USING THE THEORY OF REASONED ACTION TO EXAMINE FACULTY INTENTIONS TO USE SOCIAL NETWORKING IN DISTANCE LEARNING COURSES

by

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ABSTRACT

With increasing efforts in distance learning and growing enrollments, faculty and students are using internet technologies as a medium for learning. However, social networking use in distance learning courses is not a prevalent practice in the literature.

As research suggests, distance teaching and learning can benefit from the incorporation of social media technologies (Akçayir, 2017; Bennett et al., 2012; Cao et al., 2013; Churcher et al., 2014; Cooke, 2017; Knouse & Abreu, 2016; Manca & Raneiri, 2016; Njoroge, 2016). The popularity of social media technologies contributes to the interest in using them in distance courses (Cao et al. 2013).

The purpose of this quantitative study was to investigate faculty intentions for implementing social media into distance learning courses at a major public research university in the southeastern United States through the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The Theory of Reasoned Action uses subjective norms and attitudes to predict behavioral outcomes (Ajzen & Fishbein, 1980). Furthermore, students fit the TRA model for positive intentions to use social networking sites, but faculty have not been studied in the TRA model.

This study found distance faculty members intentions and behaviors are influenced by their attitudes and subjective norms. The implementation of more applications and newer social media technologies can enhance distance learning in higher education.
ACKNOWLEDGMENTS

This was not accomplished alone. Several others were crucial to this project. Thank you to my dissertation chair, Dr. Vivian Wright, and committee members Dr. Arleene Breaux, Dr. Elizabeth Fisher, Dr. Margaret Rice, and Dr. Steven Yates. I am grateful for your expertise, support, ideas and insights. In addition, I’d like to express gratitude to my parents and my husband for supporting and encouraging my achievement of this goal.
### LIST OF ABBREVIATIONS AND OPERATIONAL TERMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Attitude</td>
<td>Construct of TRA defined as how one feels about a behavior and is generally measured as a favorable or unfavorable mind-set</td>
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<tr>
<td>Behavior</td>
<td>Construct of TRA defined as the target behavior</td>
</tr>
<tr>
<td>Distance Learning</td>
<td>A course taken via web instruction</td>
</tr>
<tr>
<td>Intention</td>
<td>Construct of TRA defined as the propensity or intention to engage in the behavior</td>
</tr>
<tr>
<td>Qualtrics</td>
<td>Software application for data survey collection, analysis, and assessment</td>
</tr>
<tr>
<td>Online programs</td>
<td>Curriculum degree programs offered fully via distance course</td>
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<tr>
<td>SMT</td>
<td>Social Media Technology</td>
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<td>SNS</td>
<td>Social Networking Site</td>
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<tr>
<td>SN</td>
<td>Social Networking</td>
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<tr>
<td>Social Media</td>
<td>Broadly defines any social networking site</td>
</tr>
<tr>
<td>Subjective norm</td>
<td>Construct of TRA defined as how the behavior is viewed by our social circle or those who influence our decisions.</td>
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<tr>
<td>TRA (Theory of Reasoned Action)</td>
<td>Explains intent for a behavior. The classic model is built on the constructs of behavioral intention, attitude, and subject norm (Fishbein &amp; Ajzen, 1980).</td>
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CHAPTER I

INTRODUCTION

Developments in technology continue to provide means to increase educational access by adding options for teaching and learning at a distance. Students want access to learn at a distance, at least some of the time, and from any location (Brooks & Pomerantz, 2017; Traxler, 2010). Postsecondary institutions are responding to the increased demand for distance learning by offering distance courses and programs to students, with over 5 million students taking at least one distance course, and projected accelerated growth by 2020 (Allen & Seaman, 2016). Faculty members and instructional designers strive to create content consistent with existing pedagogy to produce quality distance courses with measurable learning objectives (Morrison, Ross, Kemp, & Kalman, 2010). Distance learning is relatively new, arriving in the mid-1990s, and advancing with distance offerings growing at institutions (Pew, 2016).

Distance education is a broad term used to describe instruction delivered through technology, synchronously or asynchronously, while students and instructors are apart (Seaman, Allen, & Seaman, 2018). The term distance learning replaces the former, commonly used “online learning” (Picciano, 2018; Seaman et al., 2018). There are different types of distance courses and programs. Some courses are fully delivered via distance, and degree programs are considered distance education programs if all required courses can be completed through distance education courses (Seaman et al., 2018). In addition, there are traditional programs, and blended programs, blended courses, etc., and corresponding categories for instructors. Instructors can teach distance courses exclusively, teach some distance courses, have courses with distance components, or
teach only fully traditional courses (Seaman et al., 2018). The progression of distance education enrollments has been tracked and studied, with Allen and Seaman’s Babson research study held in high regard (Picciano, 2018).

As technologies change, universities work to stay current (Yu, 2013). Students are often quicker than instructors to use and adapt to new social media tools and emerging technologies (Greenhow & Askari, 2017). Many higher education institutions are working to meet the students in technologies of their choice, such as Twitter and YouTube (Brooks & Pomerantz, 2017; Sylvia, 2014; Traxler, 2009; Wodzicki, Schwämmlein, & Moskaliuk, 2012).

When thinking about meeting the student population online, one must examine where the students are today. This can be a difficult task with the speed of technological advancements such as the quick growth of social media technologies (i.e., Snapchat and Instagram) (Huddleston, 2017). According to Pew Research, young adults ages 18-29, millennials at the time of this publication, were the noted as the earliest adopters of social media and continue to engage with the sites at high levels, with 90% of all internet users using social media (Perrin, 2015). The same Pew Research survey further revealed that educated adults are more likely to use social media technologies than those who are non-educated (Perrin, 2015). Furthermore, social media and social networking applications are popular with college students (Cao, Ajjan, & Hong, 2013). One study in 2012 used the Theory of Reasoned Action (TRA) to evaluate student behavioral intent for using social media (Peslak, Cecucci, & Sendall, 2012). Findings concluded the TRA was a strong fit for predicting social media behavior, and the study showed students were ready to use the technology (Peslak et al., 2012). Since students are familiar with and excited to use social media for communication, faculty members and institutions are interested in adapting to the educational use of these communication technologies (Dahlstrom, 2012;
With the interest in studying social networking, some ideas have emerged from reviewing the literature. Studies have found that students are inclined to like the ease and speed of social networking sites (SNSs) for communication (Akçayir, 2017; Agozzino, 2012; Bennett, Bishop, Dalgarno, Waycott, & Kennedy, 2012; Cao et al., 2013; Eid & Al-Jabri, 2016; Gikas & Grant, 2013). In addition, research has indicated that students are using social networking sites to communicate about coursework (Agozzini, 2013; Akçayir 2017, Gikas & Grant, 2011; Vivian, Barnes, Geer, & Wood, 2014; Wodzicki et al., 2012). More attention is being devoted to the growing use of social networking technologies.

Students are spending 9 to 11 hours per day on social media activities. While students have reported wanting to use their phones to communicate and learn, research more often demonstrates that students do not want to use their phones for learning (Brooks & Pomerantz, 2017). The 2017 Educause Center for Analysis and Research (ECAR) reported that students ranked social media negatively, by ranking it highest in “wanting less of” category for distance learning (Brooks & Pomerantz, 2017). However, the same report, and other studies, emphasized students are more likely to accept the use of social media for learning when given a “purpose” or learning objective (Allen & Seaman, 2017; Brooks & Pomerantz, 2017). Some universities are using Quality Matters standards for course development to ensure learning objectives are stated measurable outcomes. Quality Matters is a non-profit group with several goals, one of which is to enhance the quality of online and blended courses primarily through aligning learning objectives, assessment, engagement, technology (Jackson, 2009; Quality Matters, 2018).
Statement of the Problem

It is probable that instructors are not using social media technologies effectively for teaching and learning. Many factors such as age, familiarity, and scientific discipline may influence the decision to use social media technology (Akçayır, 2017; Gruzd, Haythornthwaite, Paulin, Gilbert & Del Valle, 2017). In addition, traditional literature in the field does not reflect the current social media technologies where students are reportedly spending the most time. The majority of existing studies focus on Facebook (Agozzino, 2012; Cao et al., 2013; Churcher, Downs, & Tewksbury, 2014; Cooke, 2017; Manca & Ranieri, 2015). Facebook may have been more popular with college students at the time of prior studies, but current research suggested college students’ Facebook use has decreased substantially in recent years (Boyle, Earle, LaBrie, & Ballou, 2017).

Students could potentially benefit from learning through social media if instructors were better informed on the proper use and student preference of tools. Results of studies proposing the benefits of social media implementation in courses call for more of a detailed guide for the use of social media in order to achieve the most benefit in areas such as learner engagement and content creation (Akçayır, 2017; Cao et al., 2013; Manca & Raneiri, 2015). In addition, research suggested a need for more studies explaining how to effectively use the new and recently developed social media technologies (Akçayır, 2017; Bennett et al., 2012; Cao et al., 2013; Manca & Raneiri, 2015). Facebook is still the most popular by number of registered users, but college aged adults show a preference for using similar social networking sites such as Instagram and Snapchat (Sprout Social, 2017). There is an observed lag in the adoption of technology and underutilization of social media outlets, which has been studied and continues to be a priority in research (Venkatesh & Davis, 2000). Furthermore, a small minority of teachers use or plan to use
social media for distance learning, even though teachers have positive attitudes toward incorporating social media for pedagogical use and tend to perceive it positively (Ajjan & Hartshorne, 2008; Cao et al., 2013).

Reports published on the goals for higher education note that technology integration, student learning outcomes, and online engagement are of high priority due to institutional recognition of need in these areas. One of these reports, the New Media Consortium 2017 Horizon Report, “explores the trends, challenges, and technology developments likely to have an impact on teaching, learning, and creative inquiry” (New Media Consortium, 2017). Some key items identified in the report for distance learning include student collaboration, professional communication skills, a “deep understanding of digital environments,” and co creation with other students, using learning management systems with other applications, and using technology to enrich learning outcomes (Becker et al., 2017, p. 2). Furthermore, the discussions for the Horizon Report are open to view in a working document used to initially mind map the report’s development. This document is missing any comments in the “social media” section, except where a few researchers have expressed concern that no one in the group had posted in that section (Trends, 2017). The need to explore social media technology for teaching and learning is clearly acknowledged and requires further investigation.

Statement of Purpose

The purpose of this study was to investigate faculty intentions for implementing social media into distance learning courses at a major public research university in the southeastern United States. The decision to implement social media into a course can be interpreted through the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The Theory of Reasoned Action uses subjective norms and attitudes to predict behavioral outcomes (Ajzen & Fishbein, 1980). When
student norms and attitudes are the same as instructor norms and attitudes, behaviors align (Ajzen & Fishbein, 1980). Theoretically, this provides the best environment for achieving learning outcomes.

**Significance of the Problem**

Many faculty members and administrators are somewhat skeptical of distance education with “only 29% reporting that they fully accept the ‘value and legitimacy of online education.’” (Allen & Seaman, 2016, p. 2). Although some existing knowledge of suggested uses exists, there is a need for more research in this area. For example, Bosman and Zagencyk’s (2011) chapter provides pairings of social networking sites to Bloom’s Taxonomy components, but it is dated. Faculty members still struggle to create learning activities using social media, even when they have positive intentions to do so (Ajjan & Hartshorne, 2013; Manca & Ranieri, 2016). Faculty find their knowledge of social media lacking when compared to students (Tess, 2013). As Haylett (2016) noted, faculty members want more information on the ways social media can be incorporated for distance courses. There is a growing need for faculty training in technologies and technological applications (Brooks & Pomerantz. 2017; Manca & Raneiri, 2016). However, as researchers warned, it is not merely adding in the new technological platforms for use, but also considering technology’s benefits (Bosman & Zagenczyk, 2011). Faculty members should consider the fit of technologies with the subject matter and objectives before making the decision whether or not to implement social media (Cao et al., 2013). Research indicated that a deeper understanding of professors’ motivations and views would further improve the research (Manca & Raneiri, 2016).

The potential for benefits of social media have been identified (Greenhow & Askari, 2017), but research is needed that can help define the faculty intent and actual use of social
networking for teaching (Manca & Raneiri, 2016). Peslak et al. (2012) found students have positive intentions for using social networking through their study of behavioral intent using the Theory of Reasoned Action. Intention influences use of social networking, and the TRA model can be used to predict student social networking behaviors (Ajzen & Fishbein, 1980; Peslak et al., 2012). Although student behavioral intent for social networking using the TRA model has been examined, faculty intentions have not been studied through the TRA lens.

**Research Questions**

1. Are attitude toward social networking and subjective norm of social networking for distance learning positively associated with intention to use social networking for distance learning?

2. Is intention to use social networking for distance learning positively associated with use of social networking for distance learning?

**Methods**

**Theoretical Framework**

Faculty decisions to use or not to use social media can be explained through the Theory of Reasoned Action, which was developed to determine behavioral intent on behavioral outcomes (Ajzen & Fishbein, 1980). Faculty intention, or the combination of subjective norm and attitude, can influence the use of social media (Ajjan & Hartshorne, 2008). The TRA model is composed of four constructs: attitude, subjective norms, intent, and behavior. The study examined each construct. Peslak et al. (2012, p. 15) defined the four constructs below:

- **Attitude** is how we feel about the behavior and is generally measured as favorable or unfavorable mind-set
- **Subjective norm** is defined as how the behavior is viewed by our social circle or those who influence our decisions.
- **Intention** is defined as the propensity or intention to engage in the behavior.
- **Behavior** is the actual behavior itself.
Each construct was measured through an online survey administered in early 2019. Measuring the constructs of TRA will help define attitude, subjective norm, intent, and behavior of the population. Following IRB approval, a convenience sample of instructors designing distance courses for delivery in spring or summer 2019 at a major southeastern research university were surveyed using an instrument developed by Peslak et al. (2012) and modified to reflect the current study. The instrument uses a Likert-type scale to assign a value to questions assessing participants’ attitudes, subjective norms, intentions, and behaviors. The 5-point Likert-type scale has levels of agreement from strongly agree to strongly disagree. Data were collected using an online Qualtrics survey. After adjusting for any outliers, each construct was summed. Research Questions 1 and 2 were measured through a multiple regression to determine the relationship between intent and the constructs of attitude and subjective norm. Next, a correlation between intent and behavior was used to describe the relationship between the intention to use and the actual use of social networking. Multiple regression and correlation measured the relationships between the constructs (Hankins, French, & Horne, 2000).

**Assumptions of the Study**

The study assumed participants would answer all survey questions honestly without bias. The researcher assumed the participants were aware of their use of social networking sites. This study used the Theory of Reasoned Action which assumes people make rational decisions based on information presented. (Fishbein & Ajzen, 2011).

**Limitations of the Study**

The study surveyed a convenience sample of faculty members developing distance learning courses for spring 2019 or summer 2019 at one research university in the southeastern
United States. Using only one university in one region of the US was a limitation, making generalizability unreliable.

There were only 56 usable surveys returned. For the purposes of this study, this was an adequate number for statistical significance, but again, limits generalizability to larger groups, or faculty members at other sizes and types of institutions.

**Operational Definition of Terms**

**Attitude:** Construct of TRA defined as how we feel about the behavior and is generally measured as a favorable or unfavorable mind-set (Fishbein & Ajzen, 1980).

**Behavior:** Construct of TRA defined as the target behavior (Fishbein & Ajzen, 1980).

**Distance Learning:** A course taken via web instruction (Allen & Seaman, 2016).

**Intention:** Construct of TRA defined as the propensity or intention to engage in the behavior (Fishbein & Ajzen, 1980).

**Online Programs:** Curriculum degree programs offered fully via distance course. (Allen & Seaman, 2016).

**Social Networking:** “The use of dedicated websites and applications to interact with other users, or to find people with similar interests to oneself” (Merriam Webster, n.d.).

**Social Networking Site (SNS):** Services which allow users to “(1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd & Ellison, 2007, p. 211).

**Social Media (SM):** Broad term used to describe technological systems or applications related to human collaboration and social community (Joosten, 2012; Tess, 2013).

**SMT:** Abbreviation for Social Media Technologies
**Subjective Norm:** Construct of TRA defined as how the behavior is viewed by our social circle or those who influence our decisions (Fishbein & Ajzen, 1980).

**TRA (Theory of Reasoned Action):** Explains intent for a behavior. The classic model is built on the constructs of behavioral intention, attitude, and subject norm (Fishbein & Ajzen, 1980).

**Summary**

Chapter I introduces the statement of the problem, significance of the problem, research questions, methods, limitations, assumptions, and terms. Chapter II contains a review of the literature related to teaching and learning with social media. The methodologies proposed for this quantitative research study are outlined in Chapter III. In Chapter IV, the data analysis and the results of the study are given. Finally, Chapter V addresses the conclusions, implications, and recommendations for further research.
CHAPTER II
REVIEW OF THE LITERATURE

Distance Teaching and Learning

Distance learning has gained popularity in recent years, with the Babson Survey Research Group citing 2016 as the 13th year of consecutive growth in the number of students enrolled in distance courses (Allen & Seaman, 2016). Allen and Seaman are two of the four professors who collect, compile, and analyze the data for Babson. The Babson Group is known for “Conducting regional, national, and international research projects, including survey design, sampling methodology, data integrity, statistical analyses and reporting.” (Online Learning Survey, 2019).

The report shows a year-to-year increase in the number of students taking at least one distance course, reaching 28% of all students in 2015 (Allen & Seaman, 2016). Distance education as a whole has grown, with the Babson study citing distance learning as critical to more than 65% of higher education administrators (Allen & Seaman, 2016). One higher education administrator pointed out that the growth in distance courses highlights a change in student preferences for distance learning, especially when coupled with declining numbers in overall higher education enrollment (Allen & Seaman, 2016).

2018 Distance Education, Distance Courses, Distance Programs

Distance education is a broad term used to describe instruction delivered through technology, synchronously or asynchronously, while students and instructors are apart (Seaman et al., 2018). The term distance learning is used to replace the former “online learning” (Picciano, 2018; Seaman et al., 2018). There are different types of distance courses and
programs. Some courses are fully delivered via distance, and degree programs are considered distance education programs if all required courses can be completed through distance education courses (Seaman et al., 2018). In addition, there are traditional programs, and blended programs, blended courses, etc., and corresponding categories for instructors. Instructors can be fully distance, teach some distance, have distance components, or be fully traditional. The progression of distance education enrollments has been tracked and studied, with Allen and Seaman’s Babson research study held in high regard (Picciano, 2018).

**Instructional Design Process**

The instructional design process is not a one size fits all plan; and there are different methods to produce a distance learning course. The sample for this research is at a major southeastern public research university where faculty members often use a University-sponsored team of instructional designers. However, not all programs or courses go through an instructional design process (Quality Matters, 2017). The 2018 2nd Annual Changing Landscape of Online Education Report (CHLOE2) publication from Quality Matters illustrates the many ways faculty members create courses across institutions: with the help of instructional designers, in teams, with peer reviews, and even self-created. It is notable that there are varying combinations of approaches among the different types of institutions. The annual CHLOE report, first published in 2017, provides data from a yearly survey of individuals involved in decision making for online higher education. The survey includes distance learning officials at community colleges, 4-year public, and 4-year private, nonprofit colleges and universities (Milman, 2017).

This study focuses on the use of social media technologies in distance learning. Social media use varies with age (Pew, 2016). Teachers and students are not typically in the same age demographic, considering the number of years it takes to acquire the necessary credentials. The
median age for post-secondary teachers was 44.3 in the 2010 census, a more than 20 year difference from the age of the majority of full-time college students (DataUSA, 2018; NCES, 2015). The problem of generational divide between teacher and student has always existed, but technology use is more prevalent in daily lives (Chugh & Ruhi, 2018; Pew, 2016). Young adults ages 18-24 are active users of social media technologies, accessing the sites multiple times per day (Pew, 2016). For example, Instagram reports users under age 24 are spending 31 minutes engaging with the application daily (Agrawal, 2018). The literature on social media use in teaching and learning does not reflect the current student user preferences. In addition, most studies are focused on sites which were more popular at another time (Chugh & Ruhi, 2018).

Social Media Technologies

Use of Social Networking for Education

Social media is a term that is broadly to mean a grouping of technological systems or apps related to social collaboration and social online communities (Joosten, 2012; Tess, 2013). A more descriptive definition by Boyd and Ellison (2007, p. 211) defined Social Network Sites (SNSs) as services which allow users to

1. construct a public or semi-public profile within a bounded system,
2. articulate a list of other users with whom they share a connection,
3. view and traverse their list of connections and those made by others within the system.

Finding a concrete definition for social media is a challenge, because technology is always evolving. Social media sites and technologies are continually adapting to meet the ever-changing needs of the user population (Tess, 2013). For purposes of this literature review, social networking sites (SNSs) will be defined in terms of popularity and the potential utility in an academic setting. Some of the most prominent SNSs in the literature are Facebook and Twitter; followed by Pinterest, blogs, MySpace, and other emerging technologies which are not as present
in published works presumably due to their infancy, despite to their popularity among students. In order to best describe the studies and their significance, one must first know the advantages and key points of the social media technologies (SMT). The usage of SMT in the classroom has been around for a long time, and can be summarized by “[s]ince the introduction of social media in the late 1990s & onwards, social media sites e.g. MySpace, Facebook, YouTube, Cyworld, Bebo, Twitter, Blogs, Wikis etc. has attracted millions of users catering to a wide range of interests and practices” (Sarker, Mahmud, Islam, & Islam, 2016, p. 2). SNSs are used frequently by students and teachers and are growing in popularity (Pew, 2016; Sarker et al., 2016; Vivian et al., 2014).

**Popular Social Networking Sites for Teaching and Learning**

A current and growing body of research identified popular social media technologies such as Facebook, Twitter, Instagram, and Snapchat. A few examples of the most popular social media technologies throughout history are outlined below. It should be noted that these are common in the US, but other countries have different sites that essentially serve the same function. For example, StudiVZ is a popular social networking site in Germany that is similar to and based off of Facebook (Wodzicki et al., 2012). Some of the research focused on other social networking sites, because they were conducted in countries outside of the United States (Akçayır, 2017; Manca & Ranieri, 2015, 2016; Sarker et al., 2016; Vivian et al., 2014; Wodzicki et al., 2012).

**SixDegrees**

SixDegrees, a SNS launched in 1997, was the first popular and recognizable social networking site. SixDegrees.com was a technology where users could create profiles, friend lists and view other friends’ lists of friends (Boyd & Ellison, 2007). This site is notable for being the
first social networking site, although it lasted from just 1997 to 2000 and is no longer in use (Boyd & Ellison, 2007).

**MySpace**

MySpace was, at one time, one of the most popular SMT, (Boyd & Ellison, 2007). Much like Facebook, it offered an online portal with profiles and a network of friends, blogs, and so forth. MySpace was very popular before the rise of Facebook. Currently, MySpace is not as popular as other sites (Boyd & Ellison, 2007; Pew, 2016). MySpace is not prevalent in the current education literature, but it is defined here for general knowledge, as it is present in the less current literature.

For example, Greenhow studied MySpace in relation to economic status for students. In 2009, Greenhow and Robelia studied the extent to which MySpace was helpful for low-income students. The quantitative study employed interviews with high school students and profile content analysis. The results were positive, showing students used the platform for help with schoolwork, to maintain relationships, and benefitted students by facilitating complex creative endeavors (Greenhow & Robelia, 2009).

**Blogs**

Blogs are any as a regularly updated websites or accounts. Blogs carry similarities to other social media sites in user engagement, content production and posting, and public discussions and comments. In 2011, a company owned by Nielson counted over 181 million blogs, and today that number is much higher, although difficult to track. In addition, there are an estimated three million blog posts created every day (Ifinedo, 2017). Examples of popular blogging sites are Blogger and Wordpress.
Educational research (Ifinedo, 2017) has examined blogs as a useful technology for teaching and learning. One study on blogs in higher education proposed a model combining the Technology Acceptance Model with motivational and social-cognitive theoretical frameworks. The results showed students who found blogs easy to use and understood the benefits of the technology were more favorable toward using blogs, although not all students shared the same attitudes toward the technology. Some found the blogs not helpful or cumbersome, as 44% of students were unfamiliar with the technology before the instruction occurred (Ifinedo, 2017).

Facebook

Facebook is an online social media or social networking site founded in 2004 by Mark Zuckerberg along with his friends and colleagues. Facebook continues to be America’s primary social networking site (Pew, 2016). Facebook’s popularity has grown with 68% of all Americans using Facebook (Pew, 2016).

Facebook’s capability as a learning tool is an obvious choice due to its popularity. Several educational studies have investigated perceptions and use of SNSs and have used Facebook as the primary or one of the primary sites (Abe & Jordan, 2013; Aijan & Hartshorne, 2008; Akçayir, 2017; Cao et al., 2013; Manca & Ranieri, 2016; Moran et al., 2011; Vivian et al., 2014). Facebook has been explored within the contexts of existing pedagogical theories, and even as an option in hybrid courses and hybrid coursework (Churcher et al., 2014; Manca & Ranieri; 2016; Sylvia, 2014).

Manca and Ranieri (2016) reviewed 147 articles published in peer reviewed journals between 2012 and 2015. The literature was divided into three categories. Category one was where Facebook was used formally to teach the information in traditional classroom (or formal) settings. The second category, holding over half of the literature reviewed, was defined as
Facebook being used informally to communicate about coursework or build rapport while students and teachers were in formal learning settings. The third category was Facebook’s use in informal learning settings. Facebook was found to be useful but not used to its potential. In addition, the authors agreed with other researchers who posited that Facebook has facilitated a blending of formal and informal learning spaces (Manca & Ranieri, 2016).

**Twitter**

Twitter is an SNS which is differs from the other sites in the sense that it only allows up to 280 characters per post. However, it has recently been a widely used platform which allows celebrities to interact with their fans, often directly in a public message forum (Marshall, Ferenczi, Lefringhausen, Hill, & Deng, 2018). “Some have suggested that Twitter makes for a faster mode of communication because of the relatively short post lengths” (Java, Song, Finin, & Tseng, 2007). In addition, 21% of all US adults, up from 12% 2 years ago, use Twitter (Pew, 2016). Notably, Donald Trump is the first sitting United States President to actively use Twitter (Ahmadian, Azarshahi, & Paulhus, 2017).

Twitter’s capabilities as a tool for learning are documented in the literature. For example, a study (Denker, Manning, Heuett, & Summers, 2018) on student attitude and motivations to communicate with their instructor online revealed students’ attitudes impact student motives to communicate. Students were less likely to communicate via Twitter in a large lecture class than a small one. Students also reported apprehension about communicating with a person of power such as the instructor (Denker et al., 2018).

In addition, Twitter is used in education frequently. One mixed methods study in the United Kingdom identified both Twitter and Facebook as the chosen mediums for students to use informally in classrooms. However, during the case studies, students were more familiar with
teachers using Twitter in the classroom, rather than Facebook or Youtube (Cooke, 2017). Over half of the student sample studied found social media to be beneficial, citing feeling more involved and more participatory in discussions (Cooke, 2017).

**Image and Video Media Sharing: Instagram, Snapchat, Periscope**

The development of better smartphone cameras and larger memory in phones fueled a change in users’ ability to share visual media with friends (Castella, 2012). The social media landscape has rapidly developed beyond the traditional Facebook sharing format. Popular social media applications like Snapchat and Instagram have fewer registered accounts, but boast more hours of use than Facebook, especially among younger adults (Sprout Social, 2017). Instagram has 1 billion active users monthly, more than double that of Twitter, and up 300 million since 2017 (Sprout Social, 2017, 2018). Instagram’s functions are catching up to its own parent company, Facebook; which purchased the app in 2012. Instagram stories are a grouping of short videos available for 24 hours only. This feature was created to compete with the similar and popular Snapchat application in mid-2016. Instagram surpassed the ever-popular Snapchat with approximately 250 million active daily users in April 2017; and this number doubled to 500 million by mid-2018. (Sprout Social, 2017, 2018). Instagram recently reported adults under the age of 25 spend an average of 32 minutes per day engaging with the application, while adults 26 and over only spend 24 minutes in the same category (Instagram Press, 2017). These newer applications, like Instagram, are difficult to find in the higher education technology literature.

Instagram’s popularity made it, alongside Facebook, a choice for educating medical students with supplementary exercises following traditional lectures on the subject. Students reported high levels of satisfaction for engagement with the chunks of information presented as a photo with concise descriptive text. The short article assumed the users were “coincidentally”
reported by 100% of Instagram users (Osaigbovo & Iwegim, 2018). The conclusions stated that although the students were engaged on both Facebook and Instagram, the sample demonstrated a clear preference for Instagram (Osaigbovo & Iwegim, 2018).

**Messaging Applications**

Messaging applications much like SMSs (Social Media Sites) are a way of connecting online. Some popular messaging applications include Kik, WhatsApp, and GroupMe. Benefits of these applications include being able to message a group of people at the same time and using wifi rather than messaging data. Messaging apps are widely used by smartphone owners, but they can be installed on a desktop as well. Pew (2016) published statistics that allow insight into messaging apps used by the majority of the population today.

Twenty-nine percent of smartphone owners use general-purpose messaging apps such as WhatsApp or Kik. This represents a 7-point increase from a survey conducted in 2015 (at that point 17% of smartphone owners used these apps). Five percent use apps that allow people to anonymously chat or post comments, such as YikYak or Whisper. (Pew, 2016, p. 11)

In the 2018 report, WhatsApp is still relevant with 22% of all US adults using the application (Pew, 2016, Appendix A).

**The University Distance Course Design Process**

Faculty members create a distance course through the Distance College. Distance College follows a specific process, which commences with an initial experience. This is where the faculty member, or content expert, meets with a Distance College Instructional Designer to discuss ideas. Both the faculty member and the instructional designer are enrolled in a designer course within the Learning Management System (LMS), Blackboard Learn. The course contains instructional development guidelines that scaffold the instructional design process. The University follows the “Quality Matters” rubric, and primarily uses and suggests the use of
Bloom’s Revised Taxonomy to generate course level and assignment level student learning outcomes.

The structure of course development within Distance College has three phases. Phase 1, titled “Initial Experience” includes meetings with instructional designers, course outline submission, and module prototype content creation. After those documents have been approved, the project moves to Phase 2, course development. During this phase, the design meeting can help inform parties of decisions regarding major course components, and specifically technologies. In Phase 2, the faculty member is responsible for submitting all course content, producing media, and developing iterative course assets. The final step in Phase 2 is the course review process, meaning departments and deans are responsible to a final review. Upon passing to Phase 3 of the process, the technology team will produce, launch, and technologically support the course. Although this time frame varies some from year to year, faculty members have approximately 6 months to complete the course development process.

Quality Matters

The course development process is evaluated through standards established in the globally recognized professional organization, Quality Matters. Quality Matters is a non-profit designed to certify the quality of online and blended courses primarily through learning objectives, assessment, engagement, and technology (Jackson, 2009). The University follows the Quality Matters RubricTM, and primarily uses and suggests the use of Bloom’s Revised Taxonomy to generate course level and assignment level student learning outcomes. Faculty members developing distance learning courses are encouraged to source their outcomes from Bloom’s Revised Taxonomy in order to align course components during course development.
Bloom’s Revised Taxonomy

There are many technological options for course learning material delivery. Some academics have suggested incorporating technologies and specific platforms which lend themselves to be suitable for Bloom’s Revised Taxonomy’s student learning level outcomes. Bosman and Zagenczyk’s (2011) study suggested “each of Bloom’s [Taxonomy] components can be highlighted using different social media tools” (p. 3). Social bookmarking can be used to remember and organize online resources. Blaschke’s (2014) work is also significant here, citing a table of results that outline how specific learning outcomes can align with SNS activities. Bloom’s Taxonomy “gave explicit definitions for each of the major categories in the cognitive domain. Instructors design learning outcomes based on the Taxonomy to provide a boundary or definition of student actions” (Sylvia, 2014, p.55). Social media can be perceived as more useful when the boundaries of educational purposes are defined, and it has been hypothesized that teachers should model, facilitate, and give boundaries for the use of SNSs in the classroom (Abe & Jordan, 2013). Thus, students are achieving the measurable objectives of Bloom's taxonomy, and creating the basis for constructivism, connectivity, and community (Bennett et al., 2012; Bosman & Zagenczyk, 2011; Cao et al. 2013).

Anderson and Krathwohl “revised” the levels of Bloom’s Taxonomy, to construct Bloom’s Revised taxonomy. Bloom’s revised levels are sometimes studied in the social media distance learning literature. Following Bloom’s Revised, Andrew Churches furthered the idea, creating Bloom’s Revised for Digital (Churches, 2009). The levels are designed to build on one another and progress to lead the learner into higher ordered thinking (Anderson & Krathwohl, 2001). Each platform also potentially addresses multiple levels of Bloom’s Revised, as the user builds within the platform (Blaschke, 2014; Callens, 2014; Churches, 2009) (see Table 1).
Table 1

Comparison of Original and Revised Bloom’s Taxonomy (Dixon, 2015, p.27)

<table>
<thead>
<tr>
<th>Bloom’s taxonomy</th>
<th>Bloom’s revised taxonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher order thinking skills</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Creating</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Evaluating</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyzing</td>
</tr>
<tr>
<td>Application</td>
<td>Applying</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Understanding</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Remembering</td>
</tr>
<tr>
<td>Lower order thinking skills</td>
<td></td>
</tr>
</tbody>
</table>

Note. The levels are built upon one another from the bottom of the chart as the lowest to the top of the chart as the highest order of thinking.

The first level, remember, can be achieved through locating, searching, and bookmarking (Churches, 2009). Social bookmarking platforms such as Pinterest are shown to achieve this in the literature (Bosman & Zagenczyk, 2011; Sylvia, 2014).

The second level, understand, includes “constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining” (Anderson & Krathwohl, 2001, p.3). The suggested social media platforms specific to “understanding” are social blogging platforms such as Wordpress and Tumblr (Bosman & Zagenczyk, 2011). Understanding is sometimes necessary to remember, even though understanding is considered a higher level (Callens, 2014). In order to demonstrate that students remembered by posting to a social media application, students should understand how they fit into the social media community, which presses the learner into achieving higher levels through the medium of technology (Callens, 2014).

The third level, applying, refers to “carrying out or using a procedure through executing, or implementing” (Anderson & Krathwohl, 2001, p.3). Applying can mean social file sharing
and editing, operating, uploading, and playing with programs such as Google Docs and Wikis (Bosman & Zagenczyk, 2011; Churches, 2009).

The fourth level, *analyzing*, is “breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing” (Anderson & Krathwohl, 2001, p. 3). This refers to analysis and social collaboration with technologies such as Skype and Oovoo, according to Bosman and Zagenczyk (2011). In addition, Churches (2009) added that a popular categorization technique, tagging, fits here because analysis must occur in order to properly tag a particular page or post.

The fifth level, *evaluating*, is defined as “making judgments based on criteria and standards through checking and critiquing” (Anderson & Krathwohl, 2001 p. 3). This level relates to evaluating and social decision making and can be used with a Doodle poll (Bosman & Zagenczyk, 2011). Networking with others through collaboration and replying are also included in this category (Churches, 2009).

The highest level, *creating*, is defined as “putting elements together to form a coherent or functional whole; re-organizing elements into a new pattern or structure through generating, planning, or producing” (Anderson & Krathwohl, 2001, p. 3). Churches (2009) added several examples of how this applies digitally: filming, video producing, podcasting, publishing, and remixing. Creating and social creativity sharing can be achieved through Scribed and YouTube (Bosman & Zagenczyk, 2011). Social media technologies can assist with creating, as students in one study reported that e-portfolios and Google Docs were beneficial in helping them create new knowledge (Blaschke, 2014). The creative capacities of social media technologies are helpful in more robust social media applications which employ more features, such as YouTube (Sylvia, 2014). Although YouTube is still relevant, newer examples of technologies that can use the
same type of production skills are Periscope, Instagram Story, and Facebook Live. These apps are not present in current educational literature.

Surveying which social media technologies are being used for which learning level outcomes can help define the significance of the social media technology and therefore influence the decision to use social media technology for distance learning. Bennett et al. noted that “[e]ven the challenges of finding the right tool to support a well-designed activity are familiar ones in educational technology” (2012, p. 533). Meeting students in their preferred social media technology can impact learning level outcomes. Gauging the attitudes, subjective norms, and intentions of faculty at a southeastern public research university on social networking use in distance education can open the door for conversations about improving learning through suggested uses or further education in social networking technologies for distance courses.

**Theory of Reasoned Action**

The Theory of Reasoned Action recognizes situations that limit the influence of attitude on behavior. Faculty decisions to implement social networking technologies in their courses for higher level learning goals can be studied through the lens of reasoned action theory. The Theory of Reasoned Action (TRA) predicts behavioral intention (attitudes) and factors that limit the influences of those attitudes (Fishbein & Ajzen, 1980). Even though faculty may intend to include the newest technologies to achieve the highest learning outcomes, the gap in typical social networking technology use between the two groups (faculty and students) can impact the decision. For example, if faculty believe they know less about technology than the students, they are less likely to incorporate it. If faculty members and students are in alignment with their intent, the learning outcomes will theoretically be best. Here, this means faculty and students
should have similar knowledge of social networking technologies in order to create a thriving learning environment (Ajzen & Fishbein, 1980).

TRA Constructs

Theories give order to phenomena and, in particular, can model behavioral change in a population. One long-studied general theory is the Theory of Reasoned Action (TRA). First introduced in 1980, Fishbein and Ajzen are credited with developing and refining the theory, which was originally used in social psychology. Presently, TRA spans disciplines in predicting behavioral outcomes based on the study of attitude, subjective norm, and behavioral intent (Fishbein & Ajzen, 1980, 2010). The theorists’ most recent book on TRA, published in 2010, reminds readers that even after 30 years TRA helps define behavior with a relatively simple formula. Thus a “limited set of constructs can be applied to predict and understand any behavior of interest” (Fishbein & Ajzen, 2010, p. 19). TRA predicts behavior and helps make sense of the influence of attitudes, subjective norms, and intentions on behavior change (Fishbein & Ajzen, 1980). This model is common across many disciplines, and it can be applied to differing situations. The TRA has been validated by three decades of scholarly research, and it can be used reliably to predict and understand the use of social networking in a target population (Peslak et al., 2012).

The TRA constructs of attitude, subjective norms, intent, and behavioral outcomes are defined by Ajzen and Fishbein (1980). The survey used in this current study is adapted from the Peslak et al. (2012) study on student intentions for using social networking. The current study will focus on teacher intentions for using social networking. The definitions from the Peslak et al. (2012) study are as follows:

**Attitude** is how we feel about the behavior and is generally measured as a favorable or unfavorable mind-set
Subjective norm is defined as how the behavior is viewed by our social circle or those who influence our decisions.

Intention is defined as the propensity or intention to engage in the behavior.

Behavior is the actual behavior itself. (Peslack et al., 2012, p.15)

Attitude toward a behavior can be positive or negative. It is defined as the feeling of favorableness or unfavorableness toward a behavior (Fishbein & Ajzen, 2011). Attitude can further be defined as an individual’s behavioral beliefs about the outcome of an action (Sheldon, 2016). The beliefs (attitudes) surrounding the perceived positive or negative consequences of the behavior and/or the advantages or disadvantages of the behavior are measured in the TRA (Fishbein & Ajzen, 1980; see Figure 1). In order to measure attitudes, individuals are asked to subjectively identify their attitude toward a particular behavior. Attitude is assessed using a semantic differential scale with a 5-point bipolar rating. The measurement uses opposing adjectives to determine the degree to which the individual’s attitude about the behavior is positive or negative (Fishbein & Ajzen, 2010). The items are summed to attain the measure of the individual's attitude. This sum is included in the TRA model as a measurement of attitude toward the behavior (Fishbein & Ajzen, 1980).

Figure 1. Attitude in TRA (Fishbein & Ajzen, 1980, p. 22)
Subjective Norms in TRA

Subjective norms are the perceived approval or disapproval of surrounding forces, such as other important people or groups (Fishbein & Ajzen, 2011). People have normative beliefs about social norms and are subject to social pressures, especially from those close to or considered important to the individual (Fishbein & Ajzen, 2011). Azjen defined subjective norm as "the perceived social pressure to perform or not to perform the behavior” in question (Ajzen, 1991, p. 188). Often the social pressures are from key individuals or individuals close in proximity (Fishbein & Ajzen, 1980).

Intent in TRA

Intention is defined as the individual’s cognitive readiness to perform the behavior. Intention is a function of the combination of attitude and subjective norms (Fishbein & Ajzen, 1980). “Intentions refer to peoples’ plan of action and represent their expressed motivation to perform the behavior” (LaCaille, 2013, p. 1965). As attitude and subjective norm increase, the intention is positive, and the subject is ready to perform the behavior (Fishbein & Ajzen, 2010).

Important Steps in TRA

Behavior change is more successful when a single element rather than a group of elements is in focus. Creating a well-defined behavior will produce more precise results, which are, therefore, more attainable for the subject (Rhodes, Fishbein & Reis, 1997). In addition, the behavior must be explicitly defined, because the relative impact of the factors will change in different situations. In order to promote increased validity, the target behavior must be specifically defined according to four elements: action (behavior wanted), target (object at which behavior is directed), context (place or situation where behavior is performed), and time (time of day, month, year) (Fishbein & Ajzen, 1980). A change to any of the four elements can be more
inclusive of the specific behavior; therefore causing the behavior to be more of a group which, as mentioned above, is not ideal. These four determinants are pretested and validated within each study. The TRA and behavioral interventions are more successful when focused on one specific behavior rather than behavioral groups or categories (Rhodes et al., 1997).

**Impact of TRA**

As Fishbein and Ajzen stated, the relative importance or weight of determinants of intentions should vary from one behavior to another, and also from one population to another (Fishbein & Ajzen, 2011). A 2012 study by Peslak et al. found TRA to be a strong indicator in predicting student usage of social networking.

A study by Peslak et al. (2012) examined social networking behavior using the Theory of Reasoned Action. The survey was sent to 196 students at several small northeastern US universities. Survey questions addressing TRA constructs were about social networking behavior (Peslak et al., 2012). The analyses of responses to the bipolar rating scale questions showed strong relationships revealing the attitude toward social networking and subjective norm are positively associated with the intention to use social networking (Peslak et al., 2012). The findings confirm prior research of TRA as a valid and reliable predictor of behavioral intent (Kim, Chan, & Gupta, 2007; Peslak et al., 2012).

In 2016, Sheldon furthered the line of TRA research in social networking and education with a publication on intentions for friending on Facebook. The article described two separate projects designed to measure the attitude and subjective norms of two separate stakeholder populations. One item examined was the intent of faculty to friend students, and the other was students’ intent to friend faculty on Facebook (Sheldon, 2016). The 249 students completed a questionnaire modeled after prior research including the Peslak et al. 2012 study. The 5-point
bipolar rating scale was analyzed and results recorded. The students showed a stronger relationship with subjective norm and intent than with attitude and intent. Conversely, faculty respondents’ attitudes were more significant predictors of intent to add students as Facebook friends. The study supports the application of TRA for relationships on social media sites and the trends toward defining “normal” social networking behavior.

**Summary**

As research suggests, distance teaching and learning can benefit from the incorporation of social networking technologies (Akçayir, 2017; Bennett et al., 2012; Cao et al., 2013; Churcher et al., 2014; Cooke, 2017; Knouse & Abreu, 2016; Manca & Raneiri, 2016; Njoroge, 2016). The popularity of social networking technologies contributes to the interest in using them in distance courses (Cao et al. 2013). Researchers have shown that the pedagogy behind the incorporation of social networking technologies into the online classroom can improve learning outcomes (Bennett et al., 2012; Blaschke, 2014; Bosman & Zagenczyk, 2011; Cao et al. 2013; Sylvia, 2014). Furthermore, students fit the TRA model for positive intentions to use social networking sites, but faculty have not been studied in the TRA model. The implementation of more applications and newer social networking technologies can enhance distance learning in higher education.
CHAPTER III

METHODS

The purpose of this study was to investigate faculty intentions for implementing social networking into distance learning courses at a major public research university in the southeastern United States. The decision to implement social networking into a course can be interpreted through the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The Theory of Reasoned Action uses subjective norms and attitudes to predict behavioral outcomes (Ajzen & Fishbein, 1980). When student norms and attitudes are the same as instructor norms and attitudes, behaviors align (Ajzen & Fishbein, 1980). Theoretically, this provides the best environment for achieving learning outcomes.

Setting

An online Qualtrics survey was emailed to instructors who were developing a course with the Distance College to be delivered spring or summer semester of 2019. The university where the study took place requires faculty members developing distance learning courses through distance learning programs to partner with Distance College and instructional designers.

The Distance College is a leading academic unit of its type in the southeastern United States. The Distance College at this university provides many resources to the faculty, staff, and community. “The Distance College provides marketing, course development, course design, faculty training and development, and technical support for faculty and staff” (Outlaw, 2014). In addition, this college has been in operation for over 15 years. As a forward-thinking unit, it is
concerned with improving the quality of distance degree programs and it is a select choice for this study (Humber, 2018).

The southeastern public research university has a total of 13 academic divisions. Approximately 1,500 faculty members are teaching at this institution, with approximately 120 new distance learning courses in development for spring or summer 2019.

The Distance College manages the distance learning programs and courses for the University. This division partners with colleges to create distance content and to market the programs to those students who are interested in learning in this medium. Examples of target populations are older students finishing a degree, high school students getting credits before graduating from high school, and military students serving the country abroad.

When a department wants to offer a course via distance, the faculty member, department, and dean collectively apply through the Distance College program. Once a course has been approved for the process, the faculty member has a meeting with senior instructional designers before being assigned to one particular instructional designer (ID). The University incentivizes this action with supplemental compensation for development. Compensation for courses varies according to factors such as base salary and number of instructional components produced. The faculty member follows a process as described in Chapter II, in which the faculty member and instructional designer partner to make decisions based on student learning outcomes, technologies, best practices, and other planning details. Each instructional designer typically works on approximately 5-10 courses per semester. The team of designers and professionals provides University supported instructional design, media production, training, and technical support for faculty, staff, and students involved in distance degree programs. A team of 10 instructional designers work alongside faculty members with courses in development. In
addition, the University and Distance College use the Quality Matters standards to guide and facilitate all involved parties through the phases of the course development in addition to scaffolding the development of course objectives, modules, and student learning outcomes. Through the student learning outcomes, the Quality Matters standards incorporate Bloom’s Revised taxonomy levels.

**Participants**

The target population for this quantitative research study was identified as a convenience sample of distance learning instructors developing formal distance learning courses at a southeastern research University during one spring, or summer semester in 2019.

**Instrumentation**

For this current study, the researcher used a quantitative instrument adapted from Peslak et al. (2012) and changed to reflect the study of distance instructors’ intentions in distance learning. The researcher emailed the authors and two of the three responded granting permission to use the published instrument. The first author was unable to be reached, giving no response to multiple email attempts. Measuring the target behavior includes a pretest to determine the validity for each specific behavior defined by action, target population, time, and context (Ajzen & Fishbein, 1980). A survey was prepared and pre-tested with a small group of faculty at a southeastern research university. The survey was modified based on preliminary testing and administered to a group of faculty members at a southeastern research university. The survey was composed of questions related to social networking for distance learning intention and behavior. The specific questions for each of the TRA constructs and the changes made for the current study can be found in Table 2.
Demographic information was collected for each participant. Questions asked participants their age (measured in years), sex (male, female), and academic division (categorical, selected from a list of majors in the college).

According to G* Power, a population size of 55 was sought in order to use .80 power analysis for the multiple regression. Power size is not needed for a correlation.

Table 2

*Adapted Statements for Survey Questionnaire*

<table>
<thead>
<tr>
<th>Peslak Statement</th>
<th>Adapted Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking is good</td>
<td>Using social networking in distance courses is good</td>
</tr>
<tr>
<td>Social networking is useful</td>
<td>Social networking is useful for distance learning</td>
</tr>
<tr>
<td>Social networking is worthwhile</td>
<td>Social networking is worthwhile in distance courses</td>
</tr>
<tr>
<td>Social networking is helpful</td>
<td>Social networking is helpful in distance courses</td>
</tr>
<tr>
<td>Social networking is valuable</td>
<td>Social networking is valuable in distance courses</td>
</tr>
<tr>
<td>Most people who are important to me think I should use social networking</td>
<td>Most people who are important to me think I should use social networking in my distance courses</td>
</tr>
<tr>
<td>Close friends and family think it is a good idea to use social networking</td>
<td>Close friends and family think it is a good idea to use social networking in my distance courses</td>
</tr>
</tbody>
</table>
Table 2 (con’t)

<table>
<thead>
<tr>
<th>Peslak Statement</th>
<th>Adapted Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important people want me to use social networking</td>
<td>Important people want me to use social networking in my distance courses</td>
</tr>
<tr>
<td>People who I listen to can influence me to use social networking</td>
<td>People who I listen to can influence me to use social networking in my distance courses</td>
</tr>
<tr>
<td>I predict I will use social networking</td>
<td>I predict I will use social networking in my distance courses</td>
</tr>
<tr>
<td>I plan to use social networking</td>
<td>I plan to use social networking in my distance courses</td>
</tr>
<tr>
<td>I plan to use social networking in the future</td>
<td>I plan to use social networking in distance courses in the future</td>
</tr>
<tr>
<td>I will continue to use social networking</td>
<td>I currently use social networking in distance courses</td>
</tr>
<tr>
<td>I currently use social networking</td>
<td>I will continue to use social networking in distance courses</td>
</tr>
</tbody>
</table>

**Research Questions**

1. Are attitude toward social networking and subjective norm of social networking for distance learning positively associated with intention to use social networking for distance learning?

2. Is intention to use social networking for distance learning positively associated with use of social networking for distance learning?
Data Collection

The researcher emailed 399 faculty members in March of 2019 listed as teaching an online course through Distance College within the 2018-2019 course catalog. To obtain the email addresses, the researcher searched the course catalog for courses coded as Distance College courses from fall 2018 and spring 2019, assuming those faculty members would be likely to teach again. Faculty names found from the search were imported into a spreadsheet. Email addresses were found through departmental websites. Names and email addresses were merged and cross-referenced, resulting in 399 faculty members. The email contained a link to a Qualtrics survey. Qualtrics is the recommended survey data collection software from the university where the study is taking place. The survey instrument was tested on a pilot group and adjustments were made. After Institutional Review Board (IRB) approval by the university (see Appendix C), participants were recruited via email to respond to an online survey. Participants were asked questions regarding each of the four constructs of the Theory of Reasoned Action. Sum scores were calculated for each set of questions within the category. Demographic information was merged with TRA scores. No personally identifiable information such as names, email addresses, or IP addresses were kept or stored. The Qualtrics setting for anonymity was selected, meaning IP addresses were not collected. Qualtrics software also prevented any ballot box stuffing, or using the same link twice, which protected the integrity of the sample. After removing those participants who submitted email addresses for the visa gift card, a reminder email was sent to 351 faculty members. According to survey research publications, ten days is the recommended amount of time between contact in order to achieve optimal participation (Sincero, 2012). However, the 10th day fell on a Friday before the spring break holiday, and the follow-up email was sent on the Monday after the holiday (see Appendix B).
To encourage survey participation, an incentive was offered. Survey participants were notified of the possibility for incentives in the recruitment email. At the conclusion of the research study, separate from the survey, participants were able to voluntarily answer one question. With a correct answer, the participants enter an email address as an entry into a randomized drawing for an incentive. The incentive was a chance to win one of four $25 visa gift cards.

In order to receive a chance to be randomly selected for the incentive gift card, participants were redirected via link to a new survey. Winners who chose to follow the link to the new survey, answered a question correctly, and left contact information in the form of an email address were eligible. The question asked about a campus landmark. Of the 85 responses 81 answered correctly. A random number generator generated four numbers between 0 and 82. After data collection concluded and the survey closed in Week 3, those participants were contacted in Week Four and those who chose to provide their addresses were mailed gift cards in weeks 4, 5, and 6.

Data Analysis

Descriptive statistics were used to evaluate the research questions. The Theory of Reasoned Action constructs were analyzed according to Hankins et al.’s (2000) guidelines for using statistics in the TRA. Data were analyzed in SPSS 25 using multiple regression analysis, followed by a correlation (see Figure 2). Relationships between variables were recorded.

Attitude

Attitude is how we feel about a behavior and is generally measured as a favorable or unfavorable mind-set (Peslak et al., 2012). Attitude influences intent and behavior. Following the Peslak et al. (2012) study, questions measuring attitude were adapted to evaluate faculty
attitude toward social networking rather than the student. Attitude is measured by a 5-point Likert-type scale ranging from strongly agree (1) to strongly disagree (5). The survey contained five questions related to attitude and use of social networking in distance learning courses (see Appendix A). The results were summed and put into the TRA model. Attitude and subjective norm were analyzed through a regression in which Attitude and subjective norm are dependent variables and Intent is the dependent variable (Figure 2).

![Diagram of Theory of Reasoned Action]

Figure 2. Theory of Reasoned Action (Hankins et al., 2000, p. 154).

Subjective Norm

Subjective norm is defined as how the behavior is viewed by our social circle or those who influence our decisions (Peslak et al., 2012). The combination of attitude and subjective norm in TRA impact intent and, therefore, behavior. Five questions measuring faculty subjective norms were adapted from the Peslak et al. (2012) study to evaluate the subjective norms in the population. A 5-point Likert-type scale ranging from strongly agree (1) to strongly disagree (5) was used to measure the responses. The instrument asked five questions about subjective norms for using social networking in distance learning courses (see Appendix A). The results were summed and placed onto the given TRA model (Figure 2).
**Intent**

Intent is defined as the propensity or intention to engage in the behavior. Faculty intentions for using social networking in distance courses was measured with three questions designed and validated by Peslak et al.’s (2012) study. The 5-point Likert-type scale was again used to measure intent. The number is summed and the mean placed on the TRA model.

**Behavior**

Behavior is the actual behavior itself. Three questions designed to assess participant actual use of social networking were on the instrument. A correlation between intent and behavior reveals the strength of the relationship between variables, as shown in Figure 2.

**Demographic Variables and Data**

Demographic variables include age and gender of the participants. Analysis can reveal possible (and probable) relationships between demographics and theory constructs such as faculty attitudes, subjective norms, intentions, and behaviors. This can impact the earlier findings that age is a large determinant of social networking adoption in post-secondary education (Cao et al., 2013).

**Limitations**

The study uses a convenience sample at one school. The sample can be seen as a limitation on the breadth of the results. Faculty members in the sample are developing distance learning courses. A potential sample size of 120 was identified.

In addition, this study used a multiple regression and correlation to analyze the data. Looking at multiple regression and correlation is not as holistic as using modeling, which is a form of TRA analysis.
CHAPTER IV

RESULTS

This chapter presents the findings from this quantitative study used to measure faculty intention to use social networking in distance courses through the theory of reasoned action. The purpose of this study was to investigate faculty intentions for implementing social networking into distance learning courses at a major public research university in the southeastern United States. The decision to implement social networking into a course can be interpreted through the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The Theory of Reasoned Action uses subjective norms and attitudes to predict behavioral outcomes (Ajzen & Fishbein, 1980). When student norms and attitudes are the same as instructor norms and attitudes, behaviors align (Ajzen & Fishbein, 1980). Theoretically this provides the best environment for achieving learning outcomes.

The research questions which guided this study were

1. Are attitude toward social networking and subjective norm of social networking for distance learning positively associated with intention to use social networking for distance learning?

2. Is intention to use social networking for distance learning positively associated with use of social networking for distance learning?

The sample consisted of 56 faculty members who teach distance courses responses. Demographic information was collected for each participant (see Table 3). The faculty members represented a diverse population. Questions asked participants their age (measured in years), sex
### Demographics

<table>
<thead>
<tr>
<th>Responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
</tr>
<tr>
<td>No response</td>
<td>02</td>
</tr>
<tr>
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<td>Median</td>
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<tr>
<td>Average/Mean</td>
<td>49</td>
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<tr>
<td>College</td>
<td></td>
</tr>
<tr>
<td>Arts and Sciences</td>
<td>7</td>
</tr>
<tr>
<td>Business</td>
<td>7</td>
</tr>
<tr>
<td>Communications</td>
<td>3</td>
</tr>
<tr>
<td>Education</td>
<td>7</td>
</tr>
<tr>
<td>Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Community Health Sciences</td>
<td>2</td>
</tr>
<tr>
<td>College</td>
<td></td>
</tr>
<tr>
<td>Human Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Nursing</td>
<td>7</td>
</tr>
<tr>
<td>Social Work</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
</tbody>
</table>

Surveys were collected from 56 faculty members, ages 29 to 74. Double the number of females (36) as males (18) were in the sample. By college, 25% were members of the Human Sciences
Department. Equal numbers (n=7 or 12.5 %) were from Arts and Sciences, Business, Nursing, and Education colleges. Other respondents were from Engineering (n=3), Community Health Sciences (n=2), Communication (n=3), and Social Work (n=5). One respondent chose “other” but did not define which.

Data Analysis

The modified TRA survey questions were grouped into four categories for each construct. Each construct was summed and placed onto the model.

To address the first research question, Are attitude toward social networking and subjective norm of social networking for distance learning positively associated with intention to use social networking for distance learning?, the first two constructs, attitude and subjective norm, were used to predict intention through a multiple regression analysis. The constructs, attitude and subjective norm, were entered simultaneously into the model to account for variance in the data. The multiple regression analysis resulted in statistically significant values.

Attitude was shown to strongly predict intention with Beta coefficient of .704. Subjective norm was measured as an indication of intention in the regression. It showed a positive relationship (.222) with intention, although not as strong as the attitude factor. R², used to validate Beta, was strong at 75%. R² shows the percentage of variability in the outcomes explained by the model. Overall, the model was successful in reliably predicting the positive relationships between the dependent and independent variables.

To address the second research question, Is intention to use social networking for distance learning positively associated with use of social networking for distance learning?, the TRA model used a correlation. There was a 95% correlation between the scores for intention and behavior which indicated a very strong statistical model fit.
In conclusion, the TRA model predicts faculty intentions and, in the present study, it predicted 95% of behaviors when implementing social networking in distance learning courses. This model has validity and gives particular relevance to some broader issues concerning faculty education and implementation of social networking sites in distance learning courses.
CHAPTER V
SUMMARY, DISCUSSION, IMPLICATIONS, RECOMMENDATIONS,
AND CONCLUSIONS

Summary

With increasing efforts in distance learning and growing enrollments, faculty and students are using internet technologies as a medium for learning. However, studies regarding social networking use in distance learning courses are not prevalent in the literature. The evidence of differing social networking use between age groups means its use in education would differ as teachers and students are not typically in the same age demographic (Peslak et al., 2012; Pew, 2018). In addition, most studies are focused on sites which were more popular at another time (Chugh & Ruhi, 2018). Faculty and students should have similar knowledge of social networking technologies in order to create a thriving learning environment (Ajzen & Fishbein, 1980). The implementation of more applications and newer social networking technologies can enhance distance learning in higher education.

This research presents measures of attitude, subjective norm, intention, and behavior of distance faculty members at one southeastern research university. This study contributes data specific to distance faculty members who were developing courses for delivery in 2019.

The research questions modeled prior research and were formed using the Theory of Reasoned Action (TRA). The TRA has been used across many disciplines since its development (Peslak et al., 2012). The research questions which guided this study were
1. Are attitude toward social networking and subjective norm of social networking for distance learning positively associated with intention to use social networking for distance learning?

2. Is intention to use social networking for distance learning positively associated with use of social networking for distance learning?

Discussion

The findings of this study revealed the TRA provides a model fit for predicting behaviors of faculty using social networking in distance learning courses. As proposed in other research, social networking provides advantages over other communication methods such as email, and is often used by students (Peslak et al., 2012; Sheldon, 2016). Prior research has shown the TRA as a model fit in student populations; the findings of this study provide further evidence for using the TRA model in the faculty population (Peslak et al., 2012).

Another finding of consideration as justification for the outcomes was the median age of the sample. As found in the literature, the median age for post-secondary teachers was 44.3 in the 2010 census, and the median age in this study was 45 (DataUSA, 2018). Given the evidence of median age as a sole criterion one can reasonably relate the data as being associated with accurate representation. Although the age parallels from 2010 to the sample in 2019 are readily apparent, the shift in technology and particularly technological use for education can shift. The study’s findings suggest faculty members are intending to accept social networking technology for distance learning courses.

Implications

Implications for faculty fitting into the model provides an opportunity for faculty training on the use of and benefits of social media technologies. Adjusting the environment around
faculty attitudes and subjective norms of social media use in distance learning would influence the faculty intentions and behaviors.

Such an environment could strengthen faculty understanding of how social networking could improve distance learning, “allow[ing] further penetration of this useful technology and improv[ing] overall communications. This could have significant positive cost and productivity improvements for businesses and organizations” (Peslak et al., 2012, p. 12). Peslak et al. also noted that subjective norms are “positively associated with intention to use [social networking]” (2012, p. 12). This implies that as the number of faculty using social networking to enhance distance learning increases, those not using social networking will begin to feel pressure from their peers to begin to include it in their distance learning classes as well. This supports the findings of the present study, which showed the TRA model influences behaviors by changing attitudes, subjective norms, and, therefore, intentions toward behaviors. Informing those who train and develop distance learning faculty, administrators, colleagues and peers would positively influence the outcome of faculty members incorporating these technologies into their courses.

Students have already been studied and are ready to use social networking for distance learning (Peslak, et al., 2012). The results of this study imply both students and faculty could potentially benefit from using social networking technologies, engaging with beneficial technologies familiar to students which leads to higher learning outcomes (Bosman & Zagenczyk, 2011). Fostering a positive environment surrounding this topic will purposefully facilitate behavior change needed to implement technologies for use in distance learning courses.

Results of this study imply there is room to re-examine the technologies used in distance learning courses. It is important for all educational stakeholders, including administrators,
designers, and staff, to consider facilitating the use of social networking technologies for higher learning outcomes in distance learning courses.

**Recommendations for Future Research**

This study used one model of one theory of behavior. Other theories of behavior change exist, and other ways for modeling statistical analysis may be appropriate in a different study.

There is also a need for case studies and empirical research on the implementation of social networking sites in distance learning courses. Case studies could offer best practices through the use of social networking technologies. The researcher imagines case studies within the realm of implementing sites. For example, an institution asks all faculty members to request students use a particular site for a particular task. As an idea, a researcher requests faculty members use Instagram for creating an online portfolio for marketing student work in creative disciplines such as art, photography, design. By creating and sharing original ideas, work, and stories, students are achieving the highest level of Bloom’s Taxonomy. In addition, the students are building a network following for career success as an artist or influencer. The measurement of this study might involve followers, engagement ratios, quality of work, and frequency of sharing ideas.

As attitudes and subjective norms, and intentions and behaviors vary by region, it is important to test different populations (Ajzen & Fishbein, 1980). A similar study applied to other populations would contribute to the research. Those populations involved in educational decision-making processes for distance learning might include administrators, designers, and adjunct faculty members.

As an administrator, knowing faculty members are ready to implement technologies can provide support for funding to implement workshops, hire outside training, and provide
incentives to use and measure the success of such programs. Providing training for faculty on how to use particular sites for learning provides beneficial information. Trainers can be app developers, tech enthusiasts, or possibly younger students.

Administrators encouraging the use of social networking has other implications. As faculty begin to use the technologies, other measures of the success might emerge. Longitudinally, social networking connections have the potential to impact longer term goals such as alumni development and fundraising. For example, if a student was required to use a site such as Instagram for class, and that student connected with other students and teachers, the student has stronger connections within the social algorithm to be connected with their alma mater in the future.

Faculty members should consider the basic components of social platforms and how those sites correspond to learning outcomes for courses. One example is to include LinkedIn in a professional development course. The use of a professional social networking platform in postsecondary education supports a tertiary goal of professional networking beyond the classroom.

Adjunct faculty members are relevant to the results of this study as educators. Studies on adjuncts implementing social networking for distance learning may consider many other elements unique to the population. Case studies for those adjuncts who are primarily communication technology professionals would present particularly relevant ideas for implementing social networking in courses.

In addition to population, sample size for this study was relatively small and from one region of the US, and further research is needed to address other geographic areas. Other areas of
exploration might differ in social and cultural norms. Larger sample sizes present more compelling data and may vary in findings.

Additionally, comparing two groups (faculty and students) during one specific period of time could be more informative by using time and location controls. Concerning time, using the same study at another point in time may impact the results, as technologies and attitudes surrounding the use of technologies shift adapt with time (Pew, 2016).

Finally, studies detailing continuing education delivered in the area of social networking for distance learning are necessary. Faculty are open to the idea of implementing social networking in distance learning courses but need the resources. Documenting the process of faculty programming to teach the use of social networking for distance learning would be beneficial, as well as measuring the effectiveness of the social networking utilization on factors such as student learning outcomes.

**Conclusions**

In conclusion, the study found distance faculty members’ intentions are influenced by their **attitudes and subjective norms**. This area of research shows one simplistic view of the problem. This sound and coherent theory has proven valid and reliable in predicting outcomes in multiple scenarios. The results have potential to be effective in distance learning settings. The researcher looks forward to expanding research addressing the effective application of social networking in distance education.
REFERENCES


Outlaw, V. (2014). Descriptive study exploring faculty's perceptions when transitioning to a new learning management system (Order No. 3639205). Available from Dissertations & Theses @ University of Alabama. (1620540780). Retrieved from https://search.proquest.com/docview/1620540780?accountid=14472


## Appendices and Annexures

### Appendix 1 Survey Questions and Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Abbreviation</th>
<th>Questions/Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>ATTITUDE</td>
<td>Social networking is good.</td>
</tr>
<tr>
<td>Attitude</td>
<td>ATTITUDE</td>
<td>Social networking is useful.</td>
</tr>
<tr>
<td>Attitude</td>
<td>ATTITUDE</td>
<td>Social networking is worthwhile.</td>
</tr>
<tr>
<td>Attitude</td>
<td>ATTITUDE</td>
<td>Social networking is helpful.</td>
</tr>
<tr>
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<td>ATTITUDE</td>
<td>Social networking is valuable.</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>SUBJNORM</td>
<td>Most people who are important to me think I should use social networking.</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>SUBJNORM</td>
<td>Close friends and family think it is a good idea to use social networking</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>SUBJNORM</td>
<td>Important people want me to use social networking</td>
</tr>
<tr>
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<td>SUBJNORM</td>
<td>People who I listen to could influence me to use social networking</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>INTENTION</td>
<td>I predict I will use social networking</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>INTENTION</td>
<td>I intend to use social networking</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>INTENTION</td>
<td>I plan to use social networking</td>
</tr>
<tr>
<td>Actual System Use</td>
<td>BEHAVIOR</td>
<td>I plan to use social networking in the future.</td>
</tr>
<tr>
<td>Actual System Use</td>
<td>BEHAVIOR</td>
<td>I currently use social networking</td>
</tr>
<tr>
<td>Actual System Use</td>
<td>BEHAVIOR</td>
<td>I will continue to use social networking.</td>
</tr>
</tbody>
</table>
APPENDIX B

SPSS OUTPUT FOR MULTIPLE REGRESSION
<table>
<thead>
<tr>
<th>MODEL</th>
<th>Unstandardized B</th>
<th>Coefficients Standard Error</th>
<th>Standardized Coefficients Beta</th>
<th>t</th>
<th>Sig. (P)</th>
<th>80% Confidence Lower bound</th>
<th>80% Confidence Upper bound</th>
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<tbody>
<tr>
<td>Constant</td>
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<td>1.055</td>
<td>-1.417</td>
<td>.162</td>
<td>-2.885</td>
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<td></td>
</tr>
<tr>
<td>Attitude</td>
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<td>.076</td>
<td>.704</td>
<td>7.752</td>
<td>.000</td>
<td>.492</td>
<td>.690</td>
</tr>
<tr>
<td>Subjective Norm</td>
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<td>.107</td>
<td>.222</td>
<td>2.443</td>
<td>.018</td>
<td>1.22</td>
<td>.398</td>
</tr>
</tbody>
</table>
APPENDIX C

IRB APPROVAL
February 22, 2019

Annie Hunter Jones
ELPTS
Box 870158

Re: IRB # EX-19-CM-024: "Faculty Intentions for Using Social Media Sites in Distance Learning Courses"

Dear Mrs. Jones,

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your application has been given exempt approval according to 45 CFR part 46. Approval has been given under exempt review category 2 as outlined below:

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

The approval for your application will lapse on February 21, 2020. If your research will continue beyond this date, please submit the annual report to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the IRB approved informed consent form to obtain consent from your participants.

Sincerely,

[Signature]

Carpentito T. Myles, MSM, CLM, CIP
Director & Research Compliance Officer

cc: Dr. Vivian Wright