in some way.”

As reported in past studies, one of the things that telecommuters experienced was a feeling and sense of isolation. This was not the case with those interviewed for this study; however, this may be due to only telecommuting two days a week. Participants in this study shared that they often communicated with clients and coworkers when telecommuting, and that they were able to see coworkers on Tuesdays, Wednesdays and Thursdays when they came into the office, and thus didn’t feel isolated.

Kimo classified Facebook contacts into tiers and referred to a second tier of friend, which he also referred to as “passive friends.” Some he said he grew up with or went to school with, but had not seen in years. As he put it,

There are people that I’ve known since high school, I honestly didn’t even know them in high school and they’d like what I do. They’d like my pictures and all these things, which is not bad? But I don’t consider them even an acquaintance, but I know them because I graduated high school with them.

He said it was a way to keep up with what people were doing from a distance.
According to Kimo, it provided a way of keeping up with people without really having to bother them. Kimo shared something interesting when he said,

> And I honestly think how I feel about social media personally is that it’s second tier kind a interaction with people, and if the people that you are close to...you don’t really do social networking with essentially because…you should be close to them.

So, basically Kimo equates many of his Facebook contacts as a second tier of friends. What was not clear is how he viewed coworkers.

One of the participants who completed the online survey stated, “Facebook has been very effective for me to locate and communicate with family and friends that live both near and far and those that I haven't been in contact for a very long time.” However, she went on to share that, “I don't 'friend' anyone from work, because I think work should be kept separate.” She did not provide a reason why she felt it should be kept separate.

**Feeling supported.**

Facebook provided an avenue to express feelings and feel supported. Malia shared that she sometimes posted a picture of a sad face guy and said, “…if you have a bad day, you post a little picture of a little sad face guy.” When asked why she posted these types of things, she responded, “I don’t know maybe there’s just not anyone really to talk to. You don’t want to really talk about it but you just felt like you letting it out.” She also shared that when she checks her Facebook page she’ll go back and see what people say.

**Supporting others.**

Facebook provided a way to support others. The simplest form of this was “liking”
a friend’s post. Malia shared, “Just kind of commenting, liking, showing them that I take
an interest in their life by my responses, too.” Kimo talked about a former student who
he had mentored who posted on Facebook that his grandmother had gone to the
emergency room. Kimo shared,

And I messaged him, I should have texted him, but I messaged him for some
reason that, you know, prayers go out to you bro and if anything I can do to help
you, let me know. And he wrote back, “Thank you, Kimo. That means so much
to me.”

Kimo went on to share that he did not realize how much of an impact his simple message
had on this person that he had not seen in a while and was not very close with.

*Managing impressions.*

Managing impressions were evident in both work-related interactions on social
networking sites and social interactions on social network sites. Both are illustrated in
Figures 12 and 13 below. Although each instance included the same objective (manage
impressions), the mediating tools and the social network site community were slightly
different.

In work-related interactions on social network sites, the telecommuter was the
subject, Facebook and Google Hangouts were the mediating tools, and managing
impressions was the objective, making up the basic activity triangle. The extended
activity triangle was comprised of the community which included coworkers, supervisors
and clients; rules, which included environment and technical limitations; and the division
of labor in which the telecommuter was the actor and the social network site community
was the audience. The “actor” and “audience” labels were used to describe roles that
telecommuters and the community played in this interaction similar to a play or movie, where an actor behaves in a way that is not genuine to an audience who consumes this information.

The social network environment limited how impressions could be managed. For example, synchronous social network sites like Google Hangouts, which were mostly used for meetings, required that the telecommuter be present during those interactions. Unlike sites like Facebook in which telecommuters could engage in impression management by controlling the content they posted or did not post.

**Figure 12. Activity: Impression management using social network sites (work)**

During the interviews and on the online survey, participants were asked questions about how they managed impressions. Most shared that they did not feel like they intentionally tried to manage impressions on social network sites; however, findings indicate they may have been indirectly managing impressions by not using Facebook during the workday, unless it was to check or update the Distance Learning Facebook page. One of the survey respondents indicated that she didn’t post during the workday because she did not feel it was appropriate to be doing personal stuff during work hours.
Although Malia posted regularly to Facebook, she indicated that she did not check Facebook during the day because she was too busy. She also shared that she was online during the days she was telecommuting, and therefore, did not feel like people were wondering if she was actually working. Kimo’s perspective was a little different. He felt like it was his responsibility to deliver work assignments and if he did that, people should not be wondering if he was doing his work. He did share that two other staff felt like they had to be “logged in” when they were telecommuting so people knew they were there.

Figure 13. Activity: Impression management (personal)

Telecommuters also managed impressions on their personal social network sites. A majority of participants indicated that they chose not to post things that were negative on Facebook, which was a form of impression management.

Telecommuting Benefits

Thus far the data presented focused around the use of social network sites by telecommuters; however, it is important to understand telecommuters’ perceptions of the telecommuting program in which social network sites were studied. This will help to
ensure an understanding of social network sites within the parameters of this telecommuting program.

Prior telecommuting research presented benefits that included savings on real estate cost and office space, reduced commute times, greater flexibility, increased productivity, less stress, less absenteeism and higher morale. Some of benefits were evident in this telecommuting program as well. The following excerpts from those interviewed provided a picture of how telecommuting benefited them.

**Real estate cost and space savings.**

There were no advantages reported on real estate cost and space saving. Since all staff were required to come in to the office on Tuesdays, Wednesdays and Thursdays, the office space needed to be able to accommodate all staff on those days as opposed to alternating days when staff telecommuted. As Leilani, the director shared, “It doesn’t help with space allocation when you make everyone come in on Tuesday, Wednesday, and Thursday, ‘cause you still need all the seats available for when they come in, right?” She did share that it was a management decision to set up the program this way because they felt that they needed the team to be physically together. She shared, “…we’re like I think we still need to have that until the team gets to the point that they’re more mature.”

**Reduced commute times.**

Four of the five telecommuters interviewed stated that not having to be stuck in traffic was a benefit. Eliminating the need to commute on Mondays and Fridays helped to reduce stress for some and provide a better quality of life.
Kimo shared his perspectives on traffic and stress and said, “What I love about telecommuting first and foremost was traffic.” On the days that Kimo telecommuted, he avoided having to be stuck in traffic. He said,

It was mainly because I live in Kunia. So avoid the traffic, I made it so… the biggest thing in life is stress. The one thing that gives the most stress in most people’s lives is traffic. So I try to mitigate traffic. I try to go before it, and then after it, and when you’re going home to the park about 6 o’clock, when it’s not that bad. So that’s my motivation.

Malia was also faced with long commute times and shared, “For me, I live in Mililani so my average commute would be about an hour and fifteen minutes. For me I was excited not to be in that traffic.” Honolulu now ranks 2nd for the longest commute times (Inrix, 2013). On Mondays and Fridays, she did not have to deal with this frustration. Two of the three survey respondents also listed the ability to avoid traffic as a benefit of telecommuting.

**Flexibility.**

Flexibility was a tangible benefit to telecommuters that was manifest in different ways. Kimo shared,

The one thing I do when… the one thing that’s great about home is that you take a shower when you want to. That’s the thing which I like, so I take a shower when I want to which is equivalent to our 15-minute break anyway. It’s the same thing. There’s no difference. No one really bothers me at work except my dog when I’m at home. I’m right here by myself. The only difference is that you get to have a football game on TV or Family Feud on TV. You eat from home which you save
more money pretty much.

Kimo also talked about being able to set up his work area the way he wanted saying, “Yeah you know the little Japanese tables, the dinner tables, I sit there on the carpet or lay on the carpet. Like I said before your layout is the way you want it to be so I have that.” Malia liked the flexibility that telecommuting offered and when asked what her day was like, she said, “Get up, brush my teeth, [laughter] may or may not change out of PJs [pajamas] just depends on if I’m meeting with someone online. [Laughter].” She also shared, “Yeah, I get up like when I have to get up. [Laughter]. Survey respondents shared similar benefits about being able to create “comfortable work spaces” and not needing to get dressed up.

Focus.

Westfall (2004) posited that being away from office distractions, workers would be able to concentrate and get more work done. Consistent with Westfall’s claims, telecommuters echoed similar sentiments and said they were less distracted and able to focus more when working at home. Kimo shared,

…when I do things, I'm really focused. I think [my supervisor] tells me that’s my fault, actually. He’s like, well it’s your fault, he tells me my fault is I'm actually too focused sometimes where I weed out the world. So when I'm working at home, I literally just focus on that thing and no one bothers me except my dog which he can’t bother me, you know what I mean?...My son ain’t there. My wife ain’t there. I'm on my desk, sitting there. I'm focused. When I'm here in the office, I'm always scheduled in meetings for some reason. [Laughter]. I guess ‘cause it’s Tuesday, Wednesday, Thursday, they put all the meetings there and
then Monday’s and Friday’s we just do the work.

Malia also shared about being able to focus more when she was telecommuting. When she was asked about the benefit of being out of the office, she shared, “Yeah, I think you’re just not quite there (in the office) you know they don’t pop into our office and just as if we’re here and ask stuff.” She also shared about her ability to be more focused when telecommuting. She shared,

I think it also helps me to be focused more. When we were talking earlier I mentioned that a lot of things come through me for our programs, it’s very often that you could be pulled into this or that kind of meeting and I end up not being able to work on some stuff because I just kind of move between these ad-hoc meetings that occurs. I think it helps me to focus a little bit and plan out when I’m going to be meeting with people about this too.

Those who responded to the survey also reiterated the ability to focus as an advantage of telecommuting. Following are some of their comments:

- Focus on work (less distractions)
- No distractions, quiet work environment
- Use the time/energy you save for work
- Able to focus and concentrate on tasks
- Less interruptions throughout the day, focus better

The ability to focus when telecommuting was consistent among participants of this study. While the ability to focus on work without distraction did not guarantee increased productivity, it was one of the components Westfall (2004) included in his formula to measure productivity in telecommuting.
Stress and absenteeism.

Research supported that telecommuting reduces stress (Fonner & Roloff, 2010). This was evident in this research and had to do with commuting. As Kimo shared, “The one thing that gives the most stress in most people’s lives is traffic. So I try to mitigate traffic.” He is able to do that on Mondays and Fridays when he telecommutes. Malia also shared,

Yeah, it’s great! Yeah, it’s really great. Honestly, I’m in better moods too when I don’t have to commute because traffic is not the greatest. I mean I know my husband likes it better on those days when I’m telecommuting because I’m not like, grumpy from sitting in one and half hour driving home. [Laughter].

Only one of the survey respondents mentioned less stress as a benefit of telecommuting. However, others mentioned “job satisfaction” and “work-life balance” as benefits of telecommuting, which could be equated to creating a less stressful work environment. Another stated, “Seems like a shorter work week because no need to commute in traffic”. Absenteeism was not brought up during the interviews and therefore it is not known whether telecommuting impacted staff absenteeism in a positive or negative way.

Activities to build the team.

According to Leilani, they incorporated various activities to encourage and build a healthy team. These included, “launa” time. Launa, is a Hawaiian term used to describe a time to relax and socialize together in a non-formal way. The division was also planning to participate in DISC® training—a personal assessment tool for improving work productivity and teamwork—which would help staff to get to know and understand each other better. In addition, they regularly participated in community service activities.
together as a team. Leilani also mentioned establishing team norms and the team’s willingness to have “courageous conversations” when necessary as ways the team was strengthened.

**Other benefits.**

Other benefits that did not necessarily fit into the categories listed above included the telecommuting arrangement of working remotely Mondays and Fridays with the weekend sandwiched in between. Because Kimo was home four days in a row, he felt like he was more able to focus and “stay in the flow” and get the job done. He talked about working on a project on a Friday and working right through the weekend to get the job finished.

For Kimo, another benefit of being out of the office four days in a row was he looked forward to seeing his coworkers when he got back to the office on Tuesday. This may not be the case in all situations where workers are telecommuting two days a week, since other organizations may structure their telecommuting programs differently. Kimo said,

I think it’s better honestly because it feels like you haven’t seen them a little bit so you kind of catch up but you’re obviously communicating all the time but when you come back you haven’t seen them literally, physically seen them in 4 days. So I don't know. So I can go and catch up. There’s a little more camaraderie I think. I think like anything you see them everyday you can get it too much.

Staff completing the survey also indicated that they save money on gas and car maintenance because they telecommute.
Similar to what was stated in past research, working from home can be seen as a benefit from the perspective of productivity; however, it can also be seen negatively since start and stop times can become fuzzy and staff end up actually working longer hours.

Malia explained:

If I’m not doing work, sometimes it’s a half-day but I really just keep going.

[Laughter]. That’s the other thing about telecommuting I think it can be an advantage or disadvantage depends on how you want to look at it. I think it’s easier for me at least just to keep going so I guess not like I need to stop and go home and drive. I’m already at home, I’ll be much more willing to sit there and keep working until six, six thirty, seven whatever to get whatever I need to get done whereas if I have to think keep driving back then I factor in certain things or that I would make dinner so I need to be home. You’ve kind of gain that time back or you might still just use that time for work.

She went on to share,

You just start up your day and I don’t know, for me, once I start up I just keep going and I may or may not even take lunch it just depends on how occupied with what I’m doing. I work till it’s time to finish and that time was really just set on like whenever I’m working on so if really need to finish doing enrollments then I’ll just keep going till I’m done. Honestly, I’m in better moods too when I don’t have to commute because traffic is not the greatest. I mean I know my husband likes it better when those days when I’m telecommuting because I’m not like, grumpy from sitting in traffic one and half hour driving home. [Laughter]
**Telecommuting Limitations**

Participants were asked what limitations they experienced or perceived about telecommuting to better understand if telecommuters experienced some of the same challenges as reported in past studies.

**Isolation.**

Those interviewed did not feel isolated. This may be attributed to staff only working remotely two days a week (Monday and Friday), which meant they had face-to-face contact with coworkers three days a week. When asked if he felt isolated when telecommuting, Kimo shared, “No. Not at all ‘cause I come in Tuesday, Wednesday, Thursday.” Malia shared,

I don’t, but I talk to a lot of people throughout the day, you know even – I have less meetings definitely when I’m not there in the office, but I still have meetings on those days and I’m still, you know on like Office Communicator with people, so I don’t feel like removed or anything.

There was one staff who worked remotely full-time because she lived on a different island. She did not participate in the study; however, Leilani shared, “I have heard about Nicole Woods [staff who lives on Kauai] saying that at times she does feel isolated.” Kimo also shared, “Nicole, she makes comments all the time like she’s in this room by herself. For me, it’s fine. It’s only two days.” Leilani also noted two other employees who live on a different island and have since transferred to other divisions in the organization, who also expressed feelings of isolation when they were full-time telecommuters working in Distance Learning.
Leilani did share that the use of video conferencing helped her feel like both of those staff were present in meetings. She said, “And like I felt like they were there, you know, and they said that they felt like, you know, they knew us too because we’re always seeing each other online, right?” However, she went on to say that, “But, yeah, but there are certain times I think that what they said that it still is, you know, you’re still working from home all the time, right?”

Access.

Kimo talked about things being slower when he accessed the school’s network remotely, saying, “It’s like at least twice as long as it takes to log into here [work]. Do you understand? Right? The VPN, and it takes a lot longer to log into our servers to update our stuff.” One of the survey respondents mentioned the “wear and tear on my personal equipment at home: scanner, digital drawing tablet, printers, ink, light table, etc.”, and the lack of access to office printers, large-format scanner and Apple monitor. One person also brought up the point of having to plan better to make sure “that I bring all the supplies, paperwork, etc. home with me.” While the school does provide a laptop computer and supplies to all staff, staff are ultimately responsible for ensuring they are prepared and equipped to work from home. The school does not provide equipment available to office-based staff, including printer/copiers, scanners, shredders, etc., and network access from the home to the school cannot be controlled and is dependent on the reliability of the telecommuter’s service provider. Westfall (2004) suggested that these limitations may impact the overall productivity of telecommuters.
Other limitations shared.

Some of the other limitations that people shared dealt with physical workspace saying that their workspace not set up like my desk at work. Kimo also commented about why several coworkers choose to come in to the office and not telecommute. According to Kimo, one person preferred to come into the office because their spouse also worked from home. For another coworker Kimo shared,

From my observation of Bruce—Bruce Kim—he’s very set on his ways. He knows exactly where it is on his desk and everything like that and he’s very comfortable right there. So I’m not sure he could replicate it back in his house. It’s all about being comfortable where you are.

Malia talked about impacts to communication and relationships in the following excerpts:

I mean for me I don’t feel that my relationships have been impacted but I think that on the other end I don’t know if people aren’t feeling maybe as close to me or feel that they see me enough on those days where I’m not here. I think on my end I’m okay with it but I don’t know if on the other end if someone is being impacted by me not being here. I think also you tend to be extremely busy, you know on Tuesday, Wednesday, Thursday because for some reason I think people still kind of don’t feel like they can meet me as much on telecommuting days so they’ve tried to pack all their meetings into these days you’re there so you meet face to face. People will still message OC whenever they need to but I think somehow I think people don’t tend to be as communicative on those telecommute days.

While this may be an advantage to Malia, it may impact the overall effectiveness of the division if their customers feel they are not accessible. However, Malia also stated,
“but if they really wanna meet, I just drive down. So it’s not really… I never made it like a big time inconvenience.” Consistent with Malia, Kimo also shared something similar, saying, “It wasn’t like, oh, I'm telecommuting, I'm not coming down. I think for me it’s easier because I have a car.” However, he goes on to say that it might be inconvenient for others who telecommute who don’t have cars. For them, it might have been difficult to come into the office on short notice.

**Summary**

This chapter presented a description of the participants and setting where this research was conducted. Two broad themes were shared and framed within the context of activity theory along with a detailed picture of the division’s telecommuting program. So far, the data revealed what happened when telecommuters used social network sites to address work communication, meeting social need, and impression management. The section on telecommuting provided insight into the telecommuting program within the division being studied and what participants felt were benefits and limitations. Findings presented in this chapter will be explored further in the proceeding chapters and attempt to provide answers to the three propositions and two research questions.
CHAPTER 5. DISCUSSION

The purpose of this qualitative case study was to explore how telecommuters in a Distance Learning Division at a K-12 school used social network sites, and how they managed personal and professional interactions on these sites. The study sought to gain an understanding about the use of social network sites to see how it might address challenges that have persisted since telecommuting’s inception over 40 years ago. These included manager’s perceptions of telecommuter’s activities while away from the office, telecommuter’s feelings of isolation, and challenges with communication between telecommuter and office-based coworkers. This study proposed three propositions related to telecommuting and framed it within the context of activity theory. The first proposition stated that telecommuters will employ impression management while telecommuting to convince their supervisors and coworkers that they are actually working. The second proposition stated that telecommuters will use social network sites for work and personal communications during the workday. The third proposition stated that the use of social network sites will help to reduce feelings of isolation for telecommuters. Two research questions were generated to guide this research and to help bring light to the three propositions. The two research questions were:

1. What happens when telecommuters use social network sites?

2. How do telecommuters manage personal and professional interactions on social network sites?

Many of the findings from this study were consistent with past studies on telecommuting; however, this study also found that the use of social network sites in the
telecommuting work environment went beyond simply adding another communication technology to enhance communications. This study found that social network sites introduced another facet—online social communities—not found with communication technologies already being used, and a tool that could potentially foster deeper relationships within the division. Tools already available to telecommuters like email and the phone were mostly intended for one-to-one communication, while social network sites provided telecommuters with the ability to establish online communities that had the potential to blend work, family and friends together. With this, telecommuters made conscious choices as to who they included in their online communities. Those who chose to commingle coworkers with family and friends in a single blended community did so knowing that their posts were visible to all.

Many chose to keep their work and personal online communities separate, and opted to forego social interaction with coworkers on online social networks. This purposeful choice to keep these two communities separate meant that social network sites were not leveraged to foster online communities to strengthen work relationships. Fay (2011) described informal communication as the social glue of the workplace, and suggested that through informal communications, meaningful relationships are formed, common ground is established, and work is accomplished.

Interestingly, this study found that this telecommuting program was successful in spite of most staff not using social network sites for informal communications. Based on the two themes shared in the previous chapter—social interaction and work interaction using social network sites—this chapter will discuss how social network sites contributed
to the success of the Distance Learning Division’s telecommuting program within a framework of eight telecommuting components.

**Findings**

Telecommuting programs are not successful by chance. This study observed eight components of a successful telecommuting program, classified into two categories: work related and social related (see Figure 14). Each category was comprised of four components.

The work components included:

1) Clear guidelines/expectations of staff who telecommuted
2) Having the appropriate communication tools
3) Allowing staff to be self-directed (not micro-managed)
4) Assessing work by task and deliverables

The social components included:

1) Team-building activities
2) Regular face-to-face contact,
3) Opportunities for social interaction
4) Personal space.

Of the eight components, three were related to social network sites including social interaction, appropriate communication tools and personal space, highlighted in green in Figure 14. These three components helped telecommuters to accomplish two things: feel connected and manage work/life balance.
Feel connected.

The need to feel connected directly addressed past research on telecommuting, which talked about how telecommuters often felt isolated from each other and their office based counterparts. Leadership in the division employed strategies to address feelings of isolation, including teambuilding activities and requiring all staff to be in the office on Tuesdays, Wednesdays and Thursdays. Telecommuters leveraged these opportunities to connect with fellow workers. The deliberate decision by leadership to organize teambuilding activities and require all telecommuters to be in the office on Tuesdays, Wednesdays and Thursdays, supported Nielsen, Jex, and Adams’s (2000) claims that formal organizational arrangements help to foster informal social networks, and that
frequent interactions increased the chances for friendships with other employees. Duck (1991) further asserted that workers who get along well generally work better together.

Further discussion around feeling connected will be presented in the context of social interaction, online social interaction, appropriate communication tools and personal space.

**Social interaction.**

Social psychologist Joseph McGrath’s (1991) findings suggested that group activities serve three functions, 1) production, 2) member support and 3) group health. According to McGrath, both member support and group health indirectly impact productivity. In this study, group interaction occurred in different ways, some were face-to-face and some were online, and both included formal and informal activities. Face-to-face group interaction included activities that emphasized Hawaiian culture, community service, collaboration and teambuilding, and provided opportunities for social interaction that helped build and strengthen relationships within the team. In addition, management formed committees made up of distance learning staff who were charged with brainstorming and recommending innovations that would improve the division. Forming these committees met two objectives: strengthened relationships among staff in the division and strengthened the team.

Besides this, the division also participated in community service activities together and management provided unstructured time for staff to bond. These informal teambuilding activities were consistent with the school’s culture and philosophy on learning and strengthening relationships referred to as ‘Ike Hawai‘i and Nohona Hawai‘i. A combination of both formal and informal activities contributed to the teams overall health.
Online social interaction.

Online social interaction occurred in two ways, one was social and included communicating with friends and family using social network sites like Facebook, and was mainly used for social purposes, and the other was done as part of work-related online activities on sites like Google Hangouts. All of the participants interviewed indicated that they did not actively socialize with coworkers on Facebook, although, some indicated they were Facebook friends with each other. Kimo had an interesting insight when he said, “I think there’s a window of opportunity to ask for someone to be your friend before it becomes weird.” Although, most of the staff in the division are fairly new and have only been there for two or three years, based on what Kimo shared, this window had already passed for most. So, it may be that this division may not see too many more connections being made between existing staff on social network sites like Facebook. This may also explain why many in the division are not Facebook friends today.

Although Facebook was not used a lot by telecommuters for socializing with coworkers, it was found to be a valuable tool for the telecommuter. It provided an avenue to stay connected with friends and family and a place to feel supported and to provide support to others which is consistent with what Ellison, Steinfield, and Lampe (2007) proposed when they stated that social network sites like Facebook provided a low-maintenance way of maintaining tabs on acquaintances cheaply and easily.

All of these activities, while not directly pertaining to the work environment, did support the overall well-being of the telecommuter. Kimo talked about how he found out on Facebook that the grandmother of one of his former students who was in the hospital, and how much that student felt supported when Kimo sent a message to him saying he
was thinking about them and praying for them. Although this was used to illustrate how Kimo helped someone else, it also illustrated how this positively impacted Kimo because he was able to make a difference and impact someone else in a positive way.

Facebook was also used as a “conversation starter” to build relationships in the workplace as expressed by both Kimo and Leilani when talking about each other’s posts in Facebook. Kimo talked about Leilani posting things about her daughter and Leilani mentioned things that Kimo posted about his son. They both agreed that it helped them to get to know the other person better. It was informal. It was not forced. But, it did provide a window into the life of the other that they might not have known about if they had not been Facebook friends.

Malia provided an example of feeling supported by her network of friends and family when she posted a picture of a sad face guy to express her feelings on a particular day. For Malia, Facebook provided an avenue to put things out there passively and have friends support her. Kimo shared a similar sentiment when he talked about how Facebook provided a way to maintain passive relationships and keep in touch without imposing on others. This form of informal, passive sharing helped Malia to feel supported and could be used to strengthen relationships within the division, similar to Kimo and Leilani’s experience.

Telecommuters benefited from feeling connected. It met a social need, and was evident through interactions with coworkers during work interactions, and with friends and family during social interactions. Each of these connections met a different objective and played out in different ways. For some, the need to feel connected was satisfied by coming into the office on Tuesdays, Wednesdays and Thursdays each week. For others,
it was through meetings in Google Hangouts where participants could see each other in video screens and converse together while working on shared documents. Team meetings and teambuilding activities also provided other opportunities to connect with coworkers. And, social network sites provided social connections, perhaps not to other staff, but to a community of friends and family.

For telecommuters who included coworkers in their online communities, it helped them to feel connected through passive communication or ambient awareness; it was a conversation starter which helped them to know more about the other person, things that they might not have shared face-to-face they were willing to share on social network sites. Skeels and Grudin (2009) summed it up well when they talked about member support and group health and benefits of social network sites and said that social network sites in the workplace provided “easy, unobtrusive creation, maintenance, and strengthening of weak ties among colleagues” (p. 102).

*Appropriate communication tools.*

Having access to appropriate communication tools helped to ensure telecommuters were able to effectively work while away from the office. There was no single communication tool that served all purposes as evidenced by the number of different communication tools that participants indicated they used. Telecommuters were expected to be available during the workday. As Leilani stated,

So, to us like we need to make sure that communication is open, right? Or available, so that’s kind of the guidelines. You need to be on Office Communicator throughout the day because anybody can be chatting with you at any particular time to touch bases with you which they normally would do in like
a face-to-face kind of like trying to find you in the office building or what not, right?

The other tools that telecommuters used most often throughout the workday were email, Google Hangouts and the phone. None of the telecommuters really used Facebook during the workday for internal work related communications, except to check and update the Distance Learning Facebook page, but chose Google Hangouts instead because it allowed them to share documents and utilize Hangout’s video capabilities to see each other. The ability to see each other helped to connect staff together in a way that the other tools were not able to do. It helped to create social presence and ambient awareness. As Malia expressed, “Yeah, I mean we use the video just to feel like you’re there with each other, but usually we’re working around in documents that’s at center and we’re at the bottom of Hangout like our videos screen at the bottom.” So, although video was not the focus, it did help to provide a rich experience and a feeling of “being there together.”

Hill et al., (1998) suggested there might be potential negative impacts to teamwork due to telecommuting; however, in this study the use of Google Hangouts appeared to mitigate some of these negative impacts; none of the telecommuters expressed concerns working with fellow team members. Telecommuters also indicated they would come into the office on telecommuting days, if required. Since everyone was required to report to the office three days a week, challenges that full-time telecommuters might have faced were mitigated by weekly face-to-face contact with coworkers and clients.

**Personal space.**

This component is defined as the physical and online space established by the
telecommuter to satisfy work and social needs. Physical space was determined by the telecommuter in regards to how they chose to set up their home office spaces and the flexibility that it offered. According to those interviewed as well as those responding to the survey, flexibility was a very attractive part of telecommuting.

This research also found that telecommuter’s intentionally chose to carve out private space in their online social networks and this meant excluding coworkers, or at least not making an effort to include coworkers in their online communities. Some of the participants indicated that they were Facebook friends with coworkers, yet this study did not observe any online communities made up of Distance Learning staff or active communication with coworkers on social network sites.

**Managing work/life balance.**

The very tools that were created to facilitate online social communities were used by telecommuters to manage work/life balance and establish boundaries between their work and personal lives, and may have been done, intentionally or otherwise, to mitigate what Leonardi et al. (2010) described as the connectivity paradox—the negative effect caused by the very communication tools that were implemented to overcome telecommuting challenges like distance and isolation. Initially, it may have seemed liked this purposeful separation would impact telecommuting in a negative way; however, it may actually have helped telecommuters in this study to better manage the added complexities of telecommuting and the convergence of their work and personal lives.

Figure 15 presents a model to describe how telecommuters addressed the connectivity paradox and managed work/life balance. The abundance of tools available to the telecommuter and blending of work and personal communities, labeled
Convergence in the model, provides insight into what contributed to telecommuters experiencing the connectivity paradox. In order to overcome the “connectivity paradox,” telecommuters in this study employed the following strategies: they utilized separate social network sites for work and for personal activities, and they did not actively socialize with coworkers within their personal online communities. By employing these strategies, greater connectivity did not appear to lead to decreased productivity as suggested by the connectivity paradox (Fonner & Roloff, 2012).

Work/Life Balance shown in the center of the model illustrates the tools that telecommuters used to satisfy work related communications. The two green boxes show two social network sites that were used for this purpose. The division maintained an online presence on Facebook and used it to promote courses they offered and also posted other things related to its various programs. Google Hangouts was primarily used to conduct meetings and collaborate on documents together. While there might have been some social interaction during these meetings, it was not the focus.

Figure 15. Managing work/life balance
Facebook and other social network sites were used by telecommuters for social interaction with friends and family. Some participants in the study indicated that they were friends with some coworkers; however, none said they used it as a means of communicating with each other. Malia pointed out an interesting thing when she shared that she became Facebook friends with some staff after they had left the division. It was not clear why this occurred, though it may be because there was no longer a manager to subordinate relationship, or perhaps enough of a bond was formed through working together to want to continue a relationship socially online. Participants also indicated that they used some other social network sites for socializing online, but indicated that they did not use those tools extensively.

In each of these two scenarios—work and personal—the outcomes were the same (manage impressions, communication, meeting social need) as illustrated in Figure 15, but the motives for each varied. For example, social networks used for work related purposes met the telecommuter’s social need by utilizing the video features of Google Hangouts, helping telecommuters to feel connected to each other, and creating a sense of presence—of being there. When social network sites were used for social purposes, social needs were met by providing telecommuters a support community of family and friends, a place to express feelings and emotions, and to share about things they were interested in. It also provided a way to keep in touch, both actively and passively, with family, friends and acquaintances.

Social network sites also provided an effective communications tool for telecommuters. For work purposes it was used to collaborate on documents together in
real-time, meet together and be able to see each other during those interactions. When used for social purposes, communication was more asynchronous and allowed for a shotgun approach to communication—one to many—where one post was seen by everyone within the telecommuter’s online community. It was a way to keep up with family, friends and acquaintances in a more passive, non-intrusive way. Social network sites also afforded a way to stay in touch with others without having to have direct contact with them.

Telecommuters also managed impressions while on social network sites. For work related interactions, impression management was done mostly using other communication tools, like Office Communicator, and was accomplished by simply being logged in during the workday to show people that they were present. Kimo commented on this, and expressed that he was hired to do a job and it should not matter if he was logged in or not as long as he delivered what he was tasked to do. Leilani, also seemed to support this when she talked about how the program was set up to be more deliverables based where staff were not monitored closely when they were telecommuting. Regardless, for some there was a concern about how others perceived what they were doing while telecommuting and thus they engaged in some form of impression management.

For social interaction, telecommuters managed impressions by the content they posted, and did not post. Three of the six participants shared that they tried not to post negative things. Malia said she did not share her political views on Facebook. Kimo also talked about posting a picture of a new car he had purchased on Facebook, and then removing it after feeling like he might be showing off to others. In general, most of the
telecommuters in the division did not appear to go out of their way to manage impressions while telecommuting, and some of this may have been attributed to the type of work they were assigned to do, and the way the telecommuting program was set up where staff were assessed on what they delivered versus them just being present online during the day.

The decision not to engage with coworkers on social network sites, unless it was for work related purposes, was another form of managing impressions. Whether intentional or not, all telecommuters who participated in this study engaged in some form of impression management.

**What Aligned with Literature**

Social network sites with their ability to link and tag information, and connect knowledge workers, these tools can help to find, capture, organize, and preserve organizational knowledge. While the primary purpose of the Distance Learning’s Facebook page was to distribute information and promote its course offerings, it did provide a means to find, capture, organize and preserve organizational knowledge. Besides posting upcoming events, postings on the site also memorialized past events with articles and pictures. While it did not necessarily connect knowledge workers together, the division’s Facebook page did serve as a “learning site” whereby people could go to gain new knowledge by reading posts pertaining to Distance Learning, Hawaiian history and language.

According to Fonner and Roloff (2012), more communication is not always better, and Turner et al. (2010) state that introducing new technologies does not guarantee they will be used. For telecommuters in this study, Turner’s statement proved to be true.
Access and availability to online social network sites in the workplace did not guarantee those sites would automatically be embraced and adopted for social purposes with coworkers. Telecommuters were selective in choosing social network tools to achieve work related goals and objectives, including the use of Facebook to distribute information and market the division, and Google Hangouts to conduct meetings and collaborate on assignments together.

Mason (2013) described social presence as the feeling of being in the same room when using telecommunications. One common attribute of social presence is the degree to which one feels the presence of another through an interaction. Google Hangouts helped telecommuters to feel connected by enabling participants to see each other during meetings and when collaborating together. Even though the video screen was on the bottom of the screen and participants were focused on collaborating on a document, they felt it was beneficial.

Social presence was also achieved through Facebook by creating a sense of presence between telecommuters and members of their social network site community. Although this connection was asynchronous, they were able to interact with others through posts and pictures and still felt connected that way. Telecommuters indicated that they posted pictures of their family and of their interests. These included posts about life events (births, deaths, special occasions, etc.) that others could read and comment on. Telecommuters talked about feeling affirmed when someone “liked” their posts in Facebook and how it motivated them to reciprocate back.

According to Binder et al. (2009), the introduction of social network sites in the workplace can be cause for concern. These concerns included the highly visible nature of
communications encouraged on social network sites; the blending of family, social and work spheres; and the unintended consequences of sharing information only meant for one sphere across all spheres. This was true in this study as evidenced by very little communication between telecommuters taking place on social network sites. Beyond what was required for work, telecommuter’s preferred to keep work and personal activities on social network sites separate.

Turetken et al. (2011) presented results that strongly suggesting that richer communication media leads to more successful telecommuting. Those who were Facebook friends in the division did share how viewing posts of others helped them to know the person better. It was especially helpful as a conversation starter. One telecommuter agreed that social network sites could be leveraged more in the division to strengthen relationships; however, she said that no one really encouraged people to be friends with each other. It was interesting that telecommuters indicated that they wanted to separate work and personal activities on social network sites, yet agreed that it could be leveraged to strengthen relationships.

From a work perspective, social network tools have provided a means for the division to market itself, conduct meetings virtually and help to meet the telecommuter’s social needs; however, it wasn’t leveraged to strengthen work relationships.

**What Does Not Align with Literature**

Leonardi et al. (2010) described two aspects of telecommuting that might be compromised with increased accessibility: flexibility to balance work and personal life, and the ability to focus on work without interruption. Participants in this study did not indicate any issues with increased accessibility to communication tools, and stated that
they were able to focus on completing tasks without disruption when telecommuting.

As Ferreira and Du Plessis (2009) stated, “Through the development of online social networks, it is now possible to network much quicker and reach a much larger expert audience” (p. 3). The results of this study did not indicate that social network sites were leveraged in this way. None of the telecommuters indicated that they utilized social network sites as a tool to network with other professionals in their field to solicit information or share knowledge.

Telecommuters used social network sites to get together for meetings and to collaborate; however, they did not tap into the potential to access a much broader expert audience whereby new knowledge could be gained from experts outside the workplace. Malia shared how she subscribed to Facebook groups to learn more about the islands; however, neither she nor any of the telecommuters made reference to using sites like Twitter where a single tweet could garner answers from a broad range of experts.

**What Was New**

Skeels and Grudin (2009) assert that "the principle work-related benefit of social networking software is in the easy, unobtrusive creation, maintenance, and strengthening of weak ties among colleagues" (p. 102). Telecommuters were generally comfortable using social network sites as evidenced by their use of it for non-work related purposes; however, results indicated very few instances whereby social network sites were being leveraged to strengthen weak ties among colleagues. This was surprising since telecommuters in this division used technology daily to do their work, and most in the division used at least one social network site to socialize with friends and family.
Summary

The themes provided thus far have demonstrated how telecommuters leveraged social network sites to achieve specific objectives including the ability to feel connected and manage work/life balance. These two objectives mediated through the use of social network sites enabled telecommuters to address limitations and concerns about telecommuting’s effectiveness and create an environment where they could work effectively. Implications of these findings will be addressed in Chapter 6 along with discussion on why telecommuters chose not to leverage social network sites to build and foster relationships in the workplace.
CHAPTER 6. CONCLUSION

This study sought to answer two questions, “What happens when telecommuters use social network sites?” and “How do telecommuters manage personal and professional interactions on social network sites?” Unlike previous communications technologies available to telecommuters, social network sites introduced online social communities, which provided capabilities to blend family, friends and coworkers together. Activity theory provided a framework for understanding social network sites in the full context of a telecommuter’s life and enabled exploration of relationships and interactions beyond the work environment including, social elements, online communities that included family, friends and acquaintances, and roles and rules that were established though the use of social network sites.

Discussion

Telecommuting has been around for over 40 years and since its inception has been plagued with many questions regarding its effectiveness. This study sought to explore the effectiveness of social network sites to address some of the questions regarding challenges with telecommuting. Although social network sites helped telecommuters to feel connected and manage work/life balance, this research did not intend to find a majority of telecommuters separating work and personal online social network communities. Five major themes emerged from this study:

1) Social interaction with coworkers
2) Social network sites for work activities
3) Social network sites for personal activities
4) Friends versus acquaintances

5) Online versus offline

The first three major themes will help to answer the two research questions

1) What happens when telecommuters use social network sites, and

2) How do telecommuters manage personal and professional interactions on social network sites.

Major themes four and five take a deeper look at the findings and offers plausible reasons why telecommuters chose not to include coworkers in their online social network communities.

This chapter will be presented in the following sequence.

1) Major themes

2) Why the program was successful

3) The three propositions answered

4) Summary

5) Recommendations for future research

6) Limitations

**Major Themes**

Social network sites for work related interactions and social network sites for social interactions were two broad themes that emerged from coded interviews and surveys. Within these two broad themes, eight components of a successful telecommuting program were identified, of which three were aligned to the use of social network sites. These three components led to findings on how telecommuters utilized appropriate social network sites for social interaction and how they created personal
space. Findings also included strategies that telecommuters used to manage work/life balance utilizing social network sites. Based on these findings, five major themes will be presented to better understand what happens when telecommuters used social network sites and how social network sites were perceived.

**Social interaction with coworkers.**

Most telecommuters in the division chose to keep their personal and work lives separate and did not actively engage with coworkers socially on social network sites, and according to (Skeels & Grudin, 2009), doing so may have created challenges to building closer professional relationships. Although some indicated that they were Facebook “friends” with coworkers, there did not appear to be much online social interaction between coworkers. For telecommuters, Mondays and Fridays—their telecommuting days—were times when they felt they were able to get a lot of their work done without too much disruption. This was in contrast to the days when they were in the office in which they indicated that much of their time was filled with meetings.

The evidence suggested that very little social interaction occurred on social network sites during the workday because telecommuters were engaged in completing work assignments while at home or attending meetings on days they were in the office. However, social network sites provided asynchronous communication, so telecommuters could have still connected with coworkers online during non-work hours, though most chose otherwise. An explanation for this is the possibility that relationships among staff were kept at a more formal and professional level, perhaps due to a lack of trust or lack of time to establish strong relationships among team members.
Social network sites for work activities.

Telecommuters used social network sites for work related activities. This indicates that telecommuters were able to effectively integrate appropriate social network tools into the workplace to accomplish work related tasks. When telecommuters were asked what social network tools they used for work and personal activities, they provided a list that included: Facebook, Google Hangouts, Pinterest, Instagram and Twitter. All telecommuters in the division worked with technology daily, either as a platform to deliver their products or services or to do their own work. In general, it seems reasonable to suggest that all telecommuters were competent users of technology and were able to determine the appropriate tools to complete a specific task. Therefore, the evidence suggested that telecommuters, other than for work related purposes, purposely chose not to use social network sites for socializing with fellow staff for reasons other than not knowing how to use the tools.

Sparrowe, Liden, Wayne, and Kraimer (2001) refer to the term “advice networks” to define social network sites where “individuals share resources such as information, assistance, and guidance that are related to the completion of their work” (p. 317). Although telecommuters used Google Hangouts to complete work assignments, it was used mostly as tool to facilitate online meetings and not as a place to foster online communities to share resources, information, and seek assistance and guidance to complete their work.

Social network sites for personal activities.

Telecommuters used social network sites to engage in social activities with family and friends. All telecommuters who participated in this study indicated that they had a Facebook account. Many also used other social network sites to keep in touch with
friends and family. However, activity on these sites varied; staff who were interviewed were fairly comfortable on social network sites and appeared to post to Facebook at least a couple times a week.

As stated earlier, most chose not to include coworkers in their online social network site communities and there are several possible explanations. For one, many in the division have been there less than two years, so relationships may not have formed to a point where staff felt comfortable “friending” other staff. Friendships take time to form. According to Rawlins (1992), friendships are voluntary and cannot be forced or imposed. Unlike romantic relationships, development of friendships seems to be more gradual and less likely to occur through a series of specific events (Sias & Cahill, 1998). This, coupled with what Kimo shared about a window of opportunity to friend someone, may explain why, when people did get to know each other better, the window had already passed making it “weird” to send a friend request.

Telecommuters may have also chosen not to commingle their online social communities to avoid any negative perceptions of themselves or risk straining work relationships based on posts that were mainly intended for family and friends. This could occur when telecommuters used social network sites to reach out to friends and family for support, where posts may have included things about work.

Finally, telecommuters may have had their social needs met with offline face-to-face interaction with coworkers and did not feel the need to supplement this with online interactions.
Friends versus acquaintances.

At this point, it is important to take a deeper look at why telecommuters in this division chose not to socialize with coworkers on online social network sites, and instead used them to socialize mainly with family and friends. Research suggests that there is a difference between friends and acquaintances. According to Jehn and Shah (1997), the definition of friendship groups were those with close interpersonal ties, and already pre-existing relationships among members. Friendship in these groups was voluntary, mutual, and members generally cared for the well-being of the other without expecting any benefit in return.

Acquaintance groups, according to Jehn and Shah (1997), were defined as having limited familiarity and contact with each other. Acquaintances within these groups may have known each other, but had no strong bond, past history, or depth of mutual knowledge between parties did not exist.

Based on the definitions of Jehn and Shah, the findings of this study suggested that telecommuters may have perceived coworkers as acquaintances, rather than friends and thus chose to keep personal and work communities separate. Although all telecommuters voluntarily chose to work at the school, they were not able to choose their coworkers. Therefore, relationships among coworkers may not have been mutual, and it was not clear if members generally cared for the well-being of other staff. Nielsen et al. (2000) posited that workplace friendships are an integral part of the informal structure of an organization and are related to job satisfaction, job involvement and result in less job turnover.

If it were true that telecommuters perceived their coworkers as acquaintances, it may have been the result of a team that was still forming, where trust was still being
established. According to Abdul-Rahman and Hailes (2000), the foundation of interaction in any society is formed on trust, including virtual ones. Costa (2003) explained trust, as the willingness to become vulnerable, and stated that risk is a prerequisite in the choice to trust. Telecommuters’ reluctance to be vulnerable and take risks by combining online social communities may indicate a lack of trust. This is an interesting dilemma and one where trust may have to be nurtured elsewhere through other means before telecommuters will be willing to socialize with coworkers in their social network communities.

There may also be a desire by management to keep relationships between themselves and staff at an acquaintance level. This is consistent with comments made by one of the managers who indicated that she did not really want to be Facebook friends with people she supervises. Unless an opportunity arises, like Kimo and Leilani becoming Facebook friends, the division may not see many of those types of connections between managers and their staff.

Management’s expectations of telecommuters included being available during the workday and completing work assignments as stipulated in the “Alternate Work Schedule PILOT document (Appendix C). Although management did not discourage online social interaction among staff, they did not encourage it, and the fact that they themselves chose to keep work and social interaction separate may have set the tone for the division.

This research is not suggesting that there were problems with relationships within the division, rather that relationships within the division may have still been developing and have not had the time to form and cement. With leadership in the division committed to providing opportunities for teambuilding, it is reasonable to speculate that
acquaintances could develop into friendships and the adoption of online social communities that includes coworkers, family and friends may flourish in the future. As Ellison et al., (2007) suggested, sites like Facebook might help to maintain pre-existing close relationships. Therefore, once relationships within the division grow into friendships, online social network sites like Facebook can be used to foster and maintain these friendships among staff.

**Online versus offline.**

Another possible explanation regarding the decision not to socialize with coworkers on social network sites may be quite the opposite of what was presented thus far, and that is, that telecommuters perceived relationships with coworkers as “strong ties” and not “weak ties” as has been suggested. In other words they saw coworkers as friends and not as mere acquaintances. According to Vitak (2008), maintaining relationships with people you have strong ties with required more time and energy than with those you have only weak ties. Perhaps telecommuters felt it was easier to maintain offline (face-to-face) relationships with coworkers than it was to maintain online relationships with them, especially since they had opportunities to do this through weekly face-to-face contact. Those who worked at other locations were also able to participate in face-to-face meetings and activities together, albeit not as often. In addition, the absence of contextual cues like seeing facial expressions may have also contributed to and influenced telecommuter’s decision to avoid engaging with coworkers on some online social network sites, especially if it was not a requirement of work.

The natural challenge to this thought is to ask why did telecommuters indicated that they maintained online communities with friends and family, assuming that some of
those connections were also strong tie relationships? One differentiating factor might have been the fear of damaging relationships with coworkers and supervisors, which may have had potential negative impact for telecommuters by introducing more job related stress and jeopardizing their work relationships and careers. Whereas, they may have felt that family and friends would always be there in spite of what was shared on social network sites. This further supports the idea that telecommuters used social network sites as a place of refuge, a safe place where they could find support from family and friends and freely express their feelings without fear of being judged or rejected. So, although they may have considered coworkers to be strong tie relationships or friends, it was not strong enough to risk allowing them to be part of their online social community.

This was consistent with most of the telecommuters who indicated they felt relationships were strong among coworkers yet chose to keep personal and work communities separate.

**Why the Program Was Successful**

The decision by management to only allow telecommuting two days a week, contributed to the overall success of the program by enabling staff to have weekly face-to-face contact with each other and to meet with clients in person. The two days that staff were allowed to telecommute, Monday and Friday, provided 4 consecutive days of being away from the office; and as participants have stated, it allowed them the flexibility to work through the weekend to get things done. While this could have impacted work/life balance, telecommuters appeared to manage their time well. Being away from the office for four consecutive days also created a desire to return to work to see coworkers, implying that telecommuters generally enjoyed seeing each other.
Telecommuting provided a better quality of life for telecommuters and was expressed in different ways. Most appreciated not having to deal with traffic on Mondays and Fridays, which in turn helped to reduce stress. For most, this saved about two hours a day of commuting time. Working from home also provided telecommuters the flexibility to create their own work environments, dress casually, and work in familiar surroundings with little distraction.

Overall, staff morale appeared to be healthy within the team, including both telecommuters and non-telecommuters. This may have been the result of incorporating various teambuilding activities to encourage and build a healthy team. Telecommuters also felt empowered and trusted, which further contributed to morale. While telecommuters were expected to be available during the normal workday, how they chose to structure their workplace and complete their assignments was up to them. They were not required to “check in” with their supervisors although they were expected to be online and available. While telecommuters were not restricted from using social network sites during the workday, most chose not to either because they were too busy working or they felt it was not appropriate to do on work time.

The Three Propositions Answered

This study proposed three propositions related to social network sites in a telecommuting work environment. Each of the propositions are summarized below based on the findings and discussions presented thus far.

Proposition 1: Telecommuters will employ impression management while telecommuting to convince their supervisors and coworkers that they are actually working.
Telecommuters employed some form of impression management while telecommuting, although most felt that they were online enough throughout the workday either via email or other communication tools that they did not feel like they had to convince anyone that they were actually working. Being away from the office only two days a week may have lessened concerns from managers about telecommuters when they were working remotely. Telecommuters did not think it was appropriate to be on Facebook during the workday engaging in social activities, which may have been a passive form of impression management. Several of the telecommuters felt that it was important to be “seen” online during the workday and ensured they were online.

Supervisors interviewed did not indicate any concerns with staff engaging in impression management. This can be attributed to the way the telecommuting program was set up where performance was assessed by the deliverables produced, and the expectation that telecommuters were accessible during the normal workday.

*Proposition 2: Telecommuters will use social network sites for work and personal communications during the workday.*

While telecommuters did use social network sites during the workday, it was mainly for work related purposes and included checking the division’s Facebook page or participating in an online meeting in Google Hangouts. Similar to Proposition 1, telecommuters indicated that they did not feel it was appropriate to engage in social activities during the workday. Again, perhaps the decision not to post to social network sites during the workday was a passive form of impression management in order to avoid any speculation of telecommuters slacking off during the day. Finally, because staff were
only allowed to telecommute two days a week, most saw it as a time to focus on completing work assignments thus providing no time to socialize online.

*Proposition 3: The use of social network sites will help to reduce feelings of isolation for telecommuters.*

Social network sites were used by telecommuters to meet a social need, to feel connected to others, and to feel supported. The use of Google Hangouts for meetings did help telecommuters to feel present with coworkers because they were able to see each other via the tool’s video capabilities.

Telecommuters in this study did not feel a sense of isolation and this may be attributed to the structure of the telecommuting program where staff were required to come into the office on Tuesdays, Wednesdays and Thursdays, which provided them opportunities for face-to-face contact every week.

There were telecommuters in the division who either worked at remote locations or on another island who did feel isolated at times. For obvious reasons, these telecommuters did not adhere to the two-day a week guidelines, as did the rest of the telecommuters. They did not participate in this study.

**Summary**

Overall, the results gathered in this study were very consistent with the literature, particularly as it related to perceived advantages and limitations of telecommuting. Most participants noted flexibility, reduced commute times on telecommuting days, reduced stress and a better quality of life as advantages of telecommuting. As with many of the other past studies, results from this study were based on self-reported data. Altogether
the results were very consistent between participants and should help to strengthen the significance of the findings.

Participants in this study also shared limitations that were consistent with many previous studies and included challenges with technology, lack of access to resources, blurred lines between work and family and feelings of isolation. While some talked about the blurring of lines between work and family when telecommuting, they perceived it more of a benefit than a limitation, because it allowed them to be at home and finish their work without the disruption of having to commute.

The literature also pointed out manager’s concerns with telecommuting. This was not evident in this study. Both Malia and Leilani were in management positions and neither of them expressed concerns with their staff who telecommuted. In fact, it was Leilani, the director of the division who established the telecommuting program. The division did have clear expectations for staff, both telecommuters and non-telecommuters, and this may have been one of the reasons why there were very few management concerns. All staff were also required to be online and available during the workday via Office Communicator, email and Google Hangouts and this may have further eased any concerns about whether or not staff were working.

One other concern expressed in telecommuting literature was with staff who did not telecommute, creating an “us versus them” mentality between workers. This was not mentioned by any of the participants in this study as a concern. It appeared that staff generally got along well as evidenced by people going out to have lunch together, and chatter in the office during the workday. The fact that all staff were given the
opportunity to telecommute may have also mitigated any negative feelings towards those who telecommuted.

This study employed the activity theory framework to explore the use of social network sites in a telecommuting work environment. Doing so helped to examine social network sites holistically and considered factors beyond telecommuter to coworker interactions, and included other members of a telecommuter’s online community. This holistic approach helped to uncover strategies that telecommuters employed to separate work and personal activities using social network sites.

More and more we see work and personal worlds converging, especially with telecommuters whose workplace is at home, so it seemed natural to think that this convergence would spill over to their online social communities as well. This was not necessarily the case. This study found that telecommuters used different social network sites for different purposes, some for formal and some for informal communication, and that social network sites were also used to separate telecommuters’ work and personal activities and their social network communities. One of the findings from this study was the purposeful decision by some to keep work and personal online communities separate.

The natural question to ask was, “Why?” Why would a group of professionals who work with technology, most of who were early adopters of new technologies, and most who were already using social network sites outside of work, not merge their work and personal communities together to make things simpler and easier? More so since earlier research like IBM’s BeeHive project reported positive outcomes with staff interacting with each other on a social level (DiMicco et al., 2008). The BeeHive pilot was different from other freely available social network sites like Facebook. While both
were considered “social network sites,” IBM’s BeeHive was an internal system and while in essence the same category of software like Facebook, it was a “closed” environment and included only employees of IBM. Whereas, Facebook was open and could include coworkers, family and friends in one community. This difference between using an open versus a closed system may be what yielded different results in the two studies.

One might have assumed that there were relationship challenges and unhealthy team dynamics in the Distance Learning Division; however, this did not appear to be the case. Participants in the study expressed that they felt relationships within the team were strong and healthy and felt the telecommuting program was effective. It appeared that social needs were being met, management was satisfied with the program and staff appreciated being able to telecommute.

Other possible motives were presented to try and answer why telecommuters exhibited these types of behaviors with respect to social network sites, including looking at the perceived depth of relationships among staff and whether it was easier to maintain and control face-to-face relationships with coworkers versus online ones.

This study found that the connectivity paradox did not exist for these workers and several things may have contributed to this: 1) telecommuters were in the office on Tuesdays, Wednesdays and Thursdays, and much of their meetings were done then, so there did not appear to be too many interruptions during days they were telecommuting; and 2) staff tended to keep their online social activities separate from work ones.

At this point, it appeared that the division was meeting its objectives; however, as the division continues to bond together though teambuilding activities and time spent working together, interpersonal relationships can continue to grow stronger and the team
can grow closer, and perhaps blended online communities will flourish in the future. Or, telecommuters will continue to nurture relationships via face-to-face relationships and forego using social network sites socially with coworkers. Both could yield positive results.

**Recommendations for Future Research**

This study has presented findings on how social network sites were used in a telecommuting work environment. In spite of many in the division choosing not to blend work and personal social networks together, further exploration on this topic should be explored, especially since social network sites afford opportunities to provide more than just one-to-one communication. It provides opportunities to cultivate online social communities that can foster and maintain deeper workplace relationships and serve as a support system to telecommuters.

If strong offline (face-to-face) relationships encourage the formation of online social network communities between coworkers, then more research needs to be done to determine how to strengthen these offline relationships. In doing so, organizations might begin to realize the benefits of social network sites beyond just being thought of as a distraction or social tool, and leverage it to strengthen the workforce.

Additionally, as younger workers enter the workforce they will expect to have these tools available to them. As Vitak (2008) noted, younger workers see the internet and its communication tools as a much quicker way to interact. They see these tools as an extension of themselves and will have no problem seamlessly blending work and personal communities together.
As more organizations hire younger workers and adopt telecommuting programs, it will be important to understand how the use of social network sites impact telecommuting, particularly for telecommuters who are away from the office more than they are in the office. Some questions that were not answered during this study, but will provide valuable insight for organizations are:

1) How does the strength of offline relationships between coworkers translate to the formation of online social network communities?

2) How do online social network site communities proliferate and function in the workplace?

Leadership style within the division may have factored into the lack of social interaction between telecommuters on social network sites. This was an exploratory study to see how telecommuters used and perceived social network sites and did not focus on how leadership style may have influenced telecommuter’s online social behaviors with coworkers. However, a majority of leaders in the division expressed their desire to separate work and personal activities on social network sites, which appeared to be consistent with their staff’s activity on these sites. Future research should examine how leadership style influences social behavior, including those behaviors on social network sites, to see if there is a correlation between leadership style and adoption of social network site activity among staff, particularly for non-work related activities.

In addition, further exploring personality types to see if introverts and extroverts perceive and use social network sites differently too can further help to inform social network site use in the workplace.
Limitations

Telecommuters participating in this telecommuting program telecommuted two-days a week, Monday and Friday, and this was the minimum number of days away from the office to be considered telecommuting by most definitions. Thus, results are limited to perspectives from telecommuters who worked remotely on Mondays and Fridays, and had weekly face-to-face contact with coworkers on Tuesdays, Wednesdays and Thursdays. Perhaps they might have felt more isolated and had a greater need to be connected to their coworkers on social network sites if they had less face-to-face interaction.

The fact that this study only involved 6 participants, three who were interviewed and three who completed an online survey limited the views and perspectives to just a few people. In addition, of the three who were interviewed, only two were telecommuters, the other was the director of the division who was not a telecommuter. She was selected to participate in order to provide an overall picture of the division’s philosophy, and specific information about the telecommuting program. Three of the other participants completed an online survey and because it was purposefully done as an anonymous survey, there was no follow up questioning with these individuals. And, although anonymous, the survey did ask them to provide their job titles, and since the division is fairly small, most could be identified. With that said, participants who completed the online survey may not have been as candid because they did not feel like their responses were totally anonymous.
REFERENCES


Fonner, K. L., & Roloff, M. E. (2012). Testing the connectivity paradox: Linking teleworkers' communication media use to social presence, stress from


technology matter? *Journal of Applied Psychology, 93*(6), 1412-1421. doi:0.1037/a0012722


Information Resources Management Journal, 16(2), 19-34.
doi: 10.4018/irmj.2003040102


APPENDIX A

Interview Questions

Work/Telecommuting Questions:

1TC. How long have you been telecommuting?
2TC. How long have you been in your present job?
3TC. How comfortable are you with technology?
4TC. What are some advantages of telecommuting for you?
5TC. What are some disadvantages of telecommuting for you?

Social Network Sites Questions:

1SN. How long have you used social network sites?
2SN. Tell me how you use them to communicate.
3SN. Who do you communicate with on social network sites?
4SN. How do you communicate with family, friends, coworkers, supervisors, and other staff?
5SN. What kinds of things do you share on social network sites?
6SN. Are there things you purposely don’t share on social network sites?
7SN. How effective do you feel social network sites are for communicating?

Impression Management Questions:

1IM. Are there times of the day that you do not post on social network sites?
2IM. What is your primary means of accessing social network sites?
3IM. Are there things that you share with your friends and family that you do not feel comfortable sharing with coworkers, supervisors and other staff? Vice-versa?

Other areas for discussion:

1OQ. What other types of communication methods/tools do you use to communicate with coworkers? Supervisors? Other staff?

2OQ. Did you ever feel like, “Oh, maybe I shouldn’t have posted that.” on a social network site? Why?

3OQ. What are some of the things that you post on social network sites?

4OQ. What do you feel are the strengths of this form of communication? What are some of its weaknesses?

5OQ. What is your typical day like when telecommuting? What is your typical day like when you work in the office?

6OQ. Can you share how your home office is set up?
## APPENDIX B

### Code Book

<table>
<thead>
<tr>
<th>Code</th>
<th>Frequency</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Hangout</td>
<td>32</td>
<td>Yes, we’re just chatting but we also like Google Hangouts because when we are meeting and you have your Google Doc in front of you also in the same Hangout like you can make live edits and everybody can contribute at the same time that’s definitely why we like Hangouts, too.</td>
</tr>
<tr>
<td>About me: profile &amp; attributes</td>
<td>25</td>
<td>Yeah, I’ve been here a year longer than over and a half. We have about three, after you passed your introductory period then you’re able to do alternative work schedules in telecommuting.</td>
</tr>
<tr>
<td>Challenges</td>
<td>4</td>
<td>Robin, she makes comments all the time like she’s in this room by herself. For me, it’s fine. It’s only two days.</td>
</tr>
<tr>
<td>Communication Styles</td>
<td>13</td>
<td>Yeah, I mean we use the video just to feel like you’re there with each other, but usually we’re working around at documents that’s at center and we’re at the bottom of Hangout like our videos screen at the bottom.</td>
</tr>
</tbody>
</table>
| Feeling connected                 | 18        | **Interviewer:** Interesting. The Google Hangout, the value of that is in the actual, it’s voice, right? We’re actually talking to each other and chatting.  
**Interviewee:** It’s right both and seeing them. I mean, you could still get, you know, have your meeting with just the voice, but if you never saw that person like ever through the video, I think it wouldn’t be even as strong.  
Interviewer: Okay, so video and audio adds to that strength of the relationship then. |
| Feeling isolated | 3 | I don’t [feel isolated], but I talk to a lot of people throughout the day, you know even – I have less meetings definitely when I’m not there in the office, but I still have meetings on those days and I’m still, you know on like office communicator with people, so I don’t feel like removed or anything. |
| Impression Management | 11 | No. I think what’s interesting is that other people do like Clay and Tony, they’re like oh, I got to be logged in. I have to be logged in. I honestly… this is how I feel about my job. You guys hired me, the company hired me to do what I do and you guys hired me because of what I came from. And if I didn’t… it’s been almost 2 years and if you don’t think I’m not doing what I’m doing, well, I shouldn’t be here by now. |
| Meeting social need | 12 | I use it just to communicate about my life really. For me, I’ve always moved around a lot. I build my network of friends but then when I move it’s like you need a way to keep in touch with them. Definitely when Facebook started I found out it was really great to keep in touch with my friends all over the world. When I use that area, that social network it’s for me to kind of share with my friends and what’s going on with me, usually I post photos where I am, food, my running, whatever kinds of things, anything I’m finding important for that day. Then just knowing what’s going on in my life also kind of seeing what they’re |
doing too. Just kind of commenting, liking, showing them that I take an interest in their life by my responses, too.

<table>
<thead>
<tr>
<th>New things</th>
<th>12</th>
<th>Yes. Isn’t that ironic? We have six people in here, we all Google Hangout. We’re all looking at each other in Google Hangout even though we’re sitting next to each other.</th>
</tr>
</thead>
</table>
| Other communication methods | 14 | **Interviewee:** We rarely talk on the phone. It’s always texting or e-mail.  
**Interviewer:** Oh, so that's your primary...  
**Interviewee:** Yeah.  
**Interviewer:** Text, e-mail, chat.  
**Interviewee:** Yeah ‘cause it’s just easier. It’s interesting that I actually talk to my wife more texting than I do calling which is actually a trend now. Everybody’s texting than talking. |
<p>| Reaching out  | 2  | It’s not usually so there’s set of characters that I like hoops and yoyo and they have these funny little things about work like, “Oh! It’s Monday, who told Monday to come on. I wasn’t done with the weekend yet.” Something like random, I’ll share stuff like that which is a general sense of like, “Who wants to go to work?” If it’s not specifically in workplace or anything. [Laughter]. But I have the occasional sad face guy just to I don’t know maybe there’s just not anyone to really to talk to. You don’t want to really talk about it but you just felt like you letting it out, it’s in a sense but you still really feel like not telling anybody like you don’t say anything, you just put a sad face. [Laughter]. |</p>
<table>
<thead>
<tr>
<th>Relationship Building</th>
<th>38</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel closer to her than the person that left actually even though that person was here, too. I feel much closer with her because I was working with her on something where I was talking to her almost every day for a good period of time on Google chat. I just think it’s that like synchronous communication in the frequency of that helped to build that relationship and to feel that connection.</td>
<td></td>
</tr>
<tr>
<td>I think it helps to know that you know I can see that, even if I’m really looking at the document when I glance down and I want to and I can see Robyn’s reaction or something.</td>
<td></td>
</tr>
<tr>
<td>But, for the most part you know if we’re in conversation or if we’re having lunch or something or if we’re in a team meeting and we finish, you know it’s like side conversation time, I will be like, oh, yeah, I saw that Facebook picture you know, how is [Ryan] doing and all of that. Or sometimes he’ll actually like show me the Facebook picture and he’ll show everyone else, you know, here’s the one I’ve posted on Facebook you know, so that I think that part builds the relationship so you get to know an individual from another aspect that you usually wouldn’t know, you know wouldn’t know like unless you’re always conversing with them all the time. So I think it’s a convenience in which you can get caught up to date like I’ll get caught up to date with, you know, his happenings or you know whatever pictures he post and what not.</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Separating personal and professional</td>
<td>24</td>
</tr>
<tr>
<td>Social network activities</td>
<td>19</td>
</tr>
</tbody>
</table>

So, I guess to me it just depends on how in depth or what levels. So my comfort level usually is well, I have a good professional relationship, but I don’t need to be hanging out with all my team – co-workers on the weekends because I have my personal, you know, my personal life, right? So I think it’s having a healthy relationship, but for me because I look at Facebook as my personal like networking piece and I’m like I’m okay like I’m friend with people but I don’t usually like message Ben on Facebook. Like I’m a friend with Ben on Facebook, but I’m not going to be like messaging him about work on Facebook, right?

I use it just to communicate about my life really. For me, I’ve always moved around a lot. I build my network of friends but then when I move it’s like you need a way to keep in touch with them. Definitely when Facebook started I found out it was really great to keep in touch with my friends all over the world. When I use that area, that social network it’s for me to kind of share with my friends and what’s going on with me, usually I post photos where I am, food, my running, whatever kinds of things, anything I’m finding important for that day. Then just knowing what’s going on in my life also kind of seeing what they’re doing too. Just kind of commenting, liking, showing them that I take an interest in their life by my responses, too.
| Social network benefits | 26 | Strengths of social network sites, I would say that you can reach a lot of people with one thing, you know if you want to call or you want to tell them I got engaged I can just put it on Facebook and everybody knows.

And another thing that I like about Facebook is when my son was born my wife took a picture of him every single day for 365 days for the first year. So now we have a permanent record unless Facebook goes under – you know what I mean – of my son every single day for 365 days which I go back to when I just wanted to see my son ’cause we work so much. I work a lot and just stuff like that is it’s really good for memory keeping.

<p>| Staying connected | 5 | I think that it’s just nice to keep up with people, I think it’s nice to chat it up like even sad news like my – the student that I – who was my intern which I mentored at the high school like posted on his Facebook that, you know, his grandma went to an emergency room you know and things like that. And I messaged him, I should have texted him, but I messaged him for some reason that, you know, prayers go out to bro and if anything I can do to help you, let me know. And he wrote back, “Thank you, Kimo. That means so much to me.” And I didn’t know how much of an impact I had and you know I haven’t seen him in a year kind of thing. So things like that, it’s nice to keep track, but it’s not necessarily that important I guess overall in my life. |
| Social networks for learning | 3 | Yeah. I mean we haven’t talk so much about like, I mean so I go to Facebook for posting my stuff and my friends too, but more so this past year than probably other times I used it as a place to get information and to get inspiration too. So like I follow a lot of baking pages, you know and it’s like, “oh, wow, look at those cookies they’re awesome” you know and it’s like a, you know, you can also tell what I like from the things or who I am by the things I’m following. |
| Social network disadvantages | 4 | I think that with some of these places, there’s a way to spread information very quickly but it could be wrong information or not corroborated. It could spread things like I remember, I think I read an article that something was not factual about someone and so then this guy basically terrorized and it wasn’t even him. I think it can be used for either good or bad just depending on who you are hanging out with on Facebook, whether it’s good or bad. |
| Social network interpretations | 4 | It was when I bought my new car. When I ran my company obviously you don’t have any overheads I bought a Lexus 250. I posted it on my Facebook. Thinking about it now as a business person why would you want to show that? What would your marketing… the people that hired you think that “Oh Kimo’s making so much money. Why are we paying him so much money? Oh his friends, now you’re showing off that you’ve got all these stuff,” - things like that. So I took it out. |</p>
<table>
<thead>
<tr>
<th>Social network etiquette</th>
<th>22</th>
<th>Yeah, I mean with the co-workers too, I mean there is only a certain extent of what I would share with them. If I was having trouble or something or even in my personal life I might put an inkling of it maybe on Facebook but I wouldn’t want to bring that to the workplace. Negative things generally you don’t want to share to anybody so I try not to really do that.</th>
</tr>
</thead>
</table>
| Social network driving behavior | 2 | **Interviewer**: Yeah, I don’t go back just to see. I do find that as I get more likes on something, it’s kind of like this, not game but it’s this sensation, like Wow! You get 60 likes for this picture of grandma or something, right.  
**Interviewer**: Do you find yourself looking at it more?  
**Interviewee**: So then yeah -- I’ll just joke with my husband, let’s see if we can get 80 on this photo.  
**Interviewer**: Interesting, interesting.  
**Interviewee**: It’s interesting to see what gets liked, I got more likes when I bought my Leaf than I got when I say I got married, you know. |
| Social network motives | 27 | No, I think how I feel about it and I see it in two points of view like how I would see it as a marketing point of view or as a personal point of view. It’s two different things and how would you share your information in which way.  

The reach but it’s all relative to… I mean reach for marketing reach when I ran my company, reach for KSDL without having a marketing budget per se, the passive reach. When I think of positives and negatives I always think of plus and minuses in terms of capital. So it’s not like you need any money for doing this. I’m doing it for pure enjoyment. It’s an altruistic thing.
| Social network relationships | 27 | **Interviewee:** Not really current co-workers more so former. Like we had a couple of people that left their department since I’ve been on then we became Facebook friends.  
**Interviewer:** You’re not Facebook friends on any of your current co-workers?  
**Interviewee:** No, if it’s current, it’s somebody that’s not in our department. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive relationships</td>
<td>14</td>
<td>And I honestly think how I feel about social media personally is that it’s second tier kind a interaction with people, and if the people that you are close to...you don’t really do social networking with essentially because…you should be close to them</td>
</tr>
<tr>
<td>Telecommuting benefits</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>You just start up your day and I don’t know, for me, once I start up I just keep going and I may or may not even take lunch it just depends on how occupied with what I’m doing. I work till it’s time to finish and that time was really just set on like whenever I’m working on so if really need to finish doing enrollments then I’ll just keep going till I’m done. But if it’s like I’m not in something that I really need to continue then I’ll probably finish pretty soon after my husband comes home because he comes home around four thirty. There are kind of those signals from other people like, “Oh! It’s kind of your time to stop.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My son ain’t there. My wife ain’t there. I'm on my desk, sitting there. I'm focused. When I'm here in the office, I'm always scheduled in meetings for some reason. [Laughter]. I guess ‘cause it’s Tuesday, Wednesday, Thursday, they put all the meetings there and then Monday’s and Friday’s we just do the work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. No distractions, quiet work environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Able to focus and concentrate on tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Room that provides comfortable space for a creative work environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Windows that provide natural light (important to artists)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Save hours of time and gas on commuting from Kapolei</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Telecommuting disadvantages</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Spur of the moment face to face</td>
<td></td>
</tr>
<tr>
<td>2) Work space not set up like my desk at work</td>
<td></td>
</tr>
<tr>
<td>3) Making sure that I bring all the supplies, paperwork, etc. home with me.</td>
<td></td>
</tr>
</tbody>
</table>
And then also we have a tasking system that we use – using Microsoft Outlook, so I’ll task out Cookie for example and my direct report, right? Whether or not she’s telecommuting or not, I give her all my tasks and then she actually fills out that task like I’m complete now and she gives me all the details back. So regardless if I’m the meeting or not, it’s sitting in my inbox when she’s done something, so all her milestones are based upon that, right? I mean she could be working from home and she could be complete with whatever she’s doing and I still get the updates and I could be in a meeting.

**Interviewer:** I know you do two days a week, Monday, Friday, anything else about that arrangement, what are your hours like? What is your day like when you’re not here?

**Interviewee:** We have also alternate work schedules in a sense that -- so Ben does this too I think where we do nine hours four days a week and then half day on Fridays. I do nine hours on Mondays, four hours on Fridays and I do the morning on Fridays so the rest of the days is free.
I think what she would have of me is as far as telecommuting specifically would be very similar, if we have meetings that need to happen we come in, if there’s some sort of face to face necessary meeting then you come in. It’s the idea that telecommuting is a privilege right, so it’s not that you’re trying to schedule around your telecommuting.

We do ask everyone and is on line on office communicator so that people can chat you whenever necessary. With the privilege of telecommuting is that assumption that you are performing at expectations so that you don’t need to be right there for someone to oversee what you’re doing or to check in on you. It’s that you’re of the ability to kind of monitor yourself and to motivate yourself. It’s not that you have to be here for work it’s that you are responsible, you know your kuleana, you go home and you work and you don’t need a supervisor physically present to have that motivation.

The day starts, because you don’t have to commute so you save that hour fifteen, hour and a half every on those days, do you find yourself starting earlier in your work or you get up later and then start.

I don’t know, I mean I don’t necessarily like, I don’t know if now like if somebody currently Facebook friended me, one of these other staff members, I don’t think I would not accept it, I just don’t go out of my way to do it.

Interviewer: There’s a lot of sharing that goes on but you would say that sharing is more face to face, in person
type sharing versus at being on social network. Okay, that’s interesting.

**Interviewee:** Yeah, it is kinda interesting since we’re distance learning.

**Interviewer:** Would you say that relationships between you and your colleagues both I think across so your peers as well as you with your staff. How would you characterize their relationships between you and them?

**Interviewee:** I don’t know, I think they’re good, I think that we definitely have been able to build relationships even with telecommuting with people on different schedules. We also have people that come in six thirty and they leave at three fifteen or something, right. Then people that come in seven forty five and leave later so even with all these adjust schedules I think that we’re able to build those relationships with each other. We do build into our work environment activities or questions, things to get to know each other even on a personal level but again, it’s just kind of whatever that person loves to share with us. It’s in the sense that of giving people the opportunity to share if they want. Yeah, I think through our conversations with each staff member, I’ve been able to learn more about the person to what they do outside of work even if they want.

**Workplace** 2

Yeah, I don’t know, I think also I mean and we are hopefully going to incorporate more social media into our programs but our programs don’t really incorporate that so much but I do want our programs to so I think that when we kind of do then I’ll probably be a little more mixing my professional with my personal.
| Strong team | 6 | A good strong team I think is when the team is in the performing stage of that four-stage cycle, right? In which they’re syncing with each other, they’re communicating, the projects are flowing. So, I guess to me indicators of them working together and flowing is that there aren’t as many challenges that arise at their leadership level that we need to discuss or address, right? You know like the, what I would call like minor logistical things like well, that person didn’t show up on time or that person didn’t finish a task, those to me are indicators that they haven’t – they’re not working together as a team, right? |
| Healthy team | 8 | I think they’re similar although I think a healthy team is you’ll – you’ll probably see also a lot more I guess relationships building amongst the individual team members, there’s more side conversations or there’s more healthy discussions that are occurring. I guess it’s kind of the sense, you know, when you walk down the hallway and then you feel whether or not, you know everyone is like happy at work you know and enjoying what they’re doing and like conversing with each other and being open to each other, I think to me that’s – those maybe might be some differences ‘cause strong is more to me like, you know productivity when you work together and then healthy has the other – it’s like the whole person aspect. I guess to me those were the – that’s the main difference. |
APPENDIX C

Administration Group

[Division] Alternate Work Schedule and Telecommuting Pilot

December 2011 – June 30, 2012

Alternate Schedule Options:

**Peak-Hours** – This alternate schedule shifts daily work hours while still working an 8-hour day. For example, instead of the normal 7:30 am to 4:15 pm day, a staff member could work from 6:30 am to 3:15 pm, etc. Working any arrangement of hours within an 8-hour day will constitute a valid work day as long as the level of service is maintained during core hours, which are from **9:00 am to 3:00 pm**. Please note our core hours have been predetermined by management for operational purposes. Therefore, supervisors will need to coordinate the schedules of all participants to ensure ample coverage during these hours.

**Adjusted Lunch Period** – This alternate schedule allows staff to adjust the length of their lunch period, while still working an 8-hour day. A staff member can take a minimum of 30 minutes and a maximum of two hours for lunch. For example, a staff member starting at 7:30 am might want to exercise everyday from 11:00 am to 1:00 pm and, therefore, will leave work at 5:30 pm rather than at 4:15 pm.

**Compressed Work Week** – To maintain this alternate schedule arrangement, a staff member works a full 40-hour work week in less than five days. For example, staff may select for 10-hour days, or four 9-hour days plus one 4-hour day. As with the Peak-Hours alternate schedule, it is important to remember that, on full work days, the level of service must be maintained during the core hours of 9:00 am to 3:00 pm.
Three In/Two Out Telecommute – This alternative schedule allows staff whose duties may be completed remotely to telecommute two days per week. Days worked in/out may be coordinated by supervisor and staff member, but should be generally consistent from week to week, with only occasional modifications. (See Three In/Two Out Telecommuting subhead)

General guidelines and eligibility:

- Standard workweeks are Monday through Friday from 7:30 am to 4:15 pm.
- “Core hours” established for ISC are **9:00 am to 3:00 pm** and are the hours during which all staff must be on the job.
- Weekends are not to be considered when formulating an alternate schedule arrangement.
- Alternate work scheduling is to be considered a voluntary arrangement.
- In order to be eligible to participate in the Alternate Work Schedule program, staff must have completed the 90-day probationary period after starting their position. Additionally, staff must maintain a satisfactory rating (3.0) on all performance reviews and maintain a satisfactory attendance record in addition to addressing all [School] competencies (Hawaiian cultural commitment, accountability, innovation, collaboration and teamwork, communication, change effectiveness).
- Staff members must complete an Alternative Schedule and Telecommuting Agreement Form and obtain the approval of their respective supervisor to work a pre-approved alternate work schedule. Requests will be forwarded to Directors/Managers for review. Likewise, staff must deactivate the Schedule Agreement Request form to suspend or discontinue their participation.
- Staff members shall be responsible to attend all group, division and department meetings and complete any required training. All staff shall also be expected to attend such events even if the meeting is not scheduled during “core hours.”
- Each participant will go through a three-month trial period to ensure the level and quality of service and productivity are being met, and determine if the alternate schedule arrangement may continue.
- Once the schedule is agreed upon and approved by Director/Manager, the schedule should remain consistent unless emergency or special-needs situations arise and require temporary modifications.

The alternate schedule agreement may be terminated or discontinued at the discretion of the supervisor for the reasons stated below after giving two weeks’ notice:

- The level and quality of service is not being maintained or the staff member is falling behind in work schedule;
• Changes in job position description require the alternate schedule be discontinued; and/or
• The staff member requests that his/her alternate schedule arrangement be terminated.

Managing Schedules:

• It is the responsibility of the supervisor to verify and ensure performance of staff members with alternate schedule arrangements. Staff members must commit to the alternate schedule and shall not abuse the benefits that are inherent in an alternate schedule arrangement.
• It is the responsibility of all staff members and project team members to alter their schedules, whether it is a regular or alternate schedule arrangement to help accommodate and coordinate workloads during peak periods. There should be minimal or no impact to projects and/or delivery of services to our clients. It is also imperative for staff members to preplan anticipated leave in order to manage project/office workload.
• When taking leave of absence (e.g., vacation, sick leave, etc.), staff members need to be sure that the amount of leave requested equals the number of hours they are expected to work on a given day. For example, if staff is on a four-day compressed work week (four 10-hour days) and takes one day of sick leave when they should be working, the staff member needs to record ten hours of sick leave rather than eight.
• The paid Holiday benefit is eight hours. Those staff who elect to work a schedule of more than eight hours on a regular basis may take the appropriate number of vacation hours to make up for the holiday pay not received. Non-exempt staff may make up the time by working the hours within the same workweek in lieu of charging vacation.
• Exempt staff may not schedule less than at least a 40-hour workweek; non-exempt staff may not schedule more than a 40-hour workweek.
• When multiple staff members want more alternate work schedules than there are applicable positions available in order to maintain appropriate departmental coverage, it will be at the supervisor’s discretion to resolve on a rotating basis.
• Alternate Work Schedule Agreements shall be reviewed every six to twelve months (after the pilot), unless otherwise specified.

The ISC Alternate Work Schedule Pilot will end in June 2012, at which time it will be evaluated for enhancements and possible full implementation.
Three In/Two Out Telecommuting:

To allow ISC staff members telecommuting opportunities, as provided by these guidelines and at the discretion of Division Directors and Managers, such a work schedule will enhance the productivity of staff and the work unit.

**Telecommuting** is routinely working two days per week at a location other than the staff member’s regularly assigned place of employment, under an agreement approved pursuant to these guidelines.

A **regularly assigned place of employment** is the location where a staff member usually and customarily reports for work. The regularly assigned place of employment is considered the staff member’s workstation for all pay, leave and travel purposes.

Telecommuting and the Employment Relationship:

Telecommuting is a management option, not an employee right or benefit. Participation in telecommuting is voluntary in nature and no staff member is required to participate as a condition of employment. The existence of a telecommuting agreement in no way alters an individual’s employment relationship with [School’s] or the staff member’s obligation to observe all applicable rules, policies and procedures. All existing terms and conditions of employment, including but not limited to the position description, salary, benefits, vacation, leave and overtime remain the same as they would be if the staff member worked only at his or her regularly assigned place of employment.

**Agreement Required:**

All telecommuting must be performed pursuant to an Alternative Schedule and Telecommuting Agreement between the staff member and supervisor. The agreement
shall comply with the requirements set forth in these guidelines, be completed and approved by the Division Director/Manager before it can be implemented.

Specific Issues

Feasibility Criteria:

1. Telecommuting is appropriate only when both the abilities of the staff member and the nature of the work to be done meet the minimum feasibility criteria set out below. Supervisors may apply more rigorous criteria when determining whether a staff member and a position are appropriate for telecommuting in their units.

   a. Staff Criteria.
      Telecommuting is appropriate for staff who:
      i. have previously demonstrated their abilities to successfully organize their materials, manage time, work independently and productively with minimal supervision, and have a satisfactory (or higher) work performance history;
      ii. have a thorough knowledge and understanding of their job functions and the equipment required to telecommute;
      iii. have access to a remote work site that is safe and free from interruptions; and
      iv. are able to provide the security necessary to protect any [School] equipment used at the site.

   b. Position Criteria.
      Positions that may be considered for telecommuting are those that:
      i. have job functions that can be performed at a remote site without diminishing the quality of the work or disrupting the productivity of the unit;
      ii. do not require the staff member’s presence at the regularly assigned place of employment on a daily or routine basis;
      iii. allow for staff to be as effectively supervised as he or she would be if the job functions were performed at the assigned place of employment;
      iv. have an emphasis on the electronic production and/or exchange of information by means of computers, modems, fax machines or phones;
      v. involve measurable or quantifiable work product; and
      vi. have minimal or flexible need for specialized materials or equipment available only at the regularly assigned work site.
Positions that are not suited to telecommuting are those that:

i. require regular face-to-face contact with a supervisor, other staff, members of the [School] community or the public, or

ii. require access to information or materials that are available only at the regularly assigned place of employment.

Work Sites:

Remote Work Site Requirements.

- Telecommuting staff members shall have and maintain a healthy and safe environment at the remote worksite.
- Non-work related events and activities will not disrupt or interfere with work at the remote work site; scheduled work time will not be used to provide dependent care. Telecommuting is not suitable for dependent child- or elder-care.

Regularly Assigned Place of Employment.

- Telecommuting staff shall report to the regularly assigned place of employment as agreed upon with the supervisor, for the remainder of the work week not spent telecommuting.
- The operational needs of [School] take precedence over telecommuting agreements. A telecommuting staff member, after being provided as much advance notice as possible, must report to work at the regularly assigned place of employment on a scheduled telecommuting day when required by the supervisor.
- [School] will provide an adequate work area for telecommuting staff at their regularly assigned place of employment.

Equipment and Supplies:

- Any equipment, hardware, software and office supplies needed by a staff member to telecommute from a remote work site shall be specifically identified and described; and [SCHOOL] supervisors are authorized to approve, using
established procedures, expenditures for necessary computer hardware and software, phone communications (cell or VOIP), and office supplies. [SCHOOL] will not reimburse staff for any costs not pre-approved by the supervisor. The cost associated with any internet connection will NOT be reimbursed.

- [SCHOOL] shall not be responsible for providing telephone or secure internet connectivity to staff when telecommuting, nor shall [SCHOOL] reimburse staff for these expenses. Employees that do not have telephone or secure internet connectivity readily available should meet with their supervisors to determine if telecommuting is appropriate.

- [SCHOOL] will not reimburse staff for out-of-pocket expenses for materials and supplies that are normally available at their regularly assigned workplace, including but not limited to computer paper and data storage media (e.g., CDs, thumb drives, etc.).

- [SCHOOL] approved and scanned software shall be used for connecting with the [SCHOOL] network from the remote worksite, and telecommuting staff members shall run current anti-virus software at all times, and follow all [School] information security rules, copyright laws and manufacturers’ licensing agreements.

- [School] equipment located at the remote work site is subject to all policies and restrictions related to use of state-owned property. Telecommuting staff are responsible for any equipment and software that is used at the remote worksite and accept financial responsibility for any equipment that is lost, stolen or damaged because of the staff member’s negligence, misuse or abuse.

- In general, it is not expected that [School] will provide fully equipped workstations for the telecommuting staff.

**Telecommuting Work Assignments:**

1. **Description of Work**
   a. The general nature of the work to be performed by the telecommuting staff member, as well as a typical work project or assignment, shall be described in the agreement.

2. **Reporting of Time**
   a. Telecommuters will be required to maintain accurate time accounting documentation to support and substantiate their work hours and work products. They will be required to submit routine time reports detailing hours worked and status reports describing tasks performed and/or completed.

**Performance Evaluation.**
In order to be eligible to participate in the Telecommuting Pilot, staff must have completed the 90-day probationary period after starting their position. Each staff member is required to have an annual performance evaluation. Consistent with [School] practices, each telecommuting staff member must maintain a satisfactory rating (3.0), or higher, on all performance reviews and maintain a satisfactory record in addition to addressing all [School] competencies (Hawaiian cultural commitment, accountability, innovation, collaboration and teamwork, communication, change effectiveness).

**Work Schedule/Communications:**

1. *Schedules.*
   a. Telecommuting does not alter the staff members’ work schedules. The specific work schedule of a telecommuting staff member shall be agreed upon by the supervisor and staff member and described in the Alternate Schedule and Telecommuting Agreement.

2. *Availability.*
   a. Telecommuting staff shall be as available for communication and contact during their scheduled work time as they would be if working at the regularly assigned place of employment. In addition, there shall be minimal or no impact to projects and/or delivery of services to our clients.
   b. Telecommuting staff and their supervisors shall agree on how their communications shall be handled. During the agreed upon work schedule, it is expected that the telecommuting staff member be available for contact by phone.
   c. In general, the telecommuter is expected to report to his/her regular place of employment four out of five days each week.
   d. It is the responsibility of all staff members and project team members to alter their availability and accessibility, whether it is onsite or telecommuted to help accommodate and coordinate workloads during peak periods. It is also imperative for staff members to preplan required availability in order to manage project/office workload.

**Timekeeping and Leave:**
1. **Timekeeping.** Non-exempt telecommuting staff are required to submit regular time reports as well as any other records related to work hours agreed upon with the supervisor.

2. **Overtime.** Under the Federal Fair Labor Standards Act, non-exempt staff will be compensated for overtime that has been approved by the supervisor in accordance with the provisions of the Act.

3. **Leave.** Pursuant to established [School] policies, staff must obtain supervisory approval before taking leave.

**Liability:**

- **Injuries at Remote Work Site.** [School] assumes no liability for injury at the remote work site to any other person who would not be in the work area if the duties were being performed at the regular place of employment. Injured telecommuting staff must notify their supervisor immediately and complete all requested/required documents regarding the injury. Workers’ Compensation benefits will apply to injuries arising out of and in the course of employment.

- **Damages to Personal Property and Operating Costs.** [School] will not be liable for damages to staff-owned equipment resulting from telecommuting. [School] will not be responsible for operating costs, home maintenance, or any other incidental costs (e.g., utilities, telephone, insurance) associated with the use of the staff member’s residence for telecommuting, unless specifically provided otherwise in advance in writing by the department head and outlined in the agreement.

**Duration of Telecommuting Agreements:**

Telecommuting agreements may remain in effect for a maximum of 12 months, unless terminated in accordance with the procedures elsewhere in this document. A new agreement must be completed every 6 to 12 months as determined by the supervisor. These agreements do not constitute an employment contract and they do not create a property interest in employment.

**Termination of Agreement:**

1. **Telecommuting Agreement Termination.** Telecommuting arrangements may be terminated by either the telecommuting staff or [School] at anytime for any reason.
2. **Return of [School] Property.** When the telecommuting agreement is terminated, the staff member must promptly return all notes, data, reference materials, sketches, drawings, memoranda, reports, records, equipment, software, supplies, and any other [School] property in their possession or control.

3. **Damaged or Lost Property.** [School] shall not be held responsible for costs, damages, or losses associated with the termination of the telecommuting agreement.

The ISC Telecommuting Pilot will end in **June 30, 2012**, at which time it will be evaluated for enhancements and possible full implementation.