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# A Qualitative Case Study of Facebook and Its Perceived Impact on Social Connectivity

Janet Staker Woerner  
*Walden University*

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# Walden University

College of Education

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Janet Staker Woerner

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Walden University  
2015

Abstract

A Qualitative Case Study of Facebook and Its Perceived Impact on Social Connectivity

by

Janet Staker Woerner

MS, Illinois Institute of Technology, 2003

BS, Illinois State University, 1973

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

December 2015

## Abstract

While the number of students using web-based social networks has increased, the effects of such networks on education have been unclear. Therefore, this research used a case study approach to study the relationship between social connectivity and the use of Facebook in a higher education classroom as well as the relationship between age and the use of Facebook. The intent was to understand the perceived impact of the use of a social media tool on bonding, bridging, and linking. The conceptual framework was built around the theories of social capital of Lin, Portes, Putnam, and Woolcock. The research questions addressed how the use of Facebook impacted social connectivity as part of the required interactions in a traditional undergraduate classroom and how different generations used Facebook in that setting. A self-selected sample of 13 out of 13 potential participants was used to acquire demographic data and to capture learner perceptions of their Facebook experience by way of a questionnaire and a focus group. NVivo10 content analysis software used thematic coding derived from multiple close readings of the collected data to surface relationships supporting the presence of social capital. The results indicated that learners' use of Facebook influenced bridging, bonding, and linking within the classroom; however, learners wanted to keep their academic social networking separate from their personal use. The study also noted how students from different generations use Facebook in different ways. Understanding the role of social media tools may assist in innovative curriculum development that employs social networking tools, as well as help faculty determine how to use such tools to create a deeper learning experience for students.

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## Dedication

This study is dedicated to all learners present and future. Never before has there been such power to connect and empower all for lifelong learning.

## Acknowledgments

A special thank you to Dr. Ronald Paige, dissertation chair, who took my dissertation to another level. I am grateful for your guidance. Finally, I would like to thank Dr. Kate Fedewa for her assistance with editing and her deep knowledge of APA. Thank you all.

Respectfully,

Janet Staker Woerner

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## Chapter 1: Introduction to the Study

Castells (2001) described the Internet as the “fabric of our lives” (p. 1) because the Internet has become part of daily life. The Internet transitioned into the public domain in 1995 and new applications became available for communication, commerce, entertainment, and information. Early forms of web-based social networking involved chat and instant messaging. These evolved into the next generation of web-based social networking tools with the introduction of Facebook in 2004 (Alexander, 2006).

The term *Web 2.0* was coined by O’Reilly (2007) to reflect the move from static software to portal-based services where users are able to establish a presence on the Internet with other users in a shared community group around the globe. Web 2.0 includes web-based social networking tools and plays an important role in connecting individuals in digital space. The Internet represents a new phase of communication in which social networking portals enable connections between diverse groups of users at an increasingly accelerated pace through choices such as Facebook, LinkedIn, Twitter, and YouTube (Boyd & Ellison, 2007; Hampton, Goulet, Purcell, & Rainie, 2011).

There has been a lack of research regarding the impact of the use of Facebook as a tool in the higher education classroom. In this study, I explored the use of Facebook in a university classroom and its influence on social connectivity. By understanding the use of Facebook and its influence on social connectivity in the higher education classroom, educators can determine if there is a role for web-based social networking tools in the higher education classroom. This resource may be of value to students in today’s online environment and may help develop communication with their classmates and faculty.

With a deeper understanding of web-based social networking tools and their value, administrators, faculty, and staff can develop relevant curriculum, design physical classrooms that are aligned with technology use, and develop university policies that will support current and future technologies.

Technology will play an important role in the university experience of future learners, who are already pervasive users of digital media. Strategies regarding technology integration will need to be in place for the university to be relevant to these learners. Johnson, Adams, Estrada, and Freeman (2014) stated institutions will need to examine areas of policy, leadership, and practice to support the use of web-based social networking tools within the institution. Boyd and Ellison (2007) pointed out the importance of providing an ongoing conversation about tools such as Facebook. It is important to consider new innovations because learners who have connected to technology at an early age may learn differently. Without consideration of these tools, academics overlook an important conduit to enhance learning and possibly increase the social capital of learners. With the web-based social networking landscape rapidly changing and the use of web-based social networking part of everyday life, it is timely to study this topic.

Included in Chapter 1 is a brief review of the literature to support the need to study Facebook. Other sections of Chapter 1 include the problem statement, an explanation of the purpose of the study, and research questions. The conceptual framework provides the lens through which the study was conducted. Finally, the limitations, assumptions, and significance of the study are stated.

## **Background**

The use of technology by college students has changed students' approach to learning in the higher education environment (Kord & Wolf-Wendel, 2009). University students use technology via a vast array of tools such as smart phones, iPads, tablets, online management systems, RSS feeds, blogs, wikis, text messaging, Skype, and web-based social networking sites. These tools enable university students to connect on a continual basis, and pervasive access to information provides new ways to communicate (Cassidy et al., 2011; Lodge, 2010). The ongoing introduction of new web-based social networking tools has generated interest in how these tools may be utilized in the classroom. While there have been many studies about the use of web-based social networking tools, there has been little research on the use of Facebook and its influence on social connectivity for academic outcomes.

Social capital as defined by Woolcock (1998) is made up of two important attributes: embeddedness and autonomy to promote trust, norms, and networks (p. 161). Putnam (2000), Stone (2003), and Woolcock identified three attributes of social capital as bonding, bridging, and linking. They described bonding as networks within a small circle where members know each other, as in a family. They described bridging as a series of networks that intersect to provide resource exchange between two disparate groups and defined linking as the use of relationships within the power hierarchy to move ahead. Social capital and level of connectivity are the lenses with which to view how web-based social networking might be used in the classroom to provide a richer experience for students.



Boyd and Ellison (2007) defined social networking sites as web-based spaces containing three attributes: a profile, lists of users who can connect, and the ability to grow the list of users outside of an individual network (p. 211). The uniqueness of social networking sites is that an individual's social network can be made visible for others to view. Social networking sites allow for a sort of transparency not seen before. Ellison, Steinfield, and Lampe (2007) investigated Facebook as a social networking site, noted Facebook is used to support both existing ties and the growth of new ties, and went on to further explore connectivity and the relationship to social capital. They noted the existence of a positive relationship between social capital and use of Facebook. Ellison et al. (2007) suggested Facebook could play an important part in students' use and development of social capital, but did not apply their research to the classroom, focusing rather on the social aspects of students being able to connect to a wider network of friends for socializing. Steinfield, Ellison, and Lampe (2008) stated Facebook might have implications for the classroom, but in turn focused on relationships and issues such as self-esteem and psychological well-being. In a later study Ellison, Steinfield, and Lampe (2011) focused on the implications of social capital and use of Facebook in communication strategies. Their work honed in on the strategies students used with Facebook to connect, but did not focus on the overall outcomes of the use of Facebook to increase social connectivity for academic purposes.

As the use of Facebook has grown, attention has now turned to how academic outcomes may be influenced by the use of web-based social networking tools. Junco (2012a) completed exploratory research on the relationship between frequency and use of

Facebook and suggested that engagement is an important component to study. Heiberger and Harper (2008) noted the use of Facebook as the direct link to large amounts of information that students use to increase engagement and involvement with others. Valenzuela, Park, and Kee (2009) found Facebook plays a role in engagement within the classroom, using satisfaction, trust, and overall participation as indicators. However, their literature review lacked studies describing how Facebook was used in the classroom and the relationship of Facebook to social capital. Some of this is due to the rapidly shifting use of the tools (Heiberger & Harper, 2008; Junco, 2012a; Ratliff, 2011; Roblyer, McDaniel, Webb, Herman, & Witty, 2010; Sarsar & Harmon, 2010).

Another research area has been the generational use of web-based social networking tools. Duggan and Brenner (2013) studied the demographic profiles of social media users; results indicated that the younger the user the more likely he or she was to use technology tools. According to their study, two thirds of online adults aged 18 to 29 preferred Facebook. The rapid changes to the landscape of web-based social networking tools and who is using them may provide valuable insights for institutions to plan for the learner who is aligned with technology.

My intention with this study was to understand the use of Facebook in a higher education classroom, the relationship of Facebook to social connectivity, and the role of age in the use of Facebook. Higher education administrators need to consider how to prepare faculty to be relevant instructors with these tools, how to provide physical infrastructure for the university to support pervasive use of technology, and how to assist in providing an overall policy for the use of these tools within the university.

### **Problem Statement**

Early research in the area of web-based social networking focused on identifying the tools and providing an ongoing timeline of public adoption. As the use of web-based social networking grew, researchers turned to how web-based social networking might be used within a university system infrastructure to provide student services, increase student retention, spread current information about daily happenings on campus, and communicate campus wide alerts (Boyd & Ellison, 2007). Barczyk and Duncan (2011) discussed the growth of the use of web-based social networking tools within the university and noted use by faculty, application to classroom teaching, and use in scholarly work; they did not, however, explore the relationship between the acquisition of social capital and use of web-based social networking tools within the classroom. Greenhow, Robelia, and Hughes (2009) acknowledged the rapid growth of the use of Web 2.0 in higher education and concluded more in-depth research is needed regarding how and why students use social networking tools. Further research may assist educators in uncovering the relationships between engagement, social connectivity, and Facebook within the classroom. The current research is limited, with large areas of the web-based social networking environment untapped. In addition, there has been a lack of exploratory research and studies that traced the use of social networking over a long period of time (Buzetto-More, 2012; Ellison et al., 2011; Junco, 2012; Kord & Wolf-Wendel, 2009). Ellison et al. (2011) explored the use of Facebook as a web-based social networking tool; however, the focus of their study was how particular functions of Facebook result in growth of social capital. Duggan and Brenner (2013) examined the demographic make-up

of the web-based social networking user, building on the work of Howe and Strauss (2000) to explore the role of age in use of technology tools. A recent report on an update of social media use for 2013 stated the number of online adults had risen to 73% and pointed to Facebook as the most used site, although users were starting to visit many different sites (Duggan & Smith, 2014, p. 7). Of interest for this study is how the different age groups use Facebook in the classroom to expand their social capital.

Howe and Strauss (2000) completed research on millennials, those born after 1982. Their discovery was that millennials possess attributes that may support a different way of learning because of how they have been raised along with their ubiquitous connectivity via technology. Questions to be examined in this study were how and why students use Facebook for social connectivity within the classroom. Furthermore, the study established the relationship between bridging, bonding, and linking using Facebook. These questions were positioned with the different generations using Facebook. I employed a qualitative case study methodology to survey and interview students using social networking tools in the higher education classroom. My intent was to understand the relationship between the use of Facebook and social connectivity within the classroom. Understanding how Facebook can be used in the classroom will assist faculty in designing curriculum and utilizing new forms of communication, as well as allow a continuous flow of information between students and faculty. The importance of the study is to offer higher education new perspectives on the role of web-based social networking tools within the classroom.

### **Purpose of Study**

The purpose of this study was to provide faculty and administrators with a better understanding of the role of Facebook in a higher education business course.

Understanding the role of web-based social media tools and how they might contribute to the expansion of social connectivity could assist higher education faculty and administrators in adding value to the classroom experience. The stakeholders include the learners, faculty, administrators, and finally people within the workplace. If learners can leverage these tools within the university setting, they may be able to transition these skills into the workplace and further for lifelong learning. In a time where mobility and change is evident, it is important to connect these skills. If society is moving toward more web-based social networking tools, then students must be prepared to employ these tools in the classroom as well as the workplace with the necessary skill level. This study provides information from the students' perspective on how to integrate the use of web-based social networking within a course to increase social connectivity. It also provides insight regarding what techniques students perceive as beneficial and ideas regarding how to enrich learning for a better learning experience.

### **Research Questions**

Two main questions guided this study:

1. How does the use of Facebook impact social connectivity within the classroom?
  - a. How does the use of Facebook influence linking?
  - b. How does the use of Facebook influence bridging?

- c. How does the use of Facebook influence bonding?
2. How do different generations use Facebook in the classroom?

### **Conceptual Framework**

The conceptual framework for this study was based upon the theories of social capital proposed by Lin (1999), Portes (2000), Putnam (2000), and Woolcock (1998). This conceptual framework provided a lens to study web-based social networking tools such as Facebook.

Lin (1999) defined social capital “as resources embedded in a social structure which are accessed and/or mobilized in purposive actions” (p. 35). Social capital is dependent upon participants being active and interacting on a continued basis to maintain the network. This ongoing interaction supports the value of social capital to the whole and in and of itself creates information networks. Those networks act as a conduit for vast amounts of information to flow between participants, thus creating value for the community of users. Putnam (2000) suggested that social capital was waning in the late 20th century due to women moving into the workforce, the ongoing movement of families for job opportunities, the changing profile of what constitutes a family, and finally the changing nature of how people use leisure time. Putnam’s idea of social capital was based upon face-to-face contact building into a community. In this study, I explored how a technology-based tool such as Facebook may be used as a conduit to draw individuals together, thus creating social capital. Social capital is vital to a society’s well-being, and the exploration of technology-based tools may provide valuable insights into the ongoing evolution of social capital and the role it plays in higher education.

According to Helliwell and Putnam (1999), there exists a relationship between social capital, education, and social engagement. Ellison et al. (2011), as well as Junco (2012a), have added to the literature that a positive relationship exists between the use of web-based social networking tools and development of social capital. Junco noted early studies were exploratory and more research needs to be completed.

Social capital is a viable part of a working society to create a preferred outcome. Social capital provides a conduit for information flow, identifies influencers, and allows individuals to be recognized and identified (Lin, 1999; Portes, 2000; Putnam, 2000; Woolcock, 1998). Social capital consists of three attributes identified as structure, the opportunity or accessibility to connect via strong or weak ties, and finally the actual use of these attributes (Lin, 1999). Putnam (1995) raised the question about the potential of electronic networks in creating social capital; he imagined technology would change the discussion in regard to social capital. The concepts of bridging, bonding, and linking were identified by Woolcock (1998) as key to the role of social capital. Bonding, bridging, and linking can be applied to the use of web-based social networking as vehicles to allow greater rather than less access to resources. Woolcock described bonding as those ties developed through a close family relationship between parents and children or extended family. Linking and bridging provide opportunities for individuals to connect outside of their close ties. Linking and bridging can be optimized to create new connections and opportunities. To date, few researchers have studied the connection of social capital and the use of web-based social networking. This study explored such a connection as well as the differences in how generations use bonding and bridging.

The sheer speed of use and information flow in digital environments could provide new insights into social capital in modern day societies. Siemens (2005) added to the body of work on social capital with his theory of connectivism, which suggested that technology is the lever that allows accelerated structure, accessibility, and use (Lin, 1999; Portes, 2000; Putnam, 2000; Woolcock, 1998). Furthermore, using the lens of social capital, Siemens asked if the use of technology-based tools, such as Facebook, could strengthen social capital, not by face-to-face contact, but rather through a larger, more expansive use of information networks that would be available on a real time basis.

Lastly, Howe and Strauss (2000) provided literature on the use of technology by different age groups and noted attributes of those who leverage technology. Their work provided another element in the study of the use of social capital as it relates to technology and provides a backdrop of how differences in chronological age could impact the use of web-based technology tools to increase social capital.

### **Nature of the Study**

I selected a qualitative case study approach to obtain insights into how students use Facebook within a classroom. A questionnaire was given to collect demographics and descriptive information about age, gender, and year in school, ownership of mobile devices, identification of social networking sites used, and time spent on social networking. Data were collected from two sections of a Fall 2014 undergraduate business class that used Facebook for assignments during the 8 weeks of the course. A business faculty member other than myself taught the course. The level of engagement and building of social connectivity within the classroom was investigated. A focus group was



used to help me understand how students felt about their level of engagement in the class, if they were building new contacts within class, and if Facebook assisted them in communication with their peers. In addition, the role of different age groups and their use of Facebook was examined.

### **Operational Definitions**

In this section, I identify operational definitions that appear throughout the study.

*Web 2.0* is a term used to define the ability to use hyperlinks to create interactivity with millions of websites and the ability for every person to create content that can be sent to all Internet users. It is the framework for identification of the interactive tools used in social networking (Curran, Murray, & Christian, 2007, p. 290).

*Social networking sites* are phenomena that use web-based tools to allow individuals to link to millions of other sites, domains, and individuals through open software. This space is highly interactive and can take the form of mixed media and be both social and consumer-driven (Boyd & Ellison, 2007, p. 211).

*Social capital* as defined by Lin (1999) is the use of available resources within society for individual actions. Stone (2003) added that trust and mutual utilization play a role in the development of social capital. Three forms of social capital according to Putnam (2000) and Woolcock (1998) are bonding, which is the ability to build strong relationships with members who are arranged in close relationships as in a family; bridging, which is the ability to use a multifaceted approach where contacts are spread out across many disparate areas to create connections that help the individual move

ahead; and linking, which is the relationships within a structure, especially relationships with those in power to help access more resources or power.

### **Assumptions**

This study was based on the following assumptions: (a) participants have given honest data to me as the researcher, (b) participants have shared their information on the use of web-based social media in an open and forthright manner, and (c) discussion posts could be analyzed to obtain information to make recommendations for next steps. These assumptions were necessary to identify themes or patterns regarding how students used web-based social networking in the setting of higher education.

### **Delimitations and Scope**

This research concentrated on undergraduate university students in a for-profit, higher education setting. The use of web-based social networking, specifically Facebook, by university students in a business course was the focus of the study. It should be noted that not all known web-based social media sites were examined; rather, the focus was on the use of Facebook. I selected Facebook due to its pervasive use, as supported by Smith and Caruso (2010).

### **Limitations**

The study was limited by the transferability of the data collected to a larger scale. The responses of the class may not represent the responses of larger demographic groups. Participants were encouraged to answer in an open and candid manner; however, the data only documented what the participants were willing to share at a specific point in time.

I have been involved in the realm of social networking and have some preconceived biases on the use of web-based social networking. Therefore, I was mindful to avoid projecting personal opinions and bias onto the results. I was also mindful not to interact with the faculty member teaching the class, so that he could conduct a normal classroom routine and feel free of interference.

### **Significance of the Study**

The use of web-based social networking tools has been increasing in higher education (Greenhow et al., 2009). How and where it is being used is of great interest. This study provided new knowledge regarding the use of web-based social networking tools in the higher education classroom. The understanding of students' use of Facebook may provide new pedagogies for universities to create learning experiences. The purpose of this study was to document the perceptions of university students using social networking for academic purposes. Technology may be very different as new applications are used for learning opportunities. The study explored how university students approach the higher education experience, which may be different than before the pervasive use of web-based social networking. New behaviors and ways of learning in higher education environments may arise out of ongoing research into web-based social networking tools. Facebook has been studied to consider how students use social networking tools for bonding, bridging, and linking and to explore the impact of social media on social connectivity.

If academics understand how university students use web-based social networking as an educational tool, new frameworks within higher education can be designed to allow

the optimum use and support of these tools to motivate learners and to facilitate learning communities. Johnson et al. (2014) noted a paradigm shift is underway in higher education and policy makers need new knowledge regarding the new ways students learn in order to understand this shift's impact on higher education. By understanding the subtle changes in how university students connect, policy makers and teachers will have the opportunity to realign academic models to leverage this shift in the higher education environment. Understanding the role of age in technology adaptation and the use of web-based social media tools such as Facebook will help guide institutions to adapt these tools to support the curriculum.

### **Summary**

Web-based social networking is a phenomenon that has already changed the way society communicates. Understanding the relationship between using a web-based social networking tool such as Facebook and the age groups using such tools may shape universities' future delivery of curriculum. It is important to understand how technology-based tools are used to codify, transmit, store, and retrieve information as well as the relationship of this information to a richer learning experience. In addition, it is important to grasp that technology-based communication tools exist on a moving continuum, and Web 2.0 is just one of many new tools for communication on a global basis. If the academic community can understand how university students use web-based social networking as an educational tool, institutions can provide frameworks to support optimum use of such tools for learning.

Chapter 1 provided an introduction to the topic of web-based social networking in higher education and the significance of studying this phenomenon. This chapter included the background literature, problem statement, research questions, and conceptual framework of the study, and also contained its purpose and nature. Key terms, assumptions, scope and delimitations, and limitations were provided. In summary, Chapter 1 provided an overview of the study to introduce the reader to the problem statement and the process I used to address key questions. Chapter 2 provides a literature review on web-based social networking. The literature review provides meaningful information about the current use of web-based social networking. Chapter 3 describes the methodology used for this study, along with details of the research design, methodology, data collection, and data analysis.

## Chapter 2: Literature Review

### **Introduction**

The Internet was developed by government scientists, academic researchers, and industry visionaries in the 1960s. These early pioneers imagined that the Internet had possibilities and believed the development of the Internet could have far-reaching implications (Leiner et al., 1997). The Internet became part of the public domain in 1995 and rapidly evolved into a complex web of networks that allow individuals to connect for communication, information, commerce, and entertainment on an interactive platform around the world.

Boyd and Ellison (2007) identified the introduction of SixDegrees.com in 1997 as the beginning of web-based social networking sites. Since 1997, web-based social networks have continued to grow in numbers of users as well as in the variety of functions that support users as they collaborate, share, and create across the world. The explosion of new web-based social networking sites since the introduction of Facebook in 2004 opened up opportunities for users to leverage these new tools in the higher education classroom. Yet little is known about the use of these tools in the higher education classroom (Alexander, 2006; Barczyk & Duncan, 2011; Boyd & Ellison, 2007; Buzzetto-More, 2012; Greenhow et al., 2009; Hung & Yuen, 2010).

Howe and Strauss (2000) studied chronological age in the use of technology-based tools and studied different age groups and readiness to work with technology tools. In research on generations, they identified millennials as those born after 1982. According to Howe and Strauss, millennials often chose to work in small groups and

looked to peers to learn in an informal manner. In addition, Howe and Strauss noted attributes of millennials as having access to financial resources, reflecting diverse cultures, being eager to collaborate, and desiring recognition of achievement. Howe and Strauss brought to the fore questions of how generations would address a world rapidly embracing digital tools in every facet of daily life. Oblinger (2003) and Oblinger and Oblinger (2005) explored the relationship between the age of learners and readiness to use computers on an everyday basis. They noted students using web-based tools expected computer use to be part of the learning experience whether at home or in the classroom. Oblinger and Oblinger concluded that those individuals who use computers are much more aligned with a cross-functional approach to processing information than with a linear process. Their work supported Howe and Strauss's assertion that age does play a role in computer readiness.

Siemens (2006) offered a theory of connectivism, which addressed the rapidly growing use of web-based social networking sites and acknowledged that learners who have been connected with technology at a young age may learn via organic, collaborative, and spontaneous processes. Siemens applied his theory to the group of technology-savvy users who look beyond the captive classroom for how they learn. The rapid evolution of the Internet has given individuals access to a wide spectrum of resources. This applies to the higher education classroom as well. The use of web-based social networking tools has the promise of creating new and innovative ways for learners to engage in the classroom.

Chapter 2 provides an analysis of the conceptual framework of social capital that provided the lens for this study. After providing this analysis, the chapter then outlines the history of web-based social networking and discusses current research on the use of web-based social networking for university students. Current use of Facebook by students in higher education is highlighted to provide the latest studies on where Facebook is being used in higher education classrooms.

### **Literature Search Strategy**

The source material of this literature review was acquired through web-based databases and libraries, including Academic Search Premier, Ebsco Host databases, Edgewood College Library, ERIC (Education Research Information Center), EdITLib, Google Scholar, Herzing University Madison Library, the Indiana University Library System, ProQuest Central Complete, Sage Publications, University of Wisconsin-Madison libraries, and Walden University Library. Search engines included Google Scholar, World Cat, Google Books, Open Library, and SpringerLink. Keywords included *social networking, social network theory, sociology of social networking, history of computers and Internet, millennials, social capital, Facebook, social media, digital technology, digital world, higher education and digital tools, technology and social networking, social ties, digital university, and generational demographics*. There have been many studies that documented web-based social media sites, but few that discussed how students use web-based social networking.



### **Conceptual Framework**

The conceptual framework lens was based upon the theories of social capital provided by Lin (1999), Portes (2000), Putnam (2000), and Woolcock (1998). Putnam described social capital as a preferred norm that serves as an indicator of both economic and governmental well-being. Networks were identified by Putnam as necessary to transverse many planes in society and to create a society built upon trust rather than suspicion. Collaboration, which plays an important role in building social capital, is built over a period of time, in a way that is similar to adding money to a saving account. Social engagement allows for many to participate instead of just a few. Putnam noted the decrease of social capital in the United States in the 1990s and suggested working women, mobility in society, alternative lifestyles outside of the traditional family unit, and finally the use of leisure time to pursue other interests as possible explanations. Putnam also discussed the role of social capital in education and the overall importance to society for civic engagement.

While Putnam (2000) linked social capital to healthy civic engagement, Coleman (1988) defined social capital by its function. Social capital intersects with many different environments and requires action. The interaction of these different environments and players within these environments creates the structure in which these two functions take place. Coleman added to Putnam's theory in that he noted two attributes of social capital: trustworthiness and reciprocal obligations. The conduit for information plays an important role in social capital. Putnam's and Coleman's work aligned with Lin's (1999), which argued that social capital consists of interacting individuals who use social capital

to create new social capital through their ongoing interaction. Lin clarified her definition of social capital by identifying it as a resource that is deeply rooted in society and can be activated by individuals to result in further actions. Lin acknowledged the rise of cyber networks and questioned their long-term impact on social capital. When Putnam suggested social capital was on the decline, Lin had already wondered if the use of digital technology would expand the role of social capital. There was little way for Lin to know the coming explosion of web-based social networking sites in the early 2000s. However, Lin provided an alternate view from Putnam's statement that social capital was on the decline. Lin explained that just the opposite would happen: social capital would be on the rise with technology as the platform to engage individuals. Lin challenged the research community to study the growing role of technology and its relationship to social capital.

Howe and Strauss (2000) studied the demographic group named millennials, identified attributes of the group, and suggested millennials would demand changes in higher education learning. Siemens (2005) contributed a theory of connectivism in which society is in a continuous learning pattern open to ongoing revision based on networking ties.

### **Ties, Social Capital, and Social Networking**

Putnam (2000) and Woolcock (1998) used Granovetter's (1973) concept of strong and weak ties as well as how ties could be used to develop and expand social capital by connecting to other individuals. Granovetter conducted sociological research about the role of networks in a society to build social capital. Granovetter researched the strength of interpersonal ties, their use and the impact of the feedback loop. Granovetter used

specific criteria to measure the strength of ties: “a (probably linear) combination of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie” (p. 1362).

Granovetter (1973) posed the question of how strong and weak ties are used within a group of people to communicate. Weak ties would be a better conduit to reach large numbers of individuals based on the idea that strong ties prevent individuals from reaching out and bridging to other contacts outside their group. Weak ties may exist between individuals who never meet face-to-face but who are connected by like interests such as music, reading, or hobbies, by working on an academic project, or by meeting different individuals. Granovetter suggested creativity rises from the weak ties of heterogeneous groups of individuals interacting within that diverse group. Strong ties involve the phenomenon of bonding with the attributes of trust and a reciprocal relationship. Bridging creates a series of complex networks that intersect and transverse along many different planes and, as Granovetter would say, creates loose ties. Linking involves power and an attempt to climb up the authority chain.

An important finding was that linkage between strong ties was repetitive and dense, reinforcing the core values of strong ties (Granovetter, 1973). In contrast, weak ties provided scaffolding that was less dense and provided more possible bridges for flexibility in linkages. These gaps provided the needed space in which new ideas were propagated, and where innovation and creativity could prosper. Granovetter (1973) found that weak ties provided mobility within a hierarchical structure. Thus, individuals who had weak ties had some connections to a possible event or piece of information, which

they could use to achieve an outcome. Furthermore, Granovetter noted it was difficult for social systems to move forward without a stream of weak tie interaction. Weak ties allowed a society to progress and provided connections for many interactions at different levels.

Granovetter (1981) explored the impact of a dense, strong tie environment. If members of strong tie groups are isolated from new ideas, the group feeds upon itself, becoming even more insular. Communication is used differently in strong ties; because individuals know each other so well, the group lacks active listening skills, thus relying on implicit understanding among members of the group. Weak ties provide more intricate and nuanced messages and require greater synthesis. To further support this theory, Granovetter (1973) suggested strong ties promote uniformity in not only overt ways, but in groupthink as issues are addressed. To promote growth, weak ties are necessary for individuals to interact between strong tie groups. Granovetter's (1973, 1981) ideas were grounded from a sociological lens as he used the structure of class systems, member-only groups, and memberships into clubs or associations.

Before widespread use of digital technology, movement or ideas were spread in a society or culture over a period of time using both strong and weak ties. Weak tie groups were bridged by individuals who would use weak ties to provide the momentum to move an idea forward (Granovetter, 1973). Weak ties provided the type of communication that is an informal part of a society's culture. In addition, this type of informal communication takes place outside of the institutional boundaries that are determined by specific

guidelines. As noted by Granovetter (1973), this informal space is where many innovations are launched.

Critics of Granovetter have pointed out strong ties are needed in a society to provide stability. Society would have a difficult time moving forward without stability. However, Granovetter (1973) argued that weak and strong ties are a moving dyad continually evolving; at times a strong tie network is needed, and at other times the weak tie group is needed to move forward. Granovetter uncovered important phenomena within human interactions. His work was introduced long before the use of web-based social tools; still, Web 2.0 in many ways exemplifies Granovetter's argument that weak ties lead to more innovation and creativity.

In 1973, the Internet was not public; however, Granovetter understood the importance of weak ties long before web-based social networking existed. In the same time period, Granovetter (1973) imagined how the tool of weak ties, once unleashed, could alter how individuals communicate. Granovetter imagined that a tool could support the exponential use of weak ties to provide a level of connectivity never previously imagined to be possible. Granovetter's work provided researchers with the framework of weak ties to align to the use of web-based social networking. What Granovetter imagined as person-to-person communication exploded into a network of touch points to support a new type of communication that transcends physical boundaries, age, gender, and economic status. The theories of Coleman (1988), Helliwell and Putnam (1999), Lin (1999), Portes (2000), Putnam (2000, 2001), and Woolcock (1998) suggest that web-based social networking supports what Granovetter thought to be possible.

Stone (2003) expanded on the theories of social capital by providing an updated definition of social capital as a concept that describes the extent and nature of relationships people have with others, the relationships people have with their communities, and relationships between people and various services, institutions and systems (p. 13). Stone acknowledged social capital can be linked to economic security, the sense of civic responsibility, and good government. Ultimately, at its most basic form, social capital can be distributed to create new networks to add to the creation of new ideas or perspectives. Three components of social capital are bonding, bridging, and linking. Bonding consists of trust and reciprocity. Bridging is the vehicle to bringing together different networks that intersect at many different touch points, and linking is the use of social connections in a power chain. All three of these concepts can be applied to the use of web-based social networking.

### **Connectivism**

Building on Granovetter's work, Siemens (2005) offered a new look at how one connects to others through the theory of connectivism (p. 1). Connectivism is described as "the total integration of chaos, network, and complexity and self-organization theories" (p. 3). Connections are made in a rapidly changing environment, and the information is fluid as the number of connections is initiated, filtered, utilized, and then pushed aside for the next connection, a process that can add value to the user who places value on that particular piece of information. The communication environment becomes a marketplace whereby the users, not institutions, determine the importance of the information. In the higher education environment, information that comes from different connections could

manifest itself in new knowledge about an event. The addition of new knowledge could move the information process to a better outcome. The process itself becomes a fast-paced iterative process, continually fed outside of the normal institutionalized pathways of communication. Siemens' process of connectivism suggested an ever-evolving chain of events that allows the user to continually find new connections for information; thus an ongoing, random flow of information occurs.

Siemens (2006) tackled the meaning of learning and knowing using social networking to develop his theory. Siemens examined the characteristics of knowledge, how knowledge is obtained, and finally how knowledge might look in a different paradigm. Siemens suggested there are two broad characteristics of knowledge: "as it describes or explains some part of the world and [as] it can be used in some type of action" (p.vi). Using this as the starting point, Siemens challenged how learning took place in the past. Traditional learning was described by Siemens as a linear, step-by-step approach, placing all learning in an institutional box, confined by specific rules. The rigidity has not allowed the system to expand because it must conform to the box.

Siemens (2005) underscored the idea that knowledge and learning are made by connections that are themselves the focal point of learning, rather than what an individual knows in a period of time. Knowledge continually evolves, being acquired and also shredded along the way. The underlying concept of Siemens' argument is that learners are navigating from one piece of information to another in a continual cycle of nodes or connections; thus knowledge and learning are in a continuous state of integration. Knowledge and learning are not finite or terminal, but rather ongoing in a converging

modality whereby new learning takes place to replace and update prior learning into a more robust knowledge repository.

Social networking may be used as the nodes or touch points for millennials to support their learning (Siemens, 2005). Thus the more pervasive use of web-based social networking can support individuals in their ability to acquire new knowledge and give the learner the opportunity to make connections at a much faster rate. The use of web-based social networking could accelerate the process of learning and new knowledge acquisition. Siemens (2005) is an important anchor in this study as his research expanded on the social capital conceptual framework and provides a theory of learning to link between social capital and the role of web-based social networking. Granovetter (1973), Howe and Strauss (2000), and Siemens (2005) provided a conceptual framework for examining the use of Facebook to create social capital. Granovetter (1973) laid the groundwork by exploring the human interaction between homogeneous groups, which Granovetter aligned with strong ties, and interactions with heterogeneous attributes, which he aligned with weak ties. His research theorized how new ideas, innovation, and creativity take place. In addition, Granovetter's work suggested communication within loose or weak touch points can provide a larger network of contacts. Siemens's theory of connectivism aligns with Granovetter's strong and weak tie theory as new technologies build on the use of loose ties for innovation.

The conceptual framework used to conduct this study is grounded in the understanding that social networking ties are an important part of individual communication. Siemens (2005) provided a conceptual framework for millennials and



how they use the tools of web-based social networking sites to communicate and possibly construct new knowledge. If this is the perception of millennials, understanding how web-based social networking tools can be used in the higher education environment is needed for higher education to remain relevant to students.

### **Millennials**

Changes in the way current university students communicate and learn require changes to the structure of higher education. These students are part of the group of individuals born after 1982 that Howe and Strauss (2000) have defined as the millennials. Their work detailed attributes of millennials and how these attributes have presented themselves in the workplace. As described by Howe and Strauss, millennials are protected, comfortable with collaboration, willing to take risks, not afraid of failure, diverse, team-oriented under stress, inclusive, and confident. Millennials also need to be in continual contact with others. Web-based social networking is the platform used by millennials to maintain continual contact with friends, family, and peers. In addition, the use of web-based social networking sites has allowed millennials to expand their circle of weak or loose ties on a global level. Oblinger (2003) stated that millennials view technology as part of their environment and the younger the age, the more probable the use of the Internet for business, school, and leisure. Oblinger suggested that millennials demand service and are not passive consumers of content. They are engaged and exhibit unique attitudes and perspectives as a result of how they look at the world. Millennials are looking for web-based social networking tools to allow them to be creators and participants, not just onlookers.

Cheung, Chiu, and Lee (2011) conducted exploratory studies on millennials and suggested further research needs to be done on a longitudinal scope. They found the limitation of their study resulted in inconclusive results. Howe and Strauss (2000) noted that the ability to communicate informally on a continual basis via technology-based tools is a common trait among millennials. This important factor must be acknowledged by members of higher education in order for them to better understand the current students enrolled in higher education institutions.

### **Evolution of Web 2.0**

The term *Web 2.0* was first used by O'Reilly (2007) to describe the next stage in the continuum of the introduction of applications and sites. O'Reilly described the first stage of the Web as the static web, in which the information was downloaded from a web site and consumed in a passive way. O'Reilly described Web 2.0 as interactive and without defined boundaries. Also noted by O'Reilly is the importance of hyperlinking, which allows individuals to move from one source, provided by other users, to another source in order to grow an organic network of connections. The focus is away from the software to the services and functions that can be introduced for all to use. Anderson (2007) highlighted the network as one of the most important aspects of Web2.0: it created the infrastructure whereby individuals could connect and create new networks determined by their interests. Web 2.0 does present some challenges, as noted by Anderson, in how to align with student learning styles. If students prefer the use of Web 2.0 tools over traditional classroom methods, higher education will be challenged to incorporate these tools readily. O'Reilly (2007) articulated again the main component of Web2.0 is a place

for “harnessing collective intelligence” (p. 2). Web 2.0 has provided new tools for social engagement. What remains to be seen is how these tools can be effectively integrated within the higher education classroom.

### **Social Networking**

The original purpose of web-based social networking as documented by Boyd and Ellison (2007) was for social uses in higher education. Oh, Chung, and Labianca (2004) reported that effective networkers use social capital to connect with individuals within a discipline, and looked at how social capital could be leveraged to bring about a level of group effectiveness. Oh et al. established the perspective that connectivity could provide common platforms on which new bodies of knowledge could be formed. In addition, the idea of social networking added to the codification of factual knowledge with the qualitative threads of institutional memory that each individual brought to engagement. The authors provided a common starting point for the legitimacy of social networking, while concurrently making the distinction between online and on-ground social networking and documenting common themes as starting points to develop the theory surrounding web-based social networking. Oh et al. provided the framework for the transition to web-based social networking, yet they did not extend their study to how web-based social networking was used by students.

Suh and Shin (2010) explored the nature of online social networking in regard to knowledge acquisition and sharing. According to Suh and Shin, there are three distinct ways to view social capital: the types of resources used in social connections, the use of primary and secondary sources, and the issues of private and public goods. The

combination of these three elements pointed to social capital as an aggregation of many different touch points. The quantitative study underscored the role of web-based social networks and the correlation between knowledge acquisition and collaboration. The authors had an important finding in the frequency of web-based social networking that added to the concept of knowledge sharing. In looking at the use of online social ties, Suh and Shin raised the implications of how online and offline social ties are employed in different ways. One is not more important than the other; both have a role to play.

Ellison et al. (2007) examined the link between social capital and online and offline networks used by university undergraduate students. They found the use of web-based social networking can increase the social capital of an individual. Ellison et al. (2007) identified one aspect of social capital as bridging, or what Granovetter (1973) identified as weak ties, which allows students to make connections with many different groups with little consequence. These ties require little investment, yet can have huge returns, especially if the weak ties develop into a stronger relationship for information-seeking users. Steinfield et al. (2008) reviewed the role of social capital, bridging, and a sense of well-being. Although it was one of the first longitudinal studies, the study did not focus in on academic outcomes. Their study was inconclusive; they found that the use of Facebook needs to be studied over time. Ellison et al. (2011) added to the literature by detailing the positive relationship between the use of Facebook and ongoing connections with disparate groups of people. There is little evidence that social capital is not part of web-based social networking tools. Elements of bridging, bonding, and linking, which

are key elements of social capital theory, are an important part of web-based social networking tools.

### **Web-Based Social Networks**

Boyd and Ellison (2007) provided a comprehensive overview of the field of social networking sites. They noted the continuous addition of new applications within the space defined as social networking sites. Boyd and Ellison provided a high level overview of the historical background, the definition of social networking sites changes, and the context for social networking sites (p. 2). While many studies use the terms *social network sites* and *social networking sites* interchangeably, Boyd and Ellison opted to focus on the former and steered away from the networking aspect of study. Social network sites use digital technology as the platform for a user to construct a profile within a wide network of contacts that have similar profiles. Profiles are individually constructed web pages that reflect the essence of an individual. The profile can consist of a photo as well as information such as age, sex, education, interests, and geographic location.

All profiles can be linked, and the user has the ability to block or deny permission to be connected with an individual (Boyd & Ellison, 2007). The first social network site, called SixDegrees.com, was introduced in 1997. The problem with this site was the timing, as Internet connections at that time were not ubiquitous, and only early adopters of technology had access to social network sites; thus, the number of individuals using them was limited. In addition, profiles were limited to basic functionality, and applications were scarce, leaving the individual with few options in communication after

posting a profile (Boyd & Ellison, 2007). The watershed year was 2004, when Facebook was widely acknowledged as a web-based social networking tool. Facebook's goal was to link as many individuals as possible in a global network. What started in a Harvard dorm room quickly became an intricate and exponentially growing network of individuals across the globe.

Social networking sites record how individuals connect in a very loose and unstructured process. The current literature suggests that social networking sites provide support for social connections that are already in existence (Boyd & Ellison, 2007). Individuals may already have a relationship with some of their connections; however, as the network continues to grow new connections are added to the network. Privacy issues are an important part of the conversation, and Boyd and Ellison identified such issues as user control, phishing, protection of privacy, and the inability to control content once it reaches the Internet.

### **Students' Use of Web-Based Social Networks**

Maran (2009) used descriptive research to provide information about students' use of web-based social networking and supported much of Boyd and Ellison's (2007) earlier work. According to Maran (2009), "social networks are online websites that allow users to create profiles about themselves and link to the profiles of their friends" (p. 7). The profiles contained information such as age, address, hobbies, interests, and photo images of the individual. What started as the Internet evolved into a collaborative space for many individuals to connect; social networking sites emerged as pervasive behavior. Maran discovered students use web-based social networking sites for at least one hour a

day. The most visited sites included online communities, news sites, sources for online research, and sites for sharing ideas with peers.

Maran's (2009) descriptive study provided an overview of how students view web-based social networking and pointed out that students are inclined to use online social networks for study-related material; however, this did not preclude the use of games, online shopping, and instant messaging. His study underscored the value of networking to college students, whether it is for learning or for social interaction. Maran noted a shift in student behavior as the role of web-based social networks grew in the lives of students.

A Pew Internet study by Hampton et al. (2011) documented and supported Maran's research, reporting that in 2008 28% of social networking site users were 18 to – 22 years old, thus reflecting the early adoption of web-based social networking sites among millennials. The study noted that as of 2010 the same age group made up only 16% of social networking site users; however, the overall use of web-based social networking had doubled. Hampton et al. found that the use of social networking sites has increased across all ages, suggesting the increasing adoption of web-based social networking sites (p. 8). This study was the first national survey of how social networking sites are used by adults. Hampton et al. did not specifically address survey questions about how web-based social networking is used for learning, especially for discussion posts, thus leaving a gap in the research on this topic.

Bolar (2009) conducted one of the first studies of the motives behind the use of web-based social networking. Bolar identified such factors as self-perception, self-image,

information gathering, problem solving and purchasing of services and goods as sources of enjoyment. Bolar's observations align with Howe and Strauss's (2000) identification of the attributes of millennials. In his research Bolar suggested that further exploration of the ways in which social networking affects self-perception and self-image is needed to understand the attitudes and learning preferences of current learners.

Bahk, Sheil, Rohm, and Lin (2010) identified MySpace and Facebook as the two social media sites most commonly used by students. The authors found a correlation between social networking and digital media dependency. Heavy use of technology translated into more dependence on digital media. This research suggested that the younger students are the more they will look to digital media to support their communication needs. Bahk et al. noted that the use of digital tools will only increase over time, thus prompting another call to action for educators to understand the shift taking place.

### **Latest Findings on the Use of Web-Based Social Networking Tools**

Luo (2010) noted that the breadth of online social networking use expands the channels a user has to connect with fellow students. Luo uncovered students' use of the library using social networking. A key finding was that students using online social networking felt they had a better understanding of fellow students outside of the academic environment. Luo suggested online social networking allows students to connect on a more inclusive level, and also possibly a deeper context. Luo offered the idea that the use of online social networking is one path to build better community among



students. One key finding by Luo was the need to introduce social networking sites into the higher education experience.

Nadkarni and Hofmann (2012) explored how the concept of needing to belong plays a strong role in the use of Facebook. When students use Facebook, they perceive they are part of a group and are thus more likely to participate with discussion posts; these posts lead to the students trying to belong and be recognized by the group. The researchers called for further exploration of this concept as well as the differences between individualistic cultures and collaborative cultures (p.247). Nadkarni and Hofmann concluded that Facebook does play an important role in student communication and warrants further examination.

Pempek, Yermolayeva, and Calvert (2009) asked students to journal their use of Facebook. They found that students were mostly using Facebook for personal and social interactions and almost no time was spent using Facebook for discussion posts or other learning-related activities. Their study supported the idea that students view Facebook as part of their everyday experience and that users were expanding their use of Facebook into new areas, creating their own pathways for knowledge creation. One factor involved in this new perspective is the ability of the user to be a creator of content. The purpose of this research study is to assist in understanding students' perceptions of the use of web-based social networking such as Facebook. This provides an interesting question regarding how such user behavior could be implemented in higher education.

Junco (2012a) conducted qualitative research on the level of student engagement using Facebook. His findings reflected increased student engagement and community for

those students who used Facebook on a regular basis. However, Junco also pointed out that the level of engagement can be positive or negative. Students could be playing games and thus engaged, but perhaps not engaged in the act of learning. This study reflects the fluid nature of the use of Facebook as the web-based social networking site adds new features and functions. Any study provides only a snapshot of the date of the study. Ongoing research is needed to follow new developments in the use of web-based social networking tools.

Cheung et al. (2011) looked into the frequency and ease of connectivity for students using Facebook. Their findings documented the extensive use of Facebook by students, but more for acceptance within a group and not for learning in the higher education classroom. This study indicated there is still much to be understood about the use of web-based social networking. This study prompted my own consideration of how the spontaneity of Facebook affects its integration into the classroom.

Kord and Wolf-Wendel (2009) conducted a study for a rural Midwestern, public, regional institution with a population of 4500 students. The survey was made up of three components: part one was perceptions of online social networking; part two measured levels of academic and social integration; and part three collected demographic information. According to their study, students spent an average of ten hours each week on web-based social networking (OSN). Facebook was the most popular of the sites and a majority of students felt it was important to their overall educational experience. Students used Facebook to exchange ideas and keep current on sources of information other students were using. Facebook provided an open forum for an exchange of ideas and

information. However, one item of importance was that students did not necessarily feel OSN was related to communication to faculty or with peers. This study provided an overview on the different types of data points collected about students and their use of web-based social networking, and confirmed that students are spending time on online social networking. The concern raised is that college students have a finite number of hours to spend on academics. The researchers questioned if web-based social media are an afterthought to academics or are considered important to the educational experience. Kord and Wolf-Wendel posed a question regarding how students are using web-based social media along with asking why they use web-based social media. Their study was one of the first to dig deeper into the rationale behind student use of this tool, and whether it is for social and/or academic purposes.

Ellison et al. (2007) suggested a positive correlation between the use of Facebook and new social capital creation. The authors noted Facebook is widely accepted and has positive appeal to the user group of millennials. If the ease and comfort of using a tool such as Facebook can promote easy flow from academic content to social, then perhaps new knowledge construction will be an outcome of the use of Facebook. Furthermore, the authors noted that Facebook was used, along with offline communication, to keep in touch with friends. Online social networking is most effective when used in combination with offline connections. The researchers made a connection to new social capital; however, a correlation was not drawn between use of social capital and learning.

Ellison et al. (2007) identified one aspect of social capital as bridging, which allows students to make connections with many different groups with little consequence.

The authors provided strong evidence for Facebook use and the building of social capital, especially noted in bridging weak ties to create new social capital. Students may use web-based social media, described as weak ties, to meet face-to-face to expand their networking web. The study pointed out there is little differentiation online and offline, as individuals use both tools to connect with others. Students' online connections can be used for further support of a positive undergraduate experience. Their research supported Granovetter's (1981) theory of the viability of strong and weak ties in that online communities allow for individuals from all walks of life to connect via weak ties.

Sarsar and Harmon (2011) found that some students viewed Facebook as a potential learning environment; however, there was a large percentage who took the opposite view. Many of the students shared they did not prefer Facebook for educational purposes, but preferred to keep it only as a social networking tool. Roblyer et al. (2010) noted that there is a divide among faculty and student perceptions of Facebook. Their findings reflected openness to the use of Facebook by students and a negative view of the use of Facebook by faculty.

Buzzetto-More (2012) confirmed web-based social networking is becoming increasingly used in the classroom. However, like other researchers have indicated, Buzzetto-More argued that much more research needs to be completed in order to fully understand the phenomenon. In addition, because of the rapid proliferation of web-based social networking sites, the digital environment is ever-changing as more features are offered. Greenhow et al. (2009) approached their research from the perspective of cultural change. They identified students as learners and suggested the classroom is

anywhere learning takes place. Learner participation, engagement with content, and collaboration are important components of learning for today and the future. Greenhow et al. called researchers, faculty, and administrators to participate in the web-based social networking space in order to fully understand the changes that may need to take place in higher education. My goal is to understand students' perceptions and how that information can be used to adapt the higher education curriculum, ensuring proper faculty training and assisting the institution in long-range planning.

Wang, Woo, Quek, Yang, and Liu (2012) explored how Facebook might be used as a learning management system. One of the major flaws of Facebook is the inability to upload large files or support an indexing system for documents. In addition there may be state and federal legal issues with sensitive student information. This brings to the fore how Facebook is ever-changing and how the functionality might influence the overall use of Facebook as a tool.

Munoz and Towner (2009) asserted that Facebook has much to contribute to the learning experience. In their descriptive analysis they suggested that educators must develop pedagogy and be active role models for the use of web-based social networks. Researchers need to continue to study the phenomena of using web-based social networking. Dabbagh and Kitsantas (2012) have suggested that the use of web-based social networking is the first step of many toward the use of personal learning environments (p.2). The researchers have noted that personal learning environments incorporate the use of social networking, both online and offline, in a very natural way.

## Conclusions

The literature review provides a framework for the research questions in this study. Corwin and Cintrón (2011) gave solid support that web-based social networking can assist in a student's overall educational experience, but did not specifically study how the use of web-based social networking tools such as Facebook could enhance the learning experience. A Pew Internet study by Hampton et al. (2011) completed in-depth research on the use of each of the major social networking tools of Twitter, Facebook, YouTube, and LinkedIn. This study, although providing solid documentation of the amount of use, focused on general use of web-based social networking and not its use in a learning environment. Facebook was widely documented as the tool of choice, but scholars have yet to research how Facebook is perceived by students for discussion posts in a classroom. The latest study by Rainie, Smith, and Duggan (2013) notes that 61% of individuals using Facebook will at some time disconnect with Facebook for a period of time.

Suh and Shin (2010) alluded to how the use of web-based social networking would add to new knowledge creation. They approached the use of web-based social networking and new knowledge creation from the perspective of social capital and the correlation between acquisition of knowledge and collaboration. Their focus was on the balance of online and offline social ties and again revealed a gap in the literature regarding how new knowledge is constructed from repeated use of web-based social networking. Ellison et al. (2007), in identifying key social networking sites, emphasized the bridging of strong and weak ties in regard to creating community. Their focus was not

on the overall contribution of new knowledge construction. Steffes and Burgee (2009) approached the topic from the perspective of word-of-mouth communication. Again, they focused on identifying the participation in communication, but not relating it to the learning or new knowledge creation (or lack thereof) taking place.

The impact of web-based social networking on the future university learning experience is important to examine. Pink (2006) suggested that, as the move from an industrialized society to an information society takes place, the paradigm shift will demand new models of knowledge creation that are frequent, organic, and ever-morphing along a continuum of change. The micro environment will dictate the specifics, but the macro factors will frame the way people create new knowledge.

I have discussed web-based social networking sites, with particular emphasis on the use of Facebook, in the literature review. The literature is indicative of many forces at play. First and foremost the current student profile has shifted to one of a technology-savvy user and consumer of information. The information shared in a structured classroom, although important, is dwarfed when compared to the massive amounts of information and connection outside the classroom. The millennials' informal approach to information might result in learning and a richer student experience. Thus the use of web-based social networking sites is an important part of a strategic planning process by the institution. Current faculty may be ill-equipped to utilize web-based social networking tools, thus creating a divide between the student demographic and the educators. In addition current research lacks evidence of deep changes in the pedagogy needed to include the use of web-based social networking tools. There is still a lack of knowledge

on how students perceive the use of web-based social networking tools for learning. My work, therefore, examines student perceptions of the use of Facebook in the classroom. This study provides additional information not only about how students perceive the use of technology in the classroom, but also about their expectations. If students look to the expanded use of technology for learning, higher education will need to make those adaptations to stay relevant to new approaches to learning.

### **Summary**

Chapter 2 provided a spectrum of perspectives on the theory and practice of social networking, along with the latest research completed on the use of social networking with an emphasis on Facebook. In this review, three major themes surfaced: (a) a new understanding of social capital and networking will emerge with the continued use of web-based networking tools; (b) networks and connectivity will have profound consequences on the higher education experience; and (c) the use of web-based social networking tools will continue to evolve, especially within the classroom. Chapter 3 details the methodology used in this study to explore the use of web-based social networking/Facebook in the higher education classroom. The research questions are addressed from a blend of qualitative methods to capture the essence of how students use web-based social networking, specifically Facebook.



## Chapter 3: Research Method

### **Introduction**

The purpose of this study is was to provide faculty and administrators with a better understanding of the role of Facebook in a higher education business course. Understanding the role of web-based social media tools and how they might contribute to the expansion of social connectivity could assist higher education faculty and administrators in adding value to the classroom experience. There is a need for higher education to understand how web-based social networking tools such as Facebook may change the classroom experience. Students' insights may provide higher education administrators and faculty with information on how higher education can incorporate the use of these tools within the classroom curriculum for increased connectivity. By understanding students' use of Facebook and how it is tied to social connectivity, institutions can design curriculum that is supported by the use of web-based social networking tools. The role of age and the willingness to use web-based tools such as Facebook is important to understand in order to support the learning experience.

In Chapter 3, I outline the methodology for this case study in order to support the purpose of the study. I discuss the conceptual framework, research questions, and data collection. In addition, I discuss my role in regard to ethical considerations.

A qualitative case study method was selected in order to describe how the use of web-based social networking tools such as Facebook impacts social connectivity within the classroom. According to Yin (2009), a case study is best used when a researcher is addressing the how and why of a particular real-life phenomenon. In addition, when the

phenomenon requires a deep understanding of a problem or issue, the case study method provides a framework in which to conduct that research. A possible drawback to the use of a case study approach is that the results cannot be easily summarized to reflect an overall generalization (Yin, 2009). This study was a single case study using one business course. Chapter 3 served as the design document for completing the research. The results can help faculty, administrators, and other stakeholders to understand the impact of web-based technology tools such as Facebook in the higher education environment. The study also provides a framework for further discussion to address curriculum design, faculty recruitment and professional development, administrator roles, and the development of physical infrastructure within higher education to support new and innovative tools for students.

### **Research Design and Rationale**

The research questions were as follows:

1. How does the use of Facebook impact social connectivity within the classroom?
  - a. How does the use of Facebook influence linking?
  - b. How does the use of Facebook influence bridging?
  - c. How does the use of Facebook influence bonding?
2. How do different generations use Facebook in the classroom?

The goal of the qualitative case study was to provide insight into Facebook use by higher education students and into the impact of Facebook use on social connectivity within the classroom. This study examined how Facebook was used within a classroom

and its relationship to the formation of bonds, links to others, and bridges to provide new connectivity. The role of generations using Facebook was also studied to provide information in regard to different age groups using Facebook. The answers to the research questions may assist faculties' understanding of those who use Facebook and the factors that may influence them in the classroom. As noted, a case study approach was used. As Trochim (2001) described, a case study approach is used to focus on an individual's perceptions and viewpoint of the phenomena being examined in a particular setting—in this study, a business course.

Students were asked to complete a questionnaire designed by Educause (Appendix B) during the first 2 weeks of the course by the university. Permission was obtained from Educause prior to the start of the research (Appendix C). I used a questionnaire to obtain baseline descriptive information about students' knowledge of web-based social networking tools; demographic information including age, gender, and year in school; identification of technology tools used; and usability information.

The faculty member teaching the course required the students to complete discussion posts on Facebook throughout the 8-week course; I held a focus group upon the completion of the course to discuss participants' perceptions of the use of Facebook. Open-ended questions were used to assist participants in describing how they view the use of Facebook. These questions are listed below and are also available as Appendix E.

1. What were your perceptions of the use of Facebook posts?
2. How does this impact your social connectivity with your peers?
3. How do you use Facebook for discussion posts?

4. Describe the process of using Facebook from logging on to completion.
5. Did the use of Facebook contribute to learning?
6. Describe your rationale for logging on to a site.
7. Do you use Facebook to connect with your peers in the class?
8. Is the use of web-based social networking tools such as Facebook important to your learning?
9. Does Facebook enhance your learning experience? Share why or why not.
10. Has web-based social networking made an impact on your higher education experience? If so, explain why.
11. Would your university experience be different without the use of web-based social networking tools?
12. How have web-based social networking tools changed your perspective on this class?
13. Share an example of how learning took place using web-based social networking using Facebook.
14. Are there examples of where you would not use Facebook? Please explain.
15. What do you like most about Facebook?
16. What do you like least about Facebook?

According to Creswell (2003), focus groups are best used when a researcher wants to describe the how and why of an event. I analyzed data from the discussion posts and focus group to identify themes or commonalities in the responses. Understanding the “how” and “why” of social networking was part of my goal.

### **Role of the Researcher**

As the researcher, my role was to design the methodology, adapt questionnaires, obtain permissions, collect data, interrupt the data, analyze the data, write up the results, and manage the research study. I did not teach the course where the research took place. My responsibility was to ensure objectivity and to remain as neutral as possible. I used the archival data to analyze and identify themes and links to the research questions. Rubin and Rubin (2005) suggested a researcher can be looked upon as an author, one who can ask numerous questions, but does not interject bias or a certain perspective. According to Hatch (2002), data analysis is a systematic search for meaning (p. 148). Rubin and Rubin pointed out a researcher must develop a conversational partnership with the focus groups. Factors to consider when working with focus groups are anxiety, fatigue, and sensitivity to the researcher's biases, as well as point of view and protecting confidentiality. Rubin and Rubin stressed the importance of defining the role of a researcher. If this step is addressed early, many potential problems can be avoided later.

Yin (2009) suggested there are basic skills that a qualitative researcher must have for effective results. A researcher should be able to ask good questions to enable solid analysis. A researcher must have the ability to dig deeper to extrapolate the essence of the questions asked. An effective researcher must be able to ask open-ended questions to draw out what the participant is trying to communicate. In addition, a researcher must continuously evaluate her/his role and assess her/his performance.

According to Yin (2009), a researcher must also have a deep understanding of the issues being studied. The expanded literature review provided my contextual framework

for this study. In addition, I read on an ongoing basis about the latest developments in the use of web-based social networking for learning in higher education.

The ability of a researcher to think quickly and make adjustments is important when using a case study approach. Flexibility is required as unanticipated events come up. A researcher must be quick to make adjustments. Yin (2009) suggested researchers cannot become so inflexible that they are unable to make needed adjustments in an observation or interview. The intent is not to be so rigid as to be unable to make slight modifications that might provide a more robust collection of data.

Yin (2009) noted the idea of active listening and the ability to be not just passive, but listening for nuances that can lead to further questions to expand and develop the conversation. Hatch (2002) referred to guiding questions as a tool to help the conversation progress in an interview (p. 101). According to Hatch this is an effective tool to further develop the conversation.

Yin (2009) described the existence of bias in all researchers and suggested researchers must be open to data that is contrary to their original thoughts. Yin suggested researchers talk amongst their colleagues about their bias and look for an advocate who can flesh out possible conflicts of interest. The importance of this is to acknowledge what those biases are and document how this might have an impact on research (Rubin & Rubin, 2005). Hatch (2002) used the term *bracketing* for separating feeling and impressions. I looked to a continuous process improvement model and conducted an ongoing reflection to ensure the bias issue was addressed after each interview.

I conducted research at the institution where I was employed due to inability to access other institutions. I needed to be vigilant in ensuring objectivity during the data collection phase. In order to do this, I had close interaction with the vice provost and also with my dissertation chair and committee to discuss any potential conflict that might occur. I also enlisted another colleague with whom I could communicate on a weekly basis for additional supervision. I did not discuss the research with the faculty member teaching the course in which the data was being collected as to not bias the opinion of the faculty member when providing grades. Also, the faculty member teaching the course had a reporting relationship to me as the department chair. I had planned to handle any questions with a third party observing the conversation to keep the study free of bias; however, this process was unused.

Bias is a natural occurrence. I acknowledged my bias as an interest in emerging technologies and their social impacts and recognized that I felt web-based social networking was an important tool for lifelong learning. I had previously taught the course that was used for this study and needed to be mindful of any prior perceptions or attitudes about the course. I used a 360 approach to monitor that bias. This consisted of reflection, keeping a notebook of my experiences, and using brackets to note biases and misconceptions. In addition, I debriefed in discussions with my dissertation committee to ensure I remained neutral in the process (Hatch, 2002).

### **Methodology**

In this section I present the rationale for participant selection logic, instrumentation, procedures, and the data analysis plan for the case study methodology.

To assist in understanding participant selection, the population is detailed. Sampling strategy, criterion for participant selection, number of participants, procedures for identification of participants and sample size are important in order to fully comprehend how the methodology was designed to obtain the results I intended to collect. The data analysis plan provides an outline of how the data connected to the research questions, the type of procedure for coding, and the treatment of discrepant cases. The methodology was the guide I used to collect the data.

### **Participant Selection Logic**

The participant population consisted of university students at a 4-year for-profit institution attending on-ground classes. The terms were 8 weeks long with classes meeting twice a week for 3 hours. The participants were comprised of college students from every undergraduate level who were at least 18 years of age. The for-profit institution was selected due to their receptiveness to the original inquiry. The convenience sample strategy was used as the fall classes were scheduled and populated with students. Johnson and Christensen (2004) described convenience sampling as a strategy used to have participants readily available for research. The participants were recruited from a 100-level undergraduate business class offered in a scheduled 8-week term at a for-profit 4-year institution. The number of classes used for this study was one. Students ranged from freshman to senior status. I was not the course instructor and the course instructor was based on the course selected.

The course size was 13 students. The sample size was based upon the number of students enrolled in the course who attended the first week of class. Therefore, the only



criterion was being enrolled in the business class during the term in which I conducted my research. Students represented a number of bachelor's programs, such as business management, marketing, and information technology.

Students were given a paper copy of a consent form to indicate their willingness to participate in the questionnaire, discussion posts, and the focus groups. Students were told on the form and in verbal format that participation was optional and they could withdraw at any time.

Upon the students' completion of the consent form and questionnaire, the course instructor collected the documents and gave them to me to archive. If a student chose not to participate, this choice did not impact his/her grade. The class was asked to use Facebook for 8 weeks. Eight discussion prompts were posted, one each week, on a Facebook page designated for the course. The course instructor determined the content of the discussion prompts to align with the course material.

The topic of saturation and sample size was important to the study. Factors identified by Morse (2000) for consideration were the nature of the topic, the scope of the research study, the quality of information from the participants, and the study design. I elected to use a small sample size due to the parameters of the course enrollment. The nature of the topic dictated that deep understanding would be obtained through the focus group interviews. This aligned with the selection of the qualitative case study approach. Although there are many web-based social networking sites, Facebook was selected due to its pervasive use (Hampton et al., 2011).

### **Instrumentation**

Each of the data collection instruments is identified with its source in this section. The instruments for this study included a consent form, class questionnaire, focus group protocol, focus group questions, focus group write-up sheets, and a thank you letter to participants.

A sample of the consent form is located in Appendix A. The students were given the consent form by the course instructor. As the researcher, I was available via conference call if students had any questions. After students completed the informed consent form on the first day of class, the students were asked to complete a paper and pencil questionnaire (Appendix B) during the last fifteen minutes of class. If the student did not attend the first day of class, this step was repeated on the second day of class. The questionnaire was obtained from Educause and their Center for Applied Research for technology use in education. The publication date was 2012. I was given approval to use and add to the questionnaire. A copy of the approval is identified in Appendix C.

The purpose of the questionnaire was to establish the age, gender, and technological familiarity of the participants, as well as their types of Internet usage, time spent on web-based social networking tools, ownership of technology and number of devices, and use of devices. The questionnaire also measured students' overall use of technology-based devices and web sites. Not all data collected contributed directly to this research study. The questionnaire was appropriate for this study to establish baseline information about the students. The baseline information included familiarity with Facebook, their first perceptions regarding Facebook, and their usage of Facebook and

other tools. I determined the questionnaire would be helpful in providing descriptive information that would assist me in writing the outcomes of this study. This information may also be used for further studies in the area of web-based social networking.

I designed the focus group protocol (Appendix D) and the focus group questions (Appendix E) based on Creswell (2007) to correspond with the research questions posed. The discussion generated by the focus group gave a rich and thick description (Lincoln & Guba, 1985) of each student's perceptions of the use of Facebook in a university business course. A thank you on a small notecard was given to each student after the study. A copy of that thank you is located in Appendix F.

### **Procedures for Recruitment, Participation, and Data Collection**

This section covers the questions of who collected the data, where and when the data were collected, and how the data were recorded. The duration of data collection and instruments used in that collection is discussed, and a contingency plan in the case of too few participants is explained. In addition the exit protocol is addressed as well as any follow-up procedures.

Prior to Fall 2014 I sent a letter to the Associate Provost to obtain permission to collect archival data at the university. Approval was granted (Appendix H). On the first day of class the faculty member distributed the consent form for the questionnaire, discussion posts, and focus group. I was available via conference call to answer any questions. The students were verbally told that participation was optional and would not impact their final grades. If students agreed to participate, they were asked to complete the questionnaire the last 15 minutes of class. No names appeared on the questionnaire.

The questionnaire was part of the data. Data were recorded in an Excel spreadsheet and, using a pivotal table, the results were saved in an Excel file. If a student was not in attendance the first day of class, the next class period the same protocol was followed. After the second class the students who may have been absent were not asked to participate.

There were eight discussion prompts in the 8-week course. All discussion prompts were collected by the faculty of record. The faculty of record determined the content of each discussion prompt as it related to the material that was used in the class. An example of a discussion prompt was to “share the role of promotion in marketing and discuss an example of the role promotions play in a particular product of your choice.” Students were required to post on the designated Facebook page. As the discussion prompts were collected they were printed, scanned, and then given to me to review the results.

I set up a time after the course was completed to host a focus group. The focus group was one hour in length and held in a classroom with tables and chairs. The room was laid out in a semi-circle and I sat in the middle. A tape recorder was used to capture the conversation. A list of 16 questions was shared with all participants at the beginning of the focus group. This list is available below and in Appendix E.

1. What were your perceptions of the use of Facebook posts?
2. How does this impact your social connectivity with your peers?
3. How do you use Facebook for discussion posts?
4. Describe the process of using Facebook from logging on to completion.
5. Did the use of Facebook contribute to learning?

6. Describe your rationale for logging on to a site.
7. Do you use Facebook to connect with your peers in the class?
8. Is the use of web-based social networking tools as Facebook important to your learning?
9. Does Facebook enhance your learning experience? Share why or why not.
10. Has web-based social networking made an impact on your higher education experience? If so, explain why.
11. Would your university experience be different without the use of web-based social networking tools?
12. How have web-based social networking tools changed your perspective on this class?
13. Share an example of how learning took place using web-based social networking using Facebook.
14. Are there examples of where you would not use Facebook? Please explain.
15. What do you like most about Facebook?
16. What do you like least about Facebook?

The taped conversations were collected and then transcribed according to themes. Upon completion of the initial one-hour interview, I thanked the participants and informed them that there may be a need for another focus group at which time they would be notified. The students were thanked for their participation and given light snacks and soft drinks. The data was stored in a password-protected site only accessible to me as the researcher. A hard copy will be kept in a locked file seven years. Upon meeting the seven

year date, the material will be shredded and disposed of. If participants were interested in the results, I was able to provide those at the completion of the research study.

### **Data Analysis Plan**

Hatch (2002) described data analysis as systematic search for meaning (p.148). The data was transcribed and examined for themes and patterns. I identified and analyzed participant statements, which provided significant evidence toward my understanding of the research questions. NVivo10 software was used to facilitate the process. I used Hatch's (2002) interpretive approach to the data analysis. The data were thoroughly reviewed. The collected data were read and reviewed for themes and links to the research questions. All of the data collected was reviewed again and specific codes assigned to the interpretations as supported or challenged. An initial draft was written and then reviewed to ensure accuracy. A final revised summary was written and special notations were given where there was supporting or refuting evidence. Patterns and common themes were examined to provide deep insights. To verify accuracy of interpretation, data triangulation was employed between initial questionnaires, the focus group's discussion of Facebook, and the responses to the questions posted on Facebook. Hatch shared qualitative analysis does not have an end, but rather involves always asking questions about the data. The discussion posts were analyzed as described by Hatch (2002) as a systemic search for meaning (p. 148).

A sociogram or word cloud (Appendix G) was used to measure the level of connectivity of bridging, linking, and bonding. The themes were checked and verified by

reviewing the audio tapes and reading carefully for themes that became apparent. I wrote the results based on the students' perception of the use of Facebook.

### **Issues of Trustworthiness**

Rubin and Rubin (2005) suggested that credibility is built through transparency. The reader of a study should be able to follow every step of the data collection process and to analyze the level of openness by the amount of detail written into the report. I have provided detailed documentation that supports the credibility of the research. Throughout my study, precision was of utmost importance. Staying aligned with the data was also important to avoid making sweeping generalizations or conclusions. I also discussed contact with the participants with my dissertation chair to ensure that contact occurred in appropriate amounts. Saturation of the data analysis indicated the analysis was close to completion. Oversaturation, which occurs when the generalizations start repeating themselves, provided a marker that I had come to the end of the extrapolation of data for themes. Transparency is the connecting thread to the issue of trustworthiness in this study. I was committed to providing transparency in every step of the process.

Creswell (2003) noted that a researcher must stay close to the data, not wandering from the data which has been collected. The ability of a researcher to triangulate between data points in order to double check and verify data from sources enables that researcher to state with confidence that the transferability is valid. An outside auditor or reader must also verify the data to assure it has been analyzed with a defined process. Rubin and Rubin (2005) advised that the richness of the material and the amount of detail should provide to other readers a solid snapshot of the research study. The analysis should be

able to be used by others to see if the study is relevant to an area of research they are involved in. Creswell (2007), using the work of Lincoln and Guba (1985), described the more natural approach to the terms of credibility, transferability, dependability, and conformity. To fully enable these terms to be operationalized for the study a researcher should have a long-term presence in the field of study, be able to triangulate the data points, and finally provide thick descriptions of the events. I was looking for the ability to confirm the results of the study over the course of an 8-week term. The two most important elements in my approach were triangulation and the use of rich and thick description. This in turn allowed the information to be translated according to common elements shared by the participants.

Dependability refers to the ability of a researcher to document the data collected. The material must be accurate to minimize the exaggerations, misconceptions, omissions and errors in data collection. The interview must be believable. Redundancy, a key tool in my research, involved asking a question in many ways to ensure the data collected was consistent. I also checked with other sources of information to determine if the data supplied was accurate. The second look critiqued my research process, analysis, and articulation of the results. I had regular contact with my dissertation chair to ensure dependability of the data. Triangulation was used among the questionnaire, discussion posts, and focus groups.

Conformability as described by Rubin and Rubin (2005) needs to be thorough and accurate. My study investigated all available options to accurately cover the research. A study should be able to be replicated by other researchers and also be written in such a



way that participants would recognize the description that they provided. Conformability was assured in this study as I discussed possible options with my methodologist and dissertation chair.

### **Ethical Procedures**

All participants in this study were at least 18 years of age and were enrolled as undergraduate students in a four-year for-profit higher education institution. The participants willingly agreed to be part of the study by means of the informed consent process as discussed in the procedure section of Chapter 3. I obtained a letter of cooperation (Appendix H) which was approved by the Vice Provost. The university where the research was conducted does not have a formal IRB process, but uses the Letter of Cooperation as the basis for research. The Provost and Associate Provost were the individuals who gave approval. I also completed the NIH Human Subjects Certificate. A copy of the completed certificate is included as Appendix I.

The Walden Institutional Review Board documents were approved and assigned a Walden Institution number 09-03-14-9117206. All data were stored electronically in a password-protected repository. Paper copy, as it exists, will remain stored in a locked file cabinet only accessed by me. Research material will be held for 7 years, at which point it will be destroyed by paper shredder or, in case of electronic copy, removed from the hard drive of the computer. Data will be kept confidential. I did not treat participants differently if they refused to participate or answer questions. In addition I respected the rights of the participants to withdraw at any time without adverse circumstances.

I conducted this research at the institution where I was employed; however, I did not teach the class in which the research was conducted. In addition I was not on campus during the time of the course and used archival data in the triangulation for questionnaire, focus groups, and Facebook discussion posts. I was diligent in remaining objective as I have been involved with web-based social networking in my professional and business environment.

### **Summary**

In this chapter I discussed the research design and rationale, my role as a researcher, the methodology, the instrumentation to be used and the data analysis plan, as well as ethical considerations. The rationale for using a qualitative study and case study method was given along with the research questions. Coding and the expression of how data was documented were noted. This study provided a snapshot of a classroom and students' perception of Facebook for use in discussion posts within a business class. The software NVivo10 was employed to analyze the data. I discussed issues of trustworthiness and the acknowledgement of the possibility of bias. Every effort was made to mitigate any bias issues. Chapter 4 is an analysis of the findings from the data collection and Chapter 5 shares the implications of the findings. This research project provides a better understanding of the use of Facebook and its impact on social connectivity in the higher education business classroom.

## Chapter 4: Results

### **Introduction**

Chapter 4 contains the findings of the study. The purpose of the study was to provide faculty and administrators with a deeper understanding of the role of Facebook in the higher education classroom and its impact on connectivity. Understanding the role of web-based social media tools and their relationship to social connectivity could assist faculty in enhancing the learning experience within and outside the classroom. The study explores the use of Facebook to create social connectivity and the impact of those social connections on the formal learning environment. The study also examines the role age plays in the use of web-based social networking tools such as Facebook. As technology becomes ubiquitous in society, the need to understand the role of technology in higher education is of importance to the classroom learning experience.

The conceptual framework for this study was the use of linking, bridging and bonding as defined in social capital by Lin (1999), Portes (2000), Putnam (2000), and Woolcock (1998). Woolcock defined social capital as containing two important elements, embeddedness and autonomy, to support networks. Stone (2003) and Woolcock focused on three main themes in social capital: bonding, bridging, and linking. Putnam broke social capital into bonding as exclusive and bridging/linking as inclusive. Bonding is the strongest type of network connection, such as can be found in a family relationship. Bridging is defined as a number of networks that provide a tie to exchange information between individuals who may not know each other. Linking is another tie that facilitates relationship within a hierarchy and how those connections can assist an individual to

connect to individuals who can reciprocate value. According to Siemens (2005), knowledge and learning could be enhanced by social connections built on informal networks such as social media tools. Siemens's theory has continued to build on the work of Lin, Portes, Putnam, and Woolcock, applying their work to the role of social capital within a learning community.

Chapter 4 contains a description of the setting, participants, and data collection for this research project. It also includes results of the findings and a summary using the research questions as a framework to align the data with the purpose of the study.

### **Settings, Participants and Data Collection**

The qualitative case study was comprised of adult undergraduate students who attended a 4-year Midwestern university. The participants, who ranged in age from 19 to 57, were enrolled in a business course offered in Fall Term 2014. Convenience sampling was used to recruit participants; 13 students participated in the study. The class enrollment was also 13 students. The convenience sample methodology was selected due to the receptivity of the institution, and it enabled me to use a scheduled class to conduct the study. The use of this sample disassociated student assessment from the research project, yet supported an authentic learning environment. The campus class schedule was published early in 2014 and provided convenience in that the students were already registered for the class. I completed the IRB process and approval number 09-03-14-0117206 was assigned. The university is referred to by the pseudonym Kenow University to protect its anonymity.

After the sample was selected and the IRB application approved, I provided students in the course with a questionnaire. Demographic information such as gender, age, ethnicity, and year in school was included in the questionnaire. The information about age addressed Research Question 2. Tables 1 through 4 reflect the findings in regard to age, gender, ethnicity, and year in school.

As shown in Table 1, of the 12 participants that responded regarding gender, 83% identified as female and 17% as male. The overall student body on the Kenow campus was 80% female and 20% male. Therefore, the gender ratios of the responding participants in the study aligned closely with the overall gender ratios of the Kenow campus.

Table 1

*Participant Gender (n = 13)*

Measure	Response	Percentage
Female	10	77
Male	2	15
No response	1	8

Table 2 addresses the participants' ages. Sixty-nine percent of the participant population was over the age of 25, while 62% of the overall Kenow campus was over the age of 25. The age breakdown for the entire Kenow campus is as follows: 18–19 years old, 9%; 20–21 years old, 12%; 22–24 years old, 18%; and 25 years old and above, 62%. The percentage of millennial learners (24 years old and younger) within the participant population was comparable to the percentage of millennial learners within the campus population.

Table 2

*Participant Age*

Measure	Response	Percentage
18–25	4	31
26–33	5	38
34–41	1	8
42–49	2	15
50–57	1	8

Table 3 reviews the ethnicity of the participants. Overall student diversity at the Kenow campus breaks down into 62% White, 13% African American, 12% Hispanic, 1% Asian, and 9% not known. All three demographic measurements (age, gender, and ethnicity) were reflective of the overall population of the Kenow campus.

Table 3

*Participant Ethnicity*

Measure	Response	Percentage
White	6	46
African American	3	23
Hispanic	3	23
No response	1	8

The questionnaire asked the participant's class standing, as is shown in Table 4. According to Kenow University documents, the overall percent of freshmen at the Kenow campus was 18%; this was slightly less than the percentage of freshmen students in the study.

Table 4

*Participant Year in School*

Measure	Response	Percentage
Freshmen	3	24
Sophomore	6	46
Junior	2	15
Senior	2	15

Tables 1 through 4 illustrate information about gender, age, year in school, and ethnicity. The sample population information largely reflected the general population of the university campus in regard to age, gender, and ethnicity, therefore indicating the sample represented the overall demographic of the campus.

**Data Collection**

On the first day of class, the course instructor shared there would be an informational meeting after class to discuss the study. The faculty member teaching the course introduced me via phone. I shared information about the study and answered any questions. At that time consent forms were obtained from the students and the students were reminded they could exit the study at any time. The students were also informed that nonparticipation would not impact their grade and that the course instructor would not have access to the data. The faculty of record announced the course required discussion posts on Facebook. I explained that the data collection consisted of a paper and pencil questionnaire, focus group, and a review of the Facebook post responses to prompts developed by the faculty of record.

**Questionnaire.** The students were asked to complete a survey designed by Educause the first week of the term. The paper and pencil questionnaire was given to the

students after the study had been explained and students had signed the consent form. The questionnaire was used with the permission of Educause and was titled ECAR National Study of Undergraduate Students and Technology 2012 (located in Appendix B). The research question was broken down into how the use of Facebook influenced bonding, bridging, and linking. Of the 13 students enrolled in the course, all 13 students completed the questionnaire for a 100% response rate. Responses were collected, tallied, and then stored in an Excel spreadsheet and transferred to an electronic file that is password protected.

**Focus group discussion.** Upon completion of the course, a focus group session was scheduled; all students were invited to participate in the focus group discussion. All participants were given an informed consent form to indicate that they would be part of the study. Those were collected and stored in a secure file cabinet. Nine of the 13 students participated in the focus group discussion for 69% participation. The focus group questions can be found in Appendix E. Focus group questions were designed to address the research question regarding the influence of Facebook on bonding, bridging, and linking and generational use of Facebook in the classroom. I set up a time to conduct the focus group ( $n = 9$ ), tape-recorded the hour-long session, thanked the students, and then transcribed the discussion. The focus group was scheduled for a Saturday morning in October at the Kenow campus. Participants were required to sign in upon their arrival. Eight out of nine participants signed in and one that appeared late and left early did not sign in. Each participant was given a pseudonym, as explained in detail below.



Joe was the only male to participate in the focus group. Sandy was a mature student returning to college to complete her Bachelors of Science in Business. Anne was a part-time student who had a full-time job, followed by Deanne who was another student. Jill was a student who worked full time. Dee was another female. Kay was a young mother who arrived with a small baby. Jane was a full-time student, and the final participant was Rae, who came late to the focus group. These students were all enrolled in the fall business course class. These nine students participated in the focus group discussion and all 13 who were enrolled participated in the questionnaire and Facebook discussion posts.

**Facebook discussion posts.** During the course of the term the students used Facebook for their discussion posts as part of their class. The university gave me the questionnaire data and Facebook discussion post data. The faculty of record posted questions in the Facebook group page to be answered by the class on a weekly basis. These questions were included as part of the course syllabus. At the conclusion of the course, the posts were printed and given to me by the faculty of record. An example of the course posts is included as Appendix J. The posts on Facebook were discussion questions that addressed course concepts. The posts did reveal that students responded to the questions posted by the faculty member. Students also would comment if a peer made a comment that clarified a question or concept. After I reviewed the posts, they were archived and filed in a locked file cabinet.

According to Yin (2009), different sources of data collection provide the researcher with a larger spectrum of data in which to investigate themes or alignment of

corroboration. This results in a triangulation of data (Yin, 2009), in which the data are cross-referenced and checked to provide a more accurate picture based on corroboration of a variety of data sources from different settings at different points in time. Facebook posts, the questionnaire, and the focus group were used as multiple sources in this study. One example is the use of the questionnaire to ask questions about the familiarity of social media. The focus group was used to collect more in-depth information about a particular tool of social media, Facebook, for use in the classroom. Facebook discussion posts were used to demonstrate individual understanding of concepts, such as economic regulation, in the class. Finally, the data were re-read in search of contradictions or statements that could not be used for lack of validation.

### **Integrity of Data**

Research integrity in qualitative studies as defined by Hatch (2002) is comprised of many components that help to ensure the accuracy of the data collection and its trustworthiness. It is important to represent data with accuracy and authenticity. An example would be an excerpt from one of the participants. The participant responses should be used to support a key point and should remain as unedited as possible to capture as close as possible what has been communicated. Effective research is dependent upon accurate selection, proven methodology, accurate collection, solid recording of data, deep analysis, and a thoughtful reporting plan. Hatch (2002) described data analysis as a systematic search for meaning (p. 148).

Credibility, as described by Rubin and Rubin (2005), is obtained through transparency. I kept a journal and made notes throughout the process to ensure the data

collection, recording of data, and reporting plan was followed. An excerpt from that journal is included as Appendix K. The journal was not used for data collection, but was used as a reflection for myself as I conducted the study. The journal served as a tool to track my progress and also as a place for me to record my thoughts about the dissertation process.

### **Results**

There is no one best way to present findings, but typically a search through the data for patterns or themes proves useful (Hatch, 2002, p. 93). In order to search the data collected in this study, the content analysis software NVivo10 was used. In order to analyze the emerging themes and patterns a unit of analysis was necessary (Yin, 2009). For this single-case study, the unit of analysis was the entire case being studied. The research questions for the study provided a useful framework for both collecting the data and discussing the findings. The results will assist faculty in their consideration of the use of social media in their higher education classroom to provide a deeper learner experience.

The raw data for the entire case study were represented in three collection instruments: questionnaire, focus group, and Facebook discussions. Those raw data were transcribed and entered into NVivo10 using nodes or classifications to identify themes.

Nodes, as used in NVivo10, are classifications to capture common themes from raw data. Classifications were based upon the conceptual framework of bridging, bonding, and linking, along with Siemens's (2005) theory of connectivism. After I transcribed the focus group discussion, I placed the transcription into NVivo10 for

analysis. The responses were placed into nodes, which then were aligned with the areas of bridging, bonding, and linking for common themes and patterns that emerged. Based upon my interpretation of the data, nodes/classifications were placed in the four areas of the theoretical framework of bridging, bonding, linking, and connectivism. Table 5 details the number of responses that resulted in themes that emerged. An example of the deconstructed data is available in Appendix L. The data allowed each respondent to be accounted for (anonymously) and assured that I tracked the focus group accurately. I transcribed the audio tape, read, and reread the responses over several days to ensure the accuracy.

**Research Question 1: How Does the Use of Facebook Impact Social Connectivity within the Classroom in Regard to Linking, Bonding, and Bridging?**

In an effort to triangulate the data to theory as described in Johnson and Onwuegbuzie (2004), the search classifications were supported by the conceptual framework related to bridging, bonding, and linking based on the work of Lin (1991), Portes (2000), Putnam (2000), and Woolcock (1998) along with Siemens's (2005) theory of connectivism.

Table 5 provides a visual overview of the conceptual framework of the study and the emerging themes of the collected data. Bridging, bonding, and linking as described by Lin (1991), Portes (2000), Putnam (2000), and Woolcock (1998) are important components of social capital. These three components of social capital are used in the study to explore the impact with the use of Facebook. The table reflects that themes did emerge from the questionnaire, focus groups, and Facebook discussion posts. Next

bridging, bonding and linking are described and analyzed separately before being collectively reviewed in the section on connectivism.

Table 5

*NVivo10 Content Analysis for Emerging Themes*

Nodes	Emerging Themes		
	Questionnaire	Focus Group	Facebook Discussions
Bridging	Comfort communicating with professor using social networks		
Bonding	Separation of social and academic networking tools	Separation of social and academic networking tools	Separation of social and academic networking tools
Linking	Need for informal forum for students to communicate	Need for informal forum for students to communicate  Ease of Use	Need for informal forum for students to communicate
Connectivism	Need for informal forum for students to communicate	Need for informal forum for students to communicate	Need for informal forum for students to communicate
	Facebook and Academic Success	Facebook and Academic Success	Facebook and Academic Success
	Facebook and Learning	Facebook and Learning	Facebook and Learning
Generations (Age)		Difficulty of mature students to grasp social networking	
Familiarity	Use of Facebook	Use and comfort of Facebook	Use of Facebook

**Bridging.** Bridging was defined by Woolcock (1998) as an informal and distant connection among individuals in the workplace and represented by very casual connections. Putnam (2000) described bridging as more inward looking and inclusive as opposed to bonding which is more exclusive. The relationship between a faculty member

and student can represent the bridging type of relationship described by Woolcock, where bridging is for a set period of time in a hierarchical setting. Connectivity across societal tiers is an example of bridging as defined by Putnam. Societal tiers (Putnam 2000) were described in terms of social-economic criteria. The questionnaire provided data related to bridging for both Tables 6 and 7.

Table 6

*Response to “I Am Comfortable Connecting on Social Networks with the Professor from Whom I’m Currently Taking Classes”*

Measure	Response	Percentage
Strongly disagree	1	8
Somewhat disagree	1	8
Neither agree nor disagree	3	22
Somewhat agree	4	31
Strongly agree	4	31

When responding to the question *I am comfortable connecting on social networks with the professor from whom I’m currently taking classes*, 8% strongly disagreed, 8% somewhat disagreed, 22% neither agreed nor disagreed, 31% agreed, and 31% strongly agreed. Thus, as is shown in Table 6, 62% felt comfortable communicating with a current professor via social networks. That conclusion is worth comparing to the data shown in Table 7, *“I am comfortable connecting on social networks with professors from whom I am no longer taking classes.”* Here 23% strongly disagreed, 38% neither agreed nor disagreed, 31% agreed, and finally 8% strongly agreed. In other words, only 39% agreed or strongly agreed that they cared about maintaining a social connection with an instructor outside the class venue.

Table 7

*Response to “I Am Comfortable Connecting on Social Networks with Professors from Whom I Am No Longer Taking Classes”*

Measure	Response	Percentage
Strongly disagree	3	23
Somewhat disagree	0	0
Neither agree nor disagree	5	38
Somewhat agree	4	31
Strongly agree	1	8

The differences expressed in Table 6 and Table 7 appear to suggest that students want to have a connection outside of the classroom where they can access the professor while they are taking a course. This also suggests that students want to form a social connection with their faculty member in an authentic way outside of the normal student to professor relationship. However once the course is completed the connection between the student and professor appears not to be as intense. This may point toward the linking and bridging aspect of social capital, in which those connections are temporary for the situation—in this case a class.

While Tables 6 and 7 represent questionnaire responses about connectivity between students and faculty, during the focus group the students did not offer in-depth responses to how and why they would use Facebook to connect with faculty. I was surprised that the students appeared to focus on social connectivity with their peers and not the faculty. Although it might not be surprising they would prefer to connect with their peers in class, what was surprising is that once the class was over students did not appear to need that connective bridge to faculty. Jane shared an insight that suggested she might first turn to her peers before reaching out to faculty: “If I have a question I would

not use Facebook to ask faculty, but would prefer to in person.” One might speculate that Jane did not want to ask what some might consider an inconsequential question or that she did not want to use her valuable interaction with her faculty except on very important questions. Once a class is over that bridging with faculty might not be important to students. The data collected does support Putnam’s idea of inclusiveness in that students connected, whether face-to-face or with Facebook, for personally expedient purposes, not social ones: to complete the class. Students felt a need to have a connection, even if that connection was a distant tie, to be able to successfully complete the course.

**Bonding.** Bonding is the strongest tie within social capital as described by Putnam (2000). Family relationships and very close friends are examples of bonding. Bonding tends to be very homogeneous in nature and can support existing identities as being exclusive. Bonding can occur in a classroom setting when close ties are established with peers. Bonding can develop over a period of time as classmates become better acquainted and after “trust bonds” have been formed. Trust bonds are defined by Fukuyama (2002) as the positive results of groups working together. Furthermore trust bonds can be negative as in a gang or other kinship relationship that results in a negative outcome. Positive trust bonds can hopefully create synergy within the group. Data collected from the questionnaire, focus groups, and Facebook discussions provided results to support the idea that bonding (the strongest tie within social connectivity) was not an important factor in social connectivity within the class. This was surprising, as I would think that bonding as a consequence of emerging trust bonds would be a natural outcome of spending time together. One possible reason is the university where the



research was conducted was a commuter school—one in which students were not in residence. They commuted to class and then left to either a full or part-time job. Also many of the students had other responsibilities with families. Perhaps the emphasis was not to make those strong bonds but to support the student desire to maintain separation between social and academic use of Facebook.

Table 8 provides results about the degree of students' preference to keep academic and social life separate on Facebook. In response to the statement *I like to keep my academic life and my social life separate in the social networking environment*, 39% percent neither agreed nor disagreed, 15% agreed with the statement, and 46% strongly agreed. The questionnaire noted that 61% (those who agreed with the statement and those who strongly agreed) felt they would like to keep their social and academic social networking life separate.

Table 8

*Response to "I Like to Keep My Academic Life and My Social Life Separate"*

Measure	Response	Percentage
Strongly disagree	0	0
Somewhat disagree	0	0
Neither agree nor disagree	5	39
Somewhat agree	2	15
Strongly agree	6	46

The question posed here is whether social communication is a manifestation of social connectivity. Ellison et al. (2011) explored college students' use of Facebook communication and the impact on social capital. Their findings concluded that Facebook allows students to form a larger heterogeneous network. They also found that students'

communication practices may define the reach of Facebook. Students were encouraged by friends and by the functionality of Facebook to use the platform for social communication; the same was not true for academic communication. This result reflected a direct choice to keep their communications separate between their academic and social life. These findings correspond with student responses to the questionnaire in this research project: the majority of students preferred to keep their academic social networking and personal social networking separate.

Anne's comments suggest that the reasons for keeping social and academic interactions separated might be related to the academic use of the Facebook tool. In regard to her use of Facebook and her preferences for academic connectivity, Anne shared the following:

I had Facebook at one point, but because of certain things posted I did not like it and stopped using it. Because of this class I needed to go back to it. I had a hard time. I found it easier to reply on Facebook with straightforward questions, but it was still hard. I did not like the idea of Facebook used for class. I preferred Blackboard because that is what our school uses.

As Anne shared, she had used Facebook before; however, she felt uncomfortable using it in the classroom. Not all learners were convinced that Facebook is a tool to be used in the learning environment. Anne felt uncomfortable as she viewed Facebook as more of a personal social networking tool. It appears Anne believed that Facebook is for social purposes only and that academic communication ought not to be confused with a more informal use of Facebook to connect with friends:

Work is work, social is social, school is school, family is family and I keep them all separate. Blackboard may be more difficult to use, but it separates learning tools, work, home, family, and social. I want them to be separate.

Because no other respondent acknowledged a position similar to Anne's about keeping everything compartmentalized, her comments would appear to reflect her personal world view on how she separates in order to manage elements of her academic and personal life.

Joe also wanted separation, which was possibly related to more adequately managing different elements of his life. He went on to share he would like some type of social media tool embedded in Blackboard and that it would be separate from a Facebook social account. Sandy also voiced concern about Facebook being used for academic and social purposes: "If I had to use a social media tool, I want to keep it in a separate space." Jill and Deanne did not object to the use of Facebook for academic and social purposes, but the ideal model would be to keep Facebook for social purposes only and another social media tool for the academic setting. Therefore it would appear that though students will use a social networking tool within a course, the preference might be a separate platform for that social connectivity. Facebook is known as a space to connect with close friends and family; therefore students may communicate and behave differently in the Facebook space than one that is totally dedicated for connecting within an academic setting.

Dee introduced another perspective on personal management of one's communications. She liked the idea of Facebook as an academic social media tool

because she described herself as extremely proficient in using Facebook. She went on to share, “My smart phone is always on for social connections, it is on for school as well, which works well for me.” Anne and Dee could be considered diametrically opposed outliers regarding the questionnaire responses. But that would not be true. Anne has a very compartmentalized view of her world that helps her make sense of all of the different tools in a changing landscape. Dee employs a current technology to leverage its functionality in assisting her in making the connections needed to support her success in the life and in class. In both situations, however, the two respondents are talking about the same concept: managing communications in order to be successful. While Anne prefers segregation, Dee prefers integration; the other students fell on a continuum between these two.

Although the research of Deng and Tavares (2013) as well as Ellison et al. (2011) suggests that the social use of Facebook might actually support bonding, which is for homogeneous and exclusive groups such as family and very close friends, the surprise for me was that bonding did not occur to the degree that bridging and linking did in this study. Students perceived Facebook as a way to connect with their peers, not through bonding, but rather through linking and bridging. Additionally, those connections emerged as the students’ desire to manage communications outside of the classroom prompted them to connect between scheduled class times. The data from the questionnaire and the focus group appears to indicate students’ desire to keep their academic and social use of Facebook separate.

The first two data points, the questionnaire and focus groups, provide a strong preference for keeping the academic and social space separate when using a tool like Facebook. However, the third data set provides a different perspective.

The third data set was the actual Facebook discussion. The posts provided small snapshots of conversation posted by students. In Week 1, students were asked to describe and define some types of economic regulations. Jill responded, "Economics regulation refers to rules that hit limits. Who can enter a [sic] business (entry controls) and what prices may charge (price control) [sic] example taxi drivers, professionals, lawyers, accounts must have licenses." Week one appeared to be more formal but as the conversation moved to week three responses indicated a level of comfort in sharing personal details with their peers in class. Dee shared, "Sorry granddaughter hit the key on me lol." Dee went on to say, "I like your post. You explain things in simple terms and still get the ideas across so they are understood easily." Jane shared, "Utility is the satisfaction received from consumption and sense of wellbeing....We use it with everything! In my everyday life I use cleaning around the house and keeping it maintained to a certain degree to satisfy me." Dee shared, "I like your post it is simple and complete." Jane shared, "I really enjoyed reading your posts and wish you luck in your career and all your classes. It is a very smart idea to buy needs before wants! Another way is coupons! Especially with groceries. Food is expensive." The Facebook discussion post brings the bonding concept to the fore with the ease of posted conversations as the course continued on during the eight-week session. It would appear that some started to feel comfortable sharing personal information. Not only were

bonding tendencies evident, but bridging and linking were also evident. It is not clear whether the students did not really understand how easy and convenient it was to connect using Facebook or whether their perceptions of Facebook became their reality; however, it is apparent that the actual posts reflected an element of bonding that was not consciously brought to the fore in the questionnaire and focus groups.

The use of Facebook within the class opened up the participants' perspectives on how Facebook could be used. The data suggested that students have not explored all of the possibilities that Facebook could bring to the classroom. Furthermore it might be that students are not fully aware how and why Facebook might be used to continue to create communications to build social capital, especially for bonding.

**Linking.** Linking as described by Woolcock contributes to social capital as it reaches out to many different people, some of whom may be outside of the community, which allows for a wider net of resources to be utilized. Students enrolled in a class may not have any commonalities but are placed together—with their instructor—for a period of time in a class to complete a course.

Table 9 provides the results from the questionnaire regarding communication with other students about coursework using Facebook. In response to the prompt *I am comfortable using Facebook or other social networking sites to communicate with other students about coursework*, 8% strongly disagreed, 15% somewhat disagreed, 31% neither agreed nor disagreed, 31% agreed, and finally 15% strongly agreed with the statement. Student preference was divided on this statement. Although there was one student who was not comfortable using the social networking tool Facebook for

coursework, 46% strongly or somewhat agreed that they were comfortable using Facebook to communicate with other students about coursework and 31% neither agreed nor disagreed with the prompt provided. The participants were divided on the issue of being comfortable with the use of Facebook to communicate with other students.

Table 9

*Response to “I Am Comfortable Using Facebook or Other Social Networking Sites to Communicate with Other Students about Coursework”*

Measure	Response	Percentage
Strongly disagree	1	8
Somewhat disagree	2	15
Neither agree nor disagree	4	31
Somewhat agree	4	31
Strongly agree	2	15

Another finding was a preference for using other means of communication instead of Facebook, as in email, text messages, or calling their peers. Sandy, Anne, and Jane did not see the value of yet another tool. Jane shared that she would prefer to use text messages, email, and phone and would use Facebook as a last resort. Others such as Deanne shared a continued preference for Blackboard as a learning management system to use for connectivity. This appears to support that students are more comfortable with a learning management system separate from a social media tool instead of a social media tool that serves as both a social and academic platform. This suggests that a student might feel more comfortable logging onto Blackboard knowing it is for academic purposes only. Perhaps students feel more protected when sharing information in a closed environment such as a learning management system like Blackboard.

While some students shared they liked the familiarity of the use of the LMS of Blackboard, other students accessed Facebook regularly and did not report trouble using the tool for class. Deanne shared, “My Facebook is always on, so I would just watch for a notice that I have a message and then would answer as soon as possible.” Joe checked through the week and on the weekend. Anne only checked the day of class and then immediately after. Deanne checked her smart phone throughout the day and was ready to receive messages. Deanne stated that her cell phone was “always on, thus Facebook is on.” Jill shared that she checked her smart phone throughout the day and was ready to receive messages. Dee checked daily, as her cell phone was always on. Dee shared she thought the tool of Facebook was “important for class.” She had access twenty four hours a day to communicate with peers, which gave her a sense of empowerment. Instead of waiting for the next class, the student could check in at any time to check on a concept or ask a question of her peers. It was almost as if Facebook provided a security net if she needed to check on something.

The response to the question of Facebook use revealed that many of the learners had Facebook on at all times. This empowered learners to connect with their peers at any time. However, 50% of the participants were not familiar with all of the different functions of Facebook, thus providing a possible challenge. Those that were unfamiliar with the use of Facebook were less likely to check in with Facebook or have their smart devices on to receive messages.

An important point that emerged from this exchange was that though many students found Facebook easy to use there was some concern about using it as a learning



support. Maran's (2009) descriptive study explored how students use web-based social networks and how students viewed Facebook for learning. Maran noted that the more students use web-based social networks, the larger the role those networks play in the learner's environment. Resistance or a lack of proficiency in regard to technology could play a role in students' acceptance of technology for learning. Unfamiliarity with the use of Facebook could preclude some students from forming networks through linking, thus decreasing the possibility of making connections that would be of value to the students.

As described by Woolcock (1998), linking provides connections between individuals that may not have as strong a bond as would be in a family relationship; however, the connection could support the construction of social capital to further one's interests or building of networks. Familiarity with the use of tools such as Facebook could support the students' desire to have an online forum to communicate outside of the classroom. The questionnaire asked for a response on the importance of the use of online forums to interact with students outside of class.

Table 10 provides the responses. In response to the statement *It is important to have an online forum to communicate and interact with other students about coursework outside of the classroom*, 39% neither agreed nor disagreed, 46% agreed, and 15% strongly agreed. Therefore, a total of 61% somewhat agreed or strongly agreed that an online forum for communication to interact outside of the classroom was important for coursework. The responses indicated students' preference for having some online communication within the course. The questionnaire reflects a preference to have an online forum where students can participate outside of the classroom.

Table 10

*Response to “It’s Important to Have an Online Forum to Communicate and Interact with Other Students about Coursework Outside of the Classroom”*

Measure	Response	Percentage
Strongly disagree	0	0
Somewhat disagree	0	0
Neither agree nor disagree	5	39
Somewhat agree	6	46
Strongly agree	2	15

The first question asked of the focus group participants was how the use of Facebook impacted their social capital within the classroom. A follow-up question about how students used Facebook provided additional information on how Facebook impacted social connectivity. Eight out of nine participants responded there was a positive link between the use of Facebook and social connectivity. One of the participants, Jill, shared, “Facebook promotes connectivity and some people may be shy about talking in class and when you are on Facebook you can get an idea of what that person is all about and then when I approach them in class I feel like I already know them. It helped that way.” Another participant, Anne, shared that “while we did not discuss the Facebook questions in class, the posts on Facebook allowed peers to interact with each other in a unique way.”

Joe added that “Facebook questions were part of the homework and learners could be straightforward on Facebook and then have the opportunity to elaborate on their thoughts.” Joe went on to add,

We still would have interacted; however we could talk more about what took place in class and bounce ideas off of each other. It allowed us to interact

especially if we did not understand something. We could discuss among ourselves using Facebook and by the time we came to class we had a better understanding of the material. It allowed everyone to interact. It continued the conversation after class.

Dee responded to Joe with, “In Facebook you can look at [a classmate’s] picture and get an idea of what type of person they are.” Deanne shared, “This was a way to get to know each student through Facebook.” Deanne went on to say that the “use of Facebook allows me to get to know my classmates through constant communication that is quick and convenient. After class ended many of us to go to our jobs so there was little time to have face-to-face conversations or feel connected to others. Facebook provided an option at whatever time was available to connect with others in class.” It was convenient. Dee added, “Facebook was good for networking and getting to know students better.” Dee shared, “Some people are shy and this allowed another way to connect within the classroom. Connecting to Facebook allowed that connection to take place. I liked Facebook because I knew who I was talking to and that is not always the case in Blackboard.”

The participants shared the use of Facebook allowed them to connect with other students in the course outside of the classroom. The ability to connect using a familiar technology allowed them to check in with other students, obtain their opinions on questions, or confirm what took place in class. The sub-questions of bonding, bridging, and linking were addressed with the focus group discussion. The findings also revealed that four of the students acknowledged Facebook as a way to further connect to students

outside of the classroom and connectivity as important to their learning experience.

Facebook was a tool for that access. The findings support the concept of linking in that students who did not possess strong ties or bonds did seek to use linking as a way to connect with each other outside of the class. Linking was used to confirm details of the class as well as to seek clarification of concepts covered.

Joe said, “I liked the idea of having the additional tool of Facebook to clarify and help answer questions outside of class instead of waiting until the next class to ask the questions. It was helpful to be able to start the class with the questions answered and Facebook also helped to get to know the others in class as a group.” Deanne stated, “If I did not understand something I went to Facebook—my peers helped me understand in better terms.” Jill agreed that “it helped steer me in the right direction and I could have my questions answered. I had somewhere to go.” Jill shared, “It increased interaction and could elaborate on what took place in class.” Jill also added, “It allowed peers to bounce ideas off of one another and felt it supported that bonding within the course.” It made the class seem more inclusive: “The extra interaction was good in Facebook.” Jill shared that Facebook made it “easier to go to classmates for questions.” Jill went on to share, “Facebook was proactive in taking charge of my learning.” Another learner, Kaye, said, “Facebook was available so questions could be answered outside of class; it was helpful for students to know they could ask questions outside of class and Facebook was a way to get to know the other students.” From their responses it appears that students supported having another tool that could give them quick access to other students to ask questions and get help. The students could connect with peers without waiting to connect with

faculty. It also could provide confidence that they could solve a problem or issue outside of the class. The interaction outside of class supports the concepts of bridging, bonding, and linking to result in creating social capital.

Two students, Jane and Sandy, acknowledged the importance of connectivity but shared they preferred the face-to-face classroom experience over the use of Facebook. Jane shared that she compartmentalizes her daily life: “work is work, social is social, school is school, and family is family and I have no use for Facebook in the classroom setting.” Jane continued to be outspoken about compartmentalizing her life. This appeared to be a recurring theme with her responses.

Jill, Deanne, Joe, and Dee shared that Facebook increased their engagement with their peers in the class. These four learners felt more connected or linked by having the tool of Facebook. For them, social networking built cohesiveness in the class setting. One student, Deanne, stated Facebook “is an important aspect of connecting.” She also stated it made the “class more inclusive being able to have that connection available at all times.” A use of Facebook that emerged was that peers would connect and ask questions that they might not have asked the instructor. It was more likely the learners would go to their peers for clarification than to the instructor. Whether this was due to time or their relationship with the faculty member was somewhat unclear, but the four participants named above praised the use of Facebook as a tool for clarification and a sense of inclusiveness in class. It appears that students felt empowered to be proactive in the course. However, it was noted there were two students that preferred the face-to-face

environment. Those two students were mature and it could be they were more set in how they viewed a typical classroom.

According to two participants, Anne and Jane, social capital was optimized in the bricks-and-mortar classroom, not through social media. They shared the only reason they used Facebook was that it was required as part of the business course by their faculty member. In response to the question posed about bonding increasing through Facebook use, Jane answered, "I established strong connectivity through one-on-one rather than online." Anne commented, "I will share information more in person." Other participants had different views. Deanne shared the extra interaction on Facebook "makes me feel like I belong...and will continue to interact." Sandy shared, "I prefer one-on-one, but if not available will go online. The interactions are better in person, but if I absolutely need to, I will go online."

The main finding here was that connectivity was important for eight of nine participants. The four participants who felt Facebook added to their social connectivity used words such as *inclusiveness*, *connection*, *feeling of belonging*, and *ability to connect* to others at any time.

**Connectivism.** According to Siemens (2005), new knowledge and thus learning takes place via the connections individuals make. It is not what a student processes within a period of time, such as in a class, but rather what evolves in an ongoing organic process of many touch points of information and connections that add to learning. Every connection, whether in a classroom or outside of a classroom, can impact new knowledge

creation. Siemens built on the work of Granovetter (1973) regarding strong and weak ties. Strong ties align with bonding and weak ties are parallel to bridging and linking.

Table 11 reflects the students' responses regarding how important a social networking tool such as Facebook is for academic success. Students were asked, "How important is Facebook to achieve your academic success?" Students responded to this question with 69% sharing Facebook was not important and only 8% sharing Facebook was important to their classroom success. The questionnaire revealed that, although students may support the use of Facebook, the participants did not report a relationship between their academic success and use of Facebook. This was a surprise to me, as I anticipated a more direct alignment with use of Facebook and how it would contribute to academic success. Although the results did not support academic success and use of Facebook, there did appear to be some connection between use of Facebook and students' perception of learning.

Table 11

*Response to "How Important Is Facebook to Achieve Your Academic Success?"*

Measure	Response	Percentage
Did not use in the past year	0	0
Not at all important	9	69
Not very important	3	23
Moderately important	0	0
Very important	1	8
Extremely important	0	0

The next question set I asked the focus group concerned if Facebook contributed to learning, if the use of Facebook was important to their learning, and if it enhanced their learning experience. Also included were questions asking students if there was a link

between perception of the university experience and use of Facebook. These questions linked back to research question one, which asked how Facebook impacted social connectivity. Five of the nine participants shared that Facebook did contribute to learning and increased overall effectiveness of learning. Learners pointed out the upside of using a tool such as Facebook as most learners are already using technology-based tools; however, there were others who thought that the face-to-face classroom was a better way to engage learners and support learning. Another issue that came out of this discussion is that in face-to-face classrooms the reading of body language and understanding of a person's tone can be important. Three students felt the use of Facebook did not support the full experience of face-to-face connectivity. Their idea of social capital was built upon face-to-face experience. It was shared that bonding and linking may be more difficult without face-to-face contact. Yet five other participants shared that, for students who are somewhat shy, Facebook offers another way to facilitate connectivity and connectedness within the class. Some learners are not prepared to talk in class and the use of Facebook allows those learners to bond with each other and link if need be to work on an assignment. I have provided several excerpts from the focus group participants in the following paragraphs to support the findings.

One participant, Joe, said that Facebook gave him greater sense of perspective as a learner. Joe shared, "All could participate and gain a different perspective. If you did not attend the on-ground class, the use of the Facebook posts helped to interact with others so by the time you came to class the questions might be clear in your mind." Joe felt Facebook put him ahead as he had his question answered before coming to class. He



could receive clarification in real time and not have to wait until the next class. Joe shared he really got to know his fellow students. For Joe it made his learning more effective and efficient. Facebook also empowered him to take action on a question before the next scheduled class. Facebook supported the learner directing his learning.

Because peers were allowed to exchange and read each other's answers to the questions posted in Facebook, informal learning could take place outside of the static classroom. Anne shared that the posts contained the posting date so "I reread other answers to questions on posts and found that I was learning with my peers." Jill summarized that it was easier to understand the material if someone else explained it for others on Facebook. Peers were able to communicate at all times and clarify issues and questions they may have had. Jill shared that learners could understand the answers better when they could reach out to others in the class. She went on to share they could go back and forth till all understood the concept. She declared, "It added to my understanding and felt I was part of the group." For those who used it, Facebook provided an additional support to enhance their learning outside of the formal classroom time.

Anne and Jane seemed unclear about the role and use of Facebook. Jane did not feel Facebook contributed to learning. Jane made clear to her peers that learning effectiveness was important to her and the optimum path was not through Facebook. Jane again brought up, "Facebook was just one more task to do." Jane was consistent in her resistance to the idea of using Facebook in the classroom.

Most students left right after class, so Facebook became a way to extend the class outside of the regular hours. Joe felt that Facebook helped to create "more of a

community in class.” Joe also felt a greater sense of belonging to something, as he often did not have time to connect in the classroom. Jill enjoyed the peer-to-peer interaction and felt it was inclusive. Jill mentioned, “Photos on Facebook personalizes the experience and is a better way to network with learners on campus.” Joe again shared that Facebook “helps to get to know learners better as eight weeks is a short time to get to know one another.... Facebook speeds the process of getting to know each other.” Jill shared, “When you see a person on Facebook it personalizes the connection and feel I belong. I know the next time I see them on campus or hear from them on Facebook we have a bond and we are linked through the business program.”

Five participants concluded that Facebook did contribute to learning. The learners shared that Facebook can be used as another touch point within the class and those that take part in this give themselves yet another support to engage in the class. Yet there were those who did not support the statement that Facebook contributed to learning. One participant shared that not all courses are the best fit for use of Facebook. Some thought that courses that have more possibilities for debate might be better to place in Facebook, although Jane, who was against the use of Facebook, thought that such discussion is “the reason we have face-to-face classes and the idea of connecting with other learners was best done in a face-to-face class.” Joe shared that he did not want to appear “dumb in front of others,” so Facebook was a way to ask questions he might not ask in class. This was an interesting comment in that it perhaps reflects a student’s lack of confidence. Facebook might be a tool to help learners gain that confidence.

The use of Facebook to contribute to learning was noted by the participants and aligns with the work of Ellison et al. (2011) and of Junco (2012a) that reflect a link between the use of web-based social networking and learning. It was clear that for some participants Facebook was perceived as an enhancement to social connectivity that used bonding and linking. The third theme that emerged was ease of Facebook use and its impact on social connectivity.

Connectivity was considered an important part of the participants' learning experience; what differed was how that connectivity took place. While some preferred face-to-face interaction, others were comfortable with the use of new tools such as Facebook. This is supported by the work of Helliwell and Putnam (1999), which argues that a relationship exists between social capital, education, and social engagement. In regard to the impact that Facebook had upon social connectivity, it was important to note that the participants reported that Facebook did help in bonding in the classroom. The learners felt connected, they had a sense of belonging, and Facebook supported students in linking or participating in an exchange of information between individuals who did not know each other well.

The first 2 weeks consisted of most students answering only the question with formal responses. An example of a question asked was to define economic regulation. At first the text definition was given and then as the discussion continued students started to add personal information about their lives. In the subsequent weeks, as the students became more familiar with each other, the conversations started to become more personal. For example, Sandy replied to one peer that she felt the Facebook post was

simple and complete and explained the economic model in very clear terms. When a question was posed to discuss microeconomics and purchasing, another student personalized her answer to talk about needs and wants in an economic perspective. Another brought in time and drew connections to spending time with family versus other activities. Yet another student shared how much she enjoyed reading the posts and how straight to the point they were.

Many of the students validated other answers by reading the previous post and then replying that they agreed and adding on to that answer. It was difficult to extrapolate themes from the discussion posts other than recognizing that all 13 of the students participated in the post. This was due to the responses to the questions asked in regard to microeconomic content. This could be attributed to the fact the posts were assigned points by the faculty of record and were part of the final grade.

Students started the discussion posts in Facebook by answering the questions which related to the basic concepts of economics. As the discussion continued students started to add personal information about their lives. In the subsequent weeks, it appeared the students were linking within the Facebook discussions posts without actually recognizing they were developing all three forms of social capital. There was a connection developing: one that at times aligned with linking while at other times pointed in the direction of stronger connections such as bonding. When talking about families and other very personal issues, the students had crossed over into a more intimate relationship with their peers. It would appear that students felt comfortable enough to start sharing

outside of the normal classroom content. The students were developing relationships that could carry over to other spaces once the class was completed.

Siemen's (2005) theory of connectivism is the new conduit for learners to connect. Siemens expanded bridging, bonding, and linking within social capital as an important force in the "knowledge economy." Students are not only willing but want to have some sort of social connection outside of the classroom with faculty and each other. However it should be noted that some students were short-lived in their use of connections to developing social capital. After using bridging and linking to successfully complete a course, some students are willing to shed those connections and move on to new ones. However others, it appeared, formed strong ties as in bonding to continue the connections after the course. The same concept applied to the student-professor relationship. Even after completing a course, students appeared to be open to the idea of staying connected with their professors. This may provide evidence that students understand they need to not only form new connections, but to cultivate them over a period of time. Bonding is reserved for those close personal ties, while bridging and bonding can be used in more fragmented relationships; however, there is still a connection. In a world of accelerating change, the use of Facebook may allow students to be flexible in how to leverage their use of connections. Bonding connections are those that are solid and endure, while bridging and linking may be used to complete a course, to leverage a job opportunity, or to seek out someone to benefit the student who originated the connection.

One important conclusion is that students wanted to keep their academic life and social life separate. Facebook can support the student's ability to reach out to others outside of their close circles (bonding), thus resulting in more bridging and linking to cross the homogenous connections. Students appeared to understand the need to build up relationships for their own personal development, but perhaps Facebook is just one of those tools. The students acknowledged the importance of social capital in a world of accelerating change and continuing flux.

In summary the use of Facebook does impact social connectivity in the classroom in the three areas of bridging, bonding, and linking. The study reveals that bonding, although normally reserved for strong ties as in family relationships and homogenous groups, can take place in the classroom. However bonding takes time because trust develops over a period of time. Of the three areas in building social capital, using Facebook was slowest in the building of those close ties or bonding. Most of the students did not know each other before so turned to bridging and linking to build their social capital within the course. Facebook was the tool for students who came from very different backgrounds to share in course content. Students knew they needed to use Facebook in the classroom to verify course content, confirm assignments, and to share in an informal way other topics in the course. As the trust developed some of the students started to transition into sharing personal information about family, work, and their concerns. These behaviors are reflective of the use of bonding to increase the connectivity within the class. It would appear that the use of Facebook can further the

connections between students in class on a twenty-four hour basis not bound by space and time.

### **Research Question 2: How Do Different Generations Use Facebook in the Classroom?**

Research Question 2 asked how different generations use Facebook in the classroom. Research question two aligned with the focus group questions asked in regard to why participants use Facebook and if age plays a role in the use of Facebook. Five out of nine responded that age plays a role in the familiarity and use of Facebook. Four (31%) of the participants were 18–25 years old, five (38%) were 26–33, one (8%) was 34–41, two (15%) were 42–49, and one (8%) was 50–57.

The focus group was asked what impact age had on the use of Facebook. Sandy, who stated she was over fifty, shared challenges technology poses for her in the classroom. She said, “I would rather pick up the phone and call than use a tool like Facebook.” Sandy acknowledged that her instructor effectively used technology and provided adequate training on uses for technology in courses, but she felt uncomfortable and lacked confidence. When specifically asked about Facebook, Sandy “rated Facebook as not very important” to her academic success. Anne, another mature student, viewed Facebook as not that important. Anne felt the personal relationships she made in class were much more helpful and supported learning. Anne said that she uses technology but places her energy on face-to-face communication to build social connectivity. Jane offered that technology use is not all about age but also about comfort level with technology. She was the only participant that brought up the issue of privacy, saying that

she wanted control over her privacy. In the focus group discussion one of the younger participants shared that their parents were just becoming familiar with technology and viewed tools such as Facebook as “for younger people.” Sandy, a mature student, did acknowledge that she prefers face-to-face interaction but that she might use Facebook to reach out to someone in class she did not know. She said, “I am not on it enough to have a comfort level; it appears it is better for younger learners as it is much easier to connect as they feel comfortable with the technology.” Sandy went on to say, “Baby Boomers do not use technology and would rather call.” Sandy concluded that “social media like Facebook is here to stay and we as students will have to adjust.” Howe and Strauss (2000) studied the relationship between age and online social networking and noted the use of technology plays a role in the acceptance of new web-based tools. The ongoing growth and pervasive use of technology by business, education, social, and financial institutions may direct learners at every age to accept and become proficient in the use of social media tools. Society may be in the transition period and social media tools may be used at younger ages for communication. This may become ubiquitous throughout our society.

### **Conclusions**

Chapter 4 provided a review of the research questions, purpose, problem statement, data collection techniques data analysis, and the results of the study. The research questions set the framework for the study. They were as follows:

1. How does the use of Facebook impact social connectivity within the classroom?



- a. How does the use of Facebook influence linking?
  - b. How does the use of Facebook influence bridging?
  - c. How does the use of Facebook influence bonding?
2. How do different generations use Facebook in the classroom?

The participants ranged in age from 18 to 57 with a majority of them being female. Ethnicity was predominately White, followed by African American and Hispanic populations being represented. The sample population was similar to the overall university's population. I used a questionnaire to obtain demographic information, focus groups to obtain rich and thick substantive descriptions of how students perceive the use of Facebook in the classroom, and finally read the actual discussion questions posted on Facebook by the faculty of record. Themes emerged as the data was collected and are listed below:

### **The Impact of Facebook Use on Connectivity**

An important perspective emerged from the responses: Facebook did improve connectivity within the classroom. Connectivity did contribute to the three aspects of social capital of bonding, bridging, and linking. Students were more likely to contact each other through Facebook for discussing course content, contacting faculty, and reaching out to their peers. Student-to-student interaction using Facebook did contribute to social capital in the area of bridging and linking. Linking within the classroom via Facebook helped to develop social capital for students as they started to connect with each other to talk about core concepts in the course, confirming concepts for answers to questions, and also reaching out to other students in the course for general conversation. What started as

linking in some cases moved on to bridging for future courses. The students appeared to focus in on the bridging that would take place between the students and current faculty; however, they did not do so to the same degree when the class ended. Students were more likely to turn to their peer group before they would go to faculty within the class. It would appear that although Facebook can be used as a tool, especially for bridging and linking, to build social capital, there are limitations. Bonding, the third component of social capital, was not as evident. It did appear at times, but the trust factor played an important part of when students decided to become more personal with their classmates. Some preferred to connect face-to-face. Others felt empowered by being able to reach out to their peers in real time to connect, to ask questions, or confirm information. Others found it as a way to expand their connections.

### **Student Perception of Facebook's Contribution to Learning**

Another theme that emerged was that the participants perceived that Facebook contributed to their understanding of course content and suggested it supported their learning in the course. Instead of waiting until the next class students would share conversations via Facebook regarding course content. Students felt they could reach out to their peers as described by the concepts of bonding and linking to ask questions, receive encouragement, boost confidence, and validate answers. The interaction outside of class supports the concepts of bridging, bonding, and linking to result in creating social capital.

### **Separating Social and Academic Networking**

The study revealed that students prefer to keep personal social networking and academic networking separate. Students shared that, although they liked the idea of Facebook, they were at times concerned that their personal lives and academic lives would not only intersect, but somehow become confused. The benefits of Facebook, although numerous, were met with caution regarding how the social media tool might be used without it interrupting students' personal lives.

### **Ease of Use**

Another theme that emerged from the focus group was the ease of use of Facebook. Facebook was convenient and in some cases was always available on a smart phone or tablet. As some learners suggested it was much easier to communicate on a social media platform than go into the learning management system to communicate with other students. The ease of use prompted learners to communicate often and when they needed immediate access to communication. Several felt empowered with the use of Facebook.

### **Age and Proficiency**

The issue of age and the use of Facebook emerged as a theme as well. Mature participants shared the struggle to learn new technology and to change their views on the use of web-based social networking tools. Although a theme, the data collected was inconclusive regarding the role of age on the use of Facebook. Students' proficiency with technology and use of Facebook was clearly an important question, especially for the more mature students.

Chapter 5 includes a review of the findings and how they relate to the framework of the study. I provide an interpretation of all findings and then look at how this study can add to university conversations regarding the use of technology-based tools. I also discuss social implications for these findings, recommend a call to action, and promote further studies in the area of the use of web-based social media tools for learning.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

As with many scholar-practitioners, my goal is the application of structured inquiry and applied theory to solve a problem in practice. The use of technology has become pervasive in society. Supported by the Internet, web-based social media tools have evolved and continued expansion of technology has taken place not only in the United States, but on a global level. Although once thought to be useful only for personal social connections, social media have expanded into business (Barnes & Lescaut, 2014) and education (Boyd & Ellison, 2007). Yet little is known about the use of social media tools such as Facebook and their impact on social capital in the classroom. This chapter reviews the problem statement, purpose, and research questions of the study, as well as provides an interpretation of the results of the study, and discusses implications, recommendations, and a call to action.

As the use of web-based social networking has continued to grow, the focus is now on how web-based social networking tools can be used within a university (Boyd & Ellison, 2007). Little research is available according to Greenhow et al. (2009) on the use of social media and the impact on social capital. One of the major tasks of researchers has been to first identify the major social media portals. Research about social media has concentrated on identifying the social media portals (Boyd & Ellison, 2007), motives driving students' use social media (Bolar, 2009), use of social media in library contexts and why students use social media (Cheung et al., 2011). Dabbagh and Kitsantas (2012) discussed the role of social media within the personal learning environment and learning.

Deng and Tavares (2013) explored students' motivation using Facebook in the online communities. Ellison and Lampe (2007) explored the benefit of Facebook friends to build social capital; however, the study only explored the friends' aspect to build social capital. They found that Facebook, when used in a social setting with current friends, strengthened the bonding aspect of the connection. However, Ellison and Lampe did not study students within a course who did not previously know each other. There appears to be a gap in the literature on the use of Facebook to build social capital within a college course.

In contrast, Boyd and Ellison (2007) documented the rise of social networking sites and a rapid growth starting in 2003. While many of the social media portals have now been identified, little study has been made on how use of a social media tool such as Facebook can contribute to the development of social capital via bridging, bonding, and linking within a course

The second research question addressed the role of age and how age impacts the use of social media. Howe and Strauss (2000) described those born after 1982 as millennials. Their work has explored the attributes of millennials and how they transfer into the classroom, workplace, and family setting. Oblinger (2003) in her study of millennials suggested they exhibit unique qualities. However, more mature individuals may view technology in a different light. Hampton et al. (2011) noted that since 2010 the use of social networking has increased across all ages. This study explored the role of age in using social media tools and supported the literature that the increased use of social media is found among all ages (Duggan, 2015).

The purpose of this study was to provide faculty and administrators with a better understanding of the role of Facebook in a higher education business course.

Understanding the role of web-based social media tools and how they might contribute to the expansion of social connectivity could assist higher education faculty and administrators in adding value to the classroom experience.

The study was a case study to explore how students use Facebook within a college course. A qualitative case study approach was used to describe the use of Facebook based upon Yin's (2009) description of addressing how and why a real-life phenomenon is studied. Data collection consisted of responses to an Educause-approved survey, focus group discussion, and the actual Facebook posts used within the class.

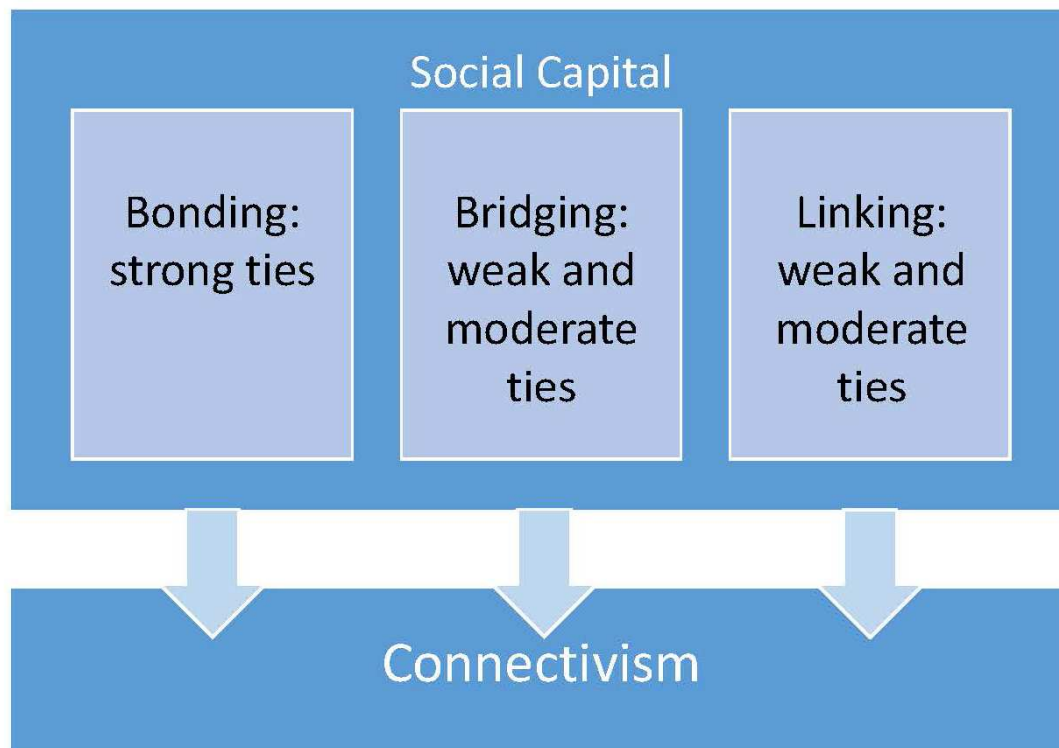
The questionnaire, focus group, and Facebook discussion posts provided three data sources to demonstrate validity of the study. The questionnaire from Educause was used to obtain specific information in regard to age, gender, ethnicity, and year in school. The focus groups provided information in response to questions about how the students used Facebook in the classroom, and their insights on the value of Facebook in building social capital. The completed Facebook posts provided information about how they responded to the use of Facebook and the use of bonding, linking, and bridging. Based upon the literature review and the gap in current research, the research questions were presented: how the use of Facebook impacts social connectivity and how different generations use Facebook in the classroom.

## **Conceptual Framework**

The conceptual framework for this study was based upon the work of Lin (1999), Portes (2000), Putnam (2000), and Woolcock (1998). Their work described the role social capital plays in networks individuals create as a conduit of information flow. Social capital can be broken into bridging, bonding, and linking according to Woolcock.

Granovetter (1973) had previously addressed the concept of social capital by associating strong ties with bonding and weak ties with bridging. Siemens (2005) further built upon the work of social capital and strong and weak ties with the theory of connectivism. He explored how technology supported accelerated use of connections in a web of connections. Bridging and linking were of special interest as technology could provide to the tools to support connections that were not bound by time and place. Figure 1 visually depicts the concepts and their relationships to each other, social capital and connectivity as I started the study.





*Figure 1.* Linear model of social capital and connectivism.

Social capital as defined by Lin (1999) are “resources embedded in a social structure which are accessed and/or mobilized in purposive actions” (p. 35). This can be broken down in bridging, bonding, and linking. Bonding is defined as those relationships where the ties are strong, as in families, where individuals are in close contact and homogenous in nature. Bridging and linking are used when weak ties are present to either use a relationship to bridge to another individual who can provide worth or can assist in gaining a new connection. An example would be a student who would like to connect with an individual in an organization for a job interview. Bridging and the use of weaker ties would allow the student to connect with a person who could be act as the third party to help the student gain the interview. Bridging does not have the longevity that a

bonding relationship tie might have. Linking is bringing together individuals who may have little in common, but a commonality such as a college class might be a weaker tie connection where students would be connected for the duration of the college course. Bridging and linking can transition into bonding, but this takes time and space. Linking and bridging can lead to bonding. Linking, bridging, and bonding are all forms of social capital with stronger ties aligned with bonding as weaker ties aligned with bridging and linking. As described in Figure 1, bridging, bonding, and linking can be expanded by connectivism, which is a total integration. Connectivism as defined by Siemens (2005) was “the total integration of chaos, network, and complexity, and self-organization theories” (p. 3).

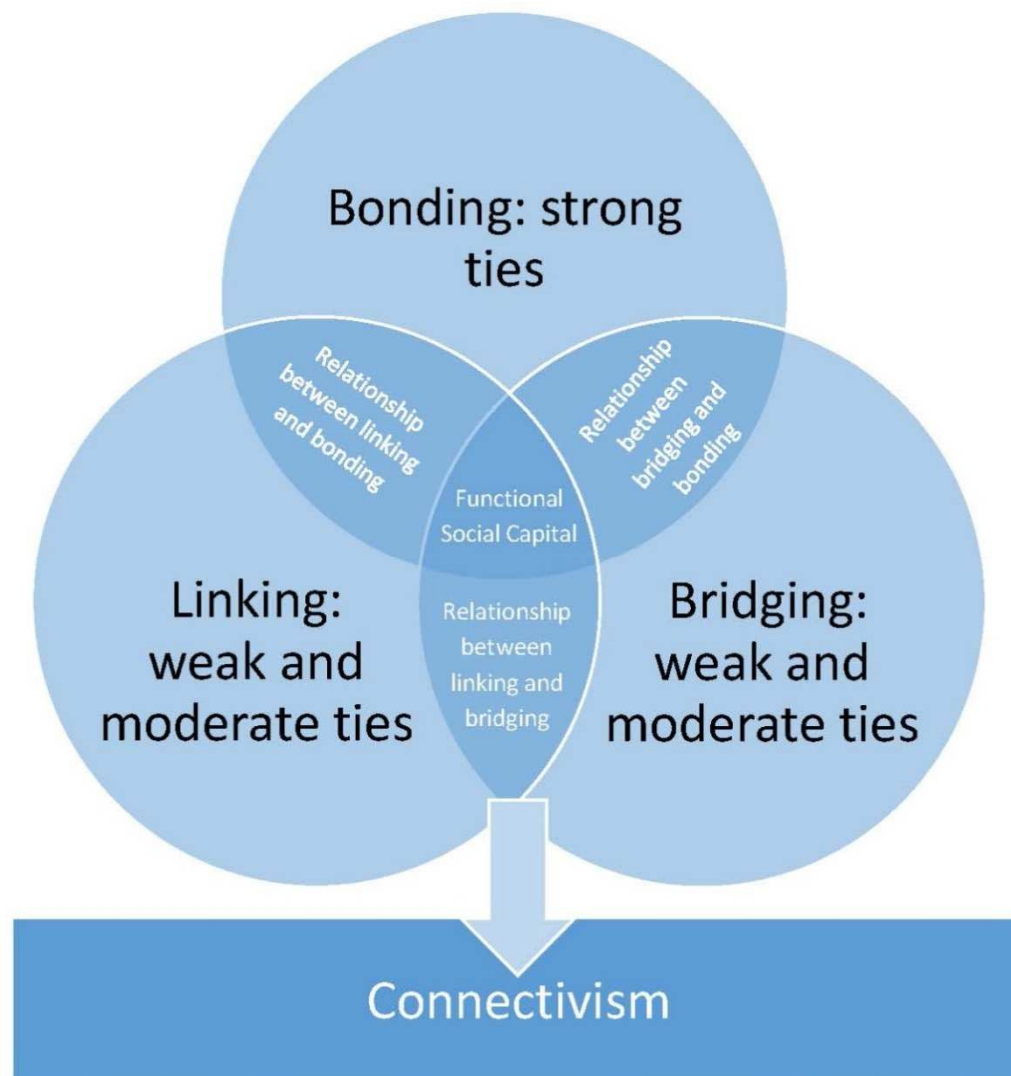
### **Summary of Results**

The paragraphs that follow offer a summary of the results. I have used the research questions to organize the discussion.

#### **Research Question 1: How Does the Use of Facebook Impact Social Connectivity within the Classroom?**

Current learning takes on an entirely different role when it is supported by technology-based tools. Siemens (2005) studied social capital using his theory of connectivism. Siemens noted that the increased use of web-based technology tools can support and strengthen social capital in a world of accelerating change. He explained that the network of connections can expand exponentially by the use of social media in real time. In addition, the connections know no geographical boundaries. According to Duffy and Jonassen (2013) and Reynolds (2007), constructivist theory supports scaffolding that

allows a learner to continue to build upon a solid foundation by integrating and synthesizing new experiences and new content. Using the social networking site Facebook, this study supports that perspective. Additionally, this study further refined the connections between linking, bridging, and bonding as they relate to social capital as an enhancement to learning. Based upon the findings of this study, I have determined that the relationships between linking, bridging, bonding, and social capital work more like what is depicted in Figure 2.

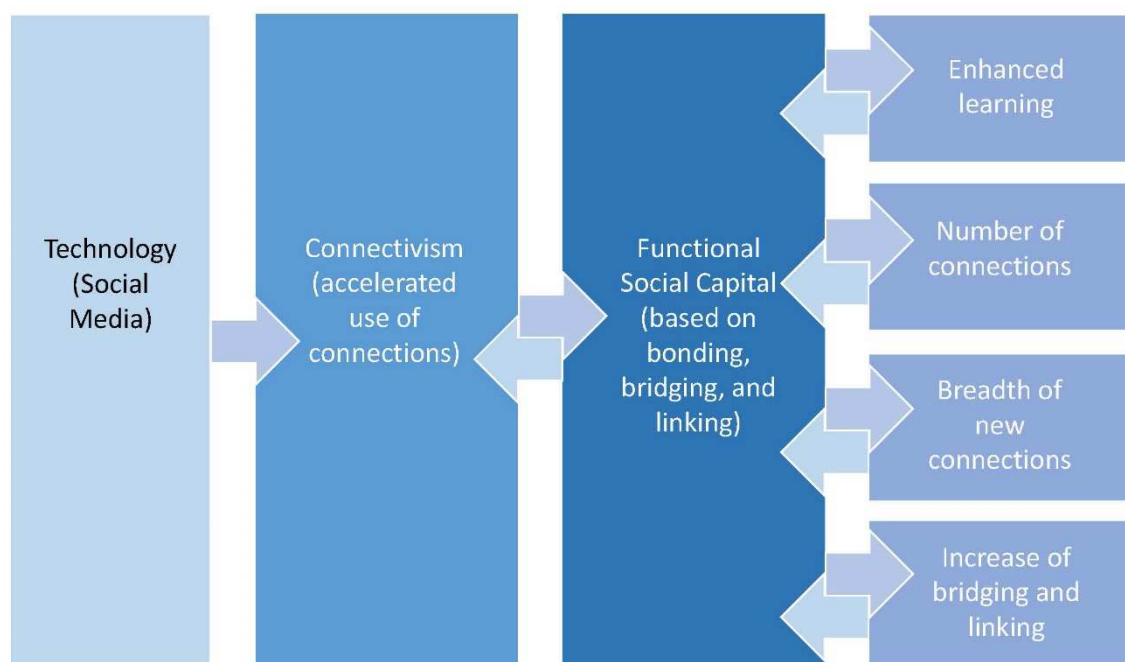


*Figure 2.* Connectivity observed in Facebook usage.

The figure supports the three areas of social capital as identified by Putnam (2000) and Portes (2000). Bonding is identified as the strong ties in a relationship, while linking and bridging are weaker ties. Each attribute of social capital appears as a separate element of social capital. This study reveals that the three components of social capital are fluid and sometimes converging depending on the time and place of the connection. Bridging, bonding, and linking are in a continual process of change, at times overlapping,

other times being separate, and then possibly developing into strong ties as seen in bonding.

Technology has accelerated this process and supports the concepts that the number of connections and the ability to be agile and flexible can add to new ways for students to learn. An example of this is that students were more willing to use Facebook to connect with each other to ask questions about course-related items. At first students had very weak ties; however, those could transition into strong ties as the familiarity of the students increased. The use of Facebook was an informal way for students to connect and, depending upon the degree the connection developed, that connection could remain a loose tie or develop into a strong tie. All of these touchpoints, when based upon a web-enhanced tool such as Facebook, allow the student the freedom to move freely from one set of connections to another based upon their need and the needs of their connections. Students perceived the use of Facebook could enhance how they learn, contribute to new connections outside of their normal boundaries and leverage the social capital used. This in turn could encourage students to increase the use of bridging and bonding in order to leverage new social capital. Accelerated and rapid accumulation of these connections can increase the network of a student. This relationship between connections and social capital, as I have come to understand it, is demonstrated in Figure 3.



*Figure 3.* Technology, connectivism, and social capital.

Technology is the driver that can increase not only the number of connections, but also the time and place of connections due to the presence of global connectivity.

Therefore, social capital can be temporary or longer lasting depending upon the use of connectivism to add to social capital. Connectivism can determine the functional use of social capital in a course. In addition, increased use of bridging and linking can build and support the foundational use of bridging, bonding, and linking. This relationship can be a two-fold as well as back-and-forth movement. In addition, use of functional social capital can add to breadth of new connections and number of connections. The use of bonding, bridging and linking is fluid, thus creating the back-and-forth movement between building on the base of the components of bonding, bridging, and linking and then moving forward to create new connections. Breadth of new connections can add to the overall framework of social capital. The new levers are technology and connectivism that

support and accelerate the entire process. The accelerated use can provide options for students to use or discard connections depending upon their needs. If they want the relationship to continue then both parties must mutually agree upon the movement toward bonding. If one student or another has an individual motive then it may take the shape of bridging or linking. My understanding of social capital has changed over the course of the study. It now appears that the attributes of social capital are fluid and can vary over time and space. Connectivity is important to further deepen bonding, bridging, and linking. Bonding is described as having strong ties between individuals. Over the 8 weeks students formed relationships within the course. A few of the students went on to form stronger ties as they began to post information other than the course content. The students went from weaker ties (bridging and linking) to form strong bonds which might carry on outside of the class at the conclusion of the course.

The relationship between linking and bonding can develop over time; however, I observed that the development of bonding is supported by time for students to connect on a continual basis as well as the space in which further interactions take place. This study did not reveal a strong relationship between student and bonding using Facebook.

Strong ties, according to Granovetter (1973), are those connections that most often occur within a family or among very close friends. Although Granovetter uses a different perspective, his description of strong ties align with bonding as described by Putnam (2000), and support Putnam's work. Many of the students in the class did not know each other before. Students felt they had the opportunity to connect outside of the classroom and start to form relationships. Three students shared that they felt Facebook

allowed them to increase their engagement with their peers. It appeared they felt more connected although it was difficult to determine if they had reached the bonding state. Bonding may only take place for the duration of the course and at the completion of the course become less important. Bonding can be temporary, that is only used for the course time to support each other through the class and then disperse, or perhaps it can continue to form strong relationships. I was unable to determine if that was the case.

In this study connectivity was perceived by students as how frequently they could reach out and be in touch with their peers outside of the classroom. Whereas before the use of Facebook students may have had to go directly to the instructor or connect face-to-face with other students within the classroom, in this study the use of Facebook allowed a steady stream of communication with fellow students at any time. The stream of information started out as factual responses to the questions asked in Facebook and then spread to a more intimate conversation as the students became more familiar with each other.

I found that linking and bridging attributes of social capital do play a considerable role in connectivity within the classroom. Students shared using Facebook supported their ability to reach out to their peers outside of the static classroom at any time. Two of the participants shared their Facebook app was on their smart phone at all times. Three others shared they checked their apps on a regular basis throughout the day. This empowered them to be able to connect anytime and anywhere. One student shared she felt empowered by her smart phone Facebook app. As eight of nine focus group participants acknowledged that Facebook enabled them to feel connected to their peers outside of the



classroom, Facebook provided a user-friendly channel for students to bond and link outside of the classroom.

The use of Facebook and other social media tools align with Granovetter's (1973) work regarding strong and weak ties. Granovetter suggested that weak ties provide the space where innovation and creativity reside as they bring disparate groups of individuals together who can collaborate. Using social networking tools such as Facebook, students can reach out far beyond the classroom to connect with learners. The use of technology-based social networking tools such as Facebook supports the use of widespread networks based on loose ties as described by Granovetter (1973). It appears students came together to support each other through the course by answering questions, confirming due dates, clarifying data, and finally providing encouragement. The relationship between bridging and linking was observed by one student sharing that she considered Facebook an important aspect of connecting within the course. Overall eight of nine students who participated in the focus group felt connectivity was important and used words such as *inclusiveness, connections, and feeling of belonging*.

In this study the students used Facebook as a way to connect via weak ties since the students did not know each other before this class. The data from the study revealed that 46% of students were comfortable using Facebook to connect with other students about course work. In addition 61% of students shared it was important to have a space to communicate and interact with other students. They were placed in a group as part of a class with weak ties. One of the striking results was the ability to connect at any time for questions about the course. Eight of nine participants felt there was a positive relationship

between use of Facebook and the ability to have social connectivity to build social capital. Specifically one participant (Jill) shared that “Facebook promotes connectivity.” The use of Facebook supported the student’s ability to share at any time with other students, not having to wait for the next class. This supports the use of bridging and linking in the building of social capital. Bonding (described as homogenous and very close ties) evolved only after a period of time when two of the students became closer as a result of using Facebook. Thus some bonding did appear, but not in the same proportion that bridging and linking did. Figure 2 depicts the use of bridging and linking to support ties as well as bonding. As shown, bonding results in a stronger ties as compared to bridging and bonding, which result in weaker ties. Four students acknowledged the use of Facebook increased their interaction with peers in the class. Again this outcome strongly supports the use of Facebook in linking to build social capital.

In creating social capital one can begin to form bonds, bridge connections, or link with other people. A relationship can start out as linking or bridging and then move on to a stronger relationship, as in bonding; however, once a bonding relationship is formed it is difficult to transition that into linking or bridging (Figure 2). An individual does not always have control over the bonding aspect of social capital as noted in a family unit. What was observed from the focus group discussions is that students will come together to link or bridge as the common transaction is to complete the course. They use the weak ties or relationships to connect in order to support each other and create social capital within the course. However, what is unclear is if this will continue without a shared class or if the students will reconnect with other students in another class to experience

the same support. Siemens would suggest that is the case: he studied the impact of accelerating change and the rapidity of change. Fast moving connections via bridging and bonding allow students to engage and then separate to go on to the next connection.

While many learners embraced the idea of ongoing connectivity, there are barriers. The barriers appeared in a variety of forms based upon the results of this study. One question supported the idea of keeping academic and social life separate. None of the participants wanted to mix their social and academic social networking. Although 61% of the participants thought online communication was important, 92% did not view Facebook as important to their academic success. Some learners do not possess the skills to use web-based social media as a way to reach out to others to create and maintain social capital. Some learners do not see the value in the use of web-based social media tools such as Facebook. Two participants described Facebook as a powerful tool; however, they were reluctant to accept Facebook as a tool to use in an academic setting. They preferred the face-to-face experience. The same two participants went on to share that social capital was optimized in a face-to-face class, not through Facebook. Bridging, bonding, and linking using social media can be inhibited by students who do not choose to use web-based social media tools, as seen in Figure 2. Thus their ability to create temporary connections may be limited. Others who do not possess the technology skills may be limited in their ability to have a far-reaching network. Personal opinions on the use of Facebook and other forms of web-based social media may also provide a challenge to use bonding, bridging, and linking that results in connectivism.

Another theme that emerged in response to research question one was that the learners preferred that their social and learning spaces be separate. Learners wanted a private place for social connectivity and one for learning. They did not want their options for connectivity predetermined for them. Thus students believed it should be their choice to combine the two, not something that was initiated by the faculty. Two reasons given for this were privacy and the difference between how users interact on Facebook for social purposes and how they might behave in a learning environment. The idea of being responsible for that separation was not welcomed by the students. Although the preference to keep separate supports bridging and linking, it does not support bonding, where very close and personal relationships evolve. The work of Ophus and Abbitt (2009) supports these findings about the student preference for separation of social media for academics and for personal use. Alhazmi and Rahman (2013) came to the same conclusions in their recent studies. Both studies reflected learners' preferences for keeping academic use of social media tools separate from personal social use due to concerns of privacy, mixing and overlap of accounts and having to use different voices for academic and personal social. Keeping social media separate for personal and academic purposes may inhibit the number of connections that could possibly be made, perhaps limiting the overlap of bonding, bridging, and linking noted in Figure 2.

The first research question, addressing the impact of Facebook use on social connectivity, and its sub-questions of bonding, bridging, and linking in the classroom prompted another major consideration: student belief regarding whether the use of Facebook contributed to their learning. Helliwell and Putnam (1999) suggested there is a

relationship between social capital, education and engagement or connectivity. Although Facebook was highly recognized and used by students for social purposes, the role of Facebook was somewhat less clear in a learning environment. While 61% of participants shared they thought online forums outside of class were important, only 8% thought Facebook was very important for their academic success. Four of nine students enjoyed the ease of use and the ability to have access on their smart phones, yet most were unsure if they considered Facebook useful for learning purposes or only to create social connectivity. The analysis of my study supports that some students do value and actually aspire to have social networking in the classroom experience. The role of web-based social media could change how people teach and learn. This impacts learners, faculty, and administrators in higher education. Boyd and Ellison (2007) and Maran (2009) added to the body of literature that suggested that web-based social media will change the higher education environment. Ellison et al. (2011) and Junco (2012b) participated in the literature about the use of web-based social networking tools and ongoing development of social capital. To date little research exists about the granular use of Facebook in a classroom for acquiring social capital.

Figure 3 details the role of social media, connectivism and the relationship to the three elements of social capital: bridging, bonding, and linking. As web-based social networking for the classroom is still new, faculty, administrators, and learners need to collaborate regarding how to strategically utilize these web-based tools to enhance learning. Faculty need to be trained not only in the execution of web-based social media, but also in the overall pedagogy of using the Internet to spark connectivity to enhance

learning. Students in the study were quick to share they observed siblings, friends' children, their children, and other teachers who are using technology at an earlier stage in the educational setting. As one participant shared, "Whether we like the use of social media or not, as a tool it [is or will be] part of the classroom, just like chairs and tables." This reflects what is taking place in society. Many already use Facebook to connect with family and to share events over a weekend, vacation plans, and other life events. What was considered as just a personal social tool now is positioned in a much larger environment.

According to Barnes and Lescault (2014), 401 companies (80%) of the Fortune 500 are now on Facebook. This represents a 10% increase since 2013. The explosion of the use of Facebook in all aspects of our society in a global context has profound implications for the future of higher education. It makes the classroom a living laboratory with living curriculum. It will direct learners and academics to rethink their roles. The role of content expert will transition into one of facilitator and a greater partnership will develop between the learner and educator. This also suggests that the learner must take accountability and be a partner in learning. This accountability requires much more than attending class, taking notes, and then taking exams; it forces the learner to be a critical thinker always looking for more information, different perspectives, and understanding of bias as well as asking challenging questions to further the conversation. Lifelong learning will be the norm, not optional.

Ease of use was another theme that emerged in response to research question one. Many of the students felt Facebook, whether it was on their smartphones or tablets, was

always “on” and therefore the students had access in real time to latest developments. For these students Facebook is part of their daily routine, so it is easy to tap into the power of having instant access. Other students were not proficient with Facebook or did not use it, which signals the question of whether social networking tools are optional or necessary for success in higher education. Barnes and Lescault (2014) report that 413 companies (83%) of the Fortune 500 have corporate Twitter accounts with a tweet in the past thirty days. Current thought leadership suggests an individual will need a social media presence to be sustainable in the workplace. What Castells foreshadowed in 2001 as the Internet being the “fabric of our lives” (p.1) has now become reality.

### **Research Question 2: How Do Different Generations Use Facebook in the Classroom?**

Howe and Strauss (2000) have provided extensive literature on the use of technology as broken down by age groups. The final theme that surfaced was that age did play a role in a user’s level of familiarity and comfort with technology. This aligned with the second research question regarding the role age plays in the use of social media tools. Many of the more mature students shared they had difficulty maneuvering and using the functionality of Facebook for learning. Others felt they could use connectivity outside Facebook for personal social use, but felt overwhelmed by using Facebook for learning. Many of those same students shared they would rather use Blackboard to connect. The underlying outcome is that connectivity is very important to learners and pathways and conduits need to be created to aide them in establishing depth and breadth of connections (Figure 3). Educators need to teach learners how to learn over a lifetime.

Age becomes a factor with the use of mobile devices and the ability to connect with other students. It was very attractive to students to provide access outside of the classroom. This relates to the conceptual framework of social capital and how bridging and linking can add to a student's engagement. The bonding aspect of social capital was not as strongly detected in this study; the more important aspect was to keep the social aspect of social media separate from the educational aspect. Those who were not daily users of Facebook acknowledged the use of web-based social media tools in higher education. Participants noted that the evolution of the use of social media tools within society has spilled over into education. For many of the participants the use of Facebook allowed yet another touch point to have as a support when needed. Younger students appear to be more likely to use social media tools and show little reluctance to their use on an ongoing basis. Junco (2012b) documented a strong correlation between student engagement and use of a social media tool like Facebook. He concluded as well that the use of social media tools did increase engagement and community. This study supports his research in that students described the use of Facebook as a means to further connect with fellow students. According to Junco, many times students are far ahead of their more mature faculty in the ease of use to try new social media tools.

Participants shared that the use of Facebook did support engagement and assisted students in making connections they may not have made face-to-face. The study also confirmed that students enjoy learning from their peers and many times would rather connect with their peers than an instructor to clarify a question or confirm an answer to a question about the coursework.



The study results indicated that age does play a role in the use of technology. Participants in the 42–49 age category and one participant over 50 did not view Facebook as important to the classroom experience. However those participants in categories under the age of 42 responded that Facebook and other social media tools will be used in the classroom. This aligns with the research of Howe and Strauss (2000), who have done extensive work in the study of generations and the role of age in learning. One of their main studies has been on the millennials, those born after 1982, and what impact they have had on learning environments and the workplace. The literature supports the idea that web-based social networking tools such as Facebook can support connectivity and engagement. Oh, Chung, and Labianca (2004) have written extensively about the use of networking and the relationship of networking to social capital. They provided a framework for understanding the transition from a traditional face-to-face social networking experience into the use of web-based social networking. Ellison et al. (2007) found that ongoing use of web-based social networking does increase the social capital of an individual. Granovetter's (1973) theory of weak ties can be used to help explain this phenomenon: weak ties bring individuals together who might not normally meet, thus affecting each individual's social capital. Boyd and Ellison (2007) pointed out that connectivity allows the network to grow with the use of Facebook. Ophus and Abbitt (2009) summarized from their study that students were interested in the perceived value of web-based social networking. The research supports the notion of connectivity as valued by students and suggests that the use of web-based social networking sites such as Facebook provide another student support to connect with other students and faculty for a

preferred outcome. Alhazmi and Rahman (2013) came to similar conclusions about the value of connectivity as perceived by students. There are studies, however, that have cautioned higher education on the use of web-based social networking tools like Facebook. Junco (2012b) has pointed out the relationship between the use of Facebook and lowered GPA scores. Manca and Ranieri (2013) reported mixed results with the use of Facebook in the higher educational environment: many students actually feel somewhat at odds with the use of Facebook, with an unwillingness to use an informal tool such as Facebook for learning in the higher education environment.

The second major theme that emerged was that students prefer the separation of academic and personal spaces for Facebook. Although this is an important question, there appears to be a gap in the literature regarding this preference. Wankel, Marovich, Miller, and Stanaityte (2011) wrote about this in a recent book; they argue there is a definite preference for the separation of academic and social web-based personal spaces. Ophus and Abbitt (2009) pointed out that students appear to deliberately divide their social networking for academic and social use. They went on to suggest this division occurred because at the time of the study in 2009 Facebook was not as well-known as in 2015. Gettman and Cortijo (2015) documented that students' perception is that Facebook is for social use only. Furthermore their study raised the issue of boundaries and relationships. Facebook has enhanced the number of tools used, but students have still made the conscious decision to keep their personal and academic separate.

This study provided information that educators should review. The study clearly reveals that technology is expected to play an increasing role in learning. Ease of use is

important to learners and educators must take note that tools must not only provide value, but be easy to use. Currently age does play a role in the comfort level of those using technology, with older non-traditional students being apprehensive about using social media tools in the classroom. Finally the role of connectivity, learning, and the lifelong skills of bonding, bridging, and linking are important to note. These are skills for not only the educational setting, but lifelong skills to be transferred into relationships, career management, and sustainability in a world of accelerating change.

### **Limitations**

The questionnaires, focus groups, and actual Facebook discussion posts gave me rich data to review. The study was limited by the length of course and sample size. The next step will be to conduct this study on a larger student population. Also I, as the researcher, must be mindful of presenting personal opinions or biases in the study.

### **Next Steps in Research**

Due to the continual evolution of technology-based social networking tools, I hope to continue to develop a larger study that would review several types of social media with a larger sample size over the duration of a full year of study at a higher education institution. This would allow the study of the newest social media tools that are being used by students. I will continue to examine the role of social capital and how it impacts the learning experience.

### **Implications for Social Change**

This study contributes to the conversation about social change in education. This study presented the students' point of view regarding the use of social media tools such

as Facebook in the classroom. The participants in this study shared important information on how and why they use social media as well as provided what they see for the future. It is clear social capital is of importance to students and how the academy supports that is yet to be determined. The aim of this study was to act as a catalyst for discussion of the future of higher education. When Facebook was introduced in 2004 no one could have imagined that Facebook could be used in business and classroom settings. Now not only Facebook, but hundreds of apps and other social media tools build from the conceptual framework of social capital in the academic environment. Companies will need individuals who are comfortable in open and transparent communication. Learners will need these skills in order to be competitive in the workplace. Some businesses ask interviewees about their comfort level with social media. A negative response may cause pause as companies need a workforce that is current with the technology landscape.

There are obstacles that need to be considered in order to transition into the use of social media tools in a ubiquitous way. First decision makers must be open enough to accept that many of the younger generation have a greater understanding and comfort level with technology than decision makers who have years of work experience. How does an organization change that? The information technology infrastructure must be able to support wider bandwidth for the pervasive use of technology to communicate within the university. New positions and processes will need to be developed within the higher education infrastructure such as chief technology officer and chief information officer. The financial resources to support these ever-changing technologies are of critical importance. Even the architecture and footprint of campus buildings will need to be

examined to better support technology for classroom use. Residential dorms will need to be wired for ongoing access to the Internet. Organizations that are serious about this pervasive use of social media tools will need to take a holistic approach to map and understand the use of access before embedding social media into the classroom.

It is clear that that technology will play a role in the higher education classroom. It may be used in the static classroom or as online classes increase. Higher education administrators and faculty will need to acknowledge the continued and growing use of different web-based social media tools. Administrators, faculty, and support staff will need to be trained to use these tools and understand the pedagogy on how to integrate these tools within the classroom. In essence technology changes everything about how higher education operates. No longer is a static classroom the primary place that students can connect. Although in the past students could continue the conversation in small groups back at the dorm, over a cup of coffee, or at a special session with the faculty member, now the classroom can become a continuously accessible space with the aid of real time technology.

The use of social media is ongoing. It is difficult to track the number of new social media sites appearing on the horizon. However there is a need to monitor and track what students are using in order for faculty to understand the role of social media within the learning space. Further research needs to be completed over a longer duration. Also real-time monitoring of the use of social media tools would help to measure their use. Although Wi-Fi is prevalent on college campuses there are still challenges to ensure a stable network connection for students. In rural areas bandwidth can be non-existent. In

addition some students may not be able to participate in the network due to lack of financial resources. Curriculum also needs to be reviewed to include strategies for how to use web-based tools. The call to action involves a review of teacher curriculum at all levels from primary through higher education. As the current generation enters the educational system they will expect and demand a more connected environment outside of a classroom. In addition the explosion of online learning will direct the use of these tools for students to connect in a virtual environment.

### **Recommendations for Action**

This study has provided a platform to ask many questions regarding the use of web-based social media tools. Also this study was limited to Facebook, but there are other social media tools such as LinkedIn, Twitter, and Foursquare. Another area for review is how social media tools are used on campus outside of the classroom for directions, retention, dining, entertainment, parking, security, weather, sports events, academic calendars, and registration. Although much study has begun in this area, there is room for expanded studies as the landscape changes.

I plan to continue this study with a larger sample size over a longer period of time. This further research will involve faculty and their use of web-based social networking tools. A lingering question is the role and attitude of faculty regarding the use of web-based social networking tools. I have learned much about completing a study using proper methodologies and the importance of attention to detail, being organized, being timely, and remaining unbiased, as well as the use of good writing skills. I know better what my strengths and weaknesses are in regard to research. As an academic I feel

I have grown, but there is much still to learn. This is only the beginning of a lifelong process in order to produce credible information on what is taking place in the use of new technology tools. Included in Appendix G is a sociogram that reflects the different words used by the focus group participants. It reflects that *connectivity*, *sharing*, *networking*, *peers*, *relationships*, *classmates*, and *experience* are words that represent the importance of the vision of active and connected learning.

There are other factors that may have impacted the research and future research may want to address these factors: size of the institution, students' work responsibilities, students' financial situation and its corresponding effect on their access to technology, course content and design, students' years at school, and finally students' grade point. There are many variables that could be addressed in further study.

Recommendations are to provide faculty training and support on how to integrate the use of social media tools within the classroom. Universities may need to align the technology support departments with instructional design in order for faculty to better understand how and why to utilize these tools. The millennials are connected to technology at a very early age and are coming to higher education with a strong connection to technology. This shift should be acknowledged by universities and addressed in how to build on these tools used by learners.

Human beings are social in nature and are meant to be connected; technology has provided a way for people to connect globally. Social media tools must be used wisely. By planning, conducting discussions involving all stakeholders, and being transparent university administrators and faculty may be able to move forward into a different world,

one in which learners can use the framework of bonding, bridging, and linking to provide long-lasting positive changes on a global scale. I would offer that web-based social networking will provide one of the most significant changes to education in this century. Educators and administrators need to be fully conversant regarding how and why social media can be used to support learning. The burden is on the individuals who are decision makers in academia as the younger generation is already quite proficient at using web-based social networking tools. The traditional four-year institution of higher education groans under the weight of its hierarchy, resistance to change, and the lack of understanding of current learners. Yet there are pockets of innovation and change taking place. The next five years will provide the underpinnings of the transformative change that has been talked about for years. Tools such as social media will be part of that transformative process.

This study motivates me to be a better faculty member and to try to reach out to students. Trying new pedagogies and receiving feedback from students is an iterative process and one in which the faculty member can learn much. That is part of continuous improvement. If educators are to provide quality education to learners then they must learn from students as well as teach them.

### **Summary**

The objective of this qualitative study was to understand the how and why of students' use of social media in the context of social capital. The study consisted of a questionnaire, focus group, and Facebook discussion posts. Facebook was used and the questions were posted on the class Facebook page. Data analysis was conducted using



NVivo10 coding themes that were supported by rich and thick descriptions. Some direct quotations were used in the analysis. As a university professor and a researcher, I was mindful of my potential biases; I triangulated all data and remained aware of my own perspective.

The findings of this study reflect that students expect technology will be an important part of the learning experience in the future, but are in a transitional stage at this time. Transformation requires continual reflection and an understanding of the use of social media tools and their potential impact on every area of higher education. It is not just about the classroom; social networking will impact every process within the university from admissions, retention, advising, use of university resources, athletics, graduate programs, alumna, and finally design of the future university. Higher education must look at the use of technology from a holistic view to optimize its use and to meet our future learners from their perspective. An eco-system or road map must be examined to understand the role of social media tools. It would appear that stakeholders might need to use a cross-disciplinary approach across the university to examine how new teaching tools maybe used. In addition partnerships with the business community may assist in helping higher education to look at this issue of integration differently.

Much work is to be done and my action steps are to continue my research stream in the web-based social networking environment. This is an exciting time for higher education if administrators and faculty can use technology to tap into social capital, not only for the university, but for lifelong learning in a world of accelerating change.

## References

- Alexander, B. (2006). Web 2.0: A new wave of innovation for teaching and learning? *Educause Review*, 41(2), 32.
- Alhazmi, A. K., & Rahman, A. A. (2013). Facebook in higher education: Students' use and perceptions. *AISS: Advances in Information Sciences and Service Sciences*, 5(15), 32-41.
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives: Complete edition*. New York, NY: Longman.
- Andersen, P. (2007). *What is Web 2.0?: Ideas, technologies and implications for education* (Vol. 1). Bristol, UK: JISC.
- Bahk, C. M., Sheil, A., Rohm, C. E. T., & Lin, F. (2010). Digital media dependency, relational orientation and social networking among college students. *Communications of the IIMA*, 10(3), 69-78.
- Barnes, N. G., & Lescault, A. M. (2015). *The 2014 Fortune 500 and social media: LinkedIn dominates as use of newer tools explodes*. Retrieved from <http://www.umassd.edu/cmr/socialmediaresearch/2014fortune500andsocialmedia/>
- Barczyk, C., & Duncan, D. (2011). Social networking media as a tool for teaching business administration courses. *International Journal of Humanities and Social Science*, 1(17), 267-276
- Bolar, K. (2009). Motives behind the use of social networking sites: An empirical study. *IUP Journal of Management Research*, 8, 75-85.

- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), 210-230. doi: 10.1111/j.1083-6101.2007.00393.x
- Boyd, D., Golder, S., & Lotan, G. (2010). Tweet, tweet, retweet: Conversational aspects of retweeting on Twitter. *Hawaii International Conference on System Sciences (HICSS)*, 1-10. doi:10.1109/HICSS.2010.412
- Buzzetto-More, N. (2012). Social networking in undergraduate education. *Interdisciplinary Journal of Information, Knowledge, and Management, 7*, 63-90.
- Cassidy, E., Britsch, J., Griffin, G., Manolovitz, T., Shen, L., & Turney, L. (2011). Higher education and emerging technologies: Student usage, preferences, and lessons for library services. *Reference & User Services Quarterly, 50*(4), 380-391. Retrieved from Research Library. (Document ID: 2379997231)
- Castells, M. (2001). *The Internet galaxy: Reflections on the Internet*. New York, NY: Oxford University Press.
- Cheung, W. & Huang, W. (2005). Proposing a framework to assess Internet usage in university education: An empirical investigation from a student's perspective. *British Journal of Educational Technology, 36*(2), 237-253. doi: 10.1111/j.1467-8535.2005.00455.x
- Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior, 27*(4), 1337-1343.
- Coates, H., James, R., & Baldwin, G. (2005). A critical examination of the effects of learning management systems on university teaching and learning. *Tertiary*

- Education & Management*, 11(1), 19-36. doi: 10.1080/13583883.2005.9967137
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Constantinides, E., & Stagno, M.C. (2011). Potential of the social media as instruments of higher education marketing: A segmentation study. *Journal of Marketing for Higher Education*, 21(1), 7-14. doi:10.1080/08841241.2011.573593
- Corwin, J., & Cintrón, R. (2011). Social networking phenomena in the first-year experience. *Journal of College Teaching and Learning*, 8(1), 25-37. Retrieved from ProQuest Central. (Document ID: 2266015311)
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Curran, K., Murray, M., & Christian, M. (2007). Taking the information to the public through Library 2.0. *Library Hi Tech*, 25(2), p. 288. Retrieved from ABI/INFORM Global. (Document ID: 1355784531)
- Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The Internet and Higher Education*, 15(1), 3-8. doi: 10.1016/j.iheduc.2011.06.002
- Dawley, L. (2009). Social network knowledge construction: Emerging virtual world pedagogy. *On the Horizon*, 17(2), 109-121. Retrieved from ProQuest Central.

(Document ID: 1880656431)

- Deng, L., & Tavares, N. J. (2013). From Moodle to Facebook: Exploring students' motivation and experiences in online communities. *Computers & Education, 63*, 167-176. doi: 10.1016/j.compedu.2013.04.028
- DeSchryver, M., Mishra, P., Koehler, M. & Francis, A. (2009). Moodle vs. Facebook: Does using Facebook for discussions in an online course enhance perceived social presence and student interaction? In I. Gibson et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2009*, 329-336. Chesapeake, VA: AACE.
- Duffy, T. M., & Jonassen, D. H. (Eds.). (2013). *Constructivism and the technology of instruction: A conversation*. New York, NY: Routledge.
- Duggan, M. (2015). Mobile Messaging and Social Media – 2015 *Pew Research Center*. Retrieved from <http://www.pewinternet.org/2015/08/19/mobile-messaging-and-social-media-2015/>
- Duggan, M., & Brenner, J. (2013). The demographics of social media users-2012. *Pew Internet & American Life Project*. Retrieved from <http://pewinternet.org/Reports/2013/Social-media-users.aspx>
- Duggan, M. & Smith, A., (2014). Social Media Update 2013. *Pew Research Center*. Retrieved from <http://pewinternet.org/Reports/2013/Social-Media-Update.aspx>
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends”: Social capital and college students' use of online social network sites. *Journal of*

*Computer-Mediated Communication*, 12(4), 1143-1168. doi: 10.1111/j.1083-6101.2007.00367.x

Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society*, 13(6), 873. doi: 10.1177/1461444810385389

Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.

Forehand, M. (2005). Bloom's taxonomy: Original and revised. In M. Orey (Ed.), *Emerging Perspectives on Learning, Teaching, and Technology*. Retrieved from <http://projects.coe.uga.edu/epltt/>

Fukuyama, F. (2002). Social capital and development: The coming agenda. *SAIS Review*, 22(1), 23-37. doi: 10.1353/sais.2002.0009

Gettman, H. J., & Cortijo, V. (2015) "Leave Me and My Facebook Alone!" Understanding College Students' with Facebook and its Use for Academic Purposes. *International Journal for the Scholarship of Teaching and Learning*, 9(1), Article 8. Available at <http://digitalcommons.georgiasouthern.edu/ij-sotl/vol9/iss1/8>

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380. doi: 10.1086/225469

Granovetter, M., & Albany Conference on Contributions of Network Analysis to Structural Sociology. (1981). *The strength of weak ties: A network theory revisited*. Albany, NY: State University of New York, Department of Sociology

- Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age: Web 2.0 and classroom research: What path should we take now? *Educational Researcher*, 38(4), 246-259. doi: 10.3102/0013189X09336671
- Hampton, K., Goulet, L. S., Purcell, K. & Rainie, L. (2011). Social networking sites and our lives. *Pew Internet & American Life Project*. Retrieved from <http://pewinternet.org/Reports/2011/Technology-and-social-networks.aspx>
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. New York, NY: State University of New York Press.
- Heiberger, G., & Harper, R. (2008). Have you Facebooked Astin lately? Using technology to increase student involvement. *New Directions for Student Services*, 2008(124), 19-35. doi: 10.1002/ss.293
- Helliwell, J. F., & Putnam, R. D. (1999). Education and social capital (No. w7121). National Bureau of Economic Research.
- Howe, N., & Strauss, W. (2000). *Millennials rising: The next great generation*. New York, NY: Knopf Doubleday Publishing Group.
- Hung, H. T., & Yuen, S. C. Y. (2010). Educational use of social networking technology in higher education. *Teaching in Higher Education*, 15(6), 703-714.
- Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches*. Boston, MA: Allyn and Bacon.
- Johnson, L., Adams Becker, S., Estrada, V., Freeman, A. (2014). *NMC Horizon Report: 2014 Higher Education Edition*. Austin, TX: The New Media Consortium.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research

- paradigm whose time has come. *Educational Researcher*, 33(7), 14-26. doi: 10.3102/0013189X033007014
- Junco, R. (2012a). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers & Education*, 58(1), 162-171. doi: 10.1016/j.compedu.2011.08.004
- Junco, R. (2012b). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior*, 28(1), 187-198.
- Kord, J. & Wolf-Wendel, L. (2009). The relationship between online social networking and academic and social integration. *College Student Affairs Journal*, 28(1), 103-123. Retrieved from Research Library. (Document ID: 1965538961)
- Leiner, B. M., Cerf, V. G., Clark, D. D., Kahn, R. E., Kleinrock, L., Lynch, D. C., ... & Wolff, S. S. (1997). The past and future history of the Internet. *Communications of the ACM*, 40(2), 102-108.
- Lin, N. (1999). Building a network theory of social capital. *Connections*, 22(1), 28-51.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75). Newbury Park, CA: Sage.
- Lodge, J. (2010). Communicating with first year students: So many channels but is anyone listening? A practice report. *The International Journal of the First Year in Higher Education*, 1(1), 100. doi: 10.5204/intjfyhe.v1i1.23
- Luo, L. (2010). Web 2.0 integration in information literacy instruction: An overview. *The Journal of Academic Librarianship*, 36(1), 32-40. doi:



10.1016/j.acalib.2009.11.004

- Manca, S., & Ranieri, M. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning*, 29(6), 487-504.
- Maran, C. (2009). Parallel life on social network: A study. *IUP Journal of Management Research*, 8(12), 7-30. Retrieved from ABI/INFORM Global. (Document ID: 1948670441).
- Morse, J. M. (2000) Determining sample size. *Qualitative Health Research*, (1), 3-5. doi: 10.1177/104973200129118183
- Munoz, C., & Towner, T. (2009, March). Opening Facebook: How to use Facebook in the college classroom. In *Society for Information Technology & Teacher Education International Conference, 2009(1)*, 2623-2627. Retrieved from <http://www46.homepage.villanova.edu/john.immerwahr/TP101/Facebook.pdf>
- Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook? *Personality and Individual Differences*, 52(3), 243-249. doi: 10.1016/j.paid.2011.11.007
- NVivo10 [Computer software]. (2014). Retrieved from <http://www.qsrinternational.com/>
- Oblinger, D. (2003). Boomers gen-xers millennials. *EDUCAUSE Review*, 500(4), 37-47.
- Oblinger, D. and Oblinger, J. L. (Eds.) (2005). *Educating the net generation*. EDUCAUSE. Retrieved from [www.educause.edu/educatingthenetgen/](http://www.educause.edu/educatingthenetgen/)
- Oh, H., Chung, M., & Labianca, G. (2004). Group social capital and group effectiveness: The role of informal socializing ties. *The Academy of Management Journal*, 47(6), 860-875. Retrieved from <http://www.jstor.org/stable/20159627>

- Ophus, J. D., & Abbitt, J. T. (2009). Exploring the potential perceptions of social networking systems in university courses. *Journal of Online Learning and Teaching*, 5(4), 639-648.
- O'Reilly, T. (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications & Strategies*, (1), 17.
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology*, 30(3), 227-238. doi: 10.1016/j.appdev.2008.12.010
- Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. Penguin.
- Portes, A. (2000). Social capital: Its origins and applications in modern sociology. In Eric L. Lesser (Ed.) *Knowledge and Social Capital*. Boston, MA: Butterworth-Heinemann, 43-67.
- Pullan, M. (2011). Online support services for undergraduate millennial students. *Journal of Higher Education Theory and Practice*, 11(2), 66-83. Retrieved from ProQuest Education Journals. (Document ID: 2542319541)
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.
- Putnam, R. D. (2001). Social capital: Measurement and consequences. *Canadian Journal of Policy Research*, 2(1), 41-51.
- Putnam, R. D. (2003). *Better together: Restoring the American community*. New York, NY: Simon and Schuster.
- Rainie, L., Smith, A. & Duggan, M. (2013). Coming and going on Facebook. *Pew*

- Internet & American Life Project*. Retrieved from  
<http://pewinternet.org/Reports/2013/Coming-and-going-on-facebook.aspx>
- Ratliff, A. (2011). Are they listening? Social media on campuses of higher education. *The Journal of Technology in Student Affairs*, 38, 65. Retrieved from EBSCOhost
- Reynolds, P. D. (2007). *A primer in theory construction*. New York, NY: Pearson.
- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education*, 13(3), 134-140. Retrieved from EBSCOhost
- Rubin J.H., & Rubin, I.S., (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Sarsar, F., & Harmon, S. (2011, March). Facebook as an online learning environment: Perceptions of undergraduate students. *Society for Information Technology & Teacher Education International Conference*, 2011(1), 715-720. Retrieved from <https://www.Editlib.org>
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10. Retrieved from [http://www.ingedewaard.net/papers/connectivism/2005\\_siemens\\_ALearningTheoryForTheDigitalAge.pdf](http://www.ingedewaard.net/papers/connectivism/2005_siemens_ALearningTheoryForTheDigitalAge.pdf)
- Siemens, G. (2006). *Knowing knowledge*. Available from <http://www.lulu.com/shop/george-siemens/knowing-knowledge/paperback/product-545031.html>

- Smith, S. D., & Caruso, J. B. (2010). The ECAR study of undergraduate students and information technology. *Educause*, 118. Retrieved from <http://anitacrawley.net/Resources/Reports/ECAR%20study%20highlights.pdf>
- Steffes, E. M., & Burgee, L.E. (2009). Social ties and online word of mouth. *Internet Research*, 19(1), 42-59. Retrieved from ABI/INFORM Global. (Document ID: 1628607771)
- Steinfeld, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29(6), 434-445.
- Stone, W. (2003). Bonding, bridging, and linking with social capital. *Stronger Families Learning Exchange Bulletin*, 4(1), 13-16.
- Suh, A., & Shin, K. (2010). Exploring the effects of online social ties on knowledge sharing: A comparative analysis of collocated vs dispersed teams. *Journal of Information Science*, 36(4), 443. Retrieved from ProQuest Central. (Document ID: 2114537191)
- Trochim, W. M. K. (2001). *The research methods knowledge base* (2<sup>nd</sup> ed.). Cincinnati, OH: Atomic Dog Pub.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site?: Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901.
- Wang, Q., Woo, H. L., Quek, C. L., Yang, Y., & Liu, M. (2012). Using the Facebook group as a learning management system: An exploratory study. *British Journal of*

*Educational Technology*, 43(3), 428-438. doi: 10.1111/j.1467-8535.2011.01195.x

- Wandel, T. (2008). Colleges and universities want to be your friend: Communicating via online social networking. *Planning for Higher Education*, 37(1), 35-48. Retrieved from Research Library. (Document ID: 1579372911)
- Wankel, C., Marovich, M., Miller, K., & Stanaityte, J. (Eds.). (2011). *Teaching arts and science with the new social media* (Vol. 3). Emerald Group Publishing.
- Watson, W. R., & Watson, S. L. (2007). What are learning management systems, what are they not, and what should they become? *TechTrends*, 51(2), 29. Retrieved from <http://halshs.archives-ouvertes.fr/docs/00/69/20/67/PDF/Watson-2007.pdf>
- Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), 151-208.
- Yin, R. F. (2009). *Case study research design and methods* [Kindle Reader Edition]. Retrieved from <http://www.amazon.com>

## Appendix A: Informed Consent Form

You are invited to take part in a research study that is examining the use of Facebook within a higher education business course. The researcher is seeking participants who are at least 18 years in age, attending a 4 year higher education institution, and enrolled in a business course. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Janet Staker Woerner, who is a doctoral candidate at Walden University. You may already know the researcher as an Associate Professor and Academic Business Chair, but this study is separate from those roles.

### **Background Information:**

The purpose of this study is to explore students’ perceptions about the use of Facebook in a business class in the higher education environment.

### **Procedures:**

If you agree to be in this study, you will be asked to:

Complete a questionnaire and asked to participate in a focus group. The questionnaire will take approximately 15 to 20 minutes and the focus group from one and one half hours to 2 and one half hours.

Here are some sample questions:

1. How much time do you spend on social media?
2. What types of technology based tools do you own?
3. What technology tools would be useful for you in the classroom?
4. Do web-based social networking sites impact your learning?

### **Voluntary Nature of the Study:**

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at Kenow University will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

### **Risks and Benefits of Being in the Study:**

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as stress. Being in this study would not pose risk to your safety or well-being.

This study should provide insights students’ perception of Facebook.

### **Payment:**

There is no payment for your participation.

### **Privacy:**

Any information you provide will be kept confidential. The researcher will not use your personal

information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by the researcher in a locked file cabinet. Data will be kept for a period of at least five years, as required by the university.

**Contacts and Questions:**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at [janet.stakerwoerner@waldenu.edu](mailto:janet.stakerwoerner@waldenu.edu). If you want to talk privately about your rights as a participant, you can call the Walden University representative. The phone number is 612-312-1210. Walden University's approval number for this study is 09-03-14-0117206 and it expires on September 2, 2015.

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. I understand that I am agreeing to the terms described above. The researcher will be provide a copy of the consent form to the participants.

Printed Name of Participant \_\_\_\_\_

Date of consent \_\_\_\_\_

Participant's Signature \_\_\_\_\_

Researcher's Signature \_\_\_\_\_

## Appendix B: Questionnaire

<b>EDUCAUSE</b> CENTER FOR APPLIED RESEARCH	<h2 style="margin: 0;">ECAR Study of Undergraduate Students and Information Technology, 2012</h2>
Survey Questionnaire <span style="float: right;">February 2012</span>	

### Message to Participants

*Thank you for participating in this questionnaire. This survey will take between 15 minutes and 20 minutes to complete to complete, and your responses are anonymous. Areas as experiences and attitudes experiences with, and attitudes toward, technology will be asked in this questionnaire. There are no right or wrong answers; we'd just like you to answer as honestly as you can. Participation in the survey is completely voluntary, and at any point you can choose to exit the survey.*

### Section 1: About You

#### 1. Your age is :

- 18-25
- 19- 33
- 34-41
- 42- 49
- 50-57
- Over 58

#### 2. Which of the following best describes your class standing during the most recent academic year?

- Freshman in college (or equivalent; first year student if from an institution outside the United States)
- Sophomore in college (or equivalent; second year student if from an institution outside the United States)
- Junior in college (or equivalent; third year student if from an institution outside the United States)
- Senior in college (or equivalent; fourth/final year student if from an institution outside the United States)
- Other (e.g., graduate student, working, post-graduate, etc.)



## Section 2: Device Use and Ownership

### 3. Do you use a laptop?

- Do not use a laptop
- Use for academic and other purposes
- Use for academic purposes only
- Use for other purposes only

### 3a. You indicated that you use a laptop. Do you own the *laptop* you use?

- No
- Yes

### 3b. What type of operating system (OS) does the *laptop* you use have? If you use more than one *laptop*, please select the OS that you use most often for school-related work.

- Windows
- Macintosh
- Linux
- Other
- Don't know

### 3c. How important is the *laptop* you use to your academic success?

- Not at all important
- Not very important
- Moderately important
- Very important
- Extremely important

### 4. Do you use a tablet?

- Do not use a tablet
- Use for academic and other purposes
- Use for academic purposes only
- Use for other purposes only

### 4a. You indicated that you use a *tablet*. Do you own the *tablet* you use?

- No
- Yes

**4b. What type of operating system (OS) does the *tablet* you use have? If you use more than one *tablet*, please select the type of OS you use most often for school-related work.**

- iOS (iPad)
- Windows OS
- Android OS
- BlackBerry OS
- webOS
- Other OS
- Don't know

**4c. How important is the *tablet* you use to your academic success?**

- Not at all important
- Not very important
- Moderately important
- Very important
- Extremely important

**5. Do you use a smartphone?**

- Do not use a smartphone
- Use for academic and other purposes
- Use for academic purposes only
- Use for other purposes only

**5a. You indicated that you use a *smartphone*. Do you own the *smartphone* you use?**

- No
- Yes

**5b. What type of *smartphone* do you use? If you use more than one *smartphone*, please select the one that you use most often for school-related work.**

- iPhone
- Android phone
- Windows phone
- BlackBerry phone
- Other smartphone
- Don't know

**5c. How important is the *smartphone* you use to your academic success?**

- Not at all important
- Not very important
- Moderately important
- Very important
- Extremely important

**6. Do you use a dedicated e-reader?**

- Do not use a dedicated e-reader
- Use for academic and other purposes
- Use for academic purposes only
- Use for other purposes only

**6a. You indicated that you use a dedicated e-reader. Do you own the e-reader you use?**

- No
- Yes

**6b. What type of e-reader do you use? If you use more than one e-reader, please select the one that you use most often for school-related work.**

- Kindle
- Nook
- Sony Reader
- Other dedicated e-reader
- Don't know

**6c. How important is the e-reader you use to your academic success?**

- Not at all important
- Not very important
- Moderately important
- Very important
- Extremely important

**7. Do you use a desktop computer?**

- Do not use a desktop computer
- Use for academic and other purposes
- Use for academic purposes only
- Use for other purposes only

**7a. You indicated that you use a desktop computer. Do you own the desktop computer you use?**

- No
- Yes

**7b. What type of operating system (OS) does the desktop computer you use have? If you use more than one desktop computer, please select the OS that you use most often for school-related work.**

- Windows
- Macintosh
- Linux
- Other
- Don't know

**7c. How important is the desktop computer you use to your academic success?**

- Not at all important
- Not very important
- Moderately important
- Very important
- Extremely important

**8. If you use a *handheld mobile device* (e.g., smartphone or tablet), how important is it to your academic success to do the following actions with that device?**

	Not at all important 1	Not very important 2	Moderately important 3	Very important 4	Extremely important 5
a. Access library resources					
b. Check grades					
c. Register for courses					
d. Access financial aid information					
e. Make textbook purchases through your college/university bookstore					
f. Discussion posts					
g. Access course website or syllabi					
h. Access course or learning management system (e.g., Moodle, Blackboard, Sakai, Desire2Learn, etc.)					

**9. In addition to the devices you already told us about, tell us how important the following devices are to your academic success.**

	Haven't used this device in the past year 0	Not at all important 1	Not very important 2	Moderately important 3	Very important 4	Extremely important 5
a. Netbook						
b. Printer						
c. Portable data storage device (e.g., USB thumb drive, portable hard drive)						
d. Dedicated digital camera or digital video camera (not part of another device)						
e. MP3 player/music device (other than iPod touch)						
f. Handheld mobile device that is not a phone (e.g., iPod touch)						
g. Television						
h. Internet device that attaches to a television (e.g., Roku, Apple TV, Boxee)						
i. DVD, BlueRay, or other movie player						
j. Webcam						
k. Scanner						

### Section 3: Technology and the College/University Experience

10. Thinking about your experience within the past year, rate your institution on how well it is meeting your needs with regard to being able to do the following via a handheld mobile device:

	Service not offered for mobile device 9	Haven't used service in the past year 0	Poor 1	Fair 2	Neutral 3	Good 4	Excellent 5
a. Providing access to library resources							
b. Checking grades							
c. Registering for courses							
d. Accessing financial aid information							
e. Making textbook purchases through your college/university bookstore							
f. Discussion Posts							
g. Accessing course websites or syllabi							
h. Using course or learning management systems (e.g., Moodle, Blackboard, Sakai, Desire2Learn, etc.)							

11. Thinking about your college/university experience within the past year, how many of your instructors:

	None 0	Some 1	Most 2	All 3
a. ...effectively use technology to impact your academic success?				
b. ...provide you with adequate training for the technology used in courses?				
c. ...have adequate technical skills for carrying out course instruction?				
d. ...use "the right kind(s)" of technology?				
e. ...have used technology to aid your understanding of course materials and ideas?				

12. How important is it to you that your instructors use new, cutting-edge technologies?

- ( ) Not at all important  
 ( ) Not very important  
 ( ) Moderately important  
 ( ) Very important  
 ( ) Extremely important

13. You indicated that it is important that your instructors use "cutting-edge" technologies.

Give us up to three examples of cutting-edge technologies you want your instructors to use:

13a. Cutting-edge technology 1: \_\_\_\_\_

13b. Cutting-edge technology 2: \_\_\_\_\_

13c. Cutting-edge technology 3: \_\_\_\_\_

**14. How important is it to you that more or better technology is available to learn, study, or complete coursework?**

- Not at all important  
 Not very important  
 Moderately important  
 Very important  
 Extremely important

**15. How important is it to you that you are better trained or skilled at using available technologies to learn, study, or complete coursework?**

- Not at all important  
 Not very important  
 Moderately important  
 Very important  
 Extremely important

**16. How important are the following *forms of communication* to achieving your academic success?**

	Did not use in the past year 0	Not at all important 1	Not very important 2	Moderately important 3	Very important 4	Extremely important 5
a. E-mail						
b. Text messaging						
c. Instant messaging/online chatting						
d. Twitter						
e. Facebook						
f. LinkedIn						
g. Other social networking sites						
h. Social studying sites (Cramster, CourseHero, GradeGuru, etc.)						
i. Phone-like communication over the Internet (Skype, G-Chat, etc.)						
j. Phone conversation						
k. Face-to-face interaction						
l. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.)						

**17. Different instructors use different technologies. Generally speaking, which forms of communication do you wish your instructors used less...or more?**

	No opinion 0	Use it less 1	Use it about the same 2	Use it more 3
a. E-mail				
b. Text messaging				
c. Instant messaging/online chatting				
d. Twitter				
e. Facebook				
f. LinkedIn				
g. Other social networking sites				
h. Social studying sites (Cramster, CourseHero, GradeGuru, etc.)				
i. Phone-like communication over the Internet (Skype, G-Chat, etc.)				
j. Phone conversation				
k. Face-to-face interaction				
l. Course or learning management system (e.g., Blackboard, Moodle, Sakai, Desire2Learn, etc.)				

**18. How important are the following resources/tools to achieving your academic success?**

	Did not use in the past year 0	Not at all important 1	Not very important 2	Moderately important 3	Very important 4	Extremely important 5
a. Academic institution's library website						
b. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.)						
c. Web-based citation/bibliography tools (EndNote, CiteULike, OttoBib, etc.)						
d. College/university website						
e. E-portfolios						
f. E-books or e-textbooks						
g. Locally installed word processor, spreadsheets, and presentation software (Word, Excel, PowerPoint etc.)						
h. Web-based word processor, spreadsheets, presentation software (Google Documents, NumSum, Prezi, etc.)						

**19. Different instructors use different technologies. Generally speaking, which resources/tools do you wish your instructors used less...or more?**

	No opini on 0	Use it less 1	Use it about the same 2	Use it more 3
a. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.)				
b. E-portfolios				
c. E-books or e-textbooks				
d. Freely available course content beyond your campus (OpenCourseWare, Khan Academy, etc.)				
e. Locally installed word processor, spreadsheets, and presentation software (Word, Excel, PowerPoint etc.)				
f. Web-based word processor, spreadsheets, presentation software Google Documents, NumSum, Prezi, etc.)				
g. Wikis (Wikipedia, course wiki, etc.)				
h. Blogs				
i. Recommend an article or information online by tagging/bookmarking/"liking" (Delicious, Digg, Newsvine, Twine, etc.)				
j. Online forums or bulletin boards				
k. Podcasts and webcasts				
l. Web-based music				
m. Web-based videos				
n. Video-sharing websites (YouTube, etc.)				
o. Photo-sharing websites (Flickr, Snapfish, Picasa, etc.)				
p. Online multi-user computer games				
q. Simulations or educational games				

#### Section 4: Learning Environments

**20. In what type of learning environment do you tend to learn most?**

- Courses with no online components
- Courses with some online components
- Courses that are completely online

**21. In the past year, have you taken a completely online course *at the institution that asked you to participate in this survey*?**

- No
- Yes

**22. Are you currently taking courses at more than one institution (either online, in-person, or a combination online and in-person)?**

- No
- Yes



**23. In the past year, how many of your courses have been “blended” courses (with some online components and some face-to-face components)?**

- None
- A few
- About half
- Nearly all
- All

**24. When it comes to your success as an undergraduate, what is the one website or online resource you couldn't live without? \_\_\_\_\_**

**25. How much do you agree with the following statements about social networking in conjunction with your learning?**

	Strongly disagree 1	Somewhat disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
a. I like to keep my academic life and my social life separate.					
b. I am comfortable using Facebook or other social networking sites to communicate with other students about coursework.					
c. It's important to have an online forum to communicate and interact with other students about coursework outside the classroom.					
d. I am comfortable connecting on social networks with professors <i>from whom I'm currently taking classes</i> .					
e. I am comfortable connecting on social networks with professors <i>from whom I am no longer taking classes</i> .					

**26. What is your opinion about the following statements?**

	Strongly disagree 1	Somewhat disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
a. I get more actively involved in courses that use technology.					
b. By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace.					
c. My institution's technology services are always available when I need them for my coursework.					
d. I skip classes when materials from course lectures are available online.					
e. When I entered college/the university, I was adequately prepared to use technology needed in my courses.					
f. Technology makes me feel more connected to what's going on at the college/university.					
g. Technology better prepares me for future educational plans (i.e., transferring to another degree program, getting into graduate school).					
h. Technology makes me feel connected to other students.					
i. Technology makes me feel connected to professors.					
j. Technology elevates the level of teaching.					
k. Technology helps me achieve my academic outcomes.					

**27. Tell us ONE thing that your instructors can do with technology to better facilitate or support your academic success.**\_\_\_\_\_

**28. Tell us ONE thing that your institution can do with technology to better facilitate or support your academic success.**\_\_\_\_\_

**Section 5: Demographic and Informational Questions****29. Are you...?**

- Male
- Female

**30. What is your ultimate academic goal, regardless of your current class standing?**

- Earn a vocational/occupational certificate
- Earn an associate's degree (or equivalent, if from an institution outside the United States)
- Earn a bachelor's degree (or equivalent, if from an institution outside the United States)
- Earn a master's degree (or equivalent, if from an institution outside the United States)
- Earn a doctoral degree (or equivalent, if from an institution outside the United States)
- Earn another professional degree (MD, DDS, JD, Ed.D, etc.)
- Other

**31. What is your current major or intended major?**

- Biological/life sciences, including agriculture and health sciences
- Business, management, marketing
- Education, including physical education
- Engineering, including computer science
- Liberal arts and sciences/general studies and humanities
- Physical sciences, including math
- Social sciences, including history and psychology
- Fine arts
- Other
- Undecided

**32. Are you currently a full-time or part-time student?** *Part-time is fewer than 12 credit hours per quarter/semester.*

- Part-time
- Full-time

**33. Are you currently employed full-time or part-time?**

- Part-time
- Full-time 40 hrs.

**33. What is your ethnic background?** *Select all that apply.*

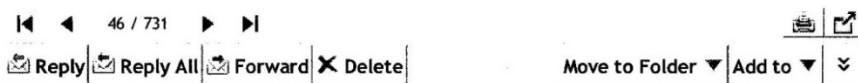
- White
- Black/African American
- Hispanic
- American Indian or Alaskan native
- Asian/Pacific Islander
- Other
- Prefer not to answer

**Thank you for responding to our questions.**

## Appendix C: Approval from Educause for Use of Questionnaire

6/29/13

RE: Survey @ My Dashboard &gt; Personal Tools &gt; E-mail

**Subject :** RE: Survey**Date :** Mon, Jun 03, 2013 12:56 PM CDT**From :** Eden Dahlstrom <edahlstrom@educause.edu>**To :** "janet.stakerwoerner@waldenu.edu" <janet.stakerwoerner@waldenu.edu>**CC :** Tammy Burkhart <tburkhart@educause.edu>

Janet,

It is great to hear that some of the ECAR research about undergraduate students and technology is applicable to your dissertation interests. You have our permission to use the ECAR-generated survey instrument, in part or in whole, to conduct additional research on this topic. Your request was for our 2008 survey instrument, but our permission extends to all years of the ECAR investigation of students IT experiences (2004-2013). All of the survey instruments can be accessed through our student study research hub: <http://www.educause.edu/ecar/about-ecar/ecar-annual-study-students-and-it>. The results of the 2013 investigation are not yet published, but reports for the previous years are all publically accessible.

We are always interested learning more about undergraduate's technology perspectives and experiences, and would love to hear about what you find in your investigation. If your results are complimentary or supplementary to our work, we might be interested in curating your work, citing it in our future work, or commission you for a writing assignment for an ECAR Research Bulletin.

Best of luck to you on your dissertation research, and feel free to contact me if you have any questions about the ECAR Annual Study of Students and IT.

-Eden

**Eden Dahlstrom** Senior Research Analyst  
Data, Research, and Analytics

**EDUCAUSE**

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direct: 303.939.0330 | mobile: 530.903.2305 | [educause.edu](http://educause.edu)

**From:** Tammy Burkhart**Sent:** Monday, May 20, 2013 7:43 AM**To:** Eden Dahlstrom**Subject:** FW: Survey**Importance:** High

See request below.

**Tammy Burkhart** Manager, Member Services**EDUCAUSE**

<https://my.campuscruiser.com/ver2PageServlet?cx=u&pg=papp&tg=Email-readmail&main=1&qj=I3FpCINTYXQgSnVuIDISIDE50jAyOjMwEVEVCAjMDEzC...> 1/2

#### Appendix D: Focus Group Protocol

The research will set the time and place.

The researcher will arrive 30 minutes early to ensure the classroom is arranged in a semi-circle with a chair for the researcher, who will act as moderator.

The researcher will meet and greet each participant.

The researcher will share how the focus groups will be conducted and what the participants should expect.

The researcher will share with the group that the focus group will last one hour.

The researcher will explain there is not a correct response, but the focus group represents their perceptions. All viewpoints are welcomed and participants should be respectful of one another.

There is to be one person talking at a time and the researcher will serve as moderator to direct the conversation.

The focus group will start with a chance for each participant to get to know each other. Since the participants will have been in class together this will be a brief time to transition into the focus group questions.

The researcher will serve as the moderator to keep the conversation on target, direct the conversation so all can participate, and finally engage the participants to be focused in their answers and to share specific examples.

The session will start to close at 50 minutes when the moderator will start to gently close the session.

The moderator will thank each participant and light refreshments will be served.

A follow-up thank you will be given to each participant, thanking them for their participation.

### Appendix E: Focus Group Questions

This survey will be used to collect data about how and why students use web-based social networking in higher education. All information on this survey is confidential. All responses will be reviewed only by the researcher and appropriate professionals.

1. What were your perceptions of the use of Facebook posts?
2. How does this impact your social connectivity with your peers?
3. How do you use Facebook for discussion posts?
4. Describe the process of using Facebook from logging on to completion.
5. Did the use of Facebook contribute to learning?
6. Describe your rationale for logging on to a site.
7. Do you use Facebook to connect with your peers in the class?
8. Is the use of web-based social networking tools such as Facebook important to your learning?
9. Does Facebook enhance your learning experience? Share why or why not.
10. Has web-based social networking made an impact on your higher education experience? If so, explain why.
11. Would your university experience be different without the use of web-based social networking tools?
12. How have web-based social networking tools changed your perspective on this class?

13. Share an example of how learning took place using web-based social networking using Facebook.
14. Are there examples of where you would not use Facebook? Please explain.
15. What do you like most about Facebook?
16. What do you like least about Facebook?



## Appendix F: Participant Thank You

Hello Participants,

The researcher would like to thank you for your participation in the study for student perceptions on use of Facebook and Blackboard. If you are interested in receiving results of the study, please share an email address and the results will be emailed to you.

Again I thank you.

Sincerely,

Janet Staker Woerner

Doctoral Candidate



## Appendix H: Letter of Cooperation

[REDACTED]

March 11, 2014

Janet Staker Woerner

[REDACTED]

Dear Ms. Staker Woerner:

Based on my review of your research proposal, I give permission for you to conduct the study entitled "A Qualitative Case Study of Facebook and the Impact on Social Connectivity." As part of this study, I authorize you to use convenient sampling for ground business class participants in one of the [REDACTED]. Data collection will consist of questionnaires and collection of Facebook posts used in the class. A focused group time will be scheduled to interview students. Individuals' participation will be voluntary and at their own discretion. A faculty member other than the researcher will be teaching the class.

We understand that our organization's responsibilities include using business class students who volunteer for this study. A selected [REDACTED] campus business department faculty will be teaching the course other than the researcher. Resources will be the actual classroom and the faculty member teaching the course. The posts will be downloaded and exported into an excel file and then deposited into a qualitative software analysis tool at the researcher's expense. Focus group interviews will be conducted, and participants will be coded for confidentiality. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from [REDACTED].

Sincerely,



Thayer Reed

Associate Provost of Academic Operations

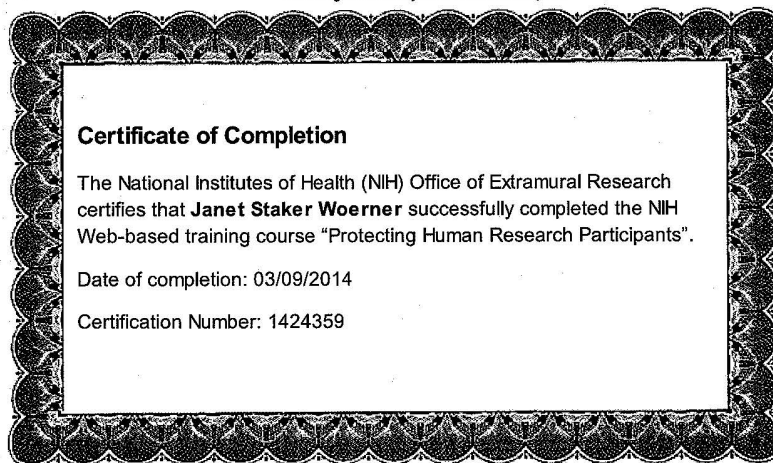
[REDACTED]

[REDACTED]

## Appendix I: National Institute of Health Study Subject Approval of Researcher

3/9/2014

Protecting Human Subject Research Participants



## Appendix J: Facebook Discussion Posts

*Question 1*

*Discussion  
Question's  
Facebook*

Describe and define some types of economic regulation

Boost Post

EC111

8 Like Share

• Top Comments

Write a comment

• **EC111** Economic regulations refers to rules that hit limits. Who can enter a business (entry controls) and what prices may charge (price control) example taxi drivers, professionals, lawyers, accountants must have licenses.  
Like Reply Commented on by [redacted] October 20 at 8:11pm

• **EC111** Economic regulation is intended to help decipher the relationship that exists between supply and demand. It also helps to control the regulatory power that a government has over an economy. I would venture to say that tolls on interstates can be classified as economic regulation.  
Like Reply Commented on by [redacted] October 15 at 5:40pm

• **EC111** Economic regulation controls the price, the output, the entry of new firms, and the quality of service in firms in where monopoly appears inevitable or even desirable. Subway systems is an example that uses economic regulation.  
Like Reply Commented on by [redacted] October 15 at 5:07pm

• **EC111** Economic regulation is defined as a type of government regulation that sets prices or conditions on entry of firms into an industry. Economic regulation also includes the regulation of financial firms. However, economic regulation is not the only type of government regulation, as the discussion of the environmental regulations in Chapter 15 indicates. This other type of regulation, called social regulation includes environmental controls, health and safety regulations, and restrictions on labeling and advertising. Social regulation involves the correction of externalities. However, there is considerable disagreement about the exact economic rationale for much social regulation. (Taylor) Below are some examples of economic regulations

- Federal Communications Commission (FCC)
- Federal Energy Regulatory Commission (FERC)
- Comptroller of the Currency (OCC)
- Federal Reserve System (Fed)
- Securities and Exchange Commission (SEC)

Works Cited  
Taylor, J. B. (n.d.). Economic Regulation Versus Social Regulation. Retrieved from college.cengage.com: [http://college.cengage.com/.../add\\_topics/ch12\\_econ\\_reg.html](http://college.cengage.com/.../add_topics/ch12_econ_reg.html)

**Redirection to Equivalent @ Cengage**  
COLLEGE.CENGAGE.COM

Like Reply Remove Preview Commented on by [redacted] October 15 at 5:03pm

- EC111 Economic regulations are a type of government regulation that sets prices or conditions on entry of firms into our industry. Some examples are the Federal Communications Commission, Federal Reserve System and the Federal Energy Regulatory Commission.

[Like](#) [Reply](#) · Commented on by [REDACTED] [October 15 at 12:22pm](#)
- EC111 EC111 There are 2 main types of government regulations: economic regulation and social regulation. Economic regulation set rules that limit who enter a business (entry control) and what prices may charge (price control). One type of economic regulation is the FCC. Social regulation is a broad category of rules governing how any business/individual carries out activities, with a view on how to correct 1 or more "market failures". Types of social regulations include: OSHA, FDA.

[Like](#) [Reply](#) · Commented on by [REDACTED] [October 14 at 7:10pm](#)
- EC111 Economic Regulation is a type of government that sets prices and conditions on entry of firms into the industry. Some types are Food and Drug administration which handles the sale of alcohol, bans harmful and what type of food can be put in the market.

[Like](#) [Reply](#) · Commented on by [REDACTED] [October 14 at 1:05pm](#)
- EC111 There are two types of regulation: economic and social. Economic regulation refers to rules that limit who can enter a business (entry controls) and what prices they may charge price control. For example, taxi drivers and many professionals (lawyers, accountants, beauticians, financial advisers, etc.) must have licenses in order to do business; these are examples of entry controls. Social regulation refers to the broad category of rules governing how any business or individual carries out its activities, with a view to correcting one or more market failures.

[Like](#) [Reply](#) · Commented on by [REDACTED] [October 13 at 7:51pm](#)
- [Write a comment...](#)

Question 2

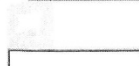
What type of economy does the United States have? Has it always been that way? Compare to China's economy

Boost Post

EC111

6 Like · Share

• [Top Comments](#)



Write a comment.

• [EC111](#) The United States has an economic system that is composed of a variety of smaller economies. It is thought that the United States is currently runs under a capitalist form of economy. It can also be considered a mixed economy. The United States was not always considered to be a mixed economy. China has a socialist market economy.

[Unlike](#) [Reply](#) · 1 Commented on by [redacted] · [October 14 at 6:15pm](#)

• [EC111](#) United States is referred to as a capitalist system. But is mainly a mixed economy, private property rights freedom of choice and competition are necessary and fundamental elements of pure- capitalism. China has a socialist planned economy where the government which is one party. controlled ownership. They have the world's largest economy by purchasing power parity. They also have the largest exporter of goods in the world

[Like](#) [Reply](#) · Commented on by [redacted] · [October 20 at 6:05pm](#)

• [EC111](#) Prior to the Great Depression of the 1930s, the United States was primarily a free-market capitalist system and government involvement was minimal. But the massive unemployment and widespread poverty of the Great Depression caused some to believe that capitalism, as an economic system, had failed. In today's era the United States is often regarded as a capitalist system; it is actually a mixed economy.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 15 at 5:06pm](#)

• [EC111](#) The US has a mixed economy and it has not always been this way. Prior to the Great Depression the US was primarily a free market capitalist system. China has a socialist marketing economy where capitalist are involved, but they do not believe they run their country.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 14 at 1:20pm](#)

• [EC111](#) EC 111 The U.S. has a mixed economy, and has been the world's largest national economy since the 1890s. China currently has a strange mix of socialist, capitalist as well as communist ideas for their economy.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 13 at 10:30pm](#)

• [EC111](#) The United States has a mixed economy. The U.S. economic system does have a high degree of private ownership and individual freedom, but a significant component of the economy is controlled by the government. In fact, current estimates indicate that Federal government spending accounts for up to one-third of our economy. This wasn't always the case. Prior to the Great Depression of the 1930s, the United States was primarily a free-market capitalist system and government involvement was minimal. But the massive unemployment and

widespread poverty of the Great Depression caused some to believe that capitalism, as an economic system, had failed.

[Like](#) [Reply](#) Commented on by  - October 13 at 7:46pm



Question 3- ~~test~~

Define and describe Implicit costs and explicit costs

Boost Post

EC111

8 Like Share

• Top Comments

Write a comment..

• EC111 Implicit costs are intangible costs that are not easily accounted for. They are the time and effort an owner puts into its company. Explicit costs are direct payments made to others in running a business. Paying the rent, wages, and materials to run a company are considered explicit costs.

[Like](#) [Reply](#) · Commented on by [redacted] · October 11 at 7:48pm

○ EC111 Hi Tanya

[Unlike](#) 1 · Commented on by [redacted] · October 12 at 11:01am

○ EC111 sorry granddaughter hit the keys on me lol. Tanya, I like your post. You explain thing in simple terms and still get the ideas across so they are understood easily.

[Like](#) · Commented on by [redacted] · October 12 at 11:05am

Write a reply ..

• EC111 Explicit costs are usually cash payments, such as a firm's or an individual's wages, rent, interest, insurance and taxes. Implicit costs are usually opportunity costs of used resources owned by a firm. Example is when you use a firm's funding.

[Like](#) [Reply](#) · Commented on by [redacted] · October 15 at 5:11pm

• EC111 An implicit cost is a cost that has occurred but it is not initially shown or reported as a separate cost. On the other hand, an explicit cost is one that has occurred and is clearly reported as a separate cost.

[Like](#) [Reply](#) · Commented on by [redacted] · October 15 at 5:08pm

• EC111 An implicit cost may be a cost that has been attained but is at first recorded as a separate transaction involving cost. A good example of an implicit cost would be loss of interest income on funds. An explicit cost such as employee wages paid is one that has transpired and then recorded as separate cost.

[Like](#) [Reply](#) · Commented on by [redacted] · October 14 at 6:07pm

• EC111 Explicit cost is the opportunity cost of resources employed by a firm that takes the form of cash payments wages, rent, interest, insurance, and taxes...Implicit cost is a firm's opportunity cost of using its own resources or

those provided by its owners without a corresponding cash payment, business owner, company owned building company funds

[Like](#) · [Reply](#) · Commented on by [redacted] · [October 13 at 7:30pm](#)

- **EC111** Explicit costs are cost that can be found on accounting statement, while implicit costs can not. Examples of explicit costs are rent and wages, and examples of implicit costs are using a company owned building or the time of a firm's owners.

[Like](#) · [Reply](#) · Commented on by [redacted] · [October 13 at 10:06am](#)

- **EC111** EC111 Implicit costs are a firm's opportunity cost of using its own resources or those provided by its owners without corresponding cash payment, Explicit costs (rent, taxes, wages, insurance, interest) are opportunity costs of resources employed by a firm that takes the form of cashpayment.

[Like](#) · [Reply](#) · Commented on by [redacted] · [October 9 at 8:54pm](#)

- **EC111** Explicit costs are actual cash payments for resources ie wages, rent, interest insurance taxes. Implicit cost are opportunity costsof using resources owned by the firm or provided by the firm's owners ie company owned building or use of company funds.

[Like](#) · [Reply](#) · Commented on by [redacted] · [October 8 at 8:07pm](#)

- [Write a comment...](#)

Question 4

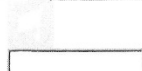
What is Utility? How do we use it in daily life?

Boost Post

EC111

7 Like · Share

• [Top Comments](#)



Write a comment..

• [EC111](#) utility is the perceived ability to satisfy needs or wants. It is an important concept in microeconomics cause it represents the satisfaction expressed by consumer of goods. We make choices in our daily lives such as: studying VS going out for the weekend with friends. We make a household budget based on how much money we have available. We decide what is worth giving up for what we want more. (pros weighed against cons)

[Like](#) [Reply](#) · Commented on by [redacted] · [October 9 at 8:04pm](#)

• [EC111](#) Utility is the satisfaction received from consumption. It also provides a sense of well-being. Utility maximization depends on each household's subjective goals, not on some objective standard. In everyday life it really depends on the amount of resources that are available. Decisions are made depending on costs and weighing wants against desires.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 7 at 7:18pm](#)

• [EC111](#) Utility is the sense of pleasure or satisfaction that comes from consumption. It is also subject. It varies by ones taste and preferences. We use it when we go out to eat for example. Would you spend alot money to eat pig's ear or feet? I personally wouldn't spend any money eating that.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 6 at 8:40pm](#)

• [EC111](#) Utility is the total satisfaction received from consuming a good or service. When I want to purchase something I have to evaluate which is more the satisfaction I will get from purchasing the good or the price of the good.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 5 at 8:23am](#)

• [EC111](#) Utility is the total satisfaction received from consuming a good or service. We use utility everyday, from how much we purchase something to how much we physically consume something. An example would be french fries. Once you get done consuming an order you will decide how satisfied you were with them and whether you want more.

[Like](#) [Reply](#) · Commented on by [redacted] · [October 3 at 9:53am](#)

• [EC111](#) Utility is the satisfaction received from consumption and sense of well being...We use it with everything! With our daily decision to the products we buy. That satisfaction feeling you receive. For instance, wipes...i prefer to get Huggies out of satisfaction...only need to use one wipe compared to the cheap ones where you have to use like ten...

[Like](#) [Reply](#) · Commented on by Mfeazu Tawu [redacted] · [October 1 at 7:11pm](#)

- [EC111](#) Utility is the satisfaction received from consumption, sense of being well.. In my everyday life I use cleaning around the house and keeping it maintained to a certain degree to satisfy me.  
[Like](#) [Reply](#) · Commented on by [\[REDACTED\]](#) · [October 1 at 6:04pm](#)
- [Write a comment...](#)



Third Question - What is an Economic Model? How can it be applied?

Boost Post

EC111

9 Like · Share

• Top Comments

Write a comment...

• EC111 An economic theory, also called an economic model is known as a simplification of economic reality that is used to make prediction about a cause and effects in the real world. Its how individuals make choices in life.  
[Like](#) [Reply](#) · Commented on by [Ari](#) · September 29 at 9:45am

○ EC111 Hi Ari I like your post it is simple and complete. You explained what economic model is in simple terms and made it very clear so that anyone could understand.  
[Like](#) · Commented on by [Ari](#) · September 30 at 9:26am

Write a reply...

• EC111 what is an Economic model and how is it applied?  
[Like](#) [Reply](#) · Commented on by [Carla O'Dell](#) · September 23 at 7:45pm

○ EC111 sorry hit wrong key. An Economic model or economic theory is a simplification of economic reality used to make predictions about the real world. For example the circular flow model. The economic model is used to fulfill 2 functions: 1. to describe some aspect of reality of economic phenomena. 2. to assist economists in understanding the economy. There are 2 basic types of economic models/theories: Quantitative and Qualitative.  
[Like](#) · Commented on by [Carla O'Dell](#) · September 23 at 7:50pm

Write a reply...

• EC111 Economic Model is a simplified framework designed to illustrate complex processes, often but not always using mathematical techniques. We use it in everyday lives when we measure our time vs the cost of the good.  
[Like](#) [Reply](#) · Commented on by [Carla O'Dell](#) · October 6 at 8:35pm

Quora

Second Question - What is Microeconomics and what does it mean for your life choices?

Boost Post

EC111

12 Like Share

• Top Comments

•

Write a comment...

• **EC111** Microeconomics is how an individual's behavior and decisions affect the supply and demand for goods and services. It affects my life choices because I know I can't do or have everything I want so I have to prioritize them and make the best decision.

[Like](#) [Reply](#) Commented on by [\[redacted\]](#) September 17 at 9:36pm

○ **EC111** How do you prioritize to make the best decision when you want to buy something that is not a necessity? I always get caught in the weak moments after its been a long week, and use the excuse "I deserve this" to justify buying items I don't need. Is this something you have gotten better at over time?

[Like](#) Commented on by [\[redacted\]](#) September 22 at 5:00pm

○ **EC111** Everyone has there own opinion as to what a necessity is. Its ok to splurge as long as you dont do it all the time. Maybe instead of buying a pair of jeans a purse and shoes, just pick one.

[Like](#) Commented on by [\[redacted\]](#) September 23 at 8:55am

○

Write a reply...

• **EC111** Microeconomics is the study of the economic behavior in particular markets and behaviors...it explains how price and quantity are determined in individual markets like cereal or cars...Its choices...what you choose to do and how it will affect you now and in the long run...time for studying or time for partying? My personnel microeconomics would be.....How much studying i have versus spending time with my 3 beautiful children....i see it as if i concentrate on more studying then in the future i will have more time to play and spend time with my children...

[Like](#) [Reply](#) Commented on by [\[redacted\]](#) September 17 at 7:41pm

○ **EC111** Hi Mteazy, I agree with your choices, if you want to spend time with your children you have to set time aside for it. Your choice is to study more now in order to spend more time with them later. We use microeconomics everyday without really realizing it even by just buying groceries. I really enjoyed reading your post and wish you luck in your career and all your classes.

[Unlike](#) · 1 Commented on by [\[redacted\]](#) September 18 at 8:01pm

○ **EC111** Thank you!!! I wish you luck as well:)

[Like](#) Commented on by [\[redacted\]](#) September 22 at 5:57pm

○

Write a reply...

• [EC111](#) Microeconomics is a piece of economics that focuses on individual decisions. For my life choices it means spending my money effectively. Buying what I need first, then the wants, and keeping all purchases within a reasonable price range. One way I do this is by comparison shopping.

[Unlike](#) [Reply](#) 1 · Commented on by [REDACTED] · [September 22 at 5:08pm](#)

○ [EC111](#) Hey Stephanie:)I enjoyed reading your post it was short but straight to the point with all the main information needed...It is a very smart idea to buy needs before wants! Another way is coupons! Especially with groceries! Food is expensive!

[Like](#) · Commented on by [REDACTED] · [September 22 at 5:54pm](#)

Write a reply...

• [EC111](#) Microeconomics is the area of economics that is concerned with single factors and individual choices. For my own life choices it means to weigh out and research the different options that I could have and how to take that information.

[Like](#) [Reply](#) · Commented on by [REDACTED] · [September 20 at 1:27am](#)

○ [EC111](#) I also do research when buying certain products. Aside from trying to find a good price I like to look at customer reviews and determine what would be the best deal for my money and its intended purpose.

[Like](#) · Commented on by [REDACTED] · [September 22 at 5:17pm](#)

Write a reply...

• [EC111](#) Microeconomics focuses on patterns of supply and demand and the determination of price and output in individual markets. It shows what goods and services that consumers want and what we are willing to pay. For our life choices it means that we decide whether we want a product or service enough to pay a certain price or if we are willing to go without until it is sold at a price we are more comfortable with. It determines how much of a product is produced and based on how much it is requested.

[Like](#) [Reply](#) · Commented on by [REDACTED] · [September 19 at 9:52am](#)

○ [EC111](#) Great definition and example. How do you feel your microeconomics choices have varied from a single person to starting a family? Has there been any changes you didn't expect to have encountered?

[Like](#) · Commented on by [REDACTED] · [September 22 at 5:13pm](#)

Write a reply...

• [EC111](#) Microeconomics is "the study of the economics behavior in particular markets, such as that for computers or unskilled labor". It's also the study of your economic behavior and the economics behavior of others who make

choices. These are the choices individuals make in their life, such as how are you going to spend your money, your time. For example, my life choices are, I choose to go to college full-time to find and succeed a better job. Most of my time is writing papers, discussion posts, and studying, instead of hanging out with peers, but I choose to do this because I want to learn the material and want to pass all my courses.

[Unlike](#) [Reply](#) · [1](#) · Commented on by [A \[REDACTED\]](#) [September 16 at 1:33pm](#)

○

[EC111](#) I enjoyed reading your post and you could have not of said it better:) lol you explained the definition of microeconomics perfectly! its based on an indivdual choices and opinions...i believe that you will be successful just by your microeconomics choices:)

[Like](#) · Commented on by [M \[REDACTED\]](#) [September 22 at 6:05pm](#)

○

Write a reply...

[EC111](#) We measure the choices we make in life based on our opportunity cost. Is our time and effort worth the outcome? We measure this in our every day lives. Example is it worth our time to go the the grocery because the product is on sale but it's across town. Or just pay a few cents more and get it on your way home. Is it worth the price of gas and time for a few savings?

[Like](#) [Reply](#) · Commented on by [Eve Deborah Coffey](#) [October 6 at 8:32pm](#)

[EC111](#) Microeconomics is the economic study that focuses on individual behavior and decisions that affect the supply and demand for goods and services. It effects your everyday life by the choices you make.

[Like](#) [Reply](#) · Commented on by [Ch \[REDACTED\]](#) [September 23 at 8:59am](#)

[EC111](#) Microeconomics is the study of economics in a more detailed scale on particular markets. For my life choices right now it dosent mean much to me as I only buy the things that I need and cant live without, You know the required goods to live food, gas, clothing and power. Once I find a better job I may have the extra income to buy more optional goods then microeconomics may come into play for me.!

[Like](#) [Reply](#) · Commented on by [D \[REDACTED\]](#) [September 22 at 4:42pm](#)

[EC111](#) Microeconomic decisions by both firms and individuals are motivated by cost and benefit considerations. Costs can be either in terms of financial costs such as average fixed costs and total variable costs or they can be in terms of opportunity costs , which consider alternatives foregone. "What determines how much a consumer will save?" are question that we as household ask our selves prior to a purchase. "How much should a firm produce, given the strategies their competitors are using" and "Why do people buy both insurance and lottery tickets?"

[Like](#) [Reply](#) · Commented on by [E \[REDACTED\]](#) [September 21 at 6:34pm](#)

[EC111](#) Microeconomics is considered to be a minimal form of economics that are motivated by costs and spending considerations. It can also be based on the wants and needs of an individual or group of people. I would have to prioritize what is a valid need before making a purchase. A good example would be wanting a new car, even though your current car is in excellent condition.

[Like](#) [Reply](#) · Commented on by [\[REDACTED\]](#) [September 20 at 3:24pm](#)

[EC111](#) EC111 Microeconomics is the study of economic behavior in particular markets, such as, buy/sell, study/party, borrow/save. It explains how price and quantity are determined in individual markets (sports equipment, kind of coffee, breakfast cereal, used cars). On a more personal level microeconomics influences how much time I spend on studying versus how much time I spend with family (new grandson). While being on a set income I have to make certain decisions on what need versus what want. What can be given up to be able to get what want. This is a lesson to teach the children also, if you want a new game what are you willing to give up for it. I chose to go back to school because I want better for my family and I can't stand staying at home all the time.



[Like](#) [Reply](#) · Commented on by  September 18 at 7:57pm

- [Write a comment...](#)

Quest 7

Not sure if I'm doing this right, LOL....

First question - Describe Supply and Demand. How is it applied to your life choices?

Boost Post

EC111

14 [Like](#) · [Share](#)

• [Top Comments](#)

Write a comment...

• **EC111** Supply and Demand is a direct reflection of a thriving or failing economy. They both help determine how goods and services are priced. It provides a schematic for marketing, revenue, and surpluses. Quantity and quality are also determining factors that are incorporated. The relationship varies inverses as has many variations.

[Unlike](#) · [Reply](#) 1 · Commented on by [redacted] · [September 16 at 6:55pm](#)

○ **EC111** What i liked about your post and what stuck out the most was you didnt write down just the definitions! You explained what both supply and demand were and how it can effect the economy

[Like](#) · Commented on by [redacted] · [September 17 at 7:07pm](#)

○ **EC111** I think it was a good idea that you pointed out that supply and demand provides a schematic for marketing, revenue, and surpluses. We as consumers determine the price by how much and of what we purchase but it also plays a large role in how much companies spend on advertising their products.

[Like](#) · Commented on by [redacted] · [September 17 at 7:08am](#)

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Write a reply...

• **EC111** Supply and demand I view in a retail view. iPhones are a good one to use. every year Apple comes out with a new phone but they are in limited number (supply) and there is always a lot of people wanting them (demand). In this case there is always more demand then supply. Apple dose this to keep people wanting their product. I don't really think about supply and demand much in my day to day life. I really haven't ever thought about it.

[Unlike](#) · [Reply](#) 1 · Commented on by Da [redacted] · [September 15 at 6:07pm](#)

○ **EC111** That was a GREAT example!!!! That helped me understand supply and demand a little bit easier! Its crazy how apple would only order a certain amount for sale....you think they would order more to get money...maybe they do it on purpose because when that certain amount of supply runs out, the other customers that did not receive them, in the future maybe raise the prices?

[Like](#) · Commented on by [redacted] · [September 17 at 6:55pm](#)

- [EC111](#) I totally agree that was a GREAT example. I also agree they should order more and agree I think it is Apple making people always wanting their new products.

[Like](#) Commented on by [J. \[REDACTED\]](#) September 17 at 9:17pm

- 

Write a reply...

- [EC111](#) Depending on how high or low the demands are for products and services determines the supply in which a distributor or manufacturer should make to push out. In everyday life I have to weigh out the things that I want meant my essentials that I need, in doing so that determines the means that are needed to get them such as working 2 jobs instead of one.

[Unlike](#) [Reply](#) 1 Commented on by [E. \[REDACTED\]](#) September 17 at 3:35pm

- [EC111](#) I also agree with you on how supply and demand affect our life's. In anything I buy I always think about it being something I want or something I need. If it is something I want and it has a good price I am more inclined to purchase it .

[Like](#) Commented on by [C. \[REDACTED\]](#) September 17 at 9:23pm

- 

Write a reply...

- [EC111](#) Supply is how much of a product is available while demand is how much the consumer wants to purchase the product. Both are used in determining the price of a product. If there is more demand the price goes up and if there is more supply the price goes down. As consumers we have the choice to buy when supply or demand is high or low depending on how much we want the item and are willing to pay. I prefer to wait until the demand is lower so I get a lower price.

[Like](#) [Reply](#) Commented on by [\[REDACTED\]](#) September 17 at 1:26pm

- [EC111](#) I agree with you Stephanie, I also like to buy when the demand is low to get a better price! I think it was a good idea that you pointed out that the demand determines the price of the product too.

[Like](#) Commented on by [A. \[REDACTED\]](#) September 17 at 6:47pm

- 

Write a reply...

- [EC111](#) Prices and quantities dictate the markets of goods produced and exchanged. Supply and demand is an organizing principle for explaining how prices coordinate the amounts produced and consumed. It applies to price and output determination for a market with perfect competition, which includes the condition of no buyers or sellers large enough to have price-setting power. With everyday life choices, we create household budgets allowing us and certain amount of money to spend weekly. If prices go up, we do not buy as much therefore quantities will increase in the market. However when prices decrease, we have the money to spend therefore more money does go back into the economy. However eventually supply will decrease and we will come to the equilibrium.

[Like](#) [Reply](#) Commented on by [E. \[REDACTED\]](#) September 21 at 6:27pm

- [EC111](#) Second Question....What is Microeconomics and what does it mean for your life choices?

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 17 at 7:21pm

**EC111** Demand is a relation between the price of a good and the quantity that consumers are willing and able to buy per-period, and how other things constant. Supply is the relation between the price of a good and the quantity are willing and able to sell per period. Demand and supply is applied to our life choices because its used everyday in our lives. You make choices though-out your life when purchasing a new home, getting married, planning parties, or going to school.

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 16 at 10:18am

**EC111** Demand is how much of a product or service is desired by consumers. Supply is how much the market can offer. It applies to our life choices because we as the consumers determine how much of what product we want therefor influencing how much companies produce and of what products. It determines the prices of products and services and applies to us because we must then pay those prices or not demand the good as much.

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 16 at 8:09am

**EC111** Supply is how much something is available to the consumer and demand is how much something someone wants. Supply and demand effect all areas in my life from purchasing a house or car to how bad I may want something and how much it is at the time.

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 8:57pm

**EC111** Supply is a relation between the price of a good and the quantity that producers are willing and able to sell per period, other things constant. Demand is the relation between the price of a good and the quantity that consumers are willing and able to buy per period, the other things constant....basically supply and demand is in everyday life from food to fashion...it affects our everyday life with prices....

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 7:48pm

**EC111** supply is how much of something is available while demand is how much of something people want (quantity). In microeconomics we use supply and demand as an economic model of price determination in a market. Supply and demand is the backbone of market economy and one of the most fundamental concepts of economics. We use supply and demand everyday when we check prices before we make purchases of things. For example: we make choices when we want to purchase movie tickets or purchase video games. We have to decide what do we want to give up to get what we want.

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 6:11pm

**EC111** ...

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 6:05pm

**EC111** That was a post by [Malinda Reece](#) ^^^

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 2:32pm

**EC111** Well demand is basically a relationship between the price of something and how many people are willing and able to buy it in a period, and supply is a relationship between the price of something and the number of people producing this thing are willing and able to sell it in a period. Supply and demand are used in every business and even used in everyday life when making decision on buying something. Most times people like to check prices before purchasing certain things. If decide you want to buy a house you look into and prices many houses before making a decision.

[Like](#) [Reply](#) · Commented on by [REDACTED] · September 15 at 2:32pm

[Write a comment...](#)

- EC111 An economic model is a simplification of reality used to make predictions about cause and effect in the real world. This can be applied by using the scientific method. You can actually use this with everyday life choices. Identify the question and define relevant variables, specify assumptions, formulate a hypothesis, and then test your hypothesis.

[Like](#) [Reply](#) · Commented on by [Mi \[REDACTED\]](#) · [October 1 at 5:56pm](#)
- EC111 An economic model is a theory used to make predictions in the real world. It is used to help understand why what happens, happens; or what would happen if something were changed. This can be applied to help answer nearly any question from what would happen if we raised the price of bread five cents to raising the minimum wage to \$15.

[Like](#) [Reply](#) · Commented on by [Stephan \[REDACTED\]](#) · [September 29 at 5:31pm](#)
- EC111 An economic model is a structured to measure the economic behavior of a group or groups of people. They use different forms of math analysis to calculate and predict possible behaviors. It can be applied by provided an essentially logical explanation for certain logical economic conditions.

[Like](#) [Reply](#) · Commented on by [\[REDACTED\]](#) · [September 26 at 4:01pm](#)
- EC111 Oops hit post to early.... Designed to yeild hypothesis about economic behavior that can be tested... An economic model can be applied in say a study of how people react to free food pizza rather than paying for it themselves if people would still take pepperoni if sausage was free...

[Like](#) [Reply](#) · Commented on by [Faith \[REDACTED\]](#) · [September 26 at 12:47am](#)
- EC111 An economic model is a simplified description of reality, designed to yield

[Like](#) [Reply](#) · Commented on by [Faith \[REDACTED\]](#) · [September 26 at 12:40am](#)
- EC111 An Economic model generally consists of a set of mathematical equations that describe a theory of economic behavior. It is applied by explaining and analyzing prices and quantities traded in a competitive market. The models equations determine the level of supply and demand as a function of price and other variables.

[Like](#) [Reply](#) · Commented on by [T \[REDACTED\]](#) · [September 23 at 6:19pm](#)
- [Write a comment...](#)

## Appendix K: Journal Entries

November 10 2014

First part of transcript  
complete and am now  
going through for a

second time to confirm I  
have transcribed correctly

I shared with Dr. KFP  
and she advised I was  
on the correct path.

I think about my responsibility  
to ensure I am being unbiased  
& neutral

November 11, 2014

Re-read Putnam and  
Siemens for alignment  
of connectivism & social  
Capital of Putnam.

Also looked to Putnam's  
latest book ~ Restley's  
America for updates  
they on social capital

Checked NUVO and the  
code sequence - make  
sure I understand the  
structure of software

## Appendix L: Facebook Coding Summary

Coding Summary By Source  
 FACEBOOK 12-12-14  
 12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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**Document**

Internals\\Transcription of Focus Group Saturday 12-13-14

**Node****Nodes\\Age and Technology**

No	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
	0.0079	2	1	JSW	12/14/2014 9:36 AM
#4 baby boomer age tend to not use technology pick up the phone					
			2	JSW	12/14/2014 9:36 AM
#8 mother is just now getting laptop 5A younger people use more					

**Nodes\\BB**

No	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
	0.0241	6	1	JSW	12/14/2014 8:45 AM
Still BB I s the main LMS					
			2	JSW	12/14/2014 8:47 AM
#3 preferred BB to Facebook and like the idea of keeping the two separate.					
			3	JSW	12/14/2014 9:19 AM
Liked the idea of placing Facebook into BB					
			4	JSW	12/14/2014 9:19 AM
#4 If Facebook was placed within the university setting this might be a better way to set up the framework					
			5	JSW	12/14/2014 9:28 AM
One student said that is why you have BB. If BB was more like Facebook it would be more useful.					



12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
<b>Nodes\\Contribute to learning</b>						
	No	0.0649	13			
				1	JSW	12/14/2014 8:38 AM
						Easier to understand in the student's own work made it easier to understand you could tell if someone understood the concepts and if others did not.
				2	JSW	12/14/2014 8:39 AM
						Easier to go to classmates for questions or if they get it or not.
				3	JSW	12/14/2014 8:39 AM
						Facebook questions were on exam so one student really paid attention to these question
				4	JSW	12/14/2014 9:20 AM
						#6 social media can be helpful for an individual class good way to interact
				5	JSW	12/14/2014 9:21 AM
						#5 some students are shy and will not participate
				6	JSW	12/14/2014 9:21 AM
						One subject said good for networking and getting to know students better
				7	JSW	12/14/2014 9:25 AM
						Some students would not use Facebook to ask faculty they would prefer to do in person
				8	JSW	12/14/2014 9:26 AM
						#5a Ethics, psychology class for interpretation
				9	JSW	12/14/2014 9:29 AM
						If I know students face to face I will reach out to them in an online environment.
				10	JSW	12/14/2014 9:30 AM
						#7 building relationship on ground and can call, email or contact for a particular questions. We exchange text messages.
				11	JSW	12/14/2014 9:30 AM
						Answer one question per week. Helps us to understand the answer better. Each person giving an example.

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				6	JSW	12/14/2014 9:28 AM
When I leave work that is it school is school						
<hr/>						
<b>Nodes\\Connectivity</b>						
	Yes	0.0674	9			
				1	JSW	12/13/2014 3:30 PM
#1 Did not talk about the discussion questions in class but it furthered the conversation between classmates within the class						
				2	JSW	12/13/2014 3:31 PM
#2. Did you know your classmates much from meeting twice a week some are shy to talk in class so this was a way to know each other Facebook helps you help to get to know each other?						
				3	JSW	12/13/2014 3:31 PM
Did not talk about questions in class, but Facebook allowed peers to interact with each other						
				4	JSW	12/13/2014 3:32 PM
Some people are shy and this allowed another way to connect within the classroom. Talking more on Facebook and						
				5	JSW	12/13/2014 3:37 PM
#3get to know the peers better. There was no debate, but gave a better idea of how people are in the classroom. Questions were straightforward and not much discussion						
				6	JSW	12/13/2014 3:38 PM
increased interaction part of homework Facebook straightforward and then they would elaborate when in class promoted discussion part of homework and allowed them to answer the questions and bounce ideas off of each other's heads. It was part of the homework						
				7	JSW	12/14/2014 8:50 AM
#4 Part of the class was more part of the inclusiveness						
				8	JSW	12/14/2014 9:30 AM
The extra interaction was good in Facebook. I still						
				9	JSW	12/14/2014 9:31 AM
A subject likes the informal nature of this.						

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				12	JSW	12/14/2014 9:31 AM
Help clarified the material.						
				13	JSW	12/14/2014 9:31 AM
If you know them by Facebook then you may be able to know a person biter on campus						
<b>Nodes\\Dislike of Facebook</b>						
	No	0.0704	12			
				1	JSW	12/14/2014 8:35 AM
One subject (mature) had at one time, but did not like it. She reinstalled it , Found it difficult to						
				2	JSW	12/14/2014 8:35 AM
difficult for one person to reply						
				3	JSW	12/14/2014 8:35 AM
One student had facebook at one time and then disconnected it.						
				4	JSW	12/14/2014 8:43 AM
#3 Mary goes back and forth between liking it and						
				5	JSW	12/14/2014 9:23 AM
One student prefers not to connect on Facebook , but refers to only in class perceptions						
				6	JSW	12/14/2014 9:26 AM
#7 I want physical interaction- I use Facebook for social. I am forced to do Facebook because it is part of the class. I will not spend time on questions. You cannot know the persons tone or gestures see what I am struggling with. In writing you do not see that build stronger relationship stronger relationship with people I work with everyday						
				7	JSW	12/14/2014 9:27 AM
#8 I prefer one on one on ground. I answered the questions and responded to a couple of them. I did not get a response back. I have Facebook but it is more social than for school. Keep them separate.						
				8	JSW	12/14/2014 9:27 AM
School related I am only using Facebook because I have to						
				9	JSW	12/14/2014 9:28 AM
I will not be on Facebook						

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
I would not use Facebook for class at all				10	JSW	12/14/2014 9:32 AM
Prefer not to use Facebook at all				11	JSW	12/14/2014 9:33 AM
Do not see value in Facebook learned more in class on ground than using Facebook or online				12	JSW	12/14/2014 9:32 AM
<b>Nodes\\Ease of Use</b>						
	Yes	0.0457	11			
Very easy to use Facebook - lot easier than user something else				1	JSW	12/14/2014 8:23 AM
Easy to use Facebook to send a message or receive a message				2	JSW	12/13/2014 3:37 PM
Facebook was on so I would check if a message popped up				3	JSW	12/14/2014 8:41 AM
Check through week or on the weekend				4	JSW	12/14/2014 8:42 AM
Checked day of class and then				5	JSW	12/14/2014 8:42 AM
Log on to site. Facebook was always on so they just kept the so they would answer it ASAP				6	JSW	12/14/2014 8:42 AM
#4 checks on cell phone and see if something had been posts #6 checks it daily and look forward you become familiar and use for class #4 two times a week				7	JSW	12/14/2014 8:42 AM
Facebook is an easier way to connect with the students.				8	JSW	12/14/2014 9:26 AM

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				9	JSW	12/14/2014 9:26 AM
#6 likes Facebook better than BB because they are logged in and can be easier accessible.						
				10	JSW	12/14/2014 9:26 AM
#7 5 5A both liked the idea of having instant access.						
				11	JSW	12/14/2014 9:30 AM
The extra interaction was good in Facebook. I still						
<b>Nodes\\Facebook learning and social separate</b>						
	No	0.0738	14			
				1	JSW	12/14/2014 8:51 AM
When using Facebook there is a possibility of confusing the two						
				2	JSW	12/14/2014 8:51 AM
Sometimes confusing Facebook is both social and learning						
				3	JSW	12/14/2014 8:51 AM
Some thought it was difficult to keep the two separate						
				4	JSW	12/14/2014 9:18 AM
Easier to be distracted on Facebook because there is no clear distinction						
				5	JSW	12/14/2014 9:18 AM
One subject mentioned to have Facebook has part of the course only and that might be a way to have distinction.						
				6	JSW	12/14/2014 9:19 AM
Students did not perceive Facebook as an education tool #4, #3, #4 #5 did not perceive Facebook as an educational tool						
				7	JSW	12/14/2014 9:19 AM
Facebook is not perceived as an educational tool						
				8	JSW	12/14/2014 9:20 AM
#6 One subject thinks it would benefit but that students #3 and #7 both wanted to the two separate						

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				9	JSW	12/14/2014 9:20 AM
						#7 What happens in my personal life and education combined – what it separate
				10	JSW	12/14/2014 9:21 AM
						One students needs to separate the two social and learning separate
				11	JSW	12/14/2014 9:21 AM
						One subject wants to keep them totally separate work is work and learning is learning
				12	JSW	12/14/2014 9:23 AM
						I portray my work , home and educational separate keep it separate. I am vocal in class and do not want someone to see me in the Facebook space. I kind of know what people are like
				13	JSW	12/14/2014 9:24 AM
						Socializing as socializing and school is school
				14	JSW	12/14/2014 9:30 AM
						#7 When I am work I am at work, home at home, school at school. I do not have time to work on this.
<b>Nodes\\Likeness of Facebook</b>						
	No	0.0383	9			
				1	JSW	12/14/2014 8:29 AM
						Did you like Facebook?
				2	JSW	12/14/2014 8:31 AM
						#4 You do not always know on BB who you are talking to , but on Facebook you would see the photo get an idea and can look at the Facebook page Very easy to use and kept comparing to BB
				3	JSW	12/14/2014 9:22 AM
						Some students are shy face to face, but you see a photo on Facebook it expand s the perception of that person
				4	JSW	12/14/2014 9:22 AM
						Better way to network with people on campus
				5	JSW	12/14/2014 9:23 AM
						One students shared you do get to know people in eight weeks

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				6	JSW	12/14/2014 9:23 AM
Facebook speeds up the process to get to know each other better.						
				7	JSW	12/14/2014 9:23 AM
#4 See a person on Facebook and makes them more personal						
				8	JSW	12/14/2014 9:27 AM
Facebook would be helpful						
				9	JSW	12/14/2014 9:35 AM
#6 it would be helpful if it would be more debatable						
<b>Nodes\\Use of Facebook in learning</b>						
	No	0.0659	11			
				1	JSW	12/14/2014 8:37 AM
all could participate and gain a different perspective. If you did not get it before class is helped. All could interact even if you were not in class by the time you came to class it would be cleared up. Different perspective.						
				2	JSW	12/14/2014 8:37 AM
After class the posts were dated. I did not understand and reread the other questions and found peer learning than in class						
				3	JSW	12/14/2014 9:24 AM
Yes- x x #4 yes,, #3 no, #7 no, #5 5a no, #6 is yes. I would like to do in Facebook over BB because it No- x x x #4 would like it in every class						
				4	JSW	12/14/2014 9:25 AM
Students commented that open ended questions would be better suited						
				5	JSW	12/14/2014 9:29 AM
It did not improve connectivity peers. Informal answered questions						
				6	JSW	12/14/2014 9:33 AM
Once I have established relationship then I can use Facebook to communicate.						
				7	JSW	12/14/2014 9:33 AM
#6 it really helped						

12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				8	JSW	12/14/2014 9:34 AM
#5a it promotes more use of being a community						
				9	JSW	12/14/2014 9:34 AM
5a other people gave example of how they looked at the questions						
				10	JSW	12/14/2014 9:34 AM
#4 more interactive with ground classes it is easier to collaborate than using the discussion board on BB						
				11	JSW	12/14/2014 9:36 AM
5A if you have a persons number from class you will use Facebook to built upon but not to use as an initial start						
<b>Nodes\\Variable use of devices and Facebook</b>						
	No	0.0160	3			
				1	JSW	12/13/2014 3:34 PM
#2Difficulty in using tablets and smartphones acclimation period of if name would pop up. Using group on Facebook was something new difficult to post depending on the device						
				2	JSW	12/13/2014 3:34 PM
Group page was something a bit different.						
				3	JSW	12/13/2014 3:35 PM
Very used to BB and was something very new.						
<b>Nodes\\Very easy to use Facebook - lot easier than user something else</b>						
	No	0.0241	3			
				1	JSW	12/14/2014 8:23 AM
Very easy to use Facebook - lot easier than user something else						
				2	JSW	12/14/2014 8:33 AM
#4 Facebook is always on so much easier to get to and make the post App is always on and just log in and comment. Facebook is logged on at all time. Very easy accessibility One student did not Have Facebook. Much easier than using BB.						



12/14/2014 10:33 AM

Classification	Aggregate	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				3	JSW	12/14/2014 8:34 AM

#1, #2, and # all agreed Facebook is on all the time. Smart phone used at all time

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