EFFECTS OF INFORMATION COMMUNICATION TECHNOLOGY CONNECTEDNESS

ON THE STRESS LEVELS ON STUDENT AFFAIRS PROFESSIONALS

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ABSTRACT

This paper attempts to better understand the relationships between stress caused by the use of information and communication technologies (ICTs) blurring the lines between employees' work-life and personal-life in student affairs professionals. A causal model is proposed including information communication technology connectedness, permeability, technostress, locus of control, citizenship pressure, burnout, and job performance, with six related hypotheses. Burnout and job performance are the dependent variables. The causal model controls for the environmental factor of citizenship pressure and personal characteristics of locus of control to help illustrate potential factors that might affect employees ability to manage stress due to technology connectedness. Using a sample of 1649 student affairs professionals, the findings indicated that four of the six hypotheses were supported by the collected data. The data suggests that highly connected individuals have difficulties managing borders between work-life and personal-life resulting in increased burnout and lower job performance. Implications of this study and some directions for future research are also discussed.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER1

INTRODUCTION

Student affairs is a profession that has been shown to have long hours creating an environment where it is difficult to obtain personal balance (Berwick 1992; Manning; 2001). Manning (2001) describes an "upperworld" and "underworld" of student affairs. The "upperworld" is described as creating great joy celebrating and facilitating student success, wellness, and growth. The "underworld" is marked with "workaholism and exhaustion" with a "lack of balanced work and play lives" (Manning, 2001, p.31). Student affairs has a distinctive challenge of balancing personal lives and professional lives but also modeling the way for the students that they work with. Guthrie, Woods, Cusker, & Gregory (2005) wrote that:

> Balance is a challenge for most individuals working in higher education. Achieving
> balance in ones life is often difficult but essential. Within our profession we serve as both
> educators and role models to students. We (student affairs professionals) bare a particular
> responsibility in practicing what we preach as we encourage students to think holistically
> about their development and lead lives of balance themselves. (Guthrie, Woods, Cusker,
> & Gregory, 2005, p.111)

The inherent nature of working in student affairs and dealing with students provides often an unconventional workday. Students continue to function in positive and negative ways outside

1

of the traditional eight to five timeframe. In turn student affairs professionals are often called to work programs, emergencies, or educational opportunities that exists at odd hours of the day. Students are constantly tied into different types of social media or taking advantage of emerging technologies. Student affairs professionals have a unique challenge to balance their own connections with various communication technologies and effectively connecting with students, educating students, and providing good examples of appropriate uses of communication technologies for students. The questions of where, when, how, and how hours many employees are working is very relevant in today's work environments. Modern technology has allowed for unparalleled communication, information gathering, and fundamental changes in the world of work. Many professionals struggle with creating a balance between work and personal life. This study specifically looks into how technology is affecting student affairs professionals in their ability to create a positive work/life balance. Cathryn Turrentine after deciding to leave the student affairs profession after eighteen year wrote an opinion article about her experiences in the profession that appeared in The College Student Affairs Journal in 2005. She eloquently summed up her feelings by saying that:

> We all remember times when we just had to keep going until the work was done, and no matter that we were exhausted. The students deserve our best, and we gave it. The challenge is to give ourselves permission to carve out a space within an overlong workweek for personal renewal. (Turrentine, 2005, p.212)

Email, cell phones, Internet, and other technologies that make access to work easier make it more and more challenging to find that space for personal renewal that Cathryn Turrentine illustrated. Moen, Lam, Ammons, and Kelly (2013) explained, "the bureaucratic rigidities and factory clocks that once provided workers with narratives and understandings of work time,

clearly demarcating nonwork from work time, no longer apply" (Moen et al., 2013, p.105). This challenge to create boundaries between work and personal life is not isolated in student affairs or even in the United States. It is an issue that many countries, corporations, and professions will have to confront to find solutions. Many countries and corporations are implementing creative ways to provide an environment where their employees and citizens are productive with a good work/life balance. Some strategies include internal policies on the use of technology, and others are more pervasive affecting entire cities. Gothenburg, Sweden, a city of roughly 500,000 residents implemented a thirty-hour workweek in 2014. The mayor of the city stated, "the hope is that the six-hour days will bump up mental and physical well-being, increasing efficiency while reducing the number of sick days that are taken" (Seamons, 2014). In a paper written by John Pencavel in 2014 the provisional evidence suggested "employees at work for a long time may experience fatigue or stress that not only reduces his or her productivity but also increases the probability of errors, accidents, and sickness" (Pencavel, 2014, p.25). Pencavel's findings support the idea that a shorter workday may increase productivity.

Late in 2011 Volkswagen created a policy turning off internal email servers starting thirty minutes after the set work day until thirty minutes before the next day (Tsukayama, 2011). Volkswagen made the change "following complaints that staff's work and home lives were becoming blurred" (Volkswagen, 2012). A spokesman for Volkswagen stated, "We wanted to take a preventative approach to tackling the issue" (Volkswagen, 2012). Companies like Volkswagen inspired the German Labour Ministry in August 2013 to create a guideline banning its managers from contacting their employees after hours and on weekends. The internal guideline set by the German Labour Ministry hoping to create an environment where employees knew when they were off work. The Labour Minister Ursula von der Leyen stated it was

important for workers to know "when they have to be available, and when they don't" (Vasagar, 2013). This guideline was put in place as encouragement to set best practices for companies around Germany. The Minister stated, "technology should not be allowed to control us and dominate our lives. We should control technology" (Vasagar, 2013). Similarly, to create boundaries for employees, the French Labor Unions passed an agreement to help contracted workers in the tech industry mitigate contact from employers by restricting communication after the set maximum 13 hour work day (Press Release, 2014). The Union was finding that the contracted workers were working well beyond normal hours due to being always on call. This agreement was an attempt to create a healthier work environment for the employees. In a press release on February 7, 2011, Thierry Breton the CEO of a French-based information technology company stated that his company Atos Origin had the "ambition to be a zero email company within three years." He wanted to achieve this by "using improved communication application as well as new collaboration and social media tools" (Press Release, 2011). Thierry Breton viewed his company's stance on managing data as a responsibility to create a better and more productive work environment in the growing age of data. He made his stance very clear by expressing the following:

> We are producing data on a massive scale that is fast polluting our working environments and also encroaching into our personal lives. At Atos Origin, we are taking action now to reverse this trend, just as organizations took measures to reduce environmental pollution after the industrial revolution. (Press Release, 2011)

These differing approaches from countries and companies have attempted to find ways to increase productivity and create an environment where there is a balance between work and personal life by managing employee connectivity and mediums to receive data.

The percentage of people not experiencing new electronic technologies that send and receive data is becoming smaller every year. The U.S. Census of 2010 states from the year 2000 to 2010, cell phone subscribers have risen almost 200%, from 109,478,000 to 302,859,000. Additionally, nearly 230 million citizens had access to the Internet in 2010 (U.S. Census, 2010). Almost every profession is becoming driven by new technologies as they become prevalent and ingrained in the everyday work world. Today, it is much more common for professionals to take work home because of the availability of smartphones, laptops, tablets, and other emerging mobile technology.

In the first quarter of 2013, for the first time smart phones outnumbered non-smart cell phones shipped by vendors, a total of 216.2 million units (Restivo, 2013). Smart phones are defined as, **"**a cell phone that includes additional software functions" (Smartphone, n.d.). In the United States (U.S.) alone 229,112,000 citizens had access to the Internet in 2010 according to the U.S. Census (U.S. Census, 2010). In 2011, a study by the Gartner Marketing Research Group was completed examining the number of personal computers sold worldwide. That study notes that 385 million units were shipped worldwide in 2011, which equates to a growth of 9.3 percent from 2010 (Pettey & Goasduff, 2011). Tablets or tablet computers "are very thin, portable computers, usually battery-powered, having a touchscreen as the primary interface and lacking a physical keyboard and lid" (Tablet, n.d.). Tablets are an example of new technology that is growing in popularity and accessibility. A study conducted by International Data Corporation put tablet sales at 63.3 million units in the year 2011 (Hruska, 2011). In 2012, that number jumped to 128.2 million units (O'Donnell, Reith, & Shirer, 2013).

"Information communication technology" is the most common way of referring to smart phones, tablets, laptops, or any other technologies that are commonly used. "Information and

communication technologies (ICTs) most often are defined in terms of their capacities to acquire, store, process and transmit information" (Steinmueller, 2000, p.361). With the growth in smartphones, tablets, and other ICTs, employees have access to work at all times of the day. The negative side of that connectivity can impact, and most likely increase, the expectations in both productivity and availability. This increased sense of availability often leads to a feeling that the employee is at work at any point in time in a given day (Day, Paquet, Scott, & Hambley, 2012). Terms such as "technology tethered workers" and "technostress" are being used in research to describe phenomenon that is occurring because of the rapid influx of ICTs in the workplace (Murray & Rostis, 2007; Brod, 1984). Murray and Rostis in 2007 coined the term "technology tethered workers" to describe workers who might not have the choice about the use of ICTs in their workplace. They stated that technologies like "cell phone, wireless e-mail device, personal computer, or pager allows them (employees) to be reached at any time" (Murray & Rostis, 2007, p.249).

Brod originally defined Technostress, in the book *Technostress: The Human Cost of the Computer Revolution.* He stated, "Technostress (computer-related stress) is a combination of performance anxiety, information overload, role conflicts, and organizational factors" (Brod, 1984). Brod coined the term "technostress" in 1984 when personal computers were just becoming accessible to the general public. Brod illustrates his point by estimating that "by 1988 nearly sixty percent of the American workforce will be linked to electronic workstations" (Brod, 1984, p.2). Sixty percent of the American workforce seems low when compared with census numbers from 2010 suggesting nearly seventy-five percent of the total United States' population had access to the Internet (U.S. Census, 2010). That concept of information overload and role

conflict was a concern even with the limited access to personal computers or smart devices. Brod considering the potential future of technology expressed:

> Our devotion to the new machine (computers) prevents us from seeing the possible consequences of spending long hours – at work and at play – with a machine. It inhibits us from asking the most significant questions about the changes in ourselves and our children – physical, psychological, and social – resulting from our relentless pursuit of a technocentered culture. It is essential that we examine the impact of the computer on our lives, our jobs, and our schools. (Brod, 1984, p.3)

Over thirty years have passed since Brod devised the term "technostress" to describe how technology was contributing to stress. In thirty plus years, there have been many innovations allowing for broader access to technology, the Internet, data, work, family, friends, or any other information. The concept of "technostress" may be more relevant now than it was in 1984 when first created.

New ICTs are now starting to come to the market. They are being used in a multitude of arenas, including the workplace. These technological advancements further illustrate how technology with innovation and thought can change the way humans interact with work, personal interactions, and life itself. Samsung was the first company to market a "smartwatch," "a wrist-worn device with a wireless internet connection" ("What is a Smartwatch", n.d.) to the public. The tagline for the product is "The Galaxy Note 3, and Galaxy Gear enable you to be more connected but less distracted. Receive calls, emails, and texts all from your wrist—so no matter what situation you're in, you'll never be out of touch with what's important" (The Next, 2013). Apple introduces the Apple Watch in 2014. Marketing for the Apple Watch talks about different

ways the device is able to notify the user of everything from a conversation with a friend to an email from work. The Apple website states:

> Apple Watch adds a new dimension to the way you communicate. In just a glance it shows you who's contacting you. It even gets your attention the way another person would — by tapping you. There are subtle audio cues, too. The experience is discreet and nuanced, with different types of notifications having their own unique character.
>
> ("Features", 2014)

This innovation illustrates how new technology has the potential to change the way human beings interact with and access information.

Google Glass is a great example of an inventive way to interact with technology. Google Glass is "augmented reality glasses that let you do all the things a smartphone would and more, right in front of your eyes and without having to lift a finger" (Maslin, 2012). Wearable technologies like Google Glass, Galaxy Gear, Apple Watch, and a myriad of other brands and types are integrating with everyday life in creative ways. Google Glass has helped individuals struggling with visual-based impairments by expanding fields of view or changing the perception of an individual to help with movement (Eugenios, 2015). The benefits of these types of technologies are endless with applications in health, productivity, communications, and many more. With statements like "so no matter what situation you're in, you'll never be out of touch with what's important" (The Next, 2013) from the promotional materials for the Galaxy Gear, what are the positives and negatives of that connectivity? An increase in expectations of productivity and availability coming from that increase in connectedness could have negative outcomes as well as the positive. With the evolution of how work is conducted, understanding the relationship between employees' ICT use and their perceptions of boundaries between work

and personal life, role expectations, and how they cope with these changing demands will be crucial to understand how to best take advantage of the positives ICT's provide, as well as managing the negatives. Craig Brod illustrated that "it is essential that we examine the impact of the computer on our lives, our jobs, and our schools" in 1984 (Brod, 1984, p.3). In 2015, it is essential that the positive and negative impact of being connected by all the different types of ICT's be understood. If practitioners and researchers alike do not start assessing the benefits and challenges of ICT use there may be unfavorable implications that range from poor health to low job performance (Gajendran & Harrison, 2007; Moen et al., 2013; Dash, Anand, & Gangadharan, 2012).

Statement of the Problem

The purpose of this study will be to test the concept of information communication technology connectedness and its effects on individual employees' levels of stress due to unclear boundaries between work and home, controlling for the environmental factor of citizenship pressure and personal characteristics of locus of control. The independent variable(s), locus of control, citizenship pressure, and ICT connectedness will be defined as nominal where there is no intrinsic ordering to the characteristics of the variables. The dependent variable(s), technostress, burnout, job performance, and permeability will be defined as nominal where there is no intrinsic ordering to the characteristics of the variables.

Research Model

The model presented in Figure 1 attempts to define and establish relationships between some key concepts in a world of work that is highly infiltrated by ICTs. The question at the core of the model is determining how employees who are highly connected through ICT use, define healthy boundaries between professional roles and personal roles. Universities can use this

information to explore what can be done to facilitate a healthy balance between work and personal life and model the healthy positive use of ICTs. Examining citizenship pressure as a moderator between ICT connectedness and blurring the lines between home and work life (permeability) will hopefully reveal a potential factor that can influence how managers set expectations for their employees. In addition to the environmental factors, it is important to determine if certain types of individuals who differ on the locus of control scale deal with the potential stress of a difficult work/life balance. Locus of control is an internal characteristic of an individual and could illustrate traits that could be fostered and encouraged to manage potential stress. The hope is to drive research and practice to help employees better cope with growing demands from ICT connectedness. Volkswagen and Atos Origin internal email policies designed to define the boundaries of work and home life are examples of how policy or laws could help diminish potential stress from ICSs. The more that is understood about the effects between technology and employees the better colleges and universities will be able to create healthy environments that promote balance for student affairs professionals.
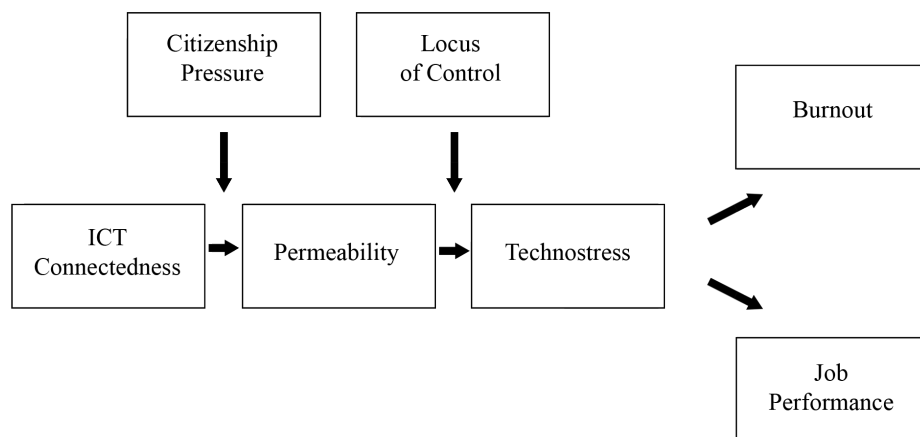

Figure 1. A relational model describing the elements and effects of information communication technologies in the world of work.

Research Hypotheses

Based on the model outlined in Figure 1, a total of six hypotheses have been derived to explain the correlational relationships between the variables. The primary research hypotheses principal to this study are as follows:

H1: ICT connectedness will have a positive relationship with permeability between work and personal life.

H2: High levels of citizenship pressure will moderate between ICTC and permeability increasing the feeling of permeability.

H3: Permeability will have a positive relationship with technostress.

H4: High levels of internal locus of control in an individual will moderate between permeability and technostress decreasing the levels of technostress.

H5: Technostress as a result of ICT connectedness will negatively affect job performance.

H6: Technostress as a result of ICT connectedness will affect burnout positively.

Summary of Methodology

Participants. In this study, the participants consist of student affairs professionals. The profession has been indicated in the past to have long hours and foster environments where student affairs professionals have a difficulty finding balance between work and life (Berwick, 1992; Manning, 2001; Lowery, 2004; Guthrie et al., 2005). Gender is one demographic factor analyzed to see if it plays a role in the various factors in the proposed model. It has been found men and women are influenced by different factors in their decision to use information technology (Ragu-Nathan, Tarafdar, Ragu-Nathan, & Tu, 2008). Age has been shown in the past to have a correlation with technology adoption and stress regarding technology (Morris &

Venkatesh, 2000; Van DerKaay & Young, 2012). In addition to gender and age the level of

employment, supervisory responsibility, and area of student affairs (i.e. student involvement,

conduct, housing, etc) have been gathered to see if there are trends for future research. Each

concept in the model is represented in the survey given electronically to the stated population.

  Measures. The survey is comprised of seven separate measures. Each measure has been

validated in one or more research studies to indicate and test the desired outcomes (Leung, 2011;

Clark, 2002; Ragu-Nathan et al., 2008; Bolino, Turnley, Gilstrap, & Suazo, 2010; Lumpkin,

1988; Shirom, 1989; Singh, Verbeke, & Rhoads,1996). The survey is composed of measures

validated indicating they truly measure the idea in the model. All measures have a Cronbach's

alpha of over .68 indicating the strength of reliability and internal validity. "Validity is concerned

with the extent to which an instrument measures what it is intended to measure… acceptable

values of alpha, range from .70 to .95" (Tavakol, M. & Dennick, R., 2011).

  Information communication technology connectedness. Information communication

technology connectedness is measured by the ICT Connectedness Index (ICTCI). The ICTCI has

been created from the nine-item measure called the Internet Connectedness Index (ICI). The ICI

was created by Jung et al. in 2001 (Leung, 2011).

  Permeability. The permeability scale was created by Clark in 2002 and consists of six-

items placed on a five-point Likert scale (Clark, 2002). **"**Permeability means someone is

physically located in one domain, but psychologically or behaviorally involved in another role"

(Leung, 2011, p.252).

  Technostress. In this study a 23 questions Likert scale measure, specifically addressing

technostress creation was used. This measure was created by Ragu-Nathan in 2008. The

questions were set up in a five-point Likert scale (Ragu-Nathan et al., 2008).

Citizenship pressure. An eight-item Likert scale measure created specifically to test citizenship pressure by Bolino et al. in 2010 was used to measure the participants' feeling of citizenship pressure. Citizenship pressure is defined by "pressure to engage in behavior that go beyond one's in-role duties" (Bolino et al., 2010, p.842).

Locus of Control. Levenson's (1981) 24-item Likert scale instrument was used as the basis for James Lumpkin's (1988) truncated 9-item scale. The shorter 9-item scale will be used to measure locus of control. This instrument covers both internal and external locus of control (Lumpkin, 1988).

Burnout. Shirom-Melamed Burnout Measure is a 14-item Likert scale instrument measured burnout (Shirom, 1989).

Job Performance. The measure testing job performance was Singh, Verbeke, and Rhoads' instrument used in 1996. The measure asks employees compare their performance to their peer's performance. It contains six-items with a Likert scale (Singh, Verbeke, & Rhoads, 1996).

Analysis. The survey results were analyzed in multiple stages including analysis of the internal validity of each scale, descriptive statistics of the overall data, general correlations, and hierarchical multiple regression to find the strength and direction of the model elements' interaction. Each hypothesis was tested with multiple regression. This approach provided the understanding on whether or not there is a significant link between variables and whether the nature of the link is a positive or negative interaction. Information communication technology connectedness, locus of control, and citizenship pressure are the independent variables. Permeability, technostress, burnout, and job performance are the dependent variables.

Definition of Terms

Burnout. "Burnout can be seen as a process starting with prolonged levels of job tension, escalating to emotional exhaustion, depression, and job dissatisfaction. This process culminates with employees feeling detached from their work environment, with subsequent effects on their mental and physical health" (Camargo, 2008, p.4).

Organizational citizenship behaviors (OCBs). "An individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4).

Citizenship pressure. "A specific job demand in which an employee feels pressure to perform organizational citizenship behaviors" (Bolino et al., 2010, p.836).

External Locus of Control. Holding expectancies for outside forces (i.e. luck, fate, others, etc.) to control individuals rewards and outcomes (Dijkstra et al., 2011).

Information communication technology. "Information and communication technologies (ICTs) most often are defined in terms of their capacities to acquire, store, process and transmit information" (Steinmueller, 2000, p361).

Information communication technology connectedness. "ICTC is a multidimensional construct that can be applied to portray the importance of ICTs in a person's everyday life, especially in influencing the work environment's permeability and flexibility both at work and at home" (Leung, 2011, p.251).

Internal Locus of Control. Holding expectancies for individuals to control rewards or outcomes in their lives (Dijkstra, Beersma, & Evers, 2011).

Locus of Control. "General locus of control refers to the extent to which the individuals hold some beliefs about the events or situations around them" (Khan, Saleem, & Shahid, 2012, p.159).

Organizational Citizenship Behaviors. "Individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p.4).

Permeability. "Permeability means someone is physically located in one domain, but psychologically or behaviorally involved in another role" (Leung, 2011, p.252).

Smart Phone. "A cell phone including additional software functions" (Smartphone, n.d.).

Smartwatch. "A wrist-worn device with a wireless internet connection" ("What is a Smartwatch", n.d.).

Tablet. "Also called tablet computer. A very thin, portable computer, usually battery-powered, having a touchscreen as the primary interface and input device and lacking a physical keyboard and lid" (Tablet, n.d.).

Technostress. "Is a combination of performance anxiety, information overload, role conflicts, and organizational factors" related to technology (Brod, 1984).

CHAPTER 2

LITERATURE REVIEW

In recent years, setting up work-life balance initiatives have been a priority for human resource management practitioners for a wide array of reasons, one of which is reducing work-related stress felt by employees (Dash, Anand, & Gangadharan, 2012). Information communication technology (ICT) use could greatly affect the stress coming from work-life imbalance. Stress is defined by McGrath in the Handbook of Industrial and Organizational Psychology as:

> A cognitive state experienced by an individual when there is an environmental situation that is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting it, under conditions where he or she expects a substantial differential in the rewards and costs from meeting the demand versus not meeting it. (McGrath, 1976, p.1351)

In other words, there has been an increased demand from the person and not enough time, resources, or reward to meet that demand. An increase in modern technology and competitive pressures has been found to increase the amount of stress on employees (Soylu & Campbell, 2012). "The increased demands and expansion of the traditional workplace by mobile technology subjects employees to more stress" (Soylu & Campbell, 2012). High workloads and high levels

of demands have been found in the past to be catalysts for increased stress in employees (Cordes & Dougherty, 1993; Leung, Chan, & Olomolaiye, 2008).

Telecommuting is an example of how new communication technologies are being implemented to help mitigate some of the stress increased demands are creating. Telecommuting has clear benefits when it comes to work-family relationships and stress reduction (Gajendran & Harrison, 2007). "Telecommuting is an alternative work arrangement in which employees perform tasks elsewhere that are normally done in a primary or central workplace, for at least some portion of their work schedule, using electronic media to interact with others inside and outside the organization" (Gajendran & Harrison, 2007, p.1525). For work purposes, the concept of telecommuting has widely been seen as positive. In 2007, a meta-analysis of 46 studies and 12,883 employees, Gajendran and Harrison, found overall the effects of telecommuting were positive. Despite having an overall positive effect, there were still some questions about interoffice relationships being affected by the lack of presence of the individuals (Gajendran & Harrison, 2007). It was found in a two-year span from 2008 to 2010 the number of telecommuting employees dropped. "The total number of people who worked from home or remotely for an entire day at least once a month in 2010 was 26.2 million, down from 33.7 million in 2008" (Worldatwork, 2011, p. 3). Companies may be finding costs of telecommuting do not outweigh the benefits of requiring employees to be physically present in the office.

Stress reduction is one of the positive results of telecommuting (Gajendran & Harrison, 2007). It is, however, not known to what extent the role ICTs have in the relationship of decreasing or increasing stress on telecommuters. There are quite a few professions in which telecommuting is not an option but still have a very high connectedness to ICTs. Student affairs positions are widely examples of a profession where telecommuting on a regular basis is not

really an option. This is due to the fact that the profession is predicated on personal interactions with students, family members, and colleagues. There are very few exceptions in higher education where professionals are not called on to interact face to face. One example on an exception may be a position that is solely predicated on online courses. Finding out more information about the relationships between ICT connectedness, the balance of work and home life, and stress will allow practitioners in student affairs and researchers to understand and address issues appearing with the growing integration of ICTs in todays work environments. The literature and empirical data is not as robust when it comes to the benefits and challenges of ICT use in general. There is also a gap in empirical data to manage the permeability coming with ICT use and the ease of access to both work and home life. Permeability is defined "that someone is physically located in one domain, but psychologically or behaviorally involved in another role" (Leung, 2011, p.252).

A study conducted in 2005 by Townsend and Batchelor demonstrated some of the positives and negatives of permeability technology generates. Townsend and Batchelor considered if cellular telephone usage was detracting or benefiting two different types of small businesses. A real estate company with a high use of cell phones as an integral job tool and a key cutting company had no cell phone use as part of the job were compared in the study. The key cutting company found the possession of cell phones brought personal life into the job setting and caused a productivity issue. Conversely, the real estate company, which utilized cell phones as an essential tool within the workplace found the work setting was infringing on personal life and caused morale issues (Townsend & Batchelor, 2005). This study focused on the use of cell phones but demonstrated how employees could be influenced by connectedness and the difficulties of creating boundaries between work and personal life.

In a more recent study from 2015, Pauleen, Campbell, Harmer, and Intezari performed a qualitative study involving 34 employees from New Zealand, Australia, and the United States. Their intentions were to find out "how users make sense of the impact of mobile technologies on the integration of work and private roles?" (Pauleen, Campbell, Harmer, & Intezari, 2015, p.7). Responses of the participants in the study suggested, "work and private life were often competing spheres of activity, and mobile technology as the means by which extra work was achieved at the expense of private time and home relationships" (Pauleen, Campbell, Harmer, & Intezari, 2015, p.7). Just like the Townsend and Batchelor's case study the boundaries between work and home life were blurred by access to mobile technology. Mobile technology was also found to provide individuals with more freedom to which "the majority of participants have used this freedom to accommodate more work" (Pauleen et al., 2015, p.7). Pauleen et al. noted, "given that employees are so strongly committed to work that they are willing to give it precedence over opportunities to do other things, even at some cost to their other relationships, begs future research" (Pauleen et al., 2015, p.8).

Murray and Rostis (2007) examined a broader view of ICTs than just mobile technology and coined the term "technology tethered workers." Technology tethered workers are defined as employees who have the following information and communications technology, "cell phone, wireless e-mail device, personal computer, or pager that allows them to be reached at any time" (Murray & Rostis, 2007, p.249). They illustrated how workers with a high level of access to these technologies had increased stress, role conflict, and reduced coping mechanisms for stress. Murray and Rostis highlighted specific examples of ways in which stress and role conflicts could be increased by the blurring of lines between work and non-work, employers increasing monitoring because of an inferred right, and a lack of a clear definition of when and where work

was to be conducted (Murray & Rostis, 2007, p.255). Employee coping mechanisms are shown to be difficult to initiate because of the availability and monitoring typical information communication technologies allow. All this equated to the burnout of the technology tethered worker becoming more prominent (Murray & Rostis, 2007, p.257).

Work-life balance is not a new concept. The terms work-family conflict, work-life balance, work and private time, and work-family boundaries are all terms associated with the blending of work and personal life (Dash et al., 2012; Ladner, 2008; Standen, Daniels, & Lamond, 1999; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2010). These all describe different roles and how permeable the boundaries are between those roles. Since the introduction and evolution of personal communication devices, an individual can connect with work or home at almost any time day or night. Whether it is Sonnentag, Mojza, Binnewies, and Scholl (2008) discussing ICT use and how to psychologically detach from work, or Tremblay, Paquet, and Najem (2006) adding up the pros and cons of telework, there are myriad of studies exploring how ICTs are permeating different roles of an individual. The more connected an individual, the easier it is to access work while away from the office, and vice versa. "Detachment implies more than just being physically distant from work. It means an individual stops thinking about work and disengages himself or herself mentally from both the negative and positive aspects of work" (Demerouti, Bakker, Sonnentag, & Fullagar, 2011, p.279). That detachment may be more difficult because of how ICTs allow individuals to be contacted anywhere. The psychological term of classical conditioning is appropriate to describe how an individual could be brought back to the mindset of work very easily by a simple notification or sound from their cell phone. Classical conditioning is essentially where an individual is conditioned to react physically or mentally to a stimulus (i.e. cell phone notifications) in a specific manner. The conditioned

response to a certain tone or vibration of a cell phone can immediately cause an individual to be psychologically at work even if the notification was of a personal nature. These conditioned responses may not allow student affairs professionals to recover adequately and recharge themselves for the next time that are physically at work.

There is a gap in the literature of trying to determine reasoning for why people are compelled to answer work emails, phone calls and have a desire to work while physically or mentally on personal time. The construct of citizenship pressure, coined by Bolino, Turnley, Gilstrap, and Suazo (2010), is a potential explanation of the compulsion coming out of the organizational citizenship behavior literature. Organizational citizenship behavior (OCB) is a construct that could help shed light on a potential source of pressure that could arise from being highly connected. OCB has multiple definitions and has been analyzed in various ways. OCB has been defined as "a performance that supports the social and psychological environment in which task performance takes place" (Organ, 1997, p.95). Organ (1988) describes an OCB as an "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4). Wilkerson, Evans, and Davis (2008) stated the "one thing that has been consistent about OCB conceptualizations, however, is the idea of benefiting the organization" (Wilkerson, Evans, and Davis, 2008, p. 2277). Bolino, Turnley, Gilstrap, and Suazo (2010) took the concept of organizational citizenship behavior a step further and defined the term "good soldier" or someone who is "cooperative, involved, and willing to go the extra mile" (Bolino, Turnley, Gilstrap, & Suazo, 2010, p.836). Bolino et al. (2010) described citizenship pressure as "a specific job demand in which an employee feels pressure to perform OCBs" (Bolino et al., 2010, p.836). An example from student affairs could be an assistant director of orientation

perceives pressure to add developing and managing the department's website to their already overflowing list of responsibilities. The reasons for this perceived pressure could be extensive ranging from departmental budget constraints to actual pressure from the department head. This concept of citizenship pressure could be a reason for why the orientation assistant director feels pressure to add responsibilities to the "other duties as assigned" list and be the "good soldier" described by Bolino. There is very little, if any, empirical data to study the relationship between ICTs, citizenship pressure, and work-life balance. Finding the reasons behind the effects of ICT use by an individual employee and how to mitigate those effects will be beneficial to the student affairs professional.

A direct result of an imbalance of work and personal time has been shown to cause a number of adverse outcomes, among them reduced job satisfaction, role stress, turnover intent, and poor job performance (Gajendran & Harrison, 2007; Moen et al., 2013; Dash, Anand, & Gangadharan, 2012). Being tethered to different types of ICTs at all times has created an environment where it is increasingly more difficult to define the line between work and personal life. Demerouti et al. (2011) stated detachment was one way an employee could recover from their work. Detachment was defined as a full disengagement from the work environment both physically and mentally (Demerouti et al., 2011). Recovery is defined as "the process that reverses the negative consequences of job demands and brings an individual back to his or her prestressor level of functioning" (Binnewies, Sonnentag, & Mojza, 2009). The two terms are used in the literature as complementary terms. Smart phones are just one example of how the act of detachment has become increasingly difficult for many individuals. Email notifications, text messages from colleagues, or phone calls from clients are all ways the smartphone does not allow for the detachment and recovery Demerouti et al. (2011) suggest.

Controlling whether or not an employee is disengaged fully from work and engaged with personal life, or visa versa, is largely left to the individual's ability to make such a switch. Pauleen et al. (2015) declared employees "appear to be choosing to use technology to adjust the work-life balance…that is consistent with balance being a self-determined and subjective experience" (Pauleen et al., 2015). Concepts of an individual's control over his or her work life balance suggest there may be a personality or internal factor allowing employees to manage their boundaries from work and home life. An individual's concept of locus of control has been shown to reduce or moderate stress under normal circumstances (Khan, Saleem, & Shahid, 2012; Dijkstra, Beersma, & Evers, 2011). Locus of control has two components: internal locus of control and external locus of control. People with high internal locus of control feel like their actions and behaviors affect the positive and negative outcomes of their lives. External locus of control is the exact opposite, where a person feels like the environment or fate controls their lives (Judge, 1998). This concept has not been applied to specifically ICT connectedness. High internal locus of control individuals possess qualities that could help greatly in reducing or moderating the feeling of being tethered and controlling their work/life balance. Understanding the relationship of how ICT connectedness influences employees and how to provide an environment where employees are detaching from work, recovering, reducing stress, and still increasing job performance will be crucial in the years to come.

Research Model

The model presented in Figure 1 attempts to define and understand the relationships between some key concepts going forward in a workplace becoming highly infiltrated by ICTs. The question at the core of the model is determining how employees who are highly connected through ICT use define healthy boundaries between work roles and personal roles. Universities

can use this information to evaluate what can be done to facilitate a healthy balance between work and personal life. Analyzing citizenship pressure as a moderator between ICT connectedness and blurring the lines between home and work-life (permeability) will hopefully reveal a potential factor that can influence how managers set expectations for their employees. In addition to the environmental factors, it is important to determine if certain types of individuals who differ on the locus of control scale deal with the potential stress of a difficult work life balance. The hope is to drive research and practice to help employees better cope with growing demands from ICT connectedness. Gothenburg Sweden's 30-hour work week, German Labor Ministry restricting contact after certain times in the day, Volkswagen shutting down internal email servers after work hours, and Ato Origin's email free aspirations are all examples of how policy can potentially help mitigate stress from ICTs. The more understanding about the effects between technology and employees the better colleges and universities will be able to create healthy environments promoting balance for student affairs professionals.
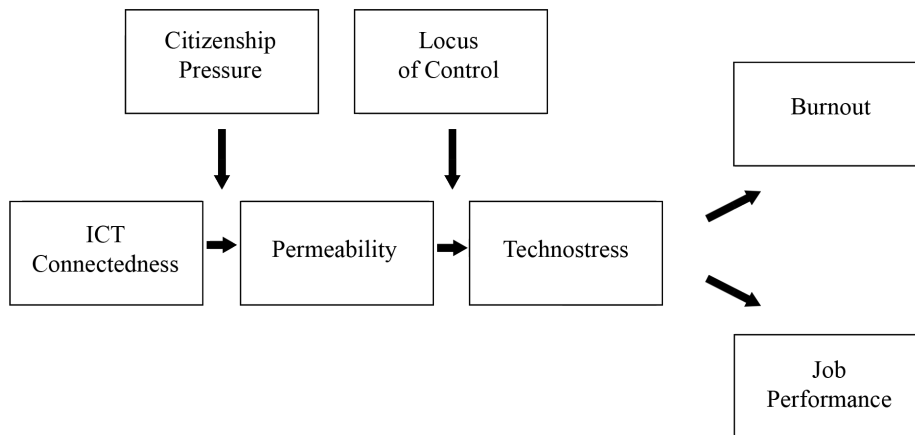

Figure 1. A relational model describing the elements and effects of information communication technologies in the world of work.

Information Communication Technology

  "Information and communication technologies (ICTs) most often are defined in terms of their capacities to acquire, store, process and transmit information" (Steinmueller, 2000, p361). Steinmueller's definition applies to a wide range of technology devices. Companies are constantly creating new technologies integrating with everyday life. How humans interact and receive information from those technologies is also constantly evolving. Google Glass is a brand new technology serving to illustrate how technology with innovation and thought can seamlessly integrate into the daily lives of human beings. Google Glass is "augmented reality glasses that let you do all the things a smartphone would and more, right in front of your eyes and without having to lift a finger" (Maslin, 2012). Voice and eye movement controls the interface for Google Glass. This allows for programs themselves to become a part of the lives of its users.

  There are many definitions of ICTs. Murray and Rostis (2007) define technology tethered workers as anyone with access to "cell phones, wireless e-mail devices, personal computers, or pagers that allows them to be reached at any time" (Murray & Rostis, 2007, p.249). Since the definition given by Murray and Rostis in 2007, the world has seen the development of the iPhone (2007), iPad (2010), Google Glass (2013), the Samsung Smart Watch (2013), and Apple Watch (2014). The amount of growth within the last two decades of ICTs and new types of ICTs like Google Glass calls for researchers to use a broader definition than provided by Murray and Rostis in 2007. Steinmueller's definition of ICTs from 2000 states, "Information and communication technologies (ICTs) most often are defined in terms of their capacities to acquire, store, process and transmit information" (Steinmueller, 2000, p. 361). This definition allows for future growth and for yet undefined ways human beings will interact with technologies. Introduction to the Apple Watch in 2014 illustrates the need for a broader definition. Apple

introduced another way human beings could communicate and interact with technology when they introduced the Apple Watch. Below is a quote from Apple's marketing of the Apple Watch:

Apple Watch adds a new dimension to the way you communicate. In just a glance, it shows you who's contacting you. It even gets your attention the way another person would — by tapping you. There are subtle audio cues, too. The experience is discreet and nuanced, with different types of notifications having their unique character. ("Features", 2014)

Tablets, personal computers, smartphones, Google Glass, Apple Watch and other hardware interfaces are allowing employees access to a wide variety of information anytime and anywhere. "Information and communication technologies the combination of computer, telecommunication, and media technologies are entrenched in our everyday lives; their convergence creates a powerful force" (Leung, 2011).

Information Communications Technologies Connectedness (ICTC). Information communication technologies connectedness is a relatively new idea derived from the concept of Internet connectedness:

Internet connectedness is a multidimensional conceptualization of the importance of the Internet in a person's everyday life. Connectedness suggests a relationship between a person and the Internet not captured or described adequately by traditional use measures, particularly measures based on time, such as hours of use per week. (Loges & Jung, 2001, p. 537)

Leung (2011) used the core concepts of Internet connectedness and built his own measure for connectedness. It was rooted in Loges and Jung's idea of an individual's relationship with the Internet (Loges & Jung, 2001, p. 537). The "connectedness" and "relationship" aspect of Internet

connectedness was what inspired Leung to create the concept of "information communication

technologies connectedness," deepening the definition from just Internet to all ICTs:

> Comparable to the Internet connectedness concept proposed by Loges and Jung (2001), I
>
> conceptualize that ICT connectedness (ICTC) is a multidimensional construct that can be
>
> applied to portray the importance of ICTs in a person's everyday life, especially in
>
> influencing the work environment's permeability and flexibility both at work and at
>
> home. (Leung, 2011, p.251)

Leung studied how ICTC affected work-life balance, job burnout, job/family satisfaction, and

flexibility with different tasks (Leung, 2011). Finding ICTC was positively and significantly

related to blurring the lines between work and personal life. In Leung's study, the term for the

work-life conflict was called "permeability" (Leung, 2011). This idea of permeability fit well

within the context of ICTC and how individuals cope with the ever-changing technology

environment.

Permeability

Permeability is a term explaining the extent behaviors, mindsets, and habits from work

and personal life enter another (Ashforth et al., 2000; Clark, 2002; Leung, 2011). "In other

words, permeability means that someone is physically located in one domain, but

psychologically or behaviorally involved in another role" (Leung, 2011, p. 252). With today's

ICTs, there is a high probability a person will be trying to enjoy a day off or the weekend and

something will bring them psychologically back to work. An example of that scenario may be

that a residence hall director is on vacation with friends and family when an emergency happens

where that individual is contacted via smart phone. At that time the residence hall director is no

longer on vacation they are at work literally and psychologically. The converse can be said as

well: A person could be at work and be instantly pulled back into personal life because of a text message, email, or communication notification from a social media platform. Something as simple as getting an email or text about what to do about dinner brings that individual for a brief moment out of the mindset of work and into their personal life.

Work-life balance is not a new concept and has had many iterations throughout the years. Work-family conflict is another term used widely to try and capture the conflict between work and personal life. It has been shown to influence many different outcomes in the work environment. "Research on work-family conflict has found that this variable influences some outcomes including psychological distress, job satisfaction, organization commitment, turnover, and life satisfaction" (Carlson, 2000, p.249). Cinamon (2006) found there were two types of work-family conflict: work interfering with family and family interfering with work. Cinamon (2006) established this is true in both young adults and adults. The same stressors came about from the two roles intermingling (Cinamon, 2006). The conflict between roles has been linked to stress and a wide variety of other outcomes. For the purpose of this study, permeability encompasses role confusion with any role, not just limited to family and work roles.

Ashorth et al. (2000) outlined what is and is not a permeable boundary between roles. "An employee who is able to accept personal calls and visits regularly has a permeable work role boundary. Conversely, an employee who has little opportunity (e.g., access, time) to attend to other roles has an impermeable boundary" (Ashforth et al., 2000, p. 474). Permeability has been studied regarding how work and personal life can bleed into one another. Valcour and Hunter (2005) stated in their study "teleworking is clearly associated with increased permeability of the boundary between work and non-work domains. The spatial, temporal, social, and psychological aspects of the work/non-work boundary are all affected by the movement of work into the home"

(p. 15). Even when the most prevalent form of ICT was a landline based telephone and a fax machine, Mirchandani (1998) received this quote from an employee telecommuting from home: "I was feeling very keenly a sense of intrusion into my house… I think I really wanted to feel that there was some place I could hide and be with my family" (Mirhandani, 1998, p. 178). The amount of technologies that can permeate roles has significantly increased since 1998. The concept of permeability captures the blending of work and personal time in a modern age and the psychological affects of blending. An individual could be with their family "hiding" and their phone vibrates and immediately they are psychologically back at work. Leung (2011) found there was a positive correlation between ICTC and permeability. The correlation between ICTC and permeability is represented in the first stage of Figure 1. Since work-family or work-life role conflicts can lead to stress the following hypothesis is suggested:

H1: ICT connectedness will have a positive relationship with permeability between work and personal life.

Citizenship Pressure

When a cell phone beeps signifying a new email or text message, what causes individuals to feel compelled to address this incoming stimulus? Whether it is the telecommuter in Mirhandani's (1998) study or the real estate agent in Townsend and Batchelor's research (2005), there is something making it difficult to see the lines where work and personal life are blending. "Putting in the hours," "going the extra mile," or "going above and beyond" are all euphemisms used to describe employees showing organizational citizenship behavior. Organizational citizenship behavior (OCB) is defined as an "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4). Research regarding the

motivations for OCBs has been viewed through the lens of social exchange theory and impression management (Moorman, 1991; Organ, 1988; Turnley, Bolino, Lester, & Bloodgood, 2003; Bolino, 1999). Social exchange theory suggests an exchange of something between two or more individuals mutually rewarding the parties involved (Homans, 1958). In other words "employees engage in OCBs to reciprocate the actions of their organizations" (Bolino, 1999, p.82). Impression management posits an individual performs OCBs not for anything specific but to be perceived "favorably by others (e.g., supervisors, coworkers, and so on) in their organizations" (Bolino, 1999, p.83) effectively managing impressions. Bolino (2010) describes a third possible reason for an employee to carryout OCBs as citizenship pressure "a specific job demand in which an employee feels pressure to perform OCBs" (Bolino et al., 2010, p.836).

Citizenship pressure is often negatively viewed, and seen as a tool used by managers to get employees to do what they need (Cates, Mathis, and Randle, 2010, p.331). Bolino et al. (2010) state citizenship pressure often makes employees' jobs more ambiguous and can interfere with family relationships (Bolino et al., 2010, p.849-850). Mathis and Randle (2010) took a different approach with citizenship pressure and analyzed the potential positives. They found citizenship pressure does have some potentially positive outcomes, such as job engagement. They defined job engagement as a response to citizenship pressure strengthening the roles between work and family and base their hypothesis on role accumulation literature (Cates et al., 2010, p.334). In 1974, Sieber outlined how accumulating more and more roles might not equate to role confusion or overload. Even going as far to detail potential positives of role accumulation, "Positive outcomes of role accumulation may be classified into four types: (1) role privileges, (2) overall status security, (3) resources for status enhancement and role performance, and (4) enrichment of the personality and ego gratification" (Sieber, 1974, p.569). Cate et al.'s

assumptions asserting citizenship pressure was not entirely negative were upheld in their results.

For the purposes of this study, the definition of job engagement, when applied to citizenship

pressure, will not be addressed. Rather specifically looking into what motivates employees to be

the "good soldier" and the ambiguity is more applicable to the research model. Citizenship

pressure is a potential moderator for the relationship between ICTC and permeability. Taking the

definition of citizenship pressure "as a specific job demand in which an employee feels pressure

to perform OCBs" (Bolino et al., 2010, p.836) provides a reasonable justification for why people

feel compelled to work even when they are not in a defined work role if they are feeling pressure

to do so either directly or indirectly. If one feels they have to respond immediately if there is an

issue or an expectation is created in an office in which there are no defined work hours, then one

could feel challenged to establish boundaries.

> **H2:** High levels of citizenship pressure will moderate between ICTC and permeability
>
> increasing the feeling of permeability.

Stress/Technostress

Stress has many different manifestations and most are considered to be negative. "Stress

refers to an emotional experience associated with nervousness, tension, and strain. The literature

on stress features a variety of approaches to its conceptualization, its antecedents, and its effects.

Stressors can be understood as 'stimuli that evoke the stress process'" (Hunter & Thatcher, 2007,

p.954). Stress has been linked to job strain, job performance, burnout, turnover intentions, and

job satisfaction (Soylu & Campbell, 2012; Brod, 1984; Singh & Dubey, 2011; Ayyagari, Grover,

& Purvis, 2011). Technostress is a term becoming more popular in the last few years because of

these emerging ICTs. The term provides the opportunity to target the specific type of stress

created by technology. Technostress is defined as "stress caused by an inability to cope with the

demands of organizational technology use" (Tarafdar, Qiang, & Ragu-Nathan, 2011 p.304). Brod

originally defined Technostress, in the book *Technostress: The Human Cost of the Computer*

Revolution: "Technostress (computer-related stress) is a combination of performance anxiety,

information overload, role conflicts, and organizational factors" (Brod, 1984). The concept of

role conflicts with technology is something that could potentially be much more prevalent now

than it was in 1984. In 1984, the personal computer was still just coming into its own with IBM,

Microsoft, and Apple in competition to produce an affordable computer that could be accessible

for the masses. Compared to now where the personal computer owners are in the hundreds of

millions and a smartphone has the processing power of many of the personal computers in 1984.

McGrath defined stress as "a cognitive state experienced by an individual when there is

an environmental situation that is perceived as presenting a demand which threatens to exceed

the person's capabilities and resources for meeting it, under conditions where he or she expects a

substantial differential in the rewards and costs from meeting the demand versus not meeting it"

(McGrath, 1976, p.1351). Technology has provided an opportunity to be potentially more

productive. It has also provided the potential for some to work constantly to keep pace with the

growing demands ICTs deliver, causing stress in new ways.

New terms and ideas are formulating around the benefits and negatives of ICT use.

Eastin, Glynn, and Griffiths (2007) established the concept of "productivity paradox" (Eastin,

Glynn, & Griffith, 2007, p.436). The "productivity paradox" was stated to be the concept of the

manner in which communication technology was supposed to increase productivity but

seemingly the technology also increased non-work-related activity counteracting the productivity

gains of the new technology (Eastin et al., 2007, p.437). The sheer amount of information

emerging through ICTs is staggering. In a research study completed in 2003, researchers found

"80 percent of employees spent 20 percent of their time answering emails" (Taylor et al., 2008, p.162). The productivity issues resulting from the introduction of email have monopolized a large portion of employees' time, which in turn may cause the added potential of completing the other portions of their jobs in less time. At no point in human history, other than in the last few decades, have employees had to deal with social media. These are all new phenomenon to which the full extent of the impacts of stress derived from ICT connectedness is still unknown.

As researchers are looking at the constant shifts in ICTs and how organizations are integrating them, stress management will be an important role going forward. "The stress literature has a rich potential for informing our understanding of individuals' perceptions and reactions to shifts in technologies or the work environment" (Ahuja & Thatcher, 2005, p.451). Technostress is a subset of the overall stress literature but will be very important because of its close ties to ICT connectedness and the progression of technology (Ragu-Nathan et al., 2008).

H3: Permeability will have a positive relationship with technostress.

Locus of Control

The internal moderator in the suggested model in Figure 1 is locus of control. Locus of control is defined with two main components, internal locus of control and external locus of control. General locus of control "refers to the extent to which the individuals hold some beliefs about the events or situations around them" (Khan, 2012, p.159). Internal locus of control is defined as holding expectancies that the individual control rewards or outcomes in their lives (Dijkstra, 2011). External locus of control is defined as holding expectancies that outside forces or luck control their rewards and outcomes (Dijkstra, 2011). Fate has been a word used frequently in regard to the two types of locus of control, external locus of control believing fate controls events and internal locus of control believing they create their fate (Judge, 1998). Those with a high feeling of internal locus of control have been referred to as "internals." On the other

hand, those with a high feeling of external locus of control have been referred to as "externals" (Treven, 2010).

Bandura (1977) notes, "the notion of locus of control is often treated in the literature as analogous to self-efficacy" (Bandura, 1977, p.204). "Although locus of control is theoretically related to generalized self-efficacy, the two concepts differ in one important respect. Self-efficacy pertains to confidence with respect to actions or behaviors, whereas locus is more concerned with confidence in being able to control outcomes" (Judge, 1998, p.19). This distinction is crucial in choosing locus of control over self-efficacy for the potential ICTs have for taking away the feeling of "being able to control outcomes." "Locus of control has also been examined as a moderator variable. For example, Sandler and Lakey (1982) found locus of control beliefs moderated the effects of stress on well-being, with internals experiencing less anxiety and depression in response to stress than externals" (as cited in Sprung & Jex, 2012, p.275). This moderating effect of locus of control is why it has been chosen as a potential way to mitigate the relationship between permeability and technostress in the proposed model. The following hypothesis is presented as potential:

H4: High levels of internal locus of control in an individual will moderate between permeability and technostress decreasing the levels of technostress.

Job Performance

In a continually changing world of work with constant adaption and creation of new technologies, understanding how employees are affected by these changes is essential. Job performance levels are a common way to assess the effectiveness of an employee. If something is impacting the performance levels of employees, it could be affecting the overall efficiency of a given company or organizations. Research focusing on explaining potential positive and negative

impacts can often be a good starting point for other research. Job Performance has been linked to stress with a negative relationship in quite a few studies (Wu, 2011; Jamal, 2011). This relationship is well established in a wide array of stress types (Hunter & Thatcher, 2007; Cano, Sams, & Schwartz, 2008; Fournier, Weeks, Blocker, & Chonko, 2013). Technostress is a type of stress, so the following hypothesis is presented:

H5: Technostress as a result of ICT connectedness will negatively affect job performance.

Burnout

Freudenburger (1974) was one of the first researcher to define and establish burnout as a common occurrence in the work-force. He defined "Burn-Out" as "to fail, wear out, or become exhausted by making excessive demands on energy strength, or resources" (Freudenburger, 1974, p.159). "Burnout can be seen as a process that starts with prolonged levels of job tension that escalate to emotional exhaustion, depression, and job dissatisfaction. This process culminates with employees feeling detached from their work environment, with subsequent effects on their mental and physical health" (Camargo, 2008, p. 4). Given the potential for ICTs to create issues in workload and boundary definition between personal and work time burnout fits as an outcome that could potentially be influenced by some elements discussed in the model. It has been seen as a direct result of technostress (Brillhart, 2004). Burnout and technostress seem to be strongly correlated.

H6: Technostress as a result of ICT connectedness will affect burnout positively.

CHAPTER 3

METHODOLOGY

The purpose of this chapter is to outline the research design, participants, sampling, instrumentation, research hypotheses, and the data analysis. The design of this study has been fashioned to address the question of how the frequency of information communication technology use and its permeability between work and personal life affect stress levels of student affairs professionals? It has been found stress for student affairs professionals can affect job performance and job satisfaction (Tseng, 2004). How much do the levels of ICT connectedness for an employee affect their stress levels? Potential outcomes like burnout and a negative impact on job performance as well as moderators like citizenship pressure and locus of control will all be addressed.

Research Design

In this survey study, the main method of data collection was carried out via survey. Each of the seven concepts in the model (see figure 1) will be represented in a survey given electronically to the stated population. Each of the seven sections consisted of Likert scales and will have no open-ended questions. The survey consisted of 75 questions. The impetus behind using a self-reporting survey process is two-fold. One self-report surveys are very good for "scaling the psychological states of respondents, such as job attitudes, tension, or motivation;"

and two, "soliciting respondents' perceptions of an external environmental variable such as the supervisor's behavior, formalization of organizational process, or climate of organizations" (Podsakoff & Organ, 1986, p.532). One potential negative for sending out a self-reporting survey comprised of multiple measures is common method variance. Common method variance is described as how a single respondent could contaminate multiple measures when there is a defect from a single respondent. It is presumed any defect from a single respondent will contaminate both measures containing similar elements in the same direction and therefor contaminate the validity of the measures (Podsakoff & Organ, 1986). One potential solution is called "scale trimming… this approach entails the trimming or elimination of the items that constitute obvious overlap in what are purported to be separate or distinct measures" (Podsakoff & Organ, 1986, p.538). This approach was taken to help diminish any common method variance.

Participants

The participants in this study will be made up of student affairs professionals. As indicated earlier the profession can have long hours and fosters environments where student affairs professionals have a difficulty finding balance between work and life (Berwick, 1992; Manning, 2001; Lowery, 2004; Guthrie, Woods, Cusker, & Gregory, 2005). ICT literacy and connectedness is needed on differing levels depending on the type of position in student affairs. The diversity of the population is a benefit so the model could be potentially generalized to other organizations and professions. A positive element of diversity within the population is that professional in student affairs range in levels of interaction with the actual students. There is also a wide range of earned income in student affairs. All of these factors strengthen the generalizability of the model from one population to another. Gender will be one demographic factor analyzed to see if it plays a role in the various factors in the proposed model. It has been

found men and women are influenced by different factors in their decision to use information technology (Ragu-Nathan, Tarafdar, Ragu-Nathan, & Tu, 2008). Age has been shown in the past to have a correlation with technology adoption and stress regarding technology (Morris & Venkatesh, 2000; Van DerKaay & Young, 2012) therefore will also be highlighted. In addition to gender and age the level of employment, supervisory responsibility, and area of student affairs (i.e. student involvement, conduct, housing, etc) will all be gathered to see if there are trends for future research. Each concept in the model will be represented in a survey given electronically to the stated population.

Sampling

The survey was distributed to the National Association of Student Personnel Administrators (NASPA) membership. NASPA has a total of 13,000 members as of 2014 (Student Affairs Professional Development, n.d.). Tapping into the large database of NASPA would allow for easy survey distribution to the appropriate parties and tracking of the responses. Within the membership of NASPA, there is a wide variety of student affairs professionals ranging from graduate assistants to presidents of universities. This allowed for a stratified sampling of student affairs professionals and may yield trends for future research. Gall, Gall, and Borg (2007) states that the goal is to survey a sample size to "represent a population to which the findings from the data analysis can be generalized" (Gall, Gall, & Borg, 2007, p. 230). The reliability for each of the seven elements of the survey that will be distributed has a range of Cronbach's alpha = .69 to alpha = .92. Given the high level of reliability for the instrument the sample size does not have to be as large to be generalizable to the population as a whole (Gall, Gall, & Borg, 2007, p.177). The target sample size for this study was 375. This number has been calculated with a margin of error of five percent, confidence level of 95 percent, and a response

distribution of 50 percent. Approval for this study will have to be obtained through the University of Mississippi Institutional Review Board (IRB). All data acquired was kept in the strictest of confidence. No identifying characteristics of the individuals participating were used. There was no sensitive information used in the survey nor was sample including protected groups (e.g. children). Due to those facts the Abbreviated IRB Application was submitted.

Instrumentation

The measure for this study was comprised of seven separate measures. Each measure has been validated in one or more research studies, and reliability levels are well within the acceptable range to indicate and test the desired outcomes.

Information communication technology connectedness. The ICT Connectedness Index (ICTCI) will be used in this study. The nine-item ICTCI consists of three dimensions: scope and intensity, centrality and goals, and breadth of ICTs at home. This has been adapted from the Jung's Internet Connectedness Index (ICI) (Leung, 2011). "The ICI is an empirical tool to measure various levels of connectedness to the Internet among individuals" (Loges & Jung, 2001, p.547). The ICI is only geared towards Internet connectedness. Leung attempts to broaden the ICI with an adaption to include a wider variety of ICTs and also keep the integrity of the initial measure (Leung, 2011). The ICTCI that Leung adapted from the ICI of Jung encompasses more than just time and number of uses. It attempts to gauge how invested an individual is through purpose, scope, and goals of the use of ICTs (Leung, 2011). For the purposes of this model, ICTCI works well because of its connection with permeability and the potential psychological investment.

Citizenship pressure. In 2010 Bolino, Turnley, Gilstrap, and Suazo tested the concept of citizenship pressure they put forth through two different measures. The first was a compilation of

three different measures used to test specific organizational citizenship behaviors (OCB) that were broad enough to fit their definition of citizenship pressure. Those measures were a 14-item scale for the OCB of helping that was created by Settoon and Mossholder's in 2002, a 15-item measure for individual initiative created by Bolino and Turnley in 2005, and a 5-item measure for loyalty created by Moorman and Blakely in 1995 (Bolino, Turnley, Gilstrap and Sauzo, 2010, p.842). They used those measures and asked participants "how often they felt pressure to engage in one of the three forms of OCB" (Bolino et al., 2010, p.842). The second was an 8-item measure that they created specifically to test citizenship pressure. The questions were much more geared to the general concept of citizenship pressure as defined by "pressure to engage in behaviors that go beyond one's in-role duties" (Bolino et al., 2010, p.842). The 8-item measure was shown to reflect the definition of the citizenship concept when compared to the larger instrument. Internal consistency for the 8-item measure was shown to be Cronbach's alpha = .87 (Bolino et al., 2010, p.842). For the purposes of this research, the more specifically geared 8-item measure will be used. That measure has the potential to be applied to different concepts going forward studying citizenship pressure.

Permeability. Permeability of the work domain to family was assessed with the following six items, using a 5-point scale with anchors of 'never' and 'always':

> My family contacts me while I am at work, I have family-related items at my workplace, I think about family members when I am at work, I hear from my family while I am at work, I stop in the middle of my work to address a family concern, and I take care of family business while at work. Similarly worded items measured the permeability of the family domain. (Clark, 2002, p.34).

This scale represents a way to test how ICTs are potentially influencing where an individual is psychologically. The six-item measure was found to have an internal consistency of Cronbach's alpha = .80 (Clark, 2002, p.36). Potential adaptation of this measure might result in a more appropriate indicator of work and personal life rather than work-family conflict.

Technostress. Technostress has been measured in the past by simple exhaustion measures. Ayyagari used Jo Ellen Moore's measure for exhaustion (Moore, 2000) because it was felt that the factors of exhaustion better represented technostress than job satisfaction (Ayyagari, Grover, & Purvis, 2011). Ragu-Nathan et al.'s (2008) measure for technostress will be used to look at the levels and creation of technostress. The measure in total covers a wide variety of topics ranging from job satisfaction, organizational commitment, technostress inhibitors, and technostress creators (Ragu-Nathan et al., 2008). In this study the twenty-three questions, specifically addressing technostress creation, will be used. The other aspects of the measure are not being tested. The questions are set up in a five point Likert scale ranging from "strongly agree" to "strongly disagree" (Ragu-Nathan et al., 2008). These twenty-three questions have an internal consistency of Cronbach's alpha = .80 (Ragu-Nathan et al., 2008, p.426).

Locus of control. One of the original measures of locus of control was Levenson (1981) in *Differentiating among internality, powerful others, and chance*. It is a 24-item instrument that utilized a scale from "strongly agree" to "strongly disagree". The measure has strongly disagree represented by a -3 and strongly agree represented by a +3 thus making the range from -3 to +3 with no 0 (Levenson, 1981). There have been attempts to truncate that original 24-item survey with varied results. Levenson's (1981) 24-item Likert scale instrument was used as the basis for James Lumpkin's (1988) nine-item scale. Lumpkin's scale mirrored the three categories of questions from Levenson's scale of "Internal Control" measuring internal locus of control and

both "powerful others" and "Chance" measuring external locus of control (Lumpkin, 1988). The shorter 9-item scale will be used to measure locus of control. This instrument covers both internal and external locus of control (Lumpkin, 1988).

Burnout. Burnout will be measured simply by an instrument called the Shirom-Melamed Burnout Measure that is a 14-item measure that ranges from 1 being "Never or Almost Never" to 7 being "Always or Almost Always" (Shirom, 1989). The measure is broken up into three categories consisting of physical fatigue, cognitive weariness, and emotional exhaustion. These 14 items have an internal consistency of Cronbach's alpha = .92 (Toker & Biron, 2012, p.702).

Job performance. The individuals comparing their performances to their peers' performances will test Job performance. This study will not attempt to get supervisory input on the participants' job performance. The measure that will test job performance will be Singh, Verbeke, and Rhoads' instrument that was used in 1996. The measure has employees compare their performance to their peers' performance. It will contain six-items with a Likert scale (Singh, Verbeke, & Rhoads, 1996). This six-item self-reported scale has an internal consistency of Cronbach's alpha = .80 (Singh, Verbeke, & Rhoads, 1996, p.85).

Research Hypotheses

As stated in chapter one the hypotheses are directly derived from the model presented in figure 1. The hypotheses are directional because given the nature of the model there are inherent assumptions being made about the direction of the relationships between constructs based on past research. The primary research hypotheses principal to this study are as follows:

H1: ICT connectedness will have a positive relationship with permeability between work and personal life.

H2: High levels of citizenship pressure will moderate between ICTC and permeability increasing the feeling of permeability.

H3: Permeability will have a positive relationship with technostress.

H4: High levels of internal locus of control in an individual will moderate between permeability and technostress decreasing the levels of technostress.

H5: Technostress as a result of ICT connectedness will negatively affect job performance.

H6: Technostress as a result of ICT connectedness will affect burnout positively.

Data Analysis

The survey results will be analyzed in multiple stages including analysis of the internal validity of each scale, descriptive statistics of the overall data, general correlations, and hierarchical multiple regression to find the strength and direction of the model elements' interaction. Multiple regression can be used "in a purely exploratory fashion to identify a collection of variables that strongly predict an outcome variable" (Cohen, Cohen, Aiken, & West, 2003, p.3). In the causal model, each hypothesis will be tested with multiple regression. This approach will provide the understanding on whether or not there is a significant link between variables and whether the nature of the link is a positive or negative interaction. "It should be recognized on the outset that a causal model may never be established as proven by a given analysis; all that may be said is that the data are to some extent consistent with a given model or that they are not" (Cohen et al., 2003). Information communication technology connectedness, locus of control, and citizenship pressure are the independent variables. Permeability, technostress, burnout, and job performance are the dependent variables. The

measurement of these variables is solely through the corresponding instruments found to assess the particular construct in the model.

Moderating Variables. The moderating variables in the model are citizenship pressure and locus of control. Both are moderators because they influence the strength of a relationship between two other variables. "If one presumes that the effect of the independent variable (X) on the dependent variable (Y) varies linearly or quadratically with respect to the moderator (Z)… moderation can be tested by hierarchical regression procedures" (Baron & Kenny, 1986, p.1176). Regression tests will be done to address the moderation of citizenship pressure on the relationship between ICTC and permeability and locus of control on the relationship between permeability and technostress. If there is any significant interaction between the variables, the results will be graphed.

Analysis Tool. The Statistical Package for Social Sciences (SPSS) version 22 from IBM™ will be used to process the regression analysis of the compiled data from the seven collective measures.

CHAPTER 4

RESULTS AND ANALYSIS

Survey Process and Sample Demographics

The survey was distributed to the National Association of Student Personnel

Administrators (NASPA) membership after acquiring a database from the national association.

NASPA provided the name, position title, the institution of employment, and physical address

for 14,670 members categorized as professional or student memberships. The email address of

the members had to be found manually via the institution of employment's website. Out of the

14,670 total members, 10,969 email addresses were acquired for the survey distribution.

Reasoning for the missing 3,701 email addresses include but are not limited to duplication of

membership, change of institutional employment, changing of an individual's name, and

institutional policy to not grant public access to email addresses. Out of the 10,969 surveys that

were distributed 1649 (response rate 6.65%) surveys were completed and submitted, far

exceeding the target sample size of 375.

The following are some of the defining characteristics of the sample. 1080 of the 1649

respondents identified themselves as female, 553 as male, 14 as other, and 2 left the question

unanswered. 805 indicated that their age fell between 18-34 years of age, 515 fell between 35-49

years of age, 326 between 50-70 years of age, 1 above the age of 71, and 2 left the question

blank. The level of employment of the sample broke down as follows 564 identified as "director/executive level," 445 as "mid level (assistant or associate director), 341 as "entry level", 185 as "graduate student", 57 as "faculty", 46 as "other", 5 as "position outside of a university of college", and 5 as "undergraduate student."

Results

Complete data was available for 1649 participants. Basic descriptive statistics and the reliability of each variable in the proposed model (figure 1) are shown in table 1.

Variable	M	SD	α
ICTC Index	91.28	8.48	
Permeability	18.22	5.12	.868
Citizenship Pressure	27.96	7.04	.916
Technostress	56.01	15.31	.899
Locus of Control	35.45	5.43	.528
Locus Adjusted	18.91	5.08	.687
Job Performance	24.91	2.96	.803
Burnout	41.51	15.49	.943

Table 1. Basic descriptive statistics and reliability represented by Cronbach's Alpha.

All measures' reliability performed within an acceptable reliability range with the one exception of the Locus of Control scale proposed by Lumpkin (1988). The Cronbach Alpha level for the scale from the collected data was $\alpha = .528$ falling below the acceptable level of reliability. It was found that the reliability of the scale increased to $\alpha = .687$ if the first three items representing internal locus of control in Lumpkin's scale were removed. Those numbers are

represented in table 2. This simplifies the scale by only having external locus of control items

four through nine. In prior uses of the scale adjustment to the first three items would have to be

made to indicate the strength of an individual's internal or external locus of control. The adjusted

scale reliability is indicated in table 1.

Scale Item	α if Item Deleted
Locus Item 1	.562
Locus Item 2	.565
Locus Item 3	.590
Locus Item 4	.496
Locus Item 5	.499
Locus Item 6	.531
Locus Item 7	.466
Locus Item 8	.459
Locus Item 9	.474

Table 2. Reliability level of the Locus of Control Scale if an item was removed.

Descriptive Statistics and Correlation Matrix

Variable	Mean	s.d.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Gender	1.67	0.48	---								
(2) Age	1.71	0.77	-.022	---							
(3) Employ Level	4.09	1.27	-.021	.568**	---						
(4) ICTC Index	10.14	0.94	-.023	.054*	.098**	---					
(5) Permeability	3.03	0.85	-.026	.014	.096**	.142**	---				
(6) Citizenship Pressure	3.49	0.88	.032	-.146**	-.081**	.185**	.060*	---			
(7) Technostress	2.43	0.66	.004	.216**	.142**	.134**	.075**	.368**	---		
(8) Adjusted Locus of Control	3.15	0.84	-.007	-.173**	-.156**	-.001	.058*	.313**	.278**	---	
(9) Burnout	2.96	1.10	.054*	-.261**	-.195**	-.004	.012	.415**	.329**	.374**	---
(10) Job Performance	4.15	0.49	.044	.170**	.164**	.076**	.084**	-.062*	-.116**	-.170**	-.334**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3. Correlation matrix for all of the variables and covariates.

On the initial analysis, there were a few elements of the study that stood out in the correlation matrix as seen in table 3 within the covariates of age, gender, and employment level. Age was significantly correlated with every element of the study at the 0.05 level except for permeability (r = .014). This suggests that age of the individual may not be a factor in boundaries between work and personal life. Employment level was significantly correlated at the 0.05 level with all of the measures from the study. In particular, the negative correlation with citizenship pressure (r = -.081) seems to suggest the higher the level of employment the lower the citizenship presser of the individual.

Correlations between the independent and dependent variables within the proposed model initially support the hypotheses presented in the first chapter of this study. Hypothesis one proposes that there will be a positive relationship between ICT connectedness and permeability. Those two variables are positively correlated (r = .142). Hypothesis three suggests that there will be a positive relationship between permeability and technostress. The correlation indicated in table 3 is positive between those two variables (r = .075). Hypothesis four and five are both

mirrored in the correlation table with technostress having a negative correlation with job performance ($r = -.116$) and a positive correlation with burnout ($r = .329$). All of the correlations are significant at the 0.05 level. There are no indications of the type of interaction between the moderating hypotheses in the correlation matrix.

Hypothesis Testing

All six hypothesis were analyzed with hierarchical multiple regression in four separate regression tests. The first two tests consist of three stages including the moderating variable in the last stage of the regression. Multiplying the moderator and the independent variable created the moderating variable. For hypothesis two where citizenship pressure is proposed to have a moderating effect on the relationship between ICT connectedness and permeability both citizenship pressure and ICT connectedness were multiplied together to get the variable. While testing for hypothesis four where locus of control is suggested to moderate the relationship between permeability and technostress, permeability and locus of control were multiplied together for the moderating variable.

Hypothesis One and Two. In hypothesis one it was suggested that there would be a positive relationship between an individual's level of ICT connectedness and the amount of permeability among their work and personal lives. Hierarchical multiple regression was used to test this prediction with permeability as the dependent variable. The three stages of the regression consisted of the first stage containing the covariates of age, gender, and employment level; the second stage consisted with the two additional independent variables of citizenship pressure and ICT connectedness; the third stage added the moderating variable. Consistent with hypothesis one there was a positive and significant relationship between ICT connectedness and permeability, $B = .114$ and $p < .05$. See table 5 for the breakdown of the coefficients. The

positive relationship between the two variables indicates that the more connected someone felt with ICTs the more they found psychologically their work and personal lives blended, accepting hypothesis one.

Hypothesis two revolved around the moderating characteristics of the construct citizenship pressure on the relationship between ICT connectedness and permeability. The subsequent hierarchical regression analysis served to reject hypothesis two. As noted in the model summary (see table 4) the correlation between the observed and predicted values of the dependent variable (permeability) noted by R-Square, there was no difference in the predicted values between stage two and stage three where the moderating variable was added. Additionally the significance of the created moderating variable introduced in stage three of the regression was greater than 0.05 indicating no statistical significance. This finding demonstrates that the relationship between ICT connectedness and permeability is not significantly impacted by how much pressure an employee feels from their environment.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.112[a]	.013	.011	.84740
2	.178[b]	.032	.029	.83969
3	.178[c]	.032	.028	.83995

1. Predictors: (Constant), Employ Level, Gender, Age
2. Predictors: (Constant), Employ Level, Gender, Age, ICTC Index, CitizenPress
3. Predictors: (Constant), Employ Level, Gender, Age, ICTC Index, CitizenPress, Mod ICTC x Cit

Table 4. Model summary for testing hypotheses 1 and 2 with permeability as the dependent variable.

Coefficients

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	2.875	.102		28.055	.000
	Gender	-.046	.043	-.026	-1.068	.286
	Age	-.067	.033	-.062	-2.055	.040
	Employ Level	.087	.020	.131	4.366	.000
2	(Constant)	1.609	.246		6.540	.000
	Gender	-.044	.043	-.025	-1.021	.307
	Age	-.061	.033	-.055	-1.855	.064
	Employ Level	.079	.020	.118	3.952	.000
	ICTC Index	.114	.023	.127	5.063	.000
	CitizenPress	.036	.024	.038	1.491	.136
3	(Constant)	1.696	.831		2.042	.041
	Gender	-.044	.043	-.025	-1.022	.307
	Age	-.061	.033	-.055	-1.855	.064
	Employ Level	.079	.020	.118	3.943	.000
	ICTC Index	.106	.082	.117	1.287	.198
	CitizenPress	.010	.236	.011	.044	.965
	Mod ICTC x Cit	.003	.023	.030	.111	.912

a. Dependent Variable: Permeability

Table 5. Parameter estimates for testing hypothesis 1 and 2 with permeability as the dependent variable.

Hypothesis Three and Four. Hypothesis three proposed permeability would influence technostress positively. The more an employee felt the blurring of work and personal life, the more stress they would feel. To test the hypothesis a second three stage regression was performed consisting of the first stage including the covariates of age, gender, and employment level; the second stage adding the two independent variables of locus of control and permeability; the third stage with the additional moderating variable. Technostress was introduced as the dependent variable in the analysis. A positive and significant relationship between permeability and technostress was found as predicted by hypothesis three, $B = .038$ and $p < .05$. See table 7 for the breakdown of the coefficients. This finding supported that the

blurring of boundaries like work and personal life do impact levels of stress in an employee, accepting hypothesis three.

Hypothesis four was the second prediction involving a moderating variable. This hypothesis focused on the internal characteristic of locus of control's moderation on the relationship between permeability and technostress. The correlation between the observed and predicted values of the dependent variable (technostress) indicated by R-Square (see table 6), there a moderate difference in the predicted values between stage two and stage three where the moderating variable was added, $r^2 = .001$ increase from stage two to stage three. The significance of the created moderating variable introduced in stage three of the regression was greater than 0.05 indicating no statistical significance. A positive and significant direct relationship between locus of control and technostress was found, $B = .257$ and $p < .05$ (see table 7). Although the direct impact of locus of control on technostress was found to be significant, the moderating effect on the relationship between permeability and technostress was found to be statistically insignificant. This finding exhibits that an individual's levels of external or internal locus of control does not significantly impact the relationship between permeability and technostress, rejecting hypothesis four.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216[a]	.047	.045	.65065
2	.393[b]	.154	.152	.61316
3	.393[c]	.155	.151	.61333

a. Predictors: (Constant), Employ Level, Gender, Age

b. Predictors: (Constant), Employ Level, Gender, Age, Permeability, Adjusted Locus

c. Predictors: (Constant), Employ Level, Gender, Age, Permeability, Adjusted Locus, Mod Perm x Locus

Table 6. Model summary for testing hypothesis 3 and 4 with technostress as the dependent variable.

Coefficients

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	2.065	.079		26.184	.000
	Gender	.012	.033	.009	.375	.708
	Age	.172	.025	.201	6.813	.000
	Employ Level	.013	.015	.025	.858	.391
2	(Constant)	1.019	.110		9.241	.000
	Gender	.019	.031	.014	.597	.551
	Age	.210	.024	.245	8.769	.000
	Employ Level	.024	.015	.046	1.633	.103
	Permeability	.038	.018	.049	2.131	.033
	Adjusted Locus	.257	.018	.327	13.998	.000
3	(Constant)	1.075	.225		4.790	.000
	Gender	.019	.031	.014	.596	.551
	Age	.210	.024	.245	8.767	.000
	Employ Level	.024	.015	.046	1.626	.104
	Permeability	.020	.066	.026	.304	.761
	Adjusted Locus	.239	.065	.304	3.677	.000
	Mod Perm x Loc	.006	.020	.035	.290	.772

a. Dependent Variable: Technostress

Table 7. Parameter estimates for testing hypothesis 3 and 4 with technostress as the dependent variable.

Hypothesis Five. Hypothesis five suggested that individuals with a higher level of technostress would report having a lower level of job performance. Two-stage hierarchical multiple regression was used to test this prediction with job performance as the dependent variable. The two stages of the regression consisted of the first being the covariates of age, gender, and employment level; the second stage included all of the elements of the model as independent variables, ICT connectedness, permeability, citizenship pressure, locus of control, and locus of control. Consistent with hypothesis five there was a negative and significant relationship between technostress and job performance, B = -.119 and p < .05. See table 8 for the breakdown of the coefficients. The negative relationship between the two variables indicates that the more stress related to technology that is felt, the more negative the effect is on job performance, accepting hypothesis five.

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	3.790	.059		64.220	.000
	Gender	.050	.025	.049	2.002	.045
	Age	.073	.019	.114	3.846	.000
	Employ Level	.038	.012	.097	3.271	.001
2	(Constant)	3.697	.148		24.975	.000
	Gender	.053	.024	.052	2.188	.029
	Age	.092	.019	.145	4.775	.000
	Employ Level	.029	.011	.074	2.500	.013
	ICTC Index	.035	.013	.066	2.682	.007
	scaleperm	.048	.014	.082	3.375	.001
	scalecitpress	.021	.015	.037	1.365	.173
	scaletechstres	-.119	.021	-.161	-5.800	.000
	LOC2Scale	-.060	.015	-.103	-3.900	.000

Coefficients

a. Dependent Variable: Job Performance

Table 8. Parameter estimates for testing hypothesis 5 with job performance as the dependent variable.

Hypothesis Six. Hypothesis six speculated that individuals with a higher level of technostress would be more inclined to express higher levels of burnout. Two stage hierarchical multiple regression was used to test this prediction with burnout as the dependent variable. The two stages of the regression consisted of the first being the covariates of age, gender, and employment level; the second stage included all of the elements of the model as independent variables, ICT connectedness, permeability, citizenship pressure, locus of control, and locus of control. As predicted by hypothesis five there was a positive and significant relationship between technostress and burnout, B = .420 and p < .05. See table 9 for the breakdown of the coefficients. The positive relationship between the two variables indicates that the more stress related to technology that is felt the higher the levels of burnout within an individual, accepting hypothesis six.

Coefficients

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	3.557	.130		27.338	.000
	Gender	.110	.055	.049	2.023	.043
	Age	-.315	.042	-.221	-7.553	.000
	Employ Level	-.058	.026	-.067	-2.275	.023
2	(Constant)	1.507	.287		5.259	.000
	Gender	.088	.047	.039	1.872	.061
	Age	-.304	.037	-.213	-8.117	.000
	Employ Level	-.043	.022	-.049	-1.925	.054
	ICTC Index	-.076	.025	-.065	-3.030	.002
	scaleperm	-.020	.027	-.015	-.734	.463
	scalecitpress	.305	.030	.242	10.249	.000
	scaletechstres	.420	.040	.252	10.530	.000
	LOC2Scale	.239	.030	.182	8.009	.000

a. Dependent Variable: scaleburnout

Table 9. Parameter estimates for testing hypothesis 6 with burnout as the dependent variable.

Post-Hoc Analysis

Additional analysis was performed outside of the original six hypotheses to assess whether citizenship pressure or locus of control had a moderating effect on the relationship between technostress and job performance and burnout. It was observed in the previous regression analysis that locus of control had a statistically significant direct impact at the 0.05 level for both job performance and burnout (see table 8 & 9). Citizenship pressure had a statistically significant direct impact at the 0.05 level for just burnout (see table 9). Because of these observations additional analysis was deemed necessary for the purposes of informing directions of future research on technology related stress.

A hierarchical multiple regression was used to test the extent of the moderating effects. Citizenship pressure was found to not have any moderating effects on the relationship between technostress and job performance or burnout. Locus of control provided no moderating effect on the relationship between technostress and burnout. Locus of control did have a statistically significant moderating effect on the relationship between technostress and job performance. As noted in the model summary (see table 10) the correlation between the observed and predicted values of the dependent variable (job performance) noted by R-Square, there was a moderate difference in the predicted values between stage two and stage three where the moderating variable was added, $r^2 = .003$ increase from stage two to stage three. Additionally the significance of the created moderating variable introduced in stage three of the regression was found to be statistically significant, B = .045 and $p < .05$ (see table 7). This finding demonstrates that the level of locus of control significantly impacts the relationship between technostress and job performance. The graph represented by figure 2 illustrates the interaction between the stated

variables. Although statistically significant the relationship is observed to be slight, and the

impact of locus of control decreases as technostress increases.
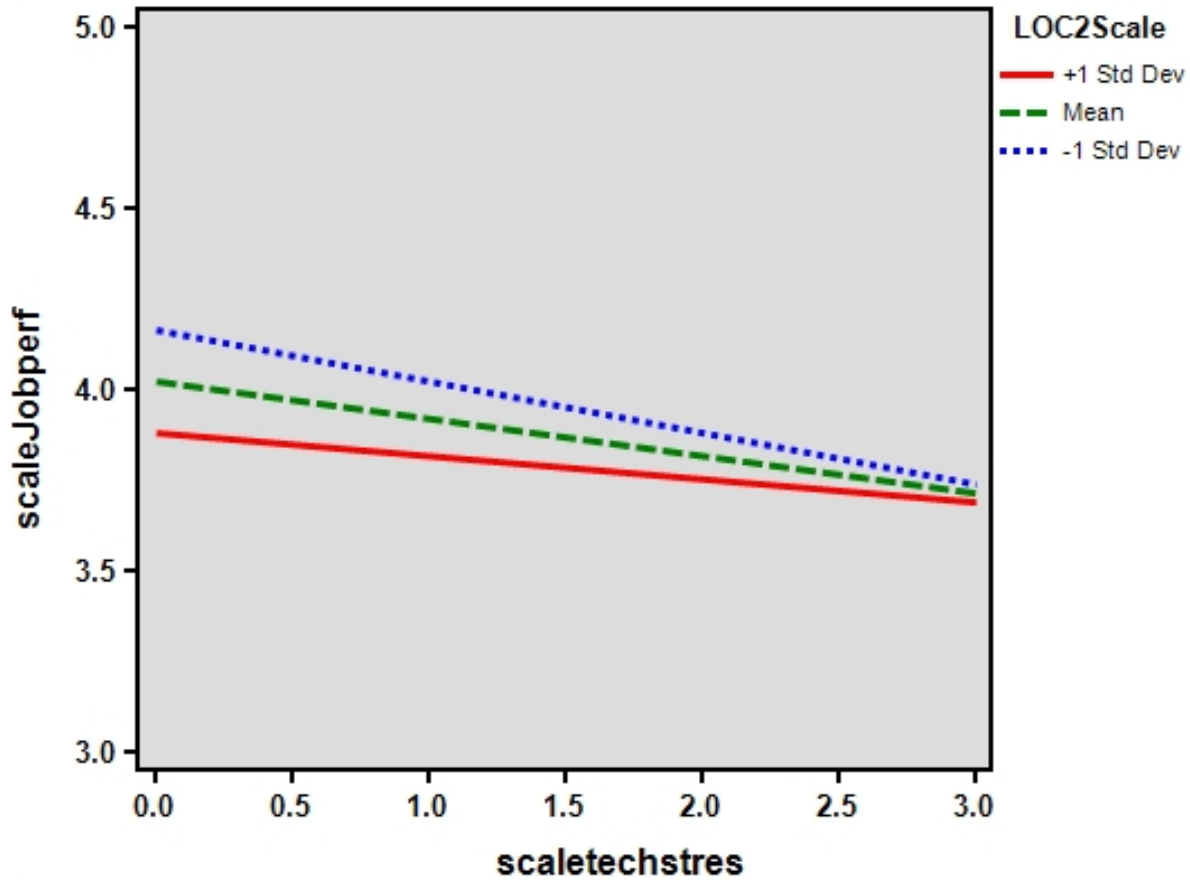
Figure 2. Graph of the moderating interaction of locus of control on the relationship between technostress and job performance.

The modest relationship between these variables does suggest that personal feelings of

locus of control, more specifically the higher the level of internal locus of control, an individual

might be able to manage stress levels induced by technology to perform better than individuals

high in external locus of control. In other words, the feeling of internal locus of control does not

seem to prevent stress rather it might be able to manage stress once it has been acquired to a

certain degree.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.193[a]	.037	.035	.48475
2	.266[b]	.071	.068	.47650
3	.273[c]	.074	.071	.47576

a. Predictors: (Constant), Employ Level, Gender, Age

b. Predictors: (Constant), Employ Level, Gender, Age, LOC2Scale, scaletechstres

c. Predictors: (Constant), Employ Level, Gender, Age, LOC2Scale, scaletechstres, modLoc_Stress

Table 10. Model summary for ad-hoc testing of the moderating effect locus of control between technostress and job performance.

Coefficients

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	3.790	.059		64.220	.000
	Gender	.050	.025	.049	2.002	.045
	Age	.073	.019	.114	3.846	.000
	Employ Level	.038	.012	.097	3.271	.001
2	(Constant)	4.194	.081		51.900	.000
	Gender	.050	.024	.050	2.065	.039
	Age	.083	.019	.130	4.332	.000
	Employ Level	.036	.011	.092	3.147	.002
	scaletechstres	-.099	.019	-.134	-5.126	.000
	LOC2Scale	-.055	.015	-.094	-3.608	.000
3	(Constant)	4.556	.169		27.002	.000
	Gender	.047	.024	.047	1.944	.052
	Age	.082	.019	.128	4.269	.000
	Employ Level	.037	.011	.095	3.252	.001
	scaletechstres	-.246	.063	-.332	-3.901	.000
	LOC2Scale	-.168	.049	-.288	-3.445	.001
	modLoc_Stress	.045	.019	.320	2.444	.015

a. Dependent Variable: scaleJobperf

Table 11. Parameter estimates for testing the moderating effect of locus of control on the relationship between technostress and job performance.

CHAPTER 5

DISCUSSION

The purpose of this study was to test the concept of ICT connectedness and its effects on a sample of individual student affairs employees' levels of stress due to unclear boundaries between home and work, controlling for the environmental factor of citizenship pressure and the personal characteristic of locus of control. ICT connectedness, permeability, and technostress were analyzed in the context of the causal model (figure 1) for their impact on job performance and burnout of employees in student affairs. The model was designed with two moderators to provide an understanding of potential environmental factors (citizenship pressure) and internal characteristics (locus of control) of individuals that could help create healthy work settings in student affairs administration. Four out of the six hypotheses presented in chapter one were supported by the collected data and analysis. The two hypotheses not supported were the moderating effects of both citizenship pressure and locus of control. The other relationships in the model acted as hypothesized and in line with previous research. Insights from this research may provide organizations, employers, and the individual employees knowledge to mitigate levels of stress induced by ICT connectedness. In addition, these findings may have significance in policy creation, creating positive cultures in organizations, tailoring appropriate professional development plans to help cultivate skills to manage work/life balance, and help develop

standards of best practice in student affairs administration and beyond. This chapter will attempt to follow the causal model presented in figure 1 and explain the findings, implications, future research, and limitations of the study.

Hypothesis one stated, "ICT connectedness will have a positive relationship with permeability between work and personal life." Hypothesis two posed "high levels of citizenship pressure will moderate between ICT connectedness and permeability increasing the feeling of permeability." Both attempted to illuminate factors in creating the blurring work/life boundaries represented by the construct permeability. The data acquired in this study supported the notion that ICT connectedness influences permeability positively. In other words the more connected an individual is with ICTs, the more permeable their boundaries are between roles like work or family.

The environmental factor of citizenship pressure had the potential of giving some insight on how organizations could reduce the effects of increased permeability due to an employee being connected through ICTs. Citizenship pressure had no significant moderating effect on the relationship between ICT connectedness and permeability nor did it have a statistically significant direct impact on permeability (see table 4 & 5). With the data supporting hypothesis one and rejecting hypothesis two, researchers and practitioners are still left with the question of how to nurture the management of permeability that access to information communication technologies provides. In further analysis citizenship pressure did have a positive and significant influence on the burnout of employees, $B = .305$ and $p < .05$. This does show that it has the potential to create environments where individuals are potentially more overwhelmed. Data suggests citizenship pressure plays little if any role in technology connectedness. Finding an organizational way to help student affairs professionals manage the permeability that is created

by the nature of the profession will be important. Some student affairs professionals struggle with controlling their schedule due to student issues, campus emergencies, and various other reasons for being connected outside of the normal work hours. The concept of being a "good soldier" and the definition of citizenship pressure proposed by Bolino et al. (2010) "as a specific job demand in which an employee feels pressure to perform OCBs" (Bolino et al., 2010, p.836) might be too specific to make a significant influence on the relationship suggested in hypothesis one. Looking at alternative concepts with more scope might be more appropriate to find out what can help moderate the relationship between connectedness and permeability. Guthrie et al. (2005) stated, "student affairs professionals often assume many responsibilities within their positions, creating high personal demand in terms of both talent and energy" (Guthrie et al., 2005, p.110). This observation may illustrate that the pressure to perform OCBs may be more internal rather than feeling pressure from an environmental factor such as citizenship pressure.

Impression management suggests an individual performs OCBs to be perceived "favorably by others (e.g., supervisors, coworkers, and so on) in their organizations" to effectively manage impressions of supervisors and peers (Bolino, 1999, p.83). Impression management is similar to citizenship pressure in that it addresses what the employee perceives to be appropriate regarding work responsibilities but shifts the focus a bit more towards the individual employee. This concept might provide an alternative to citizenship pressure in future models. Possibly broadening the scope even further to concepts like organizational climate that take into account factors from the whole organization could also provide awareness of factors that foster or inhibit boundary creation. Denison (1996) outlines organizational climate by explaining the three distinct approaches to measuring the construct as "(a) the perceptual measurement of individual attributes, (b) the perceptual measurement of organizational

attributes, and (c) the multiple measurement of organizational attributes combining perceptual and more objective measurements" (Denison, 1996, p.623). These environmental factors may be key in supporting healthy boundary creation in student affairs. Student affairs professionals will always have challenges with campus emergencies and student issues but creating an understanding of expectations through culture creation and fostering positive boundary creating habits may help going forward. One possibility for this to be accomplished is for intentional professional development on boundary management to be facilitated by the institution as a whole or by departmental supervisors and clear communication of expectations by supervisors. Student affairs departments range in such a wide array of needs and responsibilities (i.e. financial aid compared to residential life) that there will be a need to set specific expectations to meet the various departmental needs.

Hypothesis three indicated, "permeability will have a positive relationship with technostress." Hypothesis four proposed, "high levels of internal locus of control in an individual will moderate between permeability and technostress decreasing the levels of technostress." This portion of the model summarized potential actors on technostress. Data supported the thought that permeability would affect technostress positively. This is consistent with previous research. Soylu & Campbell (2012) found that "the increased demands and expansion of the traditional workplace by mobile technology subject employees to more stress" (Soylu & Campbell, 2012). Multiple researchers have found that high workloads and high levels of demands have been found in the past to be catalysts for increased stress in employees (Cordes & Dougherty, 1993; Leung, Chan, & Olomolaiye, 2008). Permeability and technostress potentially provide a way to track and monitor this phenomenon. In Brod's original definition as "the combination of performance anxiety, information overload, role conflicts, and organizational factors" (Brod,

1984) role conflicts are a clear part of creating stress. Cinamon (2006) found that there were two types of work-family conflict, work interfering with family and family interfering with work. They established as well that this is true in both young adults and adults. Stress was created from the two roles intermingling (Cinamon, 2006).

Locus of control was introduced to the model as a possible personality characteristic of the individual employee that could help someone cope with the increase in permeability and manage stress. Locus of control had no significant moderating effect on the relationship between permeability and technostress (see tables 6 & 7). It did have a statistically significant direct impact on technostress (see table 7). This finding was further supported by the post hoc analysis by a modest yet statistically significant for individuals that are higher in internal locus of control to manage the relationship between technostress and job performance (see tables 10 &11). These findings provide insight into individual personality traits like locus of control and the potential to managing stress created by technology. Further research in locus of control as a trait that could be fostered or encouraged is warranted. Similar constructs like self-efficacy could shed further light on characteristics that allow employees to manage the stress induced by technology and role conflict. "Locus of control and self efficacy differ in one important respect. Self-efficacy pertains to confidence with respect to actions or behaviors, whereas locus is more concerned with confidence in being able to control outcomes" (Judge, 1998, p.19). It is that understanding of "confidence with respect to actions or behaviors" that may prove to illustrate how someone can choose to detach from one role or another. Demerouti et al. (2011) explains that detachment "means that the individual stops thinking about work and disengages himself or herself mentally from both the negative and positive aspects of work" (Demerouti et al., 2011, p.279). Choosing

to detach from one role or another by turning off an ICT device or a feature in that device is one example of real world application.

Age, gender, and employment level functioning as covariates in the study provided interesting results. Gender proved to be a non-factor in almost every aspect of the study, which seems to contradict past research that there is a difference in adoption and usage between males and females (see table 3). Age was highly correlated with employment level at the 0.01 level with $r = .568$ (see table 3). The older an individual is, the higher the employment level. This result is consistent with popular logic. Due to this fact employment level will be focused on in this discussion. Employment level was significantly correlated with every aspect of the causal model at the 0.01 level. Higher the level of employment the more connected, permeable, and stressful. These are all consistent with what would come with more responsibility. Higher-level employees seem to have an innate characteristic that helps manage burnout and increase job performance based on the correlations. That innate characteristic could be a factor or factors that help an individual achieve high levels within student affairs and also manage the potential pitfalls that may come with the profession. A major question going forward in research may be what are the internal characteristics that allow employees at a higher level in student affairs manage the increased connectivity, permeability, and stress while reducing burnout and increasing job performance? Understanding those characteristics could help lower level student affairs professionals to manage their own stressors, achieve at higher levels, and prevent burnout from student affairs.

Citizenship pressure is the correlation that may highlight support for future research in environmental factors to foster boundary creation. The data suggest the lower the employment level of the individual the more citizenship pressure that is felt by that employee. Potentially

suggesting that lower level employees feel the pressure to go the "extra mile" or be the "good soldier". The question that arises from this finding is whether or not the pressure lower level employees feel is inherent in the nature of traditional top down organizational structure. Lower level employees might intrinsically feel the need to go above and beyond the call of duty to progress down their professional path. This also potentially illustrates further need for environmental factors that could create cultures where expectations of an individual are clear. When would an individual be expected to read and respond to an email, text message, or phone call? Examples like the German Labor Ministry and Volkswagen are two that are attempting to establish clear expectations for their employees because of those pressures that could naturally come about because of the added connectivity. Georgia Regents University is starting a pilot program in the fall of 2015 to attempt to create clear boundaries in regards to electronic communication and help their employees manage the amount of electronic communication that they receive. This program is most likely not the only one of its kind in higher education. It will be prudent to follow the progress of programs like these in student affairs to see the effect it may have on employees and overall university culture.

Technology is something that has progressed since man was whittling sticks and sharpening stones. Society has come a long way from then and is still progressing. The concept of permeability related to ICT use seems to be a logical leap. Finding out how strong the relationship between ICTC and permeability will be relevant information. Human resource management will greatly benefit from understanding both that relationship, but also potential factors on why that relationship exists or does not exist. This study showed that ICTs do in fact have some relationship with permeability, stress, job performance and burnout illustrating the need to understand how to manage these relationships and impacts. Citizenship pressure and

locus of control were factors that could play into why there is increased permeability and stress or how employees could manage the burnout while still performing at a high level. Further research is needed to grasp the full gambit of factors in play when addressing the impact of ICT connectedness going forward.

Organizational climate, impression management, and self efficacy are just some of the possible inhibitors and facilitators of connectedness, permeability, and stress related to ICTs and should be addressed in future research. Role ambiguity might also be a subject for future study in regards to ICT connectedness. Rizzo, House, and Lirtzman 1970 referred to role ambiguity as "clarity of behavioral requirements" (Rizzo, House, & Lirtzman, 1970, p. 155). If an employee receives an email at 9 o'clock at night from another colleague or boss, even if it is not explicitly stated, does that create an environment or expectations that it is appropriate and encouraged to work at that hour? This is a situation that could potentially create permeability in one's life and in turn create a lack of "clarity of behavioral requirements" (Rizzo, House, & Lirtzman, 1970, p. 155). Role ambiguity has been defined as "a construct that can be described by stress and comfort as well as by internal and external attributions. That is, individuals perceive role ambiguity as a set of conditions externally and internally generated that can be described in terms of comfort and stress" (House, Schuler, & Levanom, 1983, p.337). Role ambiguity has been tied to stress, turnover intentions, job performance, and other negative outcomes (Von Emster & Harrison, 1998; Judeh, 2011; Rizzo, House, and Lirtzman, 1970). Future research could potentially look at any number of the negative outcomes as a result of role ambiguity in the context of a new causal model or as a substitute for one of the moderators in the current model.

Organizations like the German Labour Ministry and Atos Origin delineated in the first chapter are providing real-world case studies that need to be monitored. These organizations are

creating policy to foster a climate where boundaries of work and family roles are clearly defined. Organizations like Atos Origin could be paving the way for best practices in more industries than just their own. Striving to become an email free organization by 2014 Atos Origin has relied on "using improved communication application as well as new collaboration and social media tools" (Press Release, 2011) to supplement the use of email communication. When asked about the reasoning behind the shift CEO Thierry Breton stated:

> When 300 Atos employees measured their email traffic for a week, they found they had sent or received 85,000 messages. Within Atos, 73 percent of employees estimated they spent more than one-quarter of their time managing email, and 82 percent said they had trouble keeping on top of it. Most importantly, the majority felt this time was wasted and added no value to their day or the company. (Morgan, 2014)

In 2013, Atos Origin had not become an email free organization but it had reduced its internal email messages by 60 percent (Morgan, 2014). "2013 operating margin is 7.5, up from 6.5 percent in 2012. Free cash flow increased year over year from €267 million to €365 million, earnings per share increased more than 50 percent, and selling, general, and administrative costs declined from 13 percent to 10 percent" (Morgan, 2014). Those increases may not be a result of the companies approach to email communication or data management, but it may point to possible outcomes for policy created to improve stress caused by technology.

Implications for future research. Future research should address theoretical and real world application of concepts related to ICT connectedness. There is a need for both qualitative and quantitative approaches to inform the direction and expansion of the phenomena. Real world study of cases like the German Labour Ministry and Atos Origins should be performed to find if the assumptions created through this study and future studies are operating the same, as the data

would suggest. Application of ICT management in student affairs settings is very needed. There is a gap in the literature of managers, offices, departments, or entire colleges or universities addressing the growing connectedness of their employees. Georgia Regents University's pilot program to address some of these challenges in student affairs will be one of potentially many examples in higher education that could be studied. Understanding what is working and what is not working in regards to attempts to create positive culture and clear expectations for employees in student affairs will be key to refining best practices.

From a quantitative perspective there is a definite need to refine the understanding of factors that influence positive and negative integration with developing technology. Impression management, culture creation, and self-efficacy are just a few of the limitless possibilities that could be tested to see what could help employees manage their boundaries and stress levels from ICT connectedness. The potential for technology to influence lives in a positive manner is just as important as the management of the negative outcomes that might come with connectivity. The Apple Watch is a great example yet again of both sides of that coin. On one side it tracks health factors allowing student affairs professionals to set healthy goals and meet those. On the other side it allows for yet another way for text messages, emails, and social media both work and personally related to constantly bombard an individual. Continued research will help the industry and academics to refine understanding of the phenomenon related to ICT connectedness.

Limitations

The limitations of this study revolve around some of the instruments used to acquire the data. Both ICT connectedness and job performance proved difficult to assess. The ICT Connectedness Index (ICTCI) was used in this study. The nine-item ICTCI consists of three dimensions: scope and intensity, centrality and goals, and breadth of ICTs at home. Leung

attempted to broaden the ICI with an adaption to include a wider variety of ICTs and also keep the integrity of the initial measure (Leung, 2011). The ICTCI that Leung adapted from the ICI of Jung encompasses more than just time and number of uses. It attempts to gauge how invested an individual is through purpose, scope, and goals with the use of ICTs (Leung, 2011). For the purposes of this model, ICTCI was the best available option to measure how connected an individual regards information communication technologies. The limitations inherent in this measurement are in its choice to use specific technologies. The impetus behind using Steinmueller's (2000) definition of ICTs over Murray and Rostis' (2007) in this study was because it provided a broader definition and room for future growth. There is a need to create an instrument with that same flexibility to grow with the evolving technology. Leung limits the ability of the Information Communication Technology Connectedness Index by wording the questions including specific technology that will be potentially outdated in the years to come (see appendix 2). Limitations to this study are rooted in that same issue. There may not have been as accurate of a portrayal of ICT connectedness due to outdated technology and trends in the questioning i.e. "Do you have the following office technologies at home: facsimile machine, photocopier, and scanner" (Leung, 2011)? To work from home none of those listed technologies are a requirement any longer. There is a need to create an instrument to capture the phenomenon of ICT connectedness that is flexible and that could be used as new technologies immerge outdating older technologies.

Job performance was the second measure that proved to be a challenge due to the subjective nature of how the sample reported their levels of performance. The measure that was used to test job performance was Singh, Verbeke, and Rhoads' instrument that was used in 1996. The measure has employees compare their performance to their peer's performance with

questions like "how do you rate yourself in terms of your performance potential among coworkers in your institution?" (Singh, Verbeke, & Rhoads, 1996). Subjective assessments of job performance are subject to halo affect meaning an individual having a higher view of their performance than reality, similarity error, and other types of spillovers (Hunter & Thatcher, 2007). The mean score for the six items represented in Singh, Verbeke, and Rhoads' instrument was 4.1 out of 5 skewing on the higher side of the scale. These challenges are inherent in assessing job performance. In future studies, there may be a need to either assess job performance in a different manner (i.e. supervisory reports) or choose a different dependent variable to assess the influence of the independent variables. If job performance is used as the dependent variable than particular care should be taken into account of the unique nature of student affairs where the standard of job performance ranges greatly from the quality of report that is produces to less tangible measures like how satisfied a parent is with a conflict mediation. These challenges are not exclusive to student affairs but are accentuated by the diversity in job responsibilities throughout the profession.

Conclusion

Brod (1984) so eloquently outlines the need to understand the positives and negatives of any technology advancement by saying:

> We all know, for example, that the automobile has enabled us to travel faster; yet we blithely pay a high price for this technological advance, fifty thousand annual fatalities, railroads and public transit systems in decay, city centers divided and subdivided by freeways,,, and air quality warnings on the morning news. With the advent of computerized technology, we must take heed of its perils as well as its merits. (Brod, 1984, p.3)

Brod almost takes a moral obligation approach to addressing the need to understand technological advancement. Society is in a time of unparalleled technological growth. Gordon Moore, co-founder of Intel, made an observation in the mid-1900s that the number of transistors per square inch in circuits were doubling roughly every 18 months exponentially increasing the processing power of the technology. That trend has stayed fairly constant since Gordon Moore first made that observation. This growth in improving technology has amazing benefits but there is some what of a moral obligation to look at the negatives as well as the positives. Atos Origin as a company did not take a Luddite's approach and get rid of technology altogether. They found alternate ways to integrate immerging technologies to increase efficiencies.

Implications for practice. The implications for this line of research have far-reaching significance in policy creation, culture of organizations, tailoring appropriate professional development plans to help cultivate skills to manage work/life balance, and help develop standards of best practice in student affairs administration and beyond. ICT use is not going away any time soon and will be prevalent in more than just businesses that typically are technology driven, like software design or engineering. In environments like student affairs where students function outside of the typical work day of 8:00am to 5:00pm, creating an environment where employees understand what is expected of them and have clarity in their roles will be crucial. Managers will be important in setting the ground rules with expectations of when and where employees work. This will serve to minimize the pressure that employees might potentially feel to work at times when they are not at work. Reducing the ambiguity or nagging feeling that an employee might have to check constantly a smart phone to see if they have missed an important email or message. The understanding of personality traits and inclinations of the individual employees will play a role in these types of environments as well. Training for

employees to foster or create personality attributes like a high level of internal locus of control may be very beneficial for companies going forward. Teaching or encouraging employees through training, management, or policy how to create healthy boundaries between work and home life will be potentially key for the prevention of a wide variety of negative outcomes like burnout, turnover, workplace deviance, etc. There are three main areas of practice that should be addressed in student affairs and higher education. Those areas are from an overarching organizational perspective, from the administrative or managerial perspective, and from the individual employee's perspective.

Organizationally institutions might be able to manage the stress that comes from ICT connectedness through institutional policy, training, human resources practices, and general culture creation. Institutional policy can be set similar to an Atos Origin or Volkswagen that explicitly set the guidelines, timeframes, and quantity individuals can communicate via certain mediums. Those are extreme examples of institutional policy. Less explicit than a policy are examples like Georgia Regents University instituting a pilot program that encourages certain guidelines rather than out right prohibiting ICT practices. Training is also a potential that could help create positive culture throughout an organization and set expectations for not only manager level positions but entry level as well. Setting expectations in a mandatory training for new employees by explicitly stating the university's standards or expressing best practices. Training can also consist of providing tools and skills to help an employee manage their own personal boundaries. For instance, walking a new employee through a scenario where the individual turns off certain notifications on their smart phone after certain times of the day or on vacation to prevent being psychologically brought back to a professional mindset when attempting to recover from work. Even empowering an individual to set his or her own personal guidelines

could help an employee to manage ICT connectedness. Creating an environment where it is ok for an employee to express that they will be turning off work email, social media, and other technologies after certain times in the day or on weekends. If there is an emergency or something that needs immediate action that employee can be reached via phone call or some other way of connecting. This simple act of the institution empowering employees to set their own guidelines could help create a culture were ICT connectedness and the burnout related to it can be managed more effectively. Human resource departments can also help with implementing techniques like realistic job previews. These types of practices set the standards and expectations in a realistic manner for incoming employees so that they are not blindsided by potentially unfavorable responsibilities of a job once in the position. Potential employees through the hiring process can often be wined and dined with unrealistic representations of a particular position or organization. When reality hits an individual they are not always prepared or possess the necessary skills to manage the challenge. Realistic job previews for those incoming professionals may be one way to mitigate the shock of the actual job responsibilities.

From a manager's perspective there are some techniques that can be implemented that are similar or mirror the institutional efforts to manage work and personal boundaries. Expectation management is a key component for managers. If supervisors set the standards and effectively communicate what is expected of their employees it could potentially help reduce stress from ICT connectedness. Empowering their employees to set boundaries that are acceptable to the individual and to the department and clearly communicate those boundaries to the whole department. Allowing employees to take control of their lives and prevent feeling out of control may provide a positive environment where employees can thrive. Some positions in student affairs are inherently stressful and time consuming. Having the piece of mind that if an employee

is off the clock and there is no need to monitor five or six different communication mediums in fear of missing something important could very much improve moral and the stress that comes from being connected at all times through ICTs. It is creating that environment through professional development; clear communication of expectations, and modeling best practices those managers could impact the creation of a positive culture in their respective departments.

From the perspective of the individual employee the concept of personal awareness is very important. Not every employee has the same needs or inclinations when it comes to how they work. To use an example from orientation to illustrate the point, incoming students are often very concerned with how involved should they be on campus. Questions like "how many organizations should I join?" Or "how involved do I need to be and still manage my academic responsibilities?" The answers to these questions are very personal. Each student can manage involvement at different levels. Because of this fact the answer to those questions end up sounding more like "well here are some guidelines but you will have to learn for yourself what you can and cannot manage." That point is very similar for the individual student affairs professional. Working ninety-hour weeks and staying connected at all times through multiple ICTs may be perfectly normal for one individual and a literal nightmare for another individual. Understanding one's own inclinations and comfort levels are very important to managing work/life balance. Effectively communicating those inclinations to supervisors and colleagues is also a positive step in managing the day-to-day grind in student affairs.

There will never be one solution to managing technology. It will always be a combination of techniques and the collaboration of the institution as a whole, management, and the entry level employee to create a positive culture where technology is being used for it's extreme positive potential and not falling into the negative pitfalls. The more that is known about how ICT

connectedness affects professionals, the better researchers and practitioners alike can prepare for those negative pitfalls. There is a lot of research being conducted on how ICTs are helping employees work from almost anywhere and how that is increasing the work output of employees. In the future, researchers will need to focus on how interacting with those ICTs are affecting the employees outside of sheer workload. Psychological effects, interpersonal relationships, communication efficiency, individual personality traits and how they affect employees interact with ICTs will all be increasingly important to understand as ICTs progress.

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APPENDIX

LIST OF APPENDICES

APPENDIX A: BURNOUT MEASURE

Burnout Measure

Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. Robertson (Eds.),

International Review of Industrial and Organizational Psychology (pp. 25–48). New

York, NY: Wiley.

How Do You Feel at Work?

Below are a number of statements that describe different feelings that you may feel at work. Please indicate how often, in the past 30 workdays, you have felt each of the following feelings:

How often have you felt this way at work?

	Never or almost never	Very infrequently	Quite Infrequently	Sometimes	Quite Frequently	Very Frequently	Always or Almost Always
1) I feel Tired.	1	2	3	4	5	6	7
2) I have no energy for going to work in the morning.	1	2	3	4	5	6	7
3) I feel Physically Drained.	1	2	3	4	5	6	7
4) I feel fed up.	1	2	3	4	5	6	7
5) I feel like my "batteries" are "dead".	1	2	3	4	5	6	7

6) I feel burned out.	1	2	3	4	5	6	7
7) My thinking process is slow.	1	2	3	4	5	6	7
8) I have difficulty concentratin g.	1	2	3	4	5	6	7
9) I feel I'm not thinking clearly.	1	2	3	4	5	6	7
10) I feel I'm not focused in my thinking.	1	2	3	4	5	6	7
11) I have difficulty thinking about complex things.	1	2	3	4	5	6	7
12) I feel I am unable to be sensitive to the needs of coworkers and customers.	1	2	3	4	5	6	7
13) I feel I am not capable of investing emotionally in coworkers	1	2	3	4	5	6	7

and customers.						
14) I feel I am not capable of being sympathetic to coworkers and customers.	1	2	3	4	5	6	7

APPENDIX B: INFORMATION COMMUNICATION TECHNOLOGY CONNECTEDNESS INDEX

Information Communication Technology Connectedness Index

Leung, L. (2011). Effects of ICT connectedness, permeability, flexability, and negative spilloers

on burnout and job and family satisfaction. Human Technology, 7(3), 250-267.

Scope and Intensity

1. Besides e-mail, do you use IM, chat rooms, blogs, web surfing, and on-line news to do office work at home? 0 = no and 1 = yes.
2. How often do you use the following ICTs (e-mail, IM, chat rooms, blogs, web surfing, and on-line news) to do office work at home? 1 = never, 2 = seldom, 3 = sometimes, and 4 = often.
3. Does your job require you to use the following traditional media at home: reading a newspaper, watching TV, and watching TV news? 0 = no and 1 = yes.

Centrality and Goal

1. Imagine that you woke up tomorrow to find that your mobile phone had vanished. How much would you miss being able to use it? 1 = wouldn't miss it at all and 10 = miss it extremely.
2. Imagine that you woke up tomorrow to find that the Internet had vanished. How much would you miss being able to go on-line? 1 = wouldn't miss it at all and 10 = miss it extremely.
3. How helpful is the Internet for you for achieving the following goals (e.g., to accomplish work-related tasks, to ask people for advice, and to provide immediate access to others anywhere, anytime)? 1 = not helpful at all and 5 = very helpful.

Breadth of ICT at Home

1. Do you own a smart phone? 0 = no (means 2 or 2.5G) and 1 = yes.
2. Do you have broadband Internet access at home? 0 = no and 1 = yes.
3. Do you have the following office technologies at home: facsimile machine, photocopier, and scanner? 0 = no and 1 = yes.

APPENDIX C: PERMEABILITY MEASURE

Permeability Measure

Clark, S. C. (2002). Communicating across the work/home border. Community, Work

    & Family, 5(1), 23-48.

	Never				Always
1. My family contacts me while I am at work	1	2	3	4	5
2. I have family-related items at my work place.	1	2	3	4	5
3. I think about my family members when I am at work.	1	2	3	4	5
4. I hear from my family while I am at work.	1	2	3	4	5
5. I stop in the middle of my work to address a family concern.	1	2	3	4	5

	1	2	3	4	5
6. I take care of family business while I am at work.					

APPENDIX D: LOCUS OF CONTROL MEASURE

Locus of Control Measure

Lumpkin, J. (1988). Establishing the validity of an abbreviated locus of control scale: Is a brief

levenson's scale any better?. Psychological Reports, 63, 519-523.

	Strongly Disagree						Strongly Agree
Internal Control							
1. When I make plans, I am almost certain to make them work.	1	2	3	4	5	6	7
2. When I get what I want, it's usually because I worked hard for it.	1	2	3	4	5	6	7
3. My life is determined by my own actions.	1	2	3	4	5	6	7
Chance							
4. To a great extent, my life is	1	2	3	4	5	6	7

controlled by accidental happenings.						
5. When I get what I want, it's usually because I'm lucky.	1	2	3	4	5	6	7
6. I have often found chat what is going to happen will happen.	1	2	3	4	5	6	7
Powerful Others						
7. People like myself have very little chance of protecting our personal interests where they conflict with those of strong pressure groups.	1	2	3	4	5	6	7
8. My life is chiefly controlled by powerful	1	2	3	4	5	6	7

others.						
9. Getting what I want requires pleasing those people above me.	1	2	3	4	5	6	7

APPENDIX E: JOB PERFORMANCE MEASURE

Job Performance Measure

Singh, J., Verbeke, W., & Rhoads, G. (1996). Do organizational practices matter in role stress

processes? a study of direct and moderating effects for marketing-oriented boundary

spanners. Journal of Marketing, 60, 69-86.

	Poor				Excellent
1. How would you rate yourself in terms of the quantity of work you achieve?	1	2	3	4	5
2. How do you rate yourself in terms of your ability to reach your goals?	1	2	3	4	5
3. How do you rate yourself in terms of your performance potential among coworkers in your institution?	1	2	3	4	5
4. How do you rate yourself in terms of quality of your performance in regards to customer relations?	1	2	3	4	5

5. How do you rate yourself in terms of quality of your performance in regard to management of time, planning ability, and management of expenses?	1	2	3	4	5
6. How do you rate yourself in terms of quality of your performance in regard to knowledge of your area of work and institution?	1	2	3	4	5

APPENDIX F: CITIZENSHIP PRESSURE MEASURE

Citizenship Pressure Measure

Bolino, M. C., Turnley, W. H., Gilstrap, J. B., & Suazo, M. M. (2010). Citizenship Under

Pressure: What's a, good Soldier, to do?. Journal of Organizational Behavior, 31, 835-

855.

	Never				Always
1. I feel a lot of pressure to go the extra mile by doing a lot of things that, technically, I don't have to do.	1	2	3	4	5
2. In this organization, the people who are seen as "team players" are the ones who do significantly more than what is technically required of them.	1	2	3	4	5
3. There is a lot of pressure to take on additional responsibilities and volunteer for extra assignments in this	1	2	3	4	5

organization.					
4. Simply doing your formally-prescribed job duties is not enough to be seen as a good employee in this organization.	1	2	3	4	5
5. My coworkers often go "above and beyond" the call of duty, and there is a lot of pressure for me to do so as well.	1	2	3	4	5
6. Management expects employees to "voluntarily" take on extra duties and responsibilities that aren't technically required as a part of their job.	1	2	3	4	5
7. Just doing your job these days is not enough—there is a lot of pressure to go above and beyond the bare	1	2	3	4	5

minimum.					
8. I feel a lot of pressure to work beyond my formally-prescribed duties for the good of the organization.	1	2	3	4	5

APPENDIX G: TECHNOSTRESS MEASURE

Technostress Measure

Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of

   technostress for end users in organizations: Conceptual development and empirical

   validation. information systems research, 19(4), 417-433.

	Strongly Disagree				Strongly Agree	Not Applicable
Techno-Overload	Strongly Disagree				Strongly Agree	Not Applicable
1. I am forced by technology to work much faster.	1	2	3	4	5	6
2. I am forced by this technology to do more work than I can handle.	1	2	3	4	5	6
3. I am forced by this technology to work with very tight time schedules.	1	2	3	4	5	6
4. I am forced to change my	1	2	3	4	5	6

work habits to adapt to new technologies.						
5. I have a higher workload because of increased technology complexity.	1	2	3	4	5	6
Techno-invasion	Strongly Disagree				Strongly Agree	Not Applicable
6. I spend less time with my family due to this technology .	1	2	3	4	5	6
7. I have to be in touch with my work even during my vacation due to this technology.	1	2	3	4	5	6
8. I have to sacrifice my vacation and weekend time to keep	1	2	3	4	5	6

current on new technologies.						
9. I feel my personal life is being invaded by this technology.	1	2	3	4	5	6
Techno-complexity	Strongly Disagree				Strongly Agree	Not Applicable
10. I do not know enough about this technology to handle my job satisfactorily.	1	2	3	4	5	6
11. I need a long time to understand and use new technologies.	1	2	3	4	5	6
12. I do not find enough time to study and upgrade my technology skills.	1	2	3	4	5	6

13. I find new recruits to this organization know more about computer technology than I do.	1	2	3	4	5	6
14. I often find it too complex for me to understand and use new technologies.	1	2	3	4	5	6
Techno-insecurity	Strongly Disagree				Strongly Agree	Not Applicable
15. I feel constant threat to my job security due to new technologies.	1	2	3	4	5	6
16. I have to constantly update my skills to avoid being	1	2	3	4	5	6

replaced.						
17. I am threatened by coworkers with newer technology skills.	1	2	3	4	5	6
18. I do not share my knowledge with my coworkers for fear of being replaced.	1	2	3	4	5	6
19. I feel there is less sharing of knowledge among coworkers for fear of being replaced.	1	2	3	4	5	6
Techno-uncertainty	Strongly Disagree				Strongly Agree	Not Applicable
20. There are always new developments in the technologies we use in our	1	2	3	4	5	6

organization.						
21. There are constant changes in computer software in our organization.	1	2	3	4	5	6
22. There are constant changes in computer hardware in our organization.	1	2	3	4	5	6
23. There are frequent upgrades in computer networks in our organization.	1	2	3	4	5	6

EDUCATION

THE UNIVERSITY OF MISSISSIPPI, Oxford, MS,
Degree: PhD, Higher Education   Degree Date: August 2015
Degree: Masters, Higher Education   Degree Date: December 2006
BUTLER UNIVERSITY, Indianapolis, IN,
Degree: B.S., Communications   Degree Date: May 2004

PROFESSIONAL EXPERIENCE

University of Mississippi Fellowship for Dissertation Research,   *January 2015 – August 2015*

UNIVERSITY OF MISSISSIPPI   *September 2009 – January 2015*
Assistant Dean of Students for Student Involvement

Administrative/Misc.   *September 2009 – January 2015*

- Served as the chief assessment officer for the Office of the Dean of Students for a full cycle of two years.
- Operated on the Retention Task Force to create plans to address high-risk retention groups.
- Developed curriculum and taught Fastrack - a freshman retention initiative targeted towards at-risk students groups.
- Managed and advised over 300 student organizations. officer for the Office of the Dean of Students.
- Managed department budget for Greek Affairs, student organizations, and four off campus student organization accounts.
- Restructured office policy and procedure on budget management and purchasing in Greek Affairs.
- Built and maintained the Office of the Dean of Students, Greek Affairs, and a wide variety of student organizations' websites.
- Trained in the Green Dot violence prevention program. Co-facilitated training and information sessions with Greek, student organizations, and incoming student orientation.
- Served on a development committee to bring a Bias Intervention Response Team to the University.
- Supervised the Coordinator of Greek Affairs and Graduate Assistants in Greek Affairs and Student Organizations.
- Conducted and facilitated student conduct investigations at the organizational level. Aided in hearings for Student Conduct with individuals and groups.
- Served on the Call for Change Committee with the purpose of bringing an alcohol and other drug education, prevention, and recovery center. The ultimate goal of the committee was changing a culture of abuse.

General Student Involvement   *June 2013 – January 2015*

- Created and implemented a general involvement program called "Get Involved Ole Miss" designed to promote, educate, and consolidate involvement initiatives at the University.
- Advised students in using resources on campus, in the surrounding community, and nationally to match their co-curricular activity with their career and life goals.
- Developed a website connecting various resources on campus for student involvement.
- Collaborated with Institutional Research and the Retention Committee to reach out to students that indicated a lack of understanding on how to get involved derived from a qualitative survey sent to all first year students (transfer and new freshman).
- Crafted and executed the "Get Involved Fair" during welcome week that was a more holistic approach focused on student organizations, departments, community opportunities, and national organizations for students to get involved.
- Worked with institutional research to use existing involvement data in the Greek community and start to utilize untapped assessment data of general student involvement to bolster retention numbers.

Leadership Development   *June 2013 – January 2015*

- Created an overarching leadership development program rooted in Servant Leadership and the Social Change Model for the University based on specific competencies in personal and professional development, global awareness, and civic engagement & and various self-development theories.
- Developed an incentive and awards program called LEAD 1848 for students that participate in the leadership programming.
- Created a living learning community called "Leaders In Action" for the University of Mississippi Housing Department that consisted of both curricular and co-curricular components.
- Established a student organization that mirrors the leadership development program to provide resources and opportunities to peers through campus, community, and national partners.
- Developed, planned, created materials/branding/marketing, and implemented a two-day sophomore leadership development program called PULSE that focused on personal and professional development. 70 students attended the program.
- Established a women's mentorship program based on the book LEAN-IN by Sheryl Sandberg.
- Worked with the University Foundation to create and market an account so alumni and other contributors could donate money to leadership initiatives.

Student Organizations   *September 2009 – January 2015*

- Brought OrgSync on campus to provide students and student organizations a centralized resource for student involvement. Developed OrgSync trainings for students, faculty, and staff ranging from general training to website development.
- Re-Established the Office of the Dean of Students as clearinghouse for resources, applications, & procedures as well as providing counsel for student organizations.
- Implemented and planned the fall student organization fair.
- Created, edited, and implemented a wide variety of resources and programs including the Student Organization Handbook, instructional videos, Student Organization Orientation, Risk Management Training, and International Student Organization Orientation.
- Helped in creating the level of risk tier system for student organizations. Reformed the registration process to provide a mechanism of monitoring the risk level of over 300 student organizations.
- Presented on the topic of student involvement at Junior Preview day, Orientation, First Year Experience Course, and Get Ready for College a program for rising seniors in high school.

- Collaborated with Internal Audit to educate student organizations and advisors on the process of obtaining and managing an off-campus checking account.
- Created and implemented "Share your Story" involvement program to let involved students mentor other students with their stories of getting involved on campus through various mediums.
- Worked with students, faculty, and staff to develop the Ole Miss Food Bank for students in need of a meal.

Greek Affairs   *September 2009 – June 2013*

- Named the 2013 Dr. Tom Shoemaker Advisor of the Year of the Southeastern Interfraternity Conference.
- Manage and maintain a Greek community of greater than 4500 students and 40 organizations.
- Supervise three councils National Pan-Hellenic Council (NPHC), Interfraternity Council (IFC), and National Panhellenic Conference (NPC). Directly advise the Interfraternity Council (IFC).
- Co-created a housing plan/contract to allow use of University housing facilities to sororities' sophomores.
- Planned, implemented, and supervised a formal recruitment process for IFC and NPC of over 2000 students.
- Worked with the Admissions Department and Information Technology to streamline the academic reporting for students registered for formal recruitment to eliminate transcripts being sent in to various locations.
- Collaborated with the Counseling Center to create a program and have on site councilors during formal recruitment for students that need grief counseling.
- Facilitated and planned a wide variety of retreats, trainings, and educational opportunities for the Greek community including, the President's Retreat, Leadership Convocation, new membership educators' training, new membership education, alcohol education, council retreats, study skills workshops, Faculty Staff Appreciation Dinner, recruitment workshops, and a wide variety of other programs.
- Created and presented "Purpose Driven Education" at the Mississippi State University educational conference.
- Developed an import program to update chapter rosters and individuals' active or inactive status in the University's campus management system SAP.
- Revamped the GPA reporting process at the end of each semester for the Office of the Dean of Students to report individual GPAs and Chapter GPAs.
- Created academic guidelines in IFC By-Laws. Implemented Vice President of Scholarship for the IFC council to focus on increasing academic awareness, discussion, and develop resources for the IFC community.
- Completely reworked the standards and awards programs for the Greek community. Tied the Standards program with the Order of Omega Greek Awards Banquet.
- Oversaw and managed the publication of a yearly information resource called the Angelia for the Greek Community.
- Worked with and advised the first interest group for a multicultural Greek organization at the University of Mississippi.
- Co-created student driven and run Greek newsletter called "Hermes." Encouraged councils to take advantage of social media and the web, all to provide positive, controlled public relations for the Greek community.
- Consolidated communication efforts for the Greek Affairs portion of the Office of the Dean of Students. Creating a virtual office with consistent messaging and branding.
- Worked with Facilities Planning to create space and procedure to build new buildings for existing Greek organizations and new Greek organizations.

- Managed the first extension process in 35 years for NPC organizations at Ole Miss. Culminating in the fall of 2013 with Alpha Delta Pi installing with over 300 women, one of the largest installations in NPC history.
- Created expansion process for IFC and ushered in Sigma Pi, Phi Kappa Theta, Chi Psi, and Pi Kappa Phi.

BUTLER UNIVERSITY   **August 2007 – September 2009**
Student Development Specialist/Academic Advisor

- Co-coordinated the academic portion of orientation/welcome week that consisted of academic advising, curriculum and programming based on the common reading book, and facilitating the activities.
- Taught Butler University's Exploratory Studies Course, focused on providing guidance to first year Exploratory Studies students. The course is taught through introspection on assessments that include values, skills, interests and decision-making styles. In addition to the assessments, the students go through academic exploration and career planning. Average class size 25.
- Advised up to 55 students academically including transfer, international, disabled, probationary, and high achieving students. Actively engaged students in the academic process, encouraging growth and self-efficacy. Introduced students to resources on campus for academic, social, cultural, and self-growth.
- Provided a resource for guidance but encouraged responsibility for their actions.
  Oversee the publication of On the Road, a newsletter for first year students, helping in adjusting to college life and providing a medium to give career and academic guidance as well as informing students of resources on campus.
- Planned and implemented the Academic Options Fair to provide students with access to a majority of the academic departments as well as academic support offices and student life. Responsible for all publications, communications between departments, food, room set up, and staffing.
- Co-coordinated the Coffee and Careers program, provided four programs per semester with the goal to offer a forum for students to gain information on Butler's academic disciplines. Contacted panel of participants, set up, and provided marketing in the form of flyers, posters, and branded emails.
- Co-created and coordinate Careers For... , a program connecting students with Indianapolis professionals in the students' fields of interest. Examples of panels include Careers For… the Outdoor Adventurer and Careers For… the Artistic and Creative Types. Provide four programs per semester, contact panel of participants, set up, and provide marketing in the form of flyers, posters, and branded emails.
- Coordinated with the Recording Industry Studies department to record and broadcast interviews done based on NPR's StoryCorps, an initiative supporting Butler's First Year Experience program.
- Aided in hiring of tutors, facilitated study skills workshops, managed the absent professor program, and coordinated freshman football orientation.
- Managed budget for the Academic Options Fair and On the Road.
- Maintained Blackboard site for both class and advisees. Created and implemented on Blackboard Exploratory TV. Utilizing embedded streaming video and links to convey relevant content.
- Extensive use and knowledge of PeopleSoft.
- Maintained Exploratory Studies website through an in house program called Websnap.

THE UNIVERSITY OF MISSISSIPPI   **January 2004 – December 2006**
Student Organizations Advisor/Graduate Assistant, position created to reorganize student organization structure, unaddressed for 10 years.

- Established the Office of the Dean of Students as clearinghouse for resources, applications, & procedures as well as providing counsel.
- Created and edited Student Organization Handbook.
- Increased approved SO applications by 31 or 12%.
- Determined status of each of the 250 student organizations (SO) providing pertinent information for the Office of the Dean of Students.
- Centralized location to provide SO with school resources and method to market the SO.
- Established policies for creating a new SO or maintaining an active SO.
- Planned and implemented two sections of a first ever mandatory SO orientation to address issues such as web design, finances, hazing, judicial matters, community service, etc. (8 speakers involved).
- Designed a new website providing information on current organizations and the current school policies.
- Created an online application for new organizations.
- Established methods to display upcoming events and notification of University sponsored events.
- Facilitator for the Committee on Student Organizations- Appointed by Vice Chancellor of Student Life.
- Updated multi-level website for the Office of the Dean of Students utilizing Dream Weaver and html code.
- Managed design, updates and maintenance.

Intern in Campus Recreation, Marketing

- Led marketing team of 4 in advertising for a 20 mile adventure race.
- Targeted over 15,000 students at Ole Miss, the city of Oxford, and 15 neighboring schools in the state of Mississippi and bordering states.
- Created and distributed PR packets including, event applications, tri-fold brochures, and flyers Reached event capacity.

Intern in Campus Programming, Event Planning

- Helped with various events on campus, i.e. concerts ranging from 1-8 artists.
- Coordinated interview process of over 100 students for a committee of 26.
- Helped plan and implement two pageants: Miss Mississippi; Parade of Beauties.
- Supervised two sessions of campus wide event (Rebel Nights) involving over 200 students in activities, i.e. trivia game shows, competitions, raffles.
- Provided guidance to the 10 member Student Programming Board.

MY WAY COMMUNICATIONS   **February 2000-Summer 2001**
Part owner/Graphic Designer, Created marketing plan for five customers including all advertising such as logos, brochures and tee shirts.

SERVICE

University of Mississippi Committees

- Retention Task Force
- Gmail Committee
- 50 Years of Integration Committee
- Search Committees: International Student Advisor, Director of Health Promotion
- Move in day Committee
- International Student Scholarship committee
- International Student Organization Advising Board
- Bias Intervention Response Team Committee
- Greek Housing Committee
- E-Communications Committee
- United Way Committee
- Committee on Student Organizations
- NPC Expansion Committee
- Jean Jones Walk Committee
- Risk Management Task Force
- Alcohol Norming Committee
- Call for Change Committee
- Violence Prevention Committee
- Fire Safety Committee
- Committee on Civic Engagement
- Selection Committee for Freshman Interest Groups

COMPUTER SKILLS: Word, Outlook, Excel, Access, Powerpoint, Windows, MacOS, Dreamweaver, Photoshop, Illustrator, HTML Fluent, SAP, Blackboard, E-Portfolios, OrgSync, GradesFirst.