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An Interpretive Phenomenological Analysis Inquiry into Facebook Newcomer Motivations for Participatory Activities

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A Phenomenological Inquiry into Facebook Newcomer Motivations for Participatory Activities

By

Kristin Raub

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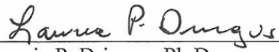
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Approval Page

We hereby certify that this dissertation, submitted by Kristin Raub, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirements for the degree of Doctor of Philosophy.

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An Abstract of a Dissertation Submitted to Nova Southeastern University in Partial
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An Interpretive Phenomenological Analysis Inquiry into Facebook Newcomer
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This qualitative study provided insight into the phenomenon of newcomers in social networking, in particular, to understand what role specific Facebook features play in motivating content sharing and contribution among newcomers. Research indicated that the first several months or years of social networking site (SNS) membership are the most crucial in terms of indicating long-term participation and commitment to the SNS. Long-term participation is specifically manifested through interactions with peers who are members of the same website and through interactivity such as content sharing and contribution. A number of quantitative studies have focused on motivations for user contribution in social networking sites, but inconsistent findings demonstrated the need for a qualitative approach to understand the user experience more clearly.

The purpose of the study was to understand how users are motivated to engage in Facebook from their perspective as newcomers and to distill the significance of social media interface features as an enabler of community sharing. Insight into this phenomenon further demonstrates how specific actions on Facebook such as tagging, posting on profiles, and chatting help foster a sense of belonging and socialization among the sample group.

The phenomenon is studied through interviews with a distinct group of Facebook members – women who are aged 40 and older in the Science, Engineering, and Technology (SET) industry who are also newcomers to Facebook. The lived experiences of these respondents were explored through open-ended questions, related to their own use of the said social networking site. Semi-structured interviews allowed respondents to be candid and comprehensive in their answers.

Five themes developed related to the motivations for Facebook use from the lived experiences of the women interviewed. The themes were (a) social connection, (b) visual artifact sharing, (c) shared identity, (d) social investigation and (e) education. These themes were consistent with findings of other studies, but the personal accounts of these women revealed how they perceived use of various Facebook features improved the quality and depth of their interpersonal relationships.

The findings of this study have implications for designers, developers, and users of computer-mediated communications and technologies. By understanding the value of various features to users of all ages, communications inhibitors such as distance and culture can be overcome with effective design and innovation.

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Chapter 1

Introduction

Background

According to Burke, Marlow, and Lento (2009) and Burke, Kraut, and Marlow (2011), the success of a social networking site (SNS) like Facebook is based on the participation and growth of its new users, and on social connectedness. New users can contribute to this growth through the increase in their network size (the number of friends they have). Increased network size is logically related to how often and to what extent a new user uses features of Facebook, such as content sharing through the content feed. Content feed is a feature that enables users to post stories and share story content with other users. The content feed and the amount of contribution usually occurs at an accelerated rate as, according to Burke et al. (2009), "the success of the system is tied to the amount of contribution any one member's social contacts have produced, an outcome that is dependent on the eventual participation of a large portion of the user base" (p. 945).

SNSs provide a variety of content sharing artifacts (e.g., text, photo, and video) for members to increase social connectedness; for example, to stay in touch or connect with other users. Content sharing enlivens the discussion and prompts interaction (Bennen et al., 2004) and fosters socialization in online communities (Lee, Park, & Han, 2014). Photo tagging, a feature of photo uploading, enables a specific type of content feed for content sharing among SNS users. Shared artifacts, and the content that can be generated surrounding them, play a significant role in creating a dynamic online environment that supports sustained interaction among SNS users (Brandtzaeg & Heim, 2008).

Burke et al. (2009) focused on photo uploading activities, specifically the "early upload status of photo tagging," in predicting new user involvement in a social network environment. Burke et al. found that photo tagging enables a registered user (such as in Facebook) to link a face in a photo of another person to that registered user's profile. Tagging enables friends to become more involved in the network, as it creates a presence for them on the user's page. Tagging activity also allows for the link to other users not currently in the immediate social network, thereby expanding the user's social network reach. This method of interaction has been shown to increase how members directly engage with each other (Burke et al., 2009).

Nov and Ye (2010) discussed the need for more research concerning how social networks grow through the use of photo uploading behaviors and photo tagging. Their study focused on the SNS Flickr, and their findings were consistent with previous research that investigated what motivates users to participate in online communities (Bennen et al., 2004). Nov, Naaman, and Ye (2010) stated that, "the direction for causality between the tenure factor (how long one has been a member) and user activity is one that calls for exploration" (p. 564). This study concentrated on a specific set of new members of a specific tenure, age group, professional background, and gender. The results of this study may serve as a basis for other studies related to use of social networking system features.

Burke et al. (2009) investigated content production in Facebook and its relationship to initial user behavior. The focus of the study was on the photo content sharing activities of new users, including the number of photo uploads, the number of comments or contributions, the number of self-tags or tags, and other user activity measures. New

users were studied to predict their continued membership, and to discover whether new user contribution was positively impacted by their friend's contribution patterns. Burke et al. found that the "singling out" of new users did not seem to predict a new user's increased level of participation as was initially believed. This outcome demonstrated that a much closer look at the lived experiences of new users enabled through the Facebook interface features may provide much needed insight into the reasons for contribution and how to encourage participation.

Burke et al. (2009) predicted that new users who were tagged by other members early on would contribute more content. However, the results indicated that there was not a substantial increase in subsequent usage of content sharing activities when new members were singled out by friends. Tagging, in particular, was not associated with a significant increase in sharing. The researchers called for a more in-depth look at the reason for this disparity.

Similarly, Burke et al. (2011) also studied the social capital opportunities presented by Facebook use, and the difference between strong and weak ties and the value of each of these connections. The goal for their study was to examine social capital from the user's perspective through longitudinal surveys and the participant's behavior as evidenced by server logs to demonstrate how SNS use influences social capital. Their intention was to inform site designers seeking to increase social connectedness and the value of those connections (Burke et al., 2011). They described two social capital constructs as bonding and bridging. Bonding relates to close relationships as with family members and good friends, and bridging relates to the larger number of acquaintances who provide a more diverse perspective, but do not necessarily provide emotional support.

Problem Statement and Goal

Nov and Ye (2010), Nov et al. (2010), and Burke et al. (2009) demonstrated the need to better understand what motivates users to contribute in SNSs. These studies were based on qualitative research by Ames and Naaman (2006) that initially captured open-ended survey data on the importance of social presence in motivating user participation. None of these studies took into account the actual 'lived experiences' within the SNS or what role specific features in the SNS played in motivating user participation and contribution. Previous studies did not capture the SNS features that best translated to perceived lived experiences for the user, and the subsequent user motivations for continued contribution and content sharing (Shih & Liu, 2007).

Schrammel, Koffel, and Tschelgi (2009) and Thom-Santelli, Muller, and Millen (2008), in their recommendations, called for more study of the impact of tagging and tenure factors on the degree to which users are motivated to share content in SNSs, prompting expansion of the social network. Findings from both studies revealed that an individual's content sharing activity increases as new posts are made in the form of tagging, photo uploads, and other posts. In addition, Bennen et al. (2004) indicated that a change in content sharing prompts increased interaction and discussion. These results may take on a more enriched understanding when viewed from the standpoint of the new user journey and how participants feel Facebook features contribute to their participatory activity. As SNSs are dependent on user contribution to enrich the user experience (Burke et al., 2009), the increase in activity could be more tied to the ability of the SNS's features to compel the user to engage in the online environment.

This qualitative study provided insight into the phenomenon of Science, Engineering, and Technology (SET) women aged 40 and older who were newcomers in Facebook (i.e., less than two years as members of Facebook) to understand the journey of their experience. The researcher investigated lived experiences enabled by the use of the SNS as a medium that encouraged these new users to participate in specific activities such as posting, tagging, photo uploads, and contribution overall. While it has been shown that there is a logical connection between and among participatory activities such as photo tagging, content sharing, and tenure (Nov & Ye, 2010; Nov et al., 2010; Burke et al., 2009), the goal of this qualitative study was to extend the analysis to provide a granular look at this subset of new users and how they perceive their journey enabled through the medium of Facebook features.

Research Questions

The main research question (Smith, Flowers, & Larkin, 2009) was:

RQ1. How do SET women who are newcomers to social networking sites like Facebook experience Facebook?

To focus on the main research question, the researcher conducted semi-structured interviews of five (5) SET women who were newcomers to Facebook. The researcher used an interview schedule, an additional set of questions, and prompts that were related to the grand tour question, to discover the lived experiences of the participants in Facebook.

RQ2. How do SET women experience the journey of interaction using Facebook as a medium?

RQ3. What aspects of Facebook have been most influential in the journey of interaction using Facebook?

The schedule detailed in the General Steps for Data Collection section included the areas to be covered with open-ended interview questions and prompts to encourage capture of rich and detailed personal experiences. The interview schedule provided structure to the interview while allowing the participants to expand the interview to address the use of the SNS medium and participatory activities through their own exploration of the phenomenon. These questions evolved where the interviews demonstrated that there were additional factors to consider.

Rationale and Need for this Study

Stance of the researcher. Qualitative research requires the researcher to discover the passion in a research topic (Chenail, 2011). This researcher's passion was to learn more about SNS newcomer motivations for participatory activities from the perspective of SET women. This researcher has been in the SET industry for over 27 years, and for many years depended on the professional support and technical experience of other SET women. The inherent professional challenges of working in a male-dominated workforce are significant, and this researcher is passionate about the need for a supportive community for women in technology-related fields.

Female mentors and peers are likely to be in another office, state, or another country because of the disproportionate gender representation. As a result, effective and engaging online communications are an integral part of attracting, and retaining, women for technical disciplines (Rosson, Carroll, Zhao, & Paone, 2009). The outcome of this research provided insight into the features that motivate SET women to contribute to

Facebook. This understanding may translate to more effective interface design considerations for other communications-enabling technologies.

Relevance and significance. Social psychology theories have been applied to research of SNS to better understand user contribution activities (Ames & Naaman, 2007). Nov and Ye (2010) found that the size of a user's social network and group membership had a significant positive effect on participatory activities including photo tagging. Their findings suggested that it was more likely for the user to perceive social presence with a larger social network translating to a higher number of "contacts," "friends," or "groups" in the context of SNS, and that this positively related to increased tagging activity. This study built upon Nov et al.'s (2008) and Nov and Ye's (2010) findings and focused on the lived experiences in Facebook and of those interface features that motivated participation for the focus (SET) group.

Karnik, Oakley, Venkatanathan, Spiliotopoulos, and Nisi (2013) also provided a foundation to understanding a user's motivation for contribution by feature, and gave insight into a Facebook user's perceived pleasure. Their findings demonstrated the importance of looking at each feature as a subset instead of the SNS overall, and that user's motivations for content contribution differ by feature. The research focused on a music content contribution community, while this study explored user motivation using multiple features and actions of the SNS (e.g., tagging and posting of friends). This study also explored the characteristics of the user, through extension of the study to a specific social group like SET, to observe influence of their motivation on SNS use.

Nov and Ye (2010) and Nov et al. (2010) discussed the need for more research concerning tagging and tenure factors that impact the degree to which users are motivated

to share content. Tenure factors pertain to the length of time a user has been a member of the particular online community. This study utilized tenure from the standpoint of relatively new users with less than two years' membership, and focused on the phenomenon of Facebook use and content sharing by SET women 40 and older.

The value of understanding this specific new user group is that women over 40 have the ability to provide a foundation for women considering or starting out in fields that have traditionally been dominated by men. Rosson et al. (2009) suggested that using Facebook-like interfaces to encourage sharing of information among these groups is a significant enabler of tacit knowledge sharing because these women are significant holders of know-how and technical expertise. To capture the experiential knowledge of this population of women, there should be a greater understanding of the motivations of SETs that lead to reasons why they continue in their participation and membership in Facebook.

Lampe et al.'s (2013) study also filled a similar gap in research regarding non-adopters of SNS, specifically Facebook. The survey conducted as part of the study included demographic, psychological, and perception-based measures to determine factors influencing membership in the SNS Facebook. Considering the significant increase of SNS users' ages ranging 30-64 from 2008 to 2011 (Smith & Brenner, 2012), additional focus through this dissertation will allow for a richer understanding of the significance of the demographics found in Lampe et al.'s study.

Barriers and Issues

The analytic procedures for interpretation of collected data are a challenge for new Interpretive Phenomenological Analysis (IPA) researchers. A significant challenge was

coding and interpreting the data in a way that allows for understanding and capture of the detail surrounding the phenomenon in a meaningful and accurate way, without losing the valuable insight gained through the interviews (Smith et al., 2009). The wide range of possible lived experiences and motivations for Facebook use created a challenge in interpretation where the data analysis can easily affect the validity of the research. By identifying patterns and patterns within patterns in the data, this study made sense of the presented detail, and contributed to the collective understanding of the phenomenon (Chenail, 2009).

This study depended on honest reflection of the participants, and the recollection of the users' personal experiences in Facebook use may be distorted by the passage of time. The researcher needed to prompt the participants to demonstrate various aspects of statements made through their individual use of Facebook, and this required a level of trust between the researcher and participants. The researcher established trust in the interview process, and communicated the privacy protection measures employed in an effort to encourage honest reflection and sharing.

The use of conference calls, an online recorder, and a screen sharing application was necessary to complete the interviews due to the varied locations of participants (Smith et al., 2009). Cooper, Fleischer, and Cotton (2012) used an online recorder, as well as a digital recorder in their IPA study and this study included the use of this medium. However, this technique proved a challenge for the participants to demonstrate various aspects of their individual use of Facebook. The researcher required permission from the participant to use the FreeScreenSharing feature of Freeconferenccall.com, allowing for

visual demonstration of specific Facebook use to capture the user experience in full fidelity.

Assumptions, Limitations, and Delimitations of the Study

    Assumptions. Assumptions made for the purposes of the study concerned the participants, relevance of the findings, SNS use, and honesty in disclosure. This research relied on the continuation of the observed phenomenon that SET women over 40 are newcomers to Facebook. The assumption was made that five participants would be identified through interaction with women in technology conference circumstances, and that they would be willing to participate in the study. In the same context, the assumption was made that five participants would provide adequate saturation of the research questions. If the insights provided by the five participants were not sufficient, this researcher intended to interview additional participants through referrals from the original five through snowball sampling. All participants were identified via snowball sampling from conference attendees, and from the conference attendee who participated in the pilot interview.

    The study required open and honest responses of the participants. The assumption was made that the participants would actively engage in discourse involving their use of Facebook and their perceptions of SNS feature use. Honest responses were necessary for complete understanding of the user experience and accuracy of the research findings. To achieve this level of honesty, the researcher assumed the establishment of a trust relationship for the duration of the study.

    Limitations. Recruitment required interaction with SET women. The researcher attended technology conferences to identify SET women who had newcomer experiences

in Facebook. Respondents were recruited through technology conferences, because a significant number of SET women were present at these events. Several conferences were considered and attended, but the "Women in Technology Summit: Powering Up" in California in early June resulted in connections to the participants. The conference schedule allowed for social interaction that was informal and allowed for participant identification.

This recruitment process also included the identification of other participants via referral. Recruitment in this manner required the researcher to gain access to the women's contact information for requests to participate in the study. These women were initially concerned about providing personal information (such as their name, age, address, employer, and nature of work, among others), and the researcher had to present a non-threatening case for contact for recruitment to be successful. Therefore, the recruitment was limited to those who were willing to provide their information to participate.

Another limitation was the participant's availability to the interviewer, and consideration was given to this limitation by the use of Voice over Internet Protocol (VoIP) programs such as Skype. This alternative was preferred over telephone interviews, for example, because non-verbal communication including facial cues and eye contact are also important to observe. The scheduling of these interviews required interaction with the participants to identify the best circumstance to minimize interruption. However, not all of these interruptions could be controlled or foreseen. As such, this was also a limitation of the study.

The interviewer's personal bias may have affected interpretation of the collected data, and may have created inaccurate or biased results. The researcher used phenomenological

bracketing techniques to mitigate validity issues. These techniques were used during the interviews, follow-up interviews, and data analysis to ensure the process was impartial, systematic, and uniform (Creswell, 2013).

Delimitations. SET is not an organized entity, but rather a category of women identified by profession. Interchangeable terms used in research and in the field to describe the various aspects of the field may create confusion and potentially limit generalizability of the study. For this reason, any term that relates to technology and mathematics careers where technology is the most significant feature were considered part of the study. Some examples of relevant terms include Science, Technology, and Engineering, and Mathematics (STEM), Information Technology (IT), and Computer and Information Sciences (CIS) professionals.

The scope of the study was limited to investigating the lived experiences of women working in the fields of Science, Engineering, and Technology (SET). Another delimitation to make the study more focused was recruiting respondents who were at least 40 years of age, because SET women at this age are more likely to be established in their field, and are able to provide support to peers (especially younger ones) through methods such as SNSs. A third constraint that made the study more manageable was the inclusion of only newcomers to Facebook, with less than two years as a member.

Definition of Terms

Content sharing. This is a process by which users of SNS post or submit content (information, websites, blogs, pictures, videos, or audio) that can be consumed by other users, friends, and followers. Some of the content shared on social media is original, but

most are transmitted through different users and their network of friends (Lee et al., 2014).

Contribution. The term refers to the active participation of members belonging to a SNS, which helps drive the generation of content in the SNS community. Contribution of content also helps in the socialization of various members of the SNS, especially in bridging the gap between long-time users and newcomers (Lee et al., 2014).

Interpretative phenomenological analysis (IPA). Known as a method of approaching qualitative research, specifically in psychology. It has an emphasis on investigating how an individual reacts to a phenomenon, which is surrounded by various contexts. This is especially important in studying participant's lived experiences, including significant events that may have helped define their ideology (Todorova, 2011).

Newcomer. In social media, a newcomer is defined as a person who has been a member of a particular SNS for only several months or around one year. Normally, these individuals have not been introduced to or are not fully aware of most features of the site (Burke et al., 2009). As it pertains to the study, a newcomer had less than two years as a member of Facebook.

Perception. Perception is related to the phenomenon of comprehending and being aware of an objective reality based on the existence of objects independent of a person's sense of self (Maund, 2003).

Saturation. Saturation refers to a point during the qualitative research process when there is no new information obtained from the respondents (Munhall & Chenail, 2008). While this may often be a problem for many researchers, this can also mean that

sampling is already adequate and that the appropriate number of participants had already been reached (O'Reilly & Parker, 2013).

SET women. This term refers to females in the field of science, engineering, and technology. Special attention is given to this area, because women are generally underrepresented in SET employment and educational opportunities (Webster, 2011).

Social media. Online services and portals that enable social interaction with the user's social network by providing features that allow users to connect with other users and establish or maintain relationships. The use of social media enables sharing of information and opinions in a social or informal context (Berkovsky, Freyne, & Smith, 2012).

Social networking. The social network theory was articulated in the seminal research by Barnes (1954). He described social network entities as individuals, groups, and organizations that interact with each other to share ideas, trades, and values (Barnes, 1954). Carpenter and Sanders (2009) characterized the social network as "the collection of ties between people and the strength of those ties" (p. 43).

Social networking site (SNS). A Web-based application that enables informal, social interaction between users. This interaction was initially limited to connecting individuals, but has evolved to include groups and organizations that create a sense of community. Boyd and Ellison (2007) related that SNSs are public or private, and provide a list of users to enable cross-pollination of connections across the network.

Tenure. According to Musicant, Johnson, Ren, and Riedl (2011), tenure in SNS is defined as how long the user has been an active participant in the SNS community.

Summary

This study extended the work of Nov et al. (2008) and Nov and Ye (2010), and focused on the user journey of SET women 40 and over, who were also newcomers to Facebook. The use of an IPA approach with a qualitative methodology allowed for analysis of the feelings and memories that surround the SET women's use of Facebook (Marshall & Rossman, 2011). Much of the research previously conducted on SNS use had not provided conclusive understanding of the motivations for contribution. Details of previous research, both qualitative and quantitative, are discussed in the review of literature. The disparate results of previous research demonstrate compelling need for this alternative approach.

Chapter 2

Review of the Literature

Introduction

Although Munhall and Chenail (2008) suggested the postponement of a thorough literature review in qualitative research, some significant research resulted in the identification of the compelling need for the current study. Review of existing literature could introduce bias and preconceived notions of previously conducted research that could be counterproductive to the IPA approach (Munhall & Chenail, 2008). Additional literature references were added, as data collection and analysis demonstrated the need for extending the preliminary review.

Social Research

Allport (1968) conducted research on social psychology, and determined that an individual's behavior is impacted by the perceived, actual, or imagined presence of others. Social presence has been determined by researchers of computer-mediated communications (CMC) to be a significant factor in content sharing, and particularly, in motivations for tagging. Social behaviors align with SNS in a multitude of ways, but the recurring theme is that SNS give the user the idea that others are watching and engaged as active participants.

Ames and Naaman (2007) researched the motivations for tagging activities. Their qualitative study uncovered that annotations, in the form of tags, made by users of the sites ZoneTag and Flickr have both personal organization and social communication purposes. ZoneTag and Flickr are SNSs that are image artifact content-driven sites. Their

study explored the factors motivating user tagging activity and the decision-making surrounding these activities (Ames & Naaman, 2007).

The findings from Ames and Naaman (2007) demonstrated that motivations for tagging include the contributor's desire to organize images into collections, helping the content viewer retrieve images pertaining to interest areas. The research also characterized some tags as for social communications purposes to assist the viewer in understanding the context of the content. Further findings indicated that although most people consider tagging a great idea and agree that there are many benefits to tagging, they still do not bother with tagging as often as they know would be helpful (Ames & Naaman, 2007).

SNS Content Contribution

A significant amount of research has focused on the features employed in SNS and the factors that motivate users to contribute artifacts. The most current literature (Wohn, Lampe, Vitak, & Ellison, 2011; Norval, 2012; Bell et al., 2013; Sundar, Oeldorf-Hirsch, Nussbaum, & Behr, 2011) demonstrated the evolutionary nature of SNS from the information systems perspective.

Adults and Facebook use. Wohn et al. (2011) researched the various features employed by U.S. adult users to share and attain information and to understand the social and technical processes that are enabled through the SNS. Their research uncovered details regarding users' Facebook activities to include information-seeking, event organization tasks, and to establish common ground for social interaction.

Wohn et al. (2011) found that adults were using Facebook more often to organize events and groups that allowed for constant and close coordination. Although Facebook

has a tool included for organizing events, the outcomes demonstrated that the users were employing features other than those developed for the task. In some cases, the user created a group site that enabled status updates and a focused communications platform for coordination. The coordination also included both private and public channels for specific types of communication where micro-broadcasting allowed for a wide spread notifications and updated status information.

Wohn et al.'s (2011) research demonstrated that users are activating their social network to achieve a specific goal. Outcomes also hinted that the interactive nature of the SNS site allowed users to reach seamlessly outside the SNS to communicate outside the platform. Wohn et al. (2011) also found that the low-cost lightweight nature of SNS would likely enable use of this platform for various types of collaborative tasks. Their research did not, however, evaluate all possible theoretical models that could enable better understanding of these activities in context to specific groups. Extending Wohn et al.'s (2011) research to provide a closer look at the network structure and the relationship strength between the users could have yielded different results for this study.

Norval (2012) studied the incentives of older adults to use SNS. This study was conducted to provide insight into the user group and provide developers with ideas on how to appeal to a wide range of audiences. His findings demonstrated that adults generally have opinions related to privacy, security, and a perceived lack of purpose that result in a lack of adaptation. Participants mentioned Facebook, but were apprehensive to provide a positive opinion about it. This apprehension stemmed from negative publicity related to the site's privacy and security. In addition, claiming to use Facebook seemed to equate to lack of purpose, or be perceived as a general waste of time.

Norval (2012) suggested that adult users could be enticed to use SNS for psychological benefits, and that further acceptance of the medium required longevity and accessibility. The findings suggested that public opinion weighs highly in adults' use of SNS, and more positive communication about the benefits of use would likely translate to more adult use. Norval's research demonstrated the need to further understand the complex feelings associated with SNS use.

Bell et al. (2013) focused on social media use by older adults at least 50 years old. The average age of users in the study was 66 years old, and the findings suggested that young-old adults (defined as 50-64) are more likely to have Facebook accounts than old-old adults (defined as 65 and older). Results revealed that women were more likely to use Facebook than men were. Generally, this seemed to translate to less loneliness and more social satisfaction where the social interaction with young-old adults allowed for interaction that may not have been possible as a result of decreased mobility. The influence of younger family members seemed to translate to increased use.

Bell et al. (2013) considered the influence of confidence in technology. Non-users seemed to have less confidence in the use of technology than users did. The findings were unclear as to the use of Facebook influencing confidence in technology overall, but the outcomes demonstrated that older users of Facebook had more confidence in their technology use. This research focused on the benefit of SNS use for older adults translating to continued interaction that can become less frequent with age. Bell et al.'s (2013) study highlighted the problem of most SNSs being tailored for specific audiences, and provided insight into the older users' behavior and needs.

Sundar et al. (2011) studied retirees using Facebook, and the influence the SNS use had on their health and overall psychological wellness. The study found that Facebook was the only SNS used by surveyed retired users over 55. Of these users, the desire to stay connected with grandchildren, on the recommendation of a son or daughter, was a significant motivator for use. The study showed that most of the users surveyed had a very small social network, a median of 15 friends. In addition, their use varied from daily to logging in a few times a month.

Sundar et al. (2011) provided a snapshot of Facebook use by those over 55. While the study did not have any implications regarding quality of life for elderly users, this could be correlated with the small number of friends in the user's social network. Sundar et al. (2011) also suggested that further studies could provide insight into the aspects of SNS communication that could appeal to the older user.

Women and technology. The behavioral differences between men and women have been studied for many decades, so the discovery that there is a significant dissimilarity in the motivations for using online media, as well as disparity in content contribution patterns (Gefen & Ridings, 2005), is not unexpected. Findings from Gefen and Ridings' study showed that while men contributed to an online community to establish an elevated social standing, women contributed to establish feelings of compassion and empathy, and encourage meaningful rapport.

These findings led to further research by Rosson et al. (2009), where findings demonstrated that women in technology fields, such as SET, were of significant value in outreach activities where leveraging social relations and social networking software enabled the linkage of qualified female technology professionals to women considering

technology fields. The research demonstrated that the inherent desire of women to contribute to online communities to establish feelings of compassion and empathy easily translated into meaningful interaction with young women considering technology fields. This interaction also translated to a personally meaningful community of women professionals.

The Pew Research Center, "a nonpartisan fact tank that provides information on the issues, attitudes and trends shaping America and the world" (Madden & Zickuhr, 2011, p. 1), has found that 65% of adult Internet users are members of SNS and 69% of these new users were women. This statistic is a significant increase since 2005, when only 5% of adults used SNS (Madden & Zickuhr, 2011). These statistics introduced a compelling need to understand the deeper meaning behind the motivations for online community use, and how to leverage these motivations for more widespread application. SET women have likely been engaged with technology for many years, but their use of SNS as a means to connect with others has been limited until recently. Why this is occurring is unknown, but the fact that many SET women are beginning to engage in Facebook offered the reasoning for this study.

Dray et al. (2013) researched the gender diversity gap in technology fields and attempted to capture details on important issues such as mentoring, leadership, and career development in the Human Computer Interaction (HCI) field. To enable communications, a Facebook group for women in the HCI field was developed. As part of a larger effort to capture women's experience in the HCI field, the researchers hoped to develop a framework for career development and support networks for women in, or considering a career in HCI.

The outcome of interviews from Dray et al.'s (2013) study demonstrated women's desire to be creative and to develop for the greater good and influence the lives of others. The interviews also demonstrated that women in the HCI field desired a greater support group for encouragement, and highlighted the value of mentorship in choosing the HCI field. Mentorship seemed to be a significant factor in choosing and staying in the HCI field, as well as overcoming hardships related to work-life balance.

Women in the field of HCI are a subset of women in STEM, also referred to as SET. Growth of the HCI field through mentorship or greater understanding adds to the growth of SET. An interesting benefit of this research could be the increase in HCI women joining Facebook to participate in the conversation. This research had potential to provide benefit to this study by providing additional willing participants. However, limiting the sample in this research to only women involved in HCI would have hindered understanding of the women who possess significant wisdom and know-how in traditionally male-dominated technical fields.

Wang, Burke, and Kraut (2013) conducted quantitative research on language used in Facebook posts to capture gender differences in content production and topics. They captured linguistic data from Facebook and used latent Dirichlet allocation (LDA) to discover hidden topics and associated words (Blei, Ng, & Jordan, 2003). Blei et al. first presented the model to enable a set of observations to explain similarities in a data set. Experts in SNS content provided labels for the dictionaries, and categorized the language content into dictionaries that aligned with topic.

Wang et al.'s (2013) findings demonstrated that women posted more about personal details and men posted more about world events or sports. The disparity of comments and

entries was not as significant in teenagers, and one explanation for this is the shared experience in the same life stage having an impact on discussed topics. An interesting finding was that women who posted about topics related to male dominated topics seem to get many more comments. Wang et al. believed this was a show of support for contributions to out-of-gender discussions.

The researchers stated that use of the LDA instrument may have resulted in not capturing topics with more fidelity, and suggested the need to extend the research using a qualitative method for human interpretation of topics. Their research suggested that the correlation between topic and feedback indicated that interface design might be improved where users can be assisted in content construction to improve satisfaction and content contribution in SNS (Wang et al., 2013). This research hoped to capture more user feedback related to female use of the SNS Facebook.

Features

ZoneTag was another focus of Ames and Naaman (2007) and it is a mobile phone application for photo upload and tagging that feeds into the Flickr site. Findings demonstrated some variances in tag usage, and the user approach to tagging depended on preference. However, the motivations for tagging remained the same. User tagging motivations were further categorized by intended audience for the tagging such as "self," "family & friends," or "general public."

Ames and Naaman (2007) recommended that developers consider that annotations should not be required to keep from alienating users who tended to tag immediately when they uploaded image content. They also provided suggestions for pervasive and multi-functional tagging mechanisms that allowed for easy annotation as the image is captured

on the mobile device because this increased tagging activity. Developers were also cautioned from making tags that are too structured. The study suggested that users want ideas, but developers should avoid creating confusing or possibly misunderstood tags.

Nov and Ye (2010) found consistent findings of the supporting previous research by Lee (2006) and Ames and Naaman (2007) that described and related a user's perception of social presence to tagging in CMC. Findings from these studies are consistent with other research on tagging and demonstrated the need for additional data to support the design of content sharing systems.

Ames and Naaman (2007) determined that most of the participants' motivations to tag were tied to organizing images for the "general public" and tagging for "self" organization or social communications. In an SNS such as Facebook, where the majority of photos are tied to another member's profile, the organization of photos may be tied to both social and organizational motives.

Arguello et al. (2006) researched the aspects of successful individual-group interaction in online communities, and discovered various aspects that affected a user's willingness to remain an active member. They specifically looked at group level factors such as group identity, cross-posting, group size, and volume, and individual level factors such as new user status. These factors were considered in the context of how committed users were to the online community. Their findings indicated that they could predict whether initial posters would return, and that it was tied to the poster's existing commitment to the group. Their data were obtained from eight newsgroups with a one-year timeframe. The metadata recovered and evaluated contained both structural data and post content, and this evaluation included a content and language analysis of the posts.

Interestingly, Arguello et al.'s (2006) research determined that the size of the social network, or social presence, had a significant impact on user participation, which may further account for the unexpected outcome of the lack of ability to predict new user behaviors with respect to tagging as demonstrated in Burke et al. (2009). Arguello et al. included four models in their study, namely context, rhetoric, complexity, and word choice, all related to the initial post of new users. Using these models, the authors found that an explanation for the lack of user predictability findings from Burke et al. (2009) might be a result of social presence of social network size.

Bennen et al. (2004) performed a study on the effects of two unique factors on user contribution to an online movie recommender community. The two unique factors were that the members were given reinforcement that their contributions to the community were unique and of value, and the members were given goals as challenges to encourage participation. Bennen et al.'s (2004) results demonstrated that user participation was positively influenced where the members were given reinforcement that their contributions were unique and valued. Where uniqueness and benefit goals were combined, the results did not indicate that benefit goals were a factor in a member's decision to contribute.

Brandtzaeg and Heim (2008) described the shortcomings of SNSs and the problems related to user satisfaction that may result in user abandonment. They explored the factors that indicated success or failure of an online community and why developers need to incorporate new technologies to ensure user participation remains interesting and dynamic. Motivations for user contribution were discussed with a significant focus on research that demonstrates that user visibility, feedback channels, and a large user

population are important to continued involvement. Some of the factors that may result in failure of online communities are low-quality content, lack of interesting people or friends, low usability, harassment, or bullying.

Berkovsky, Freyne, and Smith (2012) used the number of clicks on a site to determine the user's interest in content. The captured navigation statistics were then used to determine how the user's contribution patterns to forums and blogs were influenced by their interest in news feeds tailored by the personalized algorithm. Their findings suggested that the personalized content increased the user's contribution to blogs and forums when compared to those without personalized information feeds (Berkovsky et al.).

Berkovsky et al. (2012) captured important aspects of user contribution patterns, and demonstrated the value of personalized content presentation in motivating further content generation. The findings demonstrated the need for personalization to control information overload.

STEM Learning

Due to the need for a strong work force of college-educated STEM majors, there is some focus on addressing the depleting supply of workforce. Many students leave STEM majors, the underrepresent group, and low-income students in particular (National Center for Education Statistics [NCES], 2014). Seymour and Hewitt (1997), based on interviews, found that students switch out of science courses mainly because of poor quality of teaching, specifically the dullness of presentations and coldness of the classroom environment.

In the study done by Gibson and Grasso (2009), a platform was founded, which was that using online games for recruitment and retention of students in underrepresented populations in STEM was extremely effective. When students engage in games that educate as well as entertain at the same time, there is also some learning that happens while playing. This is seen in the study done by McFarlane, Sparrowhawk, and Heald (2002) in elementary schools. The study showed that engaging in these games also engaged the students in deductive reasoning, collaborative problem-solving, cooperative learning, and peer-tutoring. It was also noted that the teachers of these students noticed benefits from playing games like developing students' communicative, collaborative, and strategic-planning skills. Becta (2011) attributed the effectivity of this approach to promoting learning through a less traditional way. There was a combination of high interactivity and the appeal of these games. Aside from this, there were evidences that student motivation and collaboration were high.

Owston, Wideman, Ronda, and Brown (2009) looked into making use of computer game development as a means of engaging students in curriculum-related literacy activities. The findings showed that game development can be used as an approach to capture the interest of students on curriculums topic that are particularly motivating. It could also promote improvements in the literacy skills of students as competed to traditional teaching methods. However, it was also recommended in the study to only make use of this approach for certain topics that are more difficult to engage with the students.

HALO (Highly Addictive, Socially Optimized)

Sheth, Bell, and Kaiser (2011) discussed how many players see the game setting, when combined with the quest narrative and leveling reward structure, as very motivational and even addictive. This has attracted attention with the increasing popularity of social and collaborative games in social networking sites. With these kinds of games, players collaborate with each other and they work towards a common goal. In this kind of setting, the common goal keeps the players more interested. There has been recent attention on the addictive possibilities of playing games online. In studies done by Charlton and Danforth (2005) as well as Seok and DaCosta (2012), the difference between addiction and high engagement was the prevalent topic. The results of the study of Charlton and Danforth (2005) showed that indicators of addiction to online gaming and indicators of high engagement have a significant distinction.

Newcomer Factors

Burke et al. (2009) performed research on predicting newcomer contribution patterns based on behaviors of the new users' friend network and their initial behaviors. The study focused primarily on content contribution surrounding photo artifacts and described interactions through four abstract elements, namely the people involved, the content, the feedback new users receive based on the contributed content, and the distribution of the contributed content. The four independent variables for motivating user contribution in social media were identified as learning, singling out, feedback, and distribution. Learning, more specifically social-learning, is the influence of new users' behavior based on the activities and content contribution of their friends. Singling out, or tagging, is described as a new user who is tagged by others will contribute more. Burke et al. (2009)

evaluated the impact of learning, singling out, feedback, and distribution on new user contribution and content sharing quantitatively to determine whether future new user contribution patterns could be predicted. The aspect of a new user being singled out from the group and identified through a tag on a photo artifact was of interest, and whether this activity positively correlated to the ability to predict a new user's engagement in the site.

Burke et al.'s (2009) findings showed that new user contribution behaviors could be predicted in all but the singling out, or tagging, category. However, the aspects of the user profile that would be associated with the perceived presence of others, the number of friends in the social network, was used as a control measure to eliminate those who were more inclined to share due to their personality type. It is unknown if the exclusion of this aspect resulted in the unexpected results associated with tagging in terms of the inability to predict new user behaviors with respect to tagging.

Similar to the findings of Burke et al. (2009), Ranieri, Manca, and Fini (2012) also investigated how the level of interaction of newcomers with old-timers in social networking sites (SNS) affected the former's ability to learn, participate, and contribute information or content to the community. The interaction between the two parties facilitates this learning process, where the mastery and skill of old-timers is transferred onto the newcomers. The ability of the latter to effectively navigate the features of the SNS and contribute their own expertise or skills leads to a higher likelihood of committing to the community. This is manifested through membership persistence as well as frequent content contribution.

Zhu, Zhang, He, Kraut, and Kittur (2013) researched the impact of peer feedback on contribution in Wikipedia, an SNS for capturing knowledge. Their field experiment

focused on newcomers and experienced users and the contribution patterns that result

from each type of feedback selected. The four different types of peer feedback

characterized included positive, negative, directive, and social, and the outcomes

demonstrated that feedback plays a significant role in continued, frequent knowledge

contribution.

The results from this research demonstrated that the effects of feedback were only

significant for newcomers. In this instance, they found that newcomers were more likely

to not contribute if they had been given negative feedback. They found that experienced

users might avoid negative feedback, and even abandon the entire project to protect their

belief in their abilities (Zhu et al., 2013).

Morgan, Bouterse, Stierch, and Walls (2013) investigated the new user experience in

Wikipedia, an SNS focused on knowledge capture and presentation. This research

presented a pilot project for new Wikipedia editors called Teahouse, and preliminary

findings related to use. Wikipedia's decline of active editors resulted in the need to

support new growth. Newcomer rejection was identified as a significant problem, and

Teahouse was developed in an effort to lessen the scrutiny of posts, as well as increase

the retention of editors outside traditional demographics (Morgan et al., 2013). The

demographics of most Wikipedia editors are "30 year old, male, computer-savvy, and

lives in the U.S. or Europe" (Morgan et al., 2013, p. 840).

The Teahouse pilot provided a place for new editors to introduce themselves, ask

questions, and meet other supportive and friendly users called hosts (Morgan et al.,

2013). The findings demonstrated that many new editors participating in Teahouse were

women, and emphasized the need to have a higher number of female hosts to interact

with new female editors. This finding was demonstrated by the latency between generation of questions and the response, and the intent was to improve the peer support model to address the interactive needs of female editors.

The findings of Morgan et al. (2013) highlighted the value of new user socialization in SNS. While this research focused directly on Wikipedia, the concept would benefit users of Facebook as well by allowing new users to ask more experienced members questions about appropriate behavior and use of various features. The new user may be intimidated by the magnitude of the site, and confused by features and contribution. This principal would benefit by increasing the confidence of the new user, allowing for outreach in a friendly setting. The findings demonstrated the value of a friendly host to ease new users into the community, and use of a similar implementation for Facebook could influence SNS design to better meet the needs of new users (Morgan et al., 2013).

User Motivations

Use versus non-use. Lampe, Vitak, and Ellison (2013) researched the user's decision to become members of Facebook. They characterized users as non-users, light users, and heavy users, and used binary logistic regression to determine individual characteristics of each type of user. They found that age limitations, perceptions of the usefulness of Facebook, and general social capital bonding were strongly correlated with an individual's decision to use Facebook. Younger users were found to be more common, but the average age and gender of respondents to the survey were women aged 45.

The study revealed that the overall theme for non-users was the lack of perceived benefits related to Facebook use, and the perceived costs of use outweighed the benefits.

These costs included less one-on-one time with family and friends, the concern of separation between personal and professional identity, and a loss of privacy.

Spiliotopoulos and Oakley (2013) used a uses and gratification (U&G) approach to looking at motivations for Facebook use. Eleven usage metrics and eight personal network metrics were used to predict motives and behaviors. The Facebook application programming interface (API) allowed access to the participants' usage metrics, and additional access was given to the users' social network lists.

Spiliotopoulos and Oakley (2013) identified seven U&G that pertain to Facebook users. These seven U&G were social connection, shared identities, photos, content, social investigation, social network surfing, and newsfeed. The findings demonstrated that female users were associated with the social connection motive where reconnecting with old friends was a significant factor. Older users were motivated by shared identities or to find others with like interests and viewpoints.

Baumer et al. (2013) examined aspects of Facebook non-use to identify reasons why users leave the service or limit use. This qualitative study involved a survey instrument to capture stories of non-users to capture the experience of deleting or deactivating their Facebook accounts. Those users who still had an account were asked to describe a time when they were tempted to delete or deactivate their account.

The intention behind Baumer et al.'s (2013) study was to uncover the hidden implications behind quitting Facebook from a social and psychological well-being perspective. They also provided a unique picture of the non-use of Facebook. Of significance is that the median age of the respondents was 33, and over half were female. In addition to age and gender, the study captured the technology background of the user

based on self-reported experience level. The user motivations for use of Facebook included social connection, shared identities or interests, photo sharing, social lurking, and the ability to connect with a significant number of friends in one location. Some respondents cited a specific instance where social or professional colleagues encouraged joining for continued interaction (Baumer et al., 2013).

Of those respondents who quit, a very small percentage of users fully left the SNS (Baumer et al., 2013). Often, the respondents claimed to limit use vice quitting entirely, citing lack of productivity as the reason. One respondent included detail about having their spouse change their Facebook password and limit use to only when the spouse logged in for them. The respondents additionally described the complexities of staying in touch with others without the use of Facebook, and the challenges made them rejoin (Baumer et al., 2013). Reasons for non-use including privacy concerns were data use and misuse by the company Facebook and perceived lack of controls. This research sought to fill a gap that allowed for understanding of the complex reasoning resulting in limited or non-use of Facebook, but further demonstrated the demographic importance of gender, age, and technology adaptation as pertinent to understanding the Facebook user community.

Content contribution. Kustaniwitch and Shneiderman (2005) studied the methods for presenting and organizing photo libraries, and detailed the need to improve usability and effective annotation of digital photo libraries. They demonstrated that tagging could be used more effectively to annotate the image more than once in a single region. The tagged photos can be further organized in a way that makes them easily retrieved. The

findings of this study are relevant to this study because they demonstrated how understanding user motivations could propel innovation in interface design.

Lampe and Johnston (2005) studied the effects of feedback in new users to the online community Slashdot, which is a news and discussion forum. The purpose of the site is to enable users to make comments and give ratings based on other users' perceptions of posts. The research determined that first comment scores, the likelihood of posting a second comment, and the time to post a second comment were positively correlated, and that new users who were ignored during initial discussions were more likely to never return. Lampe and Johnston (2005) found that new user behavior is affected by previous experience, observation of other users' behavior, and feedback the users receive.

Lee (2006) performed a study involving the SNS Del.icio.us, which is a site that centers on helping users manage bookmarks and share and save artifacts. The purpose of this SNS is to allow users to access their personal bookmarks from any computer. In this environment, tags are essential because the site aggregates a member's bookmarks by tag. The content is available to anyone on the web, putting it in the SNS category. Artifact tagging is essential in this environment to organize and locate bookmarks, but it is also the most social aspect of the site.

The results of this study demonstrated that the size of a user's social network is a motivator in content tagging in Del.icio.us. The results supported the overarching hypothesis that users who utilized the social features of the SNS are more likely to tag. A user who subscribed to a network would tag more often than members who were not, demonstrating the community aspect of the SNS and more social properties.

Nov et al. (2008) studied the tagging behaviors of users in a photo artifact SNS called Flickr. They examined the motivations for tagging, and determined that the audience was the major factor for annotating. These audiences were delineated in groups "self," "family," and "public," and the intended uses for tags included communication and organization in context with the relevance of the photo artifact.

The results from a survey and system metadata were used to estimate the amount of contribution for users (Nov et al., 2008). In addition to these factors, Nov et al. (2008) considered social presence in the form of the number of "contacts" and "groups" to which the user subscribed. The tagging behavior questionnaires were sent to users who had at least five unique tags and users who had at least one public photo.

Nov et al. (2008) based their research on the qualitative study conducted by Ames and Naaman (2007); the 2008 study provided a mix of qualitative and quantitative results applicable to other CMC environments. The results of Nov et al. (2008) and Nov and Ye (2010) indicated that social presence was the most significant motivator for tagging and that other factors are secondary to the primary motivation.

The quantitative study conducted by Nov and Ye (2010) demonstrated the importance of social presence in motivating users, to tag on the SNS Flickr, and extended the original research they conducted with Naaman in 2008. The results of the survey demonstrated that perceived social presence was a significant factor in tagging and that the social presence in SNS equated to "contacts." Other factors that influenced tagging behaviors included length of membership and the number of image artifacts uploaded by the user.

Nov et al. (2010) built on previous research on the SNS Flickr and the motivation behind user participation. Their specific interest was the motivation in relation to tenure

in the community and how it had a moderating effect on participation over time. They researched the factors related to this using survey and system data, and examined four unique types of participation and how tenure effects the contribution. The factors motivating user participation were enjoyment, commitment to the community, self-development, reputation building, and tenure in the community, and were further categorized as either intrinsic or extrinsic. The intrinsic motivation factor for self was defined as enjoyment, and for others was considered commitment. The extrinsic motivations for contribution included self-development and the user's reputation with others.

Nov et al.'s (2010) analysis of the impact of tenure demonstrated that the "level of information-artifact sharing decreases among users who have longer tenure in the community, but that other forms of community participation increase with the user's tenure in the community" (p. 562). The other forms of community participation were defined as the more social aspect of participation instead of photo upload, which included building relationships and providing feedback. The authors suggested the need for more research on the relationship between the level of commitment of the user in relationship to tenure (or how long they have been in the online community) and how this relates to the number of relationships or "contacts" in the user's profile (Nov et al., 2010). Further examination of these elements in this research enabled better understanding of the impact these factors have on new users to Facebook.

Kim and Rieh (2011) studied user perception of the use and value of tags in SNS. This study looked at multiple SNS implementations, and uncovered user uncertainty and confusion regarding the origination of tags. The three main questions asked of

respondents were related to the use of tags, and aspects related to their origination, the definition of a tag, and the purpose of a tag.

Kim and Rieh's (2011) findings demonstrated that there is a general lack of understanding and trust in the tagging feature. Some of this misunderstanding resulted from perceived generation of all tags to take users to unwanted content, and this opinion was generally held by all respondents, even those who used tags regularly. In most cases, the use of tags, and the trust of the tagging feature, differed significantly from one SNS to another. The findings demonstrated the need to capture more detail relevant to specific SNS feature use, and the need to understand the user's perceptions on using various features.

Chapter 3

Methodology

Introduction

A phenomenological study focuses on the journey of participants who have

experienced the phenomenon, and attempts to develop a composite description of the

essence of the journey for all of the individuals relating to "what" they experienced and

"how" they experienced it (Moustakas, 1994). These studies, using a qualitative

methodology and IPA approach, specifically focus on the lived experiences of the

participants with the goal of suspending all judgments to search for the philosophical

meaning of the individual's experience (Creswell, 2013).

Aim

The aim of this study was to closely examine the user journey of SET women 40 years

and older who are newcomers to Facebook. While other qualitative approaches focus on

different aspects of the human experience, IPA examines the lived experience as a means

of understanding motivations in a way that is more meaningful than through quantitative

inquiry. The significance lies in the notion that Facebook, through its design features and

functionality, is an enabler of social interaction and, as a communication tool, may

facilitate perceptions about the lived experiences in online communities. IPA studies

uncover what the experience is like for the person, and the sense that the individual

makes of what happens to them in these experiences. The intent is to reveal the personal

experience of the participants, in their own words, as it relates to their online social

networking experiences (Smith et al., 2009). As such, the following open-ended research questions were formulated to capture the lived experiences of the respondents.

RQ1. How do SET women who are newcomers to social networking sites like Facebook experience Facebook?

RQ2. How do SET women experience the journey of interaction using Facebook as a medium?

RQ3. What aspects of Facebook have been most influential in the journey of interaction using Facebook?

Data Generation

Site. The use of Skype allowed the participants to be at home in a relaxed, comfortable, and natural setting (Creswell, 2009), but it also allowed for flexibility in avoiding schedule conflicts and unnecessary travel. The nature of the software also allowed the researcher to observe non-verbal cues from the interviewee (such as body language, facial reactions, and changes in tone), which added insight to their responses and are essential in interpreting the data (Irvine, 2011). The researcher performed the interviews from a home office free from interruption. The participants elected the time of the interview to ensure uninterrupted interview timing.

The SET women were allowed to use Facebook generated content on the site to refresh their memory during the interview, and to allow for exploration in a way that demonstrate the deeper layers of motivations for specific feature use as is necessary for rich data capture needed for an IPA study (Moustakas, 1994). The women were interviewed using Skype, and the screen sharing option in the Skype application was used to allow for demonstration of use.

Participant Selection

Identifying a user group: Women in the SET industry as Facebook newcomers.
Recruitment for the study required attendance at several technology conferences. The researcher discovered the phenomenon of being SET women over 40 who are new users to Facebook (i.e., less than two years of membership) during a technology conference, and the venue offered many opportunities for casual conversation and recruitment. Finding the participants involved preliminary, informal interviews with this convenience sample. These information gathering interviews also served to identify additional participants by recommendation (Smith et al., 2009).

Sample selection was additionally done through snowball sampling. This involved requesting the first batch of participants to refer or recruit more respondents. Snowball sampling is frequently employed when saturation is not reached during the first round of interviews, and when the researcher cannot find respondents who possess the same inclusion criteria on their own (Sadler, Lee, Lim, & Fullerton, 2010). One of the key advantages of employing this method is that the researcher can gather a particular sample group, which may prove more difficult without sufficient connections or networks (Goodman, 2011). Respondents who were recruited through initial participants were willing to contribute, because someone they know had already done the same. The recommendation served as a sign to new participants that the researcher is trustworthy or responsible (Sadler et al., 2010).

The sample size in an IPA study is often defined through the data collection by the quality and/or richness of the data collected (Smith et al., 2009). Smith et al. suggested a

sample size between three and six participants, and stated that the researcher should be careful not to consider larger numbers as more indicative of "better" work in IPA studies.

This study included the selection of five participants. Additional participants were selected through referral due to several participants opting out after initially agreeing to participate. Although the use of additional participants was considered, the data suggested that exploration of the topic was covered sufficiently by the initial sample group that enabled full understanding and exploration of the relationship between lived experiences and the phenomenon's occurrence (Smith et al., 2009). Exploration of the topic was deemed sufficient when repetition and redundancy occurred during subsequent interviews, indicating saturation had occurred, meaning no new information was being gained from the interviews (Munhall & Chenail, 2008).

SET focus. Research has demonstrated the need for more social support for young women considering traditionally male-dominated careers (Rosson, Carroll, & Sinha, 2011). The female voice in online social media can facilitate a mentorship of young women considering technology-related fields, and provide a necessary social and knowledge support group to facilitate their retention (Rosson et al., 2011). SET women are of particular interest when trying to broaden the diversity and knowledge sharing in technology fields because they speak in a language that will resonate with women making career choices (Rosson et al., 2011).

According to Hewlett (2008), 52% of women in the SET industry quit their jobs in their mid-to-late 30s, citing social isolation as the primary reason. Longevity is clearly an issue for women in technical fields. Sustained success makes SET women the role models for other women in technology fields, and online communications extend the

reach of their influence. Interviews with SET women over 40 who are new users of Facebook provided unique insight into motivations for use that could facilitate extension of these same attributes to other platforms and mediums.

New user focus. Burke et al. (2009) and Lampe and Johnston (2005) explored new user groups as a sample, but the timelines varied in both cases, indicating a difference in the adaptation period for each. The foundation allows for further exploration of new users, but enables the sample to be users with less than two years' of membership and a unique opportunity to gain additional insight. While the researcher was evaluating possible research topics, the phenomenon of new users to Facebook being SET women aged 40 and over emerged. This further solidified the need for this research, the methodology, and the approach.

Introduction to Interpretative Phenomenological Analysis (IPA)

Rationale for choosing qualitative research and IPA. The IPA approach provides an instrument to reflect on the significance of perceived lived experience and emotional response and allows the researcher to engage with the participants' reflections (Smith et al., 2009). Women's motivations for participating in virtual communities have been found to be more emotional in nature (Gefen & Ridings, 2005), necessitating the use of an instrument intended for capture of emotional context. Close examination of how the interviewee interprets lived experiences shared through the Facebook medium allows the research to render a more complex, enriched understanding of the issue (Creswell, 2013). Marshall and Rossman (2011) further described the IPA approach as a means to capture the essence of an experience, and examine it through the eyes of the individual living the experience.

Philosophical presuppositions of phenomenology are categorized by Stewart and Mickunas (1990) into three broad categories and rest on some common foundations, namely the study of lived experiences of the persons, the view that these experiences are conscious ones (van Manen, 1990), and the development of descriptions of the essence of these experiences, not explanations or analysis (Moustakas, 1994). Phenomenological inquiry is appropriate to address meanings and perspectives of the participants experiencing the phenomenon.

The phenomenological approach is derived from the German philosophy of phenomenology, and usually involves several long, in-depth interviews with those who have experienced the phenomenon being studied (Marshall & Rossman, 2011). Analysis is then performed based on the assumption that there is an essence to the journey that is shared with others who have also experienced the phenomenon. The essence is then identified based on the comparison of the unique expressions of the participants (Marshall & Rossman, 2011).

General Steps for Data Collection

Semi-structured interviews. IPA data collection is most effective when it invites participants to offer a rich, detailed, first-person account of their experiences (Smith et al., 2009). The study included conversational dialog, guided by the semi-structured interview schedules, to facilitate the sharing of experiences, thoughts, and feelings. The dialogue resonated with an intimate focus on each individual participant's experiences to provide optimal "rich" data for analysis. To ensure extensive data collection, the research provided the participants with the opportunity to share their experiences, and to elaborate

on their experiences in a way that captured the essence of their user journey (Smith et al., 2009).

Where needed, the participants were encouraged and guided towards fuller, deeper disclosure where detailed recollections, thoughts, and feelings could be communicated from the viewpoint of the participant. Intimate conversations have proven to be the most effective means for collecting such data (Reid, Flowers, & Larkin, 2005). Comfortable, unhurried rapport is necessary for the best data collection and subsequent analysis.

The researcher demonstrated a commitment to understanding the participants' perspectives with empathy and compassion. The participants were encouraged to do the majority of the talking on topics relevant to the phenomenon, where the discussion allowed for the research question to be answered via analysis. To guide the conversation, specific questions were formulated to allow the researcher to set a flexible agenda of the topics to be covered. The novice IPA researcher benefits from having a flexible schedule to identify potential sensitive issues, frame questions in an open-ended format, and to further allow the interviewer to focus entirely on the participant and their stories and not on the next question (Smith et al., 2009). In this manner, the researcher engaged deeply with the participant and their journey to ensure the data collected is rich enough for analysis (Smith et al., 2009).

The researcher allowed sufficient time during interviews for topics to arise from the questions even if they were not on the schedule, as long as they had relevance to the research questions. This determination erred on the side of the participant's view of relevance and not the researcher's because the participant is the experienced expert on the topic at hand (Smith et al., 2009). Smith et al. (2009) stated that unexpected turns often

are the most valuable input to IPA interviews, so allowing for significant deviation ensures thorough coverage of the relevant personal perspective. However, the semi-structured interview style was necessary because it prepared for the more reserved participants who needed additional cues to warm to the subject (Smith et al., 2009).

The conversations with each participant were flexible enough to allow ideas to change or develop, and the content would have been allowed to change after an interview if a previously unknown aspect of the phenomenon was brought to light during the interviews (Smith et al., 2009). Some additional conversations were necessary because the semi-structured interview schedule captured some nuances of Facebook use that required further exploration. Revisiting and expanding conversations expanded understanding, and full coverage of revelations was possible (Smith et al., 2009). Each participant was made aware that the objective was to better understand their viewpoints and experiences, and that there were no right or wrong answers.

The interviewer made clear to the participants that there was a time limit of one hour, with some flexibility to ensure thorough coverage of each topic. Time was allowed to answer each question or topic in depth. To achieve this goal, the researcher actively listened to fully engage with the participant and their dialogue (Munhall & Chenail, 2008). Reflection on the interview and the data and interpretation of the data was conducted after each interview. Pre-established prompts in the schedule were used to encourage uncertain or restrained participants while still maintaining an unbiased perspective.

The digital recording of each interview enabled several steps of the suggested data analysis process, and required the consent of the participants. The recordings were then

transcribed to a written format by Rev.com. The transcriptions were reviewed multiple times to ensure accurate recollection of the interview and to code recurring themes and statements that highlighted patterns within the interview responses. A listing of preliminary groupings was created where each quote relevant to the experience was documented.

The researcher took notes, or memos, for perspectives that were revisited when the participant finished their current thought. The interviewer remained focused on the current recollection. The capture of key words helped in expanding views of the discussion (Smith et al., 2009), but kept the researcher focused on the participant's current recollection. This helped the researcher resist the urge to interpret the collected data during the interview, or interrupt the participant when a term was used that could take the discussion to another topic prematurely.

Subsequent conversations allowed the participant to expand on what was said and transcribed, but this step proved necessary as the data collected on the initial interviews demonstrated a previously undocumented motivating feature to be explored. The interviews included rich detail and commentary, but in three interviews the researcher found the need to examine the use of games in Facebook as a motivator. The second interview was optional, but provided an opportunity to explore an area not previously identified in the literature review. Participants were willing to explore this area and the second interviews significantly added to the richness of the collected data.

This study deviated slightly from a path that was deemed necessary as review of the interview transcriptions highlighted a significant finding. This is common of IPA studies

because the data may result in a review of the research prompts as the interviews are conducted (Smith et al., 2009).

Interview schedule. The interview schedule is intended to broadly guide the interview without limiting the participant's responses to specific areas. Prompts were intended to further encourage the participants to elaborate on areas that could provide enriched detail for analysis. There was an assumption made based on previous research that interest in technology and technology-related topics will permeate social interaction for these SET women. Although this was not entirely accurate, including too much focus on the participant's profession likely would have resulted in leading questions. The researcher followed the natural course of the conversation to identify opportunities for elaboration on this area.

1. Describe your experience as a new user to Facebook.

   Prompts: How did you feel? Who was involved? What happened? What features were used? Where were you?

2. What features do you most like or dislike about Facebook?

   Prompts: Would you elaborate on that? Could you say more about that? Whom do you interact with? What features do you use? Why do you use them?

3. How have you used Facebook to interact with others who have common interests such as hobbies, profession, or background?

   Prompts: How does it make you feel? Who was involved? What happened? What features were used? How did that come to happen?

4. How do you believe use of Facebook has enabled you to interact with others who have similar interests or professions?

    Prompts: How does it make you feel? Who was involved? What features were used?

5. What Facebook features do you feel were most difficult or easy to use as a new user?

    Prompts: I'm beginning to get the picture, but more examples would be helpful. Could you provide more detail?

6. What Facebook features such as tagging, photo upload, or other content contribution compel you to contribute?

    Prompts: Can you remember any specific examples? Would you elaborate on that?

7. What content contribution such as tagging, photo upload, or other content contribution from others compels you to contribute?

    Prompts: What features did you use to respond? How did you feel about the interaction? Where were you?

Reflexive bracketing and journaling. The researcher was aware throughout the interview process of any preconceived ideas that would need reflexive bracketing (Moustakas, 1994). Bracketing is the setting aside of personal opinions or viewpoints in an effort to fully understand and listen to someone else's viewpoint as an active listener to better understand a phenomena and to best study the experiences of the participants (Creswell, 2013). By bracketing, the researcher is able to fully engage with the subject, to capture the true nature of their reality (Creswell, 2013). In IPA research, the questions

must be put aside to consider only the information provided by the interviewee. The interviewees are the experts on the phenomenon because they are experiencing it, and the interview is to discover the true essence of the experience from the participants' perspective (Smith et al., 2009).

By reviewing the data from the interviews while bracketing out personal opinions, the collected data may identify unexpected outcomes and understanding of the participant's journey. The researcher paid strict attention to the responses of the participant and deferred to their expert opinion on the phenomenon to further eliminate personal bias (Smith et al., 2009). Due to the nature of IPA research, the discussion may transform to capture the true essence of the phenomenon. The researcher was cognizant of the participant's need to be understood, and followed the discussion where it led to capture the value of the user experience (Smith et al., 2009). In addition, the researcher bracketed out any known details regarding the participants to focus entirely on the communication of the felt experiences.

A personal observation that was bracketed is the perceived tie between the non-traditional role of women in technical fields and the lack of close personal relationships resulting from emphasis on career and professional advancement. If not bracketed, this observation could have inhibited capture of the true essence of the phenomenon, and how the user journey was experienced as it relates to the information system.

A research journal was kept to capture the details of the research process and the researcher's personal reflection on the study (Chenail, 2011). The research journal included details regarding the flow of the interviews and thoughts on the process of the IPA study, and reflection on the phenomenon. The journal also included insights or

additional detail regarding decisions that are made throughout the study to allow for review for "effectiveness and coherence" (Chenail, 2011, p. 1722). This researcher's journal was captured using Microsoft Word to capture reflections, discoveries, and decisions related to the study.

Data Organization, Analysis, and Representation

This research used the data organization, analysis, and representation framework presented by Creswell (2013). Transcription involved protecting participants' identities by de-identifying participants with assigned pseudonyms of Pilot Participant and Participants 1 through 5. Names and other details that could identify the participants were specifically avoided to protect the participants' privacy. The prepared transcriptions were annotated with the researcher's written field notes made throughout the interview. The written field note annotations were delineated in the margins using brackets to separate the field notes from the interview transcription. The transcriptions, with field note annotations, were provided to the participants for review. Their comments and feedback would have been annotated in the transcription using red type and the corrected text deleted as desired by the participant, if necessary. Data organization, reading and memoing, describing the data in codes and themes, interpreting the data, and visually representing the data were the steps involved in data analysis and representation. Each of these terms are discussed individually, and are significant to data analysis in qualitative IPA inquiry.

To prepare for the significant task of data analysis, the researcher created and organized files for collected data in the form of electronic folders in NVivo software on a password-protected computer and in a locked file cabinet for written notes and coding.

This ensured the positive control and protection of personal information of utmost importance to the confidentiality of the participants (Smith et al., 2009).

Immersion

After files were created and data organized, the researcher immersed herself in the original data, read the transcription, made margin notes, and formed initial codes to characterize various aspects of the transcriptions that stood out as relevant (Creswell, 2013). While reading the transcripts, the researcher also listened to the interviews to slow down and make sure the participant was the focus of the analysis (Smith et al., 2009). This allowed the researcher to consider the participant's tone when describing various events as related to her use of various Facebook features. The researcher then re-read the transcripts and notes were used to document non-verbal cues that indicated emotional response when recalling specific memories. In addition, notes were used to identify recurring phrases and ideas, stated emotions, or descriptions of life experiences that may have motivated participation.

Initial coding

Initial coding is an activity designed to reduce data to better understand the context of the interview, and allowed the researcher to catalogue the participant's experience and perspective into themes (Roulston, 2010). Margin annotations were made in transcripts, documents, and memos to identify some topics or themes that were tied to the research questions in a way that enabled better understanding (Roulston, 2010). These initial codes were considered after each interview, while the researcher listened closely to the interview recording, to verify their applicability to the data overall. This assisted in identifying the repeated use of descriptive wording, use of the same common language

linking conceptual meanings, thereby shifting to a more abstract analysis of the data (Smith et al., 2009). This assisted in accurately capturing the participants' experiences in a way that highlighted their selection of words and phrases that were indicative of their feelings and repeated throughout the interview (Creswell, 2013).

Developing emergent themes

The transcription data were then classified into these codes and themes to develop significant statements, and to group the significant statements where possible (Creswell, 2013). This involved interpreting the data in a way that allowed for a textural description of the experience.   In looking for themes in individual interview data, the researcher worked to reduce the data volume without losing context of specific experiences provided by the participant. The challenge was to maintain interrelationship mapping, connections and patterns with coding that was descriptive yet concise (Smith et al., 2009).

Identifying connections across themes

The essence of the phenomenon began to emerge as the researcher viewed the data from various angles, resulting in minor evolution of the codes established initially (Creswell, 2013). This involved reorganizing the transcript data in a way that allowed the themes to follow a sequence familiar to the researcher (Smith et al., 2009). The next phase required charting the themes based on how the researcher determined they should fit together. The researcher used various methods to look at the data when looking for connections across themes. Abstraction was used to identify patterns where the use of various terms or phrases, although not precisely the same, resulted in the same experience for the participants. As a result, these patterns were identified, then confirmed by listening to that specific interview transcript entry to make sure the context was

appropriate in a process called subsumption. The data was viewed from the standpoint of opposing themes called polarization. This comparison allowed for some interesting discoveries where the participants had significantly different feelings. Contextualization is a means to identify key life events dispersed throughout the transcripts. (Smith et al., 2009).

Systemic case-by-case

Throughout the data analysis process, the established codes were collapsed and adjusted as the interviews were conducted and more relevant and useful codes emerged. These codes took the form of words and abbreviations to identify sub-clusters and relationships (Marshall & Rossman, 2011) within the individual interviews and transcripts. However, each case was considered independently after the initial interviews, and comparison and evaluation of responses across participants were specifically avoided until all the data was analyzed as an individual source.

Patterns across cases

Establishing initial codes assisted in further collapsing and analyzing follow-on interviews. These codes were not used to force interview details into a pre-established schema, but rather were used to ensure the context was clearly remembered by the researcher as interviews were conducted and transcripts were annotated (Roulston, 2010). As the coding schema was established and refined over the course of the study, abstract concepts emerged that enabled data characterization that developed into assertions about the phenomenon (Roulston, 2010). The researcher looked at each interview transcript as significant and independent, and subsequent reviews revealed no missed themes that needed further exploration.

Themes identified in each transcript were viewed on a large surface to see connections between participant's responses.

Finally, data presentation involved a description of the participants' experiences where common themes emerged. In addition, graphic representations from NVivo were used where a visual representation of the data enhanced clarity of the findings (Creswell, 2013). The final report includs figures, tables, and discussion to highlight the essence of the phenomenon where patterns emerged. When saturation occurred during the study, an in-depth discussion of the indications is included.

This final report shares the experiences and the verbal reports of the user journey, and is organized into themes based on the patterns that emerged. The commonalities and patterns identified in the interviews capture the essence of the phenomenon and focus closely on the emotional and "felt" lived experiences that motivate user participation (Polkinghorne, 1989). In using this approach, the researcher captured all the relevant patterns and detail pertaining to the essence of the phenomenon.

All data including notes and recordings were made available to the participants, and data and recordings will be destroyed three years after final approval of the dissertation report as per university guidelines.

Quality Control

Participants were given the opportunity to, at any time, review the transcripts from their interviews for validity and accurate representation of the interview, and were invited to comment on interviews and preliminary findings, a process known as member checking (Marshall & Rossman, 2011). The final report would have included any remarks or differences between the researchers' and the participants' views on the

findings (Lather & Smithies, 1997; Smith et al., 2009). The use of member checking in the study was an attempt to provide a solidification tool to add to the quality of the IPA study (Marshall & Rossman, 2011).

One participant was selected who met the criteria for participation, and the initial interview was used as a pilot to prescreen the questions and test the prompts. This pilot interview allowed the researcher to identify flaws in the interview schedule and refine the open-ended questions to eliminate potentially leading or limiting responses (Smith et al., 2009).

IRB Considerations and Human Subjects

A procedure was created for informed consent that was obtained in advance of the study based on the Office of Human Research Protections (OHRP) and the Nova Southeastern University Institutional Review Board (IRB). Extensive measures were employed to maintain the confidentiality of the research participants. Measures employed included the use of password protection for all media related to the research, and positive control of all associated materials. Ethical practices were employed at all phases of the research to ensure protection of personal rights. Ethical practices included ensuring that the relationship between the participant and the researcher was sympathetic and benign, and the use of pseudonyms in all written notes and recorded media eliminated concerns of unauthorized disclosure of participant identity (Smith et al., 2009).

Participants had continuous access to the recordings, transcripts, and reports, and the researcher further maintained the trust relationship by ensuring thoughtful and considerate recounting of emotional perspectives. The participants were given the opportunity to view the location of stored materials to ensure physical accountability. The

participants were offered the opportunity to be excluded from the research at every phase until the final report had been defended with the university.

The interview process included multiple opportunities for the participant to interject their desire for privacy and the researcher remained sensitive to the participants' concerns and would have made changes or deletions where necessary on the request of the interviewees. Although informed consent was achieved through the standard form as is required by the institution, the researcher reassured the participants as to the purpose and use of the study, and allowed multiple reviews of the research materials as desired to verify protection of their identities (Marshall & Rossman, 2011). After final analysis was performed and findings documented, all data will be destroyed after 5 years as required by the institution (Smith et al., 2009).

Figure 3.1. Research Processes Conducted Following IRB Approval (Flow Chart).
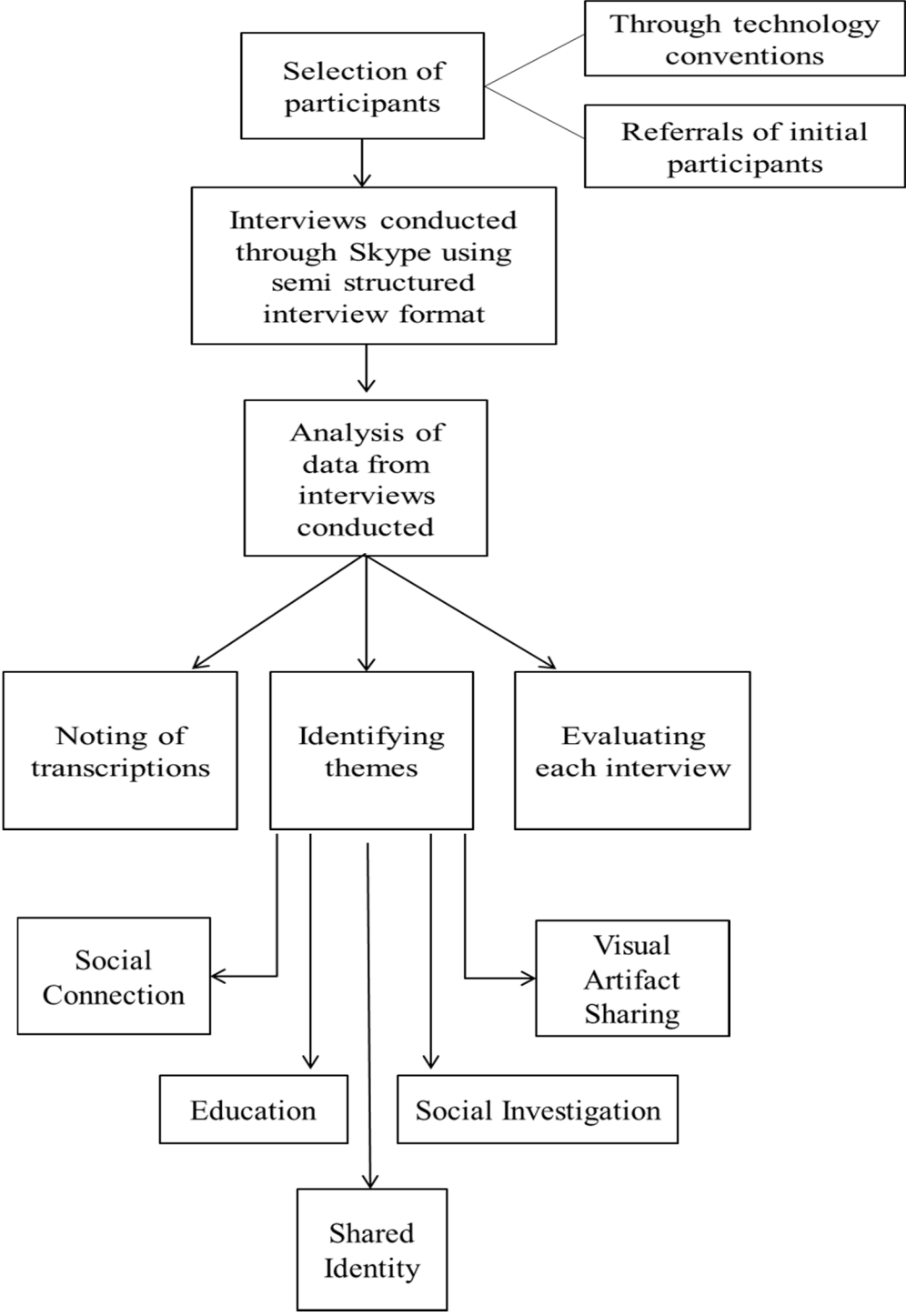
Resources

The following resources were needed for this study:

1. Access to SET women aged 40 and over who were new users in Facebook was necessary, and was achieved through personal acquaintances of the researcher and referrals.

2. Recording devices that captured the interviews upon the agreement of the participant.

3. Used the online recording medium freeconferencecall.com as a back-up recording.

4. Transcription services were provided by Rev.com.

5. Use of Skype for the interviews, and the screen sharing application available on Skype for interactive user demonstration.

6. The recordings and transcriptions are held in a personal locked desk not accessible to others, and the contents of the recordings and transcripts will be destroyed 5 years after the research is completed.

7. A computer word processing software and NVivo software with password protection were used.

This research included the milestones indicated below in sequential order. These estimates needed to be modified as the study progressed, as there were significant dependencies between the milestones:

1. Thorough literature review. (Completed)

2. Idea paper approval. (June 2013)

3. Committee formation. (Summer, 2013)

4. Dissertation proposal committee review. (Jan-Feb, 2014)

5. IRB approval. (Six weeks +)

6. Dissertation proposal approved by committee. (May, 2014)

7. Interviews. (Summer, 2014)

8. Prescreen interview data. (Summer, 2014)

9. Compile and analyze results. (Summer, 2014)

10. Document findings. (Summer, 2014)

11. Final dissertation report. (Winter, 2015)

12. Defense. (TBA, 2015)

Summary

The purpose of the study was to forge a common understanding of the journey of SET women over 40 who were new users to Facebook. This research provided insight into the factors that influence participation and contribution in SNS, and a better understanding of how to build computer-mediated communication interfaces and technologies with features that engage users emotionally and socially.

Research has looked at varying aspects of the motivations for membership and participation in SNS, as described previously. Social presence theory (Allport, 1968) has been identified through research as affecting the motivation for participating in social online networks (Nov & Ye, 2010). This study shed light on the fundamental intention behind users' motivations, and highlighted additional ways developers could enhance the user experience. The phenomenon experienced by the sample group may have larger implications to the conversation about interface design, and a better understanding of why these women are compelled to contribute to SNS warrants closer evaluation.

Chapter 4

Results

Introduction

The purpose of this study was to gain insight into the user journey of SET women 40 years and older who were newcomers to Facebook. The exploration of the lived experiences of these newcomers by means of a qualitative phenomenological study was performed to provide greater understanding of the lifeworld of these women as it relates to Facebook. Chapter 3 included a description of the study, including various aspects of IPA examination of the lived experience as a means of understanding motivations in a more meaningful way. The significance lies in the notion that Facebook, through its design features and functionality, is a communication tool that has the ability to engender perceptions about the lived experiences in online communities.

The research question of this study was the exploration of the central phenomenon pertaining to SET women, 40 years or older, who were newcomers to Facebook. The semi-structured interview schedule did not directly contain the research questions. Analysis of participant responses with respect to seven research discussion points were used to derive generalized themes related to the central phenomenon. The three research questions were:

RQ1. How do SET women who are newcomers to social networking sites like Facebook experience Facebook?

RQ2. How do SET women experience the journey of interaction using Facebook as a medium?

RQ3. What aspects of Facebook have been most influential in the journey of interaction using Facebook?

Pilot Interview Findings

Prior to conducting the study, one qualified participant was identified to participate in an initial semi-structured interview. The participant identified was of the same demographic required for the study who was of median experience and technical knowledge. The pilot participant was interviewed using the semi-structured interview framework established for the study. The pilot participant was asked to critique the semi-structured interview schedule, as well as the researcher's technique for the interview. Pilot discussions included the same semi-structured interview schedule intended for the follow-on participants.

Pilot participant. The pilot participant was a database engineer for a large customer support organization, in the 50-55 year age group, female, who was a new user to Facebook. The pilot participant was identified during the WITI technology summit in San Jose, California.

Pilot demographics. The demographics of the pilot participant followed the requirements for the study by age, gender, profession, and longevity with Facebook. The pilot participant was selected for her interest in the study and desire to share insights of the Facebook interface in addition to the required demographics.

Pilot impact on semi-structured interview schedule. The pilot interview demonstrated that the semi-structured interview schedule included enough prompts and details to encourage the participant to provide a detailed description of various features and motivations for use. The pilot interview was challenging due to the inexperience of

the researcher, but adjustments were made in follow-on interviews to improve the experience. In an attempt to improve the interview technique, the researcher read over several IPA dissertation transcripts to understand the flow of semi-structured interviews.

Additional detail on the pilot interview. The pilot interview was performed via Skype and was recorded on a digital recorder. The transcripts were provided by Rev.com. The returned transcription demonstrated some problems with clarity of the recording and voice quality, so the recorder was set to a higher resolution for subsequent interviews.

Chapter 4 presents the lived experiences of women over 40 who were newcomers to Facebook and in SET professions. A narrative capture of interviews is presented based on the flow of the responses from the general high level to very specific personal examples. This chapter provides thorough analysis of the data collection method, review of themes, and coding that lead to presentation of findings.

Data Analysis

Data analysis was based on the methodology presented by Smith et al. (2009). The method included the process of reading and re-reading interviews, initial noting of the transcriptions, identifying emergent themes, and evaluating each interview systematically for patterns. This process included identifying codes, and coding the data by nodes in Nvivo that were either single or multiple, annotating the data where necessary for clarity. This allowed for rendering visual reference to the data, and organization of the data nodes by themes. Consistent refinement of themes, nodes, and concepts enabled an exploratory narrative detailing the lived experiences of SET women over 40 who were newcomers to Facebook.

Demographic data. The participants interviewed for this study represented the group experiencing the phenomenon who came from various technical backgrounds including programmers, educators who teach technology, and engineers. Participants were identified from technical conferences focused on women, and the initial participants referred additional participants for the study. A total of 18 participants were identified, with 1 pilot participant and 5 participants interviewed. The participants were from disparate locations across the United States. Five participants opted-out of the study after interviews had been scheduled without providing a reason, and seven participants never responded to communications after agreeing to participate (see Table 4.1).

Table 4.1. Participant Recruitment

Sample method	Identified	Invitations	Declined	Accepted	Interviews Conducted
Convenience	7	7	1	5	3
Snowball	11	11	5	6	2
Total	18	18	6	12	5

The participant recruitment by sample method indicated that the participants were from various sources, and the researcher was able to identify the target group where a demographic breakdown (see Table 4.2) shows a range of professional, age, and longevity with Facebook. This study was conceived to examine the lived experiences of the sample group, and the diverse backgrounds, age range, and tenure with Facebook demonstrates diversity while still maintaining the focus of the study.

Table 4.2. Demographics Data Content

Person	Profession	Age Group	Facebook Tenure
Participant 1	Web Designer	40-50	1 year 2 months
Participant 2	Database Data Entry	51-60	9 months
Participant 3	Technology Educator	51-60	1 year 8 months
Participant 4	Database Design	51-60	1 year 9 months
Participant 5	Network Engineer	61-70	7 months
Average Facebook Tenure			1 year 3 months

Interviews

Semi-structured interviews were conducted with 5 participants using Skype videoconferencing technology, allowing two-way audio and video communication. Interviews spanned a length of time from 37-53 minutes (see Table 4.3). Analysis of the interview lengths indicated no specific correlation between the demographic groups and interview length. The longest interview involved Participant 3, who is a technology educator, possibly due to experience discussing technology with students in the classroom.

Table 4.3. Interview Length by Participant

Participant	Interview Length
Participant 1	45 minutes
Participant 2	37 minutes
Participant 3	53 minutes
Participant 4	42 minutes
Participant 5	40 minutes
Average	43.4 minutes

Transcription. Rev.com, an online transcription service, transcribed all interviews, which were then compared to the original audio files for accuracy. The completed transcriptions were then e-mailed to each participant within 8 hours of the interview for accuracy and satisfaction with the interview. All of the participants made edits to the transcriptions, specifically in areas that were deemed "inaudible" by the transcriptionist. This assisted in additional clarity in the interviews. Additional detail was also added by all participants to incorporate additional depth to the interview through a second interview as themes were developed.

Data coding. After participant review of the transcripts and subsequent edits, the transcript data were imported into NVivo 10 for analysis. Participant demographic data

were also included to enable comparison of data nodes and further indications as applicable.

Transcripts were reviewed several times during review by participants and subsequent editing. Themes began to emerge enabling the researcher to establish a basic structure for coding. Transcripts were annotated with codes where applicable (see Appendix E). The inclusion of each transcript resulted in various modifications to the established codes where new ideas and themes emerged that evolved the initial organization of the data.

Data coding and analysis was challenging for the researcher, but the emergent themes resulted in better understanding of the coded data relationships. The interview recordings were considered with the written transcripts, and enabled identification of themes where strong emotion and emphasis was evident with passionate descriptions via voice tones and modulation. Additional review of the nodes and connections, as well as notes of the researcher during the interviews, provided insight to the meaning and allowed conclusions to be made.

Journaling and bracketing. To consider all bias that required bracketing, the researcher created a journal to capture thoughts and experiences related to Facebook or the phenomenon. The research journal provided a record of the research process. Review of the journal demonstrates the journey of the researcher while becoming familiar with the methodology and instrument associated with the study. Subsequent entries demonstrate the researcher's gained intimate understanding of use of Facebook for interaction by the sample group. For instance, one entry described the depth of the interview and the perception of connection provided through Facebook:

"She seemed to gain comfort from having family and friends that she played the games with where interaction didn't require something to say. The interaction, using the Facebook game as an enabler, allowed the perception of closeness doing something friends and family would normally do when physically together."

This seemed confirmed by Burke and Kraut (2014), who noted that Facebook friends with strong ties use Facebook for games as a tool to nurture relationships and is a reflection of relationships that have had regular face-to-face interaction. Understanding of the relationship ties enabled through Facebook, and the varied use of the interface features, provided depth of understanding to the researcher throughout the study. This fact is evidenced throughout the research journal.

The interviews had a significant impact on the researcher where the participants recounted specific circumstances of Facebook use, and the place social media inhabits in members' lives. The researcher continued to journal experiences throughout drafting the report as a reminder of the experiences of the participants, in addition to ensuring capture of the true nature of Facebook interaction through various features.

Review of data collection method. The researcher analyzed additional resources as a supplement to the existing publications cited. These resources were IPA studies, including dissertations and recent peer-reviewed articles, to verify consideration of all relevant information. Interview best practices were considered and incorporated from recommended texts of Smith et al. (2009) and Roulston (2010).

The use of the video conferencing tool Skype enabled the researcher to interact with participants to make note of gestures and facial expressions, adding depth to the interview experience. Skype was familiar to all participants and was appropriate for

capture of relevant details related to the use of computer-mediate communication.

Participants were nervous about the interview process, but relaxed as the conversations

continued.

The use of Skype allowed the researcher to actively listen, where phone

communications would have made it impossible to confirm that the participant was still

connected. Non-verbal communications such as a pensive or engaged facial expression

allowed the interviews to flow naturally, without awkward silences. Additional comments

were added to the transcripts where facial expressions were noted by the researcher. This

also allowed the participants to clarify areas that were inaudible to the transcriber. The

interview transcriptions clearly reflected the participants' thoughts and allowed for

coding and analysis.

Findings

Chapter 4 uses IPA to present themes that emerged from five semi-structured

interviews with SET women aged 40 or older who were newcomers to Facebook. Major

findings from this study included

1. Social connection: The majority of these Facebook users were motivated to
   join for social connection to family first, friends second.

2. Visual artifact sharing: Photo upload was used avidly by these Facebook
   users, but these users shared visual content through and outside of Facebook
   to demonstrate their personal tastes and interests.

3. Shared identity: Facebook is a major source of shared identity for the focus
   group, where features such as chat in games, linking to sites of combined

interest in hobbies, and organizing groups and shared conversations allowed

the users to communicate about their interests to others.

4. Social investigation: Facebook pages and content are analyzed for identifying

likeminded people, virtual people watching, and vetting of potential friends.

5. Education: These Facebook newcomers referred to the use of Facebook for

education on various topics such as professional tradecraft and methodologies,

product uses and value, hobbies and leisure activities, and health related

topics.

To present the findings more succinctly below, Participant 1's statement stands out as

highlighting the important role Facebook is playing as a social enabler:

> "I really like the fact that I can understand what motivates a person by
> looking at their site and finding details linked on other sites. Seeing that
> someone is, uh, less of a risk, because you understand who they are as a
> person, seeing their posts and how they deal with others … you can figure
> out quickly if you want to relate to them in person, find ways to spend
> your time so you're not cut off from people."

The participants' responses displayed varying aspects of this, highlighting how

entrenched Facebook has become as a platform for sharing true identity, and defining a

person in terms of interests and values.

Data visualization. The researcher used NVivo to produce multiple visualizations to

uncover words frequently used by Participants and verify identified themes and coding.

The original word graphic displayed some problems with the transcripts that needed to be

modified to provide just the wording used by the interviewee, then the researcher had to

remove reference to words that were less than 4 to identify real themes and patterns (see

Figure 1). Words that contained less than 4 characters such as *get* or *and* added no value

to the overall analysis. The word cloud analytic, when run only on participants'

responses, determined that the term *like* had been used 88 times. This is significant to the

study where the motivation for joining Facebook was simply because they liked using the

platform. Other words that stood out readily were *know* (68), *people* (63), and *just* (49).

The three words most prevalent demonstrated why people would join a SNS, which was

that they liked knowing people.

Figure 4.1. Word cloud based on NVivo analysis of coded nodes.

Super-Ordinate Themes

Two drivers that helped identify super-ordinate themes were the semi-structured

interview discussion order and the comfort level of the participants to explore ideas that

were not considered originally but evolved into more depth in the follow-on interviews.

The following chronicle denotes the evolution of the participant and researcher

understanding of the Facebook journey.

Social connection. Four of the five participants joined Facebook to connect with family members who were far away, but all five participants made extensive mention of connecting or staying connected to friends and family via Facebook. Two of these participants expressed that their first experience was very emotional, because they had felt disconnected and lost, and the shared photos made them feel "grounded" with their family. Participant 4 stated the following:

> "The first time I used it I was greatly emotional. My daughters were the ones who encouraged me to get on Facebook. One of my daughters was in school, and my other daughters were away also. So I was able to stay with them and stay connected."

In an application that encourages social interaction, the participants found ways to stay close with family members and relatives with whom they would otherwise lose touch. Participant 3 expressed that meaning related to use of the Facebook interface:

> "Facebook allows you to see and connect with friends and family that you haven't seen in a while, so you get a chance to see the growth of children that otherwise you won't be able to see through Facebook photos. It's like sitting around on the couch together looking at family photos, but you can do it anytime. You can find, umm, a lot of family and friends and connect with them. And I, you know I stay connected with my 82-year-old aunt that lives in Cleveland, Ohio. Little nieces and nephews that I otherwise wouldn't get to see. I don't have a lot of time, so I think that's a nice feature of Facebook."

Some participants seemed to evolve their understanding of their own activities related to Facebook throughout the interviews. The semi-structured interviews allowed participants to develop the discussion in a way that showed some significant differences between statements made at the beginning of the interview and realizations over the course of the interview and in follow-on interviews. In some ways, the participants'

usage patterns seemed to have changed over time. This was evident in Facebook initially being more a purely social framework, then being enriched by more varied content such as businesses and organizations or the wide variety of shared-experience games. Participant 1 did not include any detail related to these aspects of Facebook use until subsequent interviews demonstrated the need for a follow-on interview with this Participant. When asked during the follow-on interview about the games and other content sharing aspect of Facebook use, the Participant stated the following:

> "Yes! I play them all the time. I like Candy Crush and Farmville… well Farmville 2. I have a game running all the time. There are nearly 100 games to play, and send things to my family and friends out of Farmville. You can send them things to build their farm like sections of fence or bales of hay. A way to give them gifts and show them, in a non-gushy, silly way, that I'm thinking about them. I love the games… I don't know why I didn't mention it before."

Of note, this was the longest single narrative Participant 1 made, even with the interview topics and prompts to draw out more depth regarding the user experience. Additionally, Participant 1's body language and obvious excitement was significantly different from the previous interview session or even subsequent questions in the follow-on interview. This is a significant factor, considering Participant 1 did not include any mention of games in the initial interview.

Review of the literature demonstrated that shared gameplay within Facebook is a significant factor for content generation. Participant 5 said the following about personal gameplay in the second interview:

> "Definitely, if I'm waiting in line or sitting at the doctor's office I have something to pass the time. I can play a game with my daughter… once I nearly missed my appointment because I didn't hear them call my name!"

Gameplay within Facebook was perceived as enabling relationship maintenance,

initiation, and enhancement, and that playing games together benefitted relationships by

giving them something small they could share regularly (Wohn et al., 2011). Participant 2

said the following that highlighted an aspect of Facebook gameplay that created an

enhanced social aspect:

> "I play them (games) at home on my laptop. Usually if I'm watching TV I
> can play the games and watch TV. I can chat with friends or family I'm
> playing a game with. It's almost like having them there."

All of the participants claimed use of all content contribution mechanisms such as

posts, comments, newsfeed, photo upload, and tagging with varying degrees of use and

was generally positive. To some degree, they seemed to accept content contribution

mechanisms as the most widely acknowledged benefit of Facebook use. Traditional uses

seemed more tied to activities that most resembled letter writing (posts, comments, chat,

and private message) and sharing photos, but the complexity of more casual interactions

through gameplay that did not require constant intimate conversation seemed a valuable

method of interaction for these participants. Interestingly, the use of gameplay, and the

content generated around it, seemed to provide an avenue for daily interaction with

friends and family with whom they stated desire to maintain the deepest emotional

connections.

Visual artifact sharing. All participants claimed to share photos almost immediately

after they were taken, and included tags under most circumstances. The decision to tag or

not tag seemed to be more tied to privacy issues than any other single concern, but all the

participants seemed to have a negative view of a lack of photos and tagging. Participant 1

expressed concern that users were tagging and posting pictures less often:

> "I would prefer search results where people were tagged, to see their …
> what their social interactions looked like. I'm a recovering alcoholic and
> I've used Facebook a great deal to identify people who are able to interact
> socially without alcohol by looking them up on Facebook. People are
> doing this less often over the last 6 months, and have locked down their
> sites so I have to take a greater risk when I start relationships. So many
> people have restrictions on their accounts so you can't really see what
> they're all about. I understand it, and that usually means that I have to
> become friends in order to find out more about them, which is not
> normally difficult, but an additional step that I'd rather not go through."

A similar comment came from Participant 4:

> "I know that I have friends and people that use fake names and that's one
> thing I don't like. It's the security issue. I see its unsafe speaking to that
> person specifically if they don't have a picture. They have a picture of a
> dog or a cat. You know, and that's the scary part for me that I don't like.
> Not knowing that the person that I look for, you know, search on is
> actually the person who you think it is."

The indications are that members who are less trusting in their Facebook presentation

through personal photos and tagging were perceived by these women as less trustworthy

themselves. Perhaps this stems from the perception that these people have something to

hide. Generally, the perception was that photo upload and tagging were not just desired

but expected as a normal Facebook activity, and that not having photos or tagging was a

warning sign of sorts.

All participants seemed to focus on photo upload and tagging based on an important

event or when travelling. Participant 1 expressed how photo sharing from a landmark

during travel generated other artifacts and photo uploads:

"I went to Cancun right after college. Someone posted some pictures of the Aztec, uh, you know, the temples and whatnot. Actually, it's a Mayan monument called Chichen Itza. Anyway, I tagged the photo and added when I'd been. Other people did the same thing for when they'd been there. It was interesting how many people had been there. Some had to compare all the way to the date they'd been and added their photo as well. It was uh, fascinating how many people had been there, just decades apart, so it was pretty cool."

Participant 3 shared the following related to the introduction of visual artifacts and the impact of social media on public safety:

"We witnessed the capsizing of three boats in the bay and shared the photo when it happened on Facebook. One of our friends who pilots boats in the area saw the photo and got the crews out to assist immediately. Before the emergency call came in. The ability to share information so quickly and effectively … They say a picture is worth a thousand words. This is a demonstration of how true that is."

Visual artifacts that are not photos or tagging as original presentations of self or associations were represented by all of these women as a motivator for content contribution. Displaying various images on Facebook from sites like Pinterest was presented as a motivator for sharing. This activity demonstrated the increased need to share various aspects of these women's sense of self in their Facebook persona. For instance, Participant 4 highlighted how the visual content sharing across applications allowed her daughters and herself to share craft ideas:

"I use it for hobbies, mainly to Pinterest. I can get to it on to my daughter's wall because the way Facebook and Pinterest link is excellent. We get so many ideas. You want to try a little bit of everything."

Participant 1 expressed the link between visual presentation applications and Facebook as well:

> "I also pull pictures from Pinterest to Facebook all the time. That allows me to share and link things I like in both applications because Facebook is addressing things directly to my connections, but Pinterest is just organizing pictures of what I like."

Visual artifact sharing seems to have evolved from personal pictures to a way of pulling ideas and opinions into Facebook. These women used links less than incorporating the artifact directly on the page. Participant 5 talked about this activity as it pertains to visual sharing of artifacts related to home care and cooking:

> "It's just if you have a recipe or you have something that you really like you, uh, you pull it in to share and then people will share things like on cleaning things with different items and then you can try and then you say whether or not it helped you, you know, if it works for you."

When Participant 5 was asked in a follow-on question regarding whether she used recommender systems on websites like Allrecipes.com or Amazon.com, she said, "I will ask people if they recommend it or not, but then I'll go to another site and see how the reviews read, you know on the other site." During review of the transcripts, Participant 5 added:

> "I find out what my friends like first because I know that my friends have similar tastes in food, so I trust their input more than people I don't know on the other websites. But when I was buying my refrigerator, I used the reviews on several sites to help make the decision. None of my friends had purchased a refrigerator recently."

These comments demonstrate how Facebook interaction with other websites, and the ability to fluidly move between sites, has changed product popularity opinion exchange.

Shared identity. Shared identity refers to building linkage to activities or interests that bring people closer together by creating common ground. Although sharing visual content and game playing have been expressed as building common ground, other

activities demonstrated the need to establish groups and linkage that was more specific to

individual interests. Participant 4 discussed how this influenced involvement in a charity

event:

> "I see what people are doing and want to get involved. My cousins
> mentioned being involved in a charity event within driving distance of my
> house. I had no idea it was going on! We made plans to meet up and
> spend the weekend in the area together. Without Facebook, we would've
> missed the opportunity to see each other."

Participant 3 talked about the Facebook community that enhances the local community

teachers interaction:

> "The latest craze in the teaching world may be defined on a site
> somewhere and I can search it, what's called common core. So if you can,
> if I can bring that in my profession, umm, because coursework we can be
> evaluated on, it's a good way to bring common core standards into the
> classroom. If I can pick up anything on Facebook, and I see other teachers
> at the school where I work, probably share things. And umm, talk about
> how we can bring more standards into the classroom, or how it helps
> children, with learning disabilities. As professionals, we share that kind of
> information on Facebook."

Participant 2 described the interaction with the local community through groups

available in Facebook:

> "Uh you'll get invited to groups. An example is a High School page, and I
> was invited to that, um, and it has to do with wrestling and, um, and the,
> and the football games and social events at the school. Plays and such so
> you know what's going on and reminders about back to school night or
> parent meetings, which are really good for me because I need that."

The participants seemed to congregate to the idea of shared identity and used

Facebook as a way to tie their professional and personal interests together. In the case of

Participant 1, the tie to professional interests came as an afterthought:

> "The professional aspect is something that happens as well. There are
> certain technology Facebook pages that I follow, such as I Love Java. Uh,
> there are some others, but I review a lot of the information out there for
> ideas and events, and there's the common area where I can meet people,
> and we can discuss going to a big event or meeting, that is, uh, easy
> interaction so I didn't consider it at first. I'm not certain if the reason I
> joined Facebook is still as relevant as the reason I stay active now. I
> interact with developers, web people from all over Facebook, and get, uh,
> a lot of great ideas, insight. There are tons of people on it as well, so
> getting diversity in development helps as well. I was interacting with
> developers mostly from the blogs on the website until I became a member
> of Facebook, and I have such as huge community, I get updates all the
> time."

Participant 3 highlighted other areas where Facebook enabled identification of people

with similar interests:

> "There's a way to share, if you have hobbies, you can share that. You can
> connect, what's called like co-interest, and linked. If you're a runner
> there's all kinds of runner websites and physical fitness websites, cooking,
> the list goes on and on. So, for instance, Rick's aunt, she had ALS. So
> there's a way to connect to their society and contribute and save for the
> team on her behalf. And we take contributions and have the teachers. We
> arrange the date where we could all get together last fall, anticipating on
> that. Really Facebook allows you to share pieces of who you are and what
> motivates you."

Participant 5 discussed similar uses for Facebook for creating shared identity:

> "Um, yes. I…there's different horse stuff on Facebook and so I go to a lot
> of those and we do… we talk about different training techniques and

different feed and, um, you can also find out, you know, where horses are for sale or where there's a horse show or trainers and farriers. I'm going to the American Heart Association Beach Ride in November, so I talk to a lot of people on there about what to expect and what I should take and stuff like that."

Social investigation. One of the motivations identified through the semi-structured interviews pertained to the use of Facebook for social investigation. This activity can be further defined as virtual people-watching where the participant used Facebook to determine a recent acquaintance's character before engaging in a deeper relationship. Participant 1 highlighted the social investigation aspect of Facebook use:

"I met a guy at a conference, and I was really attracted to him. I wanted to, um, know better, we were from different states, and … but I wanted to get to know him and I didn't want to seem overly interested. So I knew Facebook was out there, and most people had an account. So when I went home, I did a Google search and his Facebook page showed up. The guy had a huge Facebook page with lots of friends, but I discovered the guy had a life partner, and was very glad I hadn't approached him; how embarrassing that would have been for both of us. So anyway, I started a Facebook page that day. I don't have many friends on Facebook. I use it to figure out who I'm talking to when I meet new people. This, uh, keeps me from interacting with people who are clearly into different lifestyles than me. At, at this age, I don't want to spend months figuring out the person spends most of their time drinking. I'm a recovering alcoholic, this is, uh, a really bad situation for me. I suppose this fits in with the 'stalking' title used for this sort of thing, but I'm protecting myself from potentially negative situations that could get me back into alcohol use."

Participant 2 was vaguer about this activity and did not elaborate further, stating:

"Uh, I used it… um… I guess the one thing that I do, um, find interest with other people, and I could people surf at Facebook and find out what other people are doing."

All the participants mentioned using Facebook to look up people they had just met

using the Search feature. Several comments included the uncertainty of connecting with

the people based on the perception of that person's social engagement based on their

Facebook page. For instance, Participant 3 elaborated on the reason they did not actively

engage in a relationship with the acquaintance:

> "Well… I met someone at a dinner party, and she mentioned she had an
> interest in learning more about Excel, one of the applications I teach in the
> classroom. I looked her up via the Facebook search feature and all of her
> interactions seemed very negative and sarcastic. I was concerned about
> interacting with her or linking myself to her so I didn't pursue helping her.
> She didn't try to find me, luckily, so she must not have been serious about
> her interest."

Participant 4 described use of Facebook to investigate her daughter's new boyfriend:

> "My daughter started talking about a new boy that she met in one of her
> classes, and that she'd been out with him several times. Because all of her
> other boyfriends were young men from our area, I was nervous. I used her
> Facebook page to find him and see what he was about. I was even more
> worried… looked like he was pretty heavily partying and didn't seem very
> focused on school. Luckily I didn't have to say anything to Tiffany, she
> didn't have interest in him long. I must've done something right!"

Another aspect of Facebook use was discussed by Participant 5 where Facebook was

used to determine qualifications and desirable babysitters for her grandchildren and

farriers for her horses:

> "You can tell a great deal about people from Facebook. Since everyone
> seems to have a Facebook page these days, I use it to look up people to
> understand what motivates them. For instance, I was looking for a
> babysitter to care for my grandchildren while they were visiting. It was
> short-fused so I had to figure something out quick. I made some calls of
> my younger friends around the area with high school aged kids. Then I
> figured out who was available to babysit and evaluated what they looked
> like on Facebook. For instance, did it seem like they were partiers or

family-oriented. I did the same thing when I was looking for a new farrier. I checked to make sure their personal page involved horses. It matters if they really like the animals or they just do it because they have the skill to do it."

Knowledge sharing. All participants made mention of contributing in an effort to educate others or learn something new. Motivations in this category are limited to specific statements about educating others or learning. This makes the distinction between collaborating based on shared understanding as opposed to the idea of educating others or learning new things. This implies a certain understanding that the group at large may not have. Primarily, this seemed to do with new conversations introduced into Facebook not necessarily relevant to the social interaction, but as something gained they would not inherently have had knowledge about. For instance, Participant 5 explained interaction as related to the treatment of Alzheimer's:

"…if I see something that I think would help educate somebody on certain things, like with Alzheimer's. I go to their different sites and if I see something that other people that I know of, their spouse or their parents have Alzheimer's, then I'll click on it and sent it to Facebook so that they can also see it."

Participant 1 discussed learning about time management while dealing with a significant technical problem that her colleagues on Facebook helped her to solve:

"This was amazing and so helpful and I learned some important lessons. One was about time management, obviously not waiting too long to do my work project or ask for assistance. I also learned that I don't have to know everything to be effective at my job; I just need to know how to reach out to people who can help. And then I learn new ways to solve problems using other sorts of code and development techniques."

Participant 1 talked about using Facebook to educate other teachers in her local professional group:

"I learn new things on Facebook all the time by using the search feature. I gain new insight on the education board's perspective in school districts everywhere and bring the information back to my local teachers to show them how other schools are handling problems."

Participant 2 talked about using Facebook to share information about different weight loss techniques when she and her friends and family were working together to lose weight:

"Several of my friends and I were trying to lose weight, and we decided we could support each other by keeping track of our status on Facebook. We all started sharing different success stories of people who'd lost weight and kept it off, and two of my friends found out they had medical conditions that were keeping them from losing the weight. The articles shared made them aware of symptoms they took to their doctors. Unfortunately it didn't help me lose weight, but it was definitely important to them!"

Sharing health discussions for the purpose of sharing knowledge on conditions seemed a common practice, and Participant 3 said the following:

"Rick's aunt's ALS was something we really didn't understand, but there's a Facebook page just for families of those with ALS. This really helped us understand what was going on and how to be sensitive to the condition. Being knowledgeable of things like people's health problems helps you not say things that may seem insensitive but is really a lack of understanding. Like someone who has Lupus isn't going to respond well to being asked to the beach. Facebook is a really quick way to learn the ground truth of what health problems really mean for the families. Information and facts don't show the emotions of those dealing with diseases or conditions."

Participant 4 talked about the significant knowledge she gained from Facebook when she was looking for the right college for her daughter:

"I was so worried sending my oldest daughter off to college. I spent a lot of time looking at Facebook pages for students of the schools. This was

such a worry for me it kept me up nights. The affiliation of the college was listed in most of the sites, and they were really easy to find. It really eased my mind when I realized not all of the students were getting into trouble. But I also learned a great deal about the college's atmosphere and where the students were going to socialize. I was very happy to have that education before my daughter left. I think I probably would've kept her home if I hadn't done this."

The researcher reviewed the transcripts for themes addressed by each respondent. This review of the data resulted in identification of the following themes:

1. Social connection (T1)

2. Visual artifact sharing (T2)

3. Shared identity (T3)

4. Social investigation (T4)

5. Knowledge sharing (T5)

These data are represented in Table 4.4 that illustrates all five participants reflected all themes, and counts reflect the number of times the theme was mentioned by the respondent.

Table 4.4. Themes Discussed by Each Participant

	T1	T2	T3	T4	T5	Total
Participant 1	23	26	51	10	9	119
Participant 2	13	28	24	7	8	80
Participant 3	26	21	22	12	11	92
Participant 4	42	34	14	8	12	110
Participant 5	38	30	21	9	6	104
Total	142	139	132	46	49	

Summary of Findings

Chapter 4 provided a detailed discussion of the data analysis and results of data from interviews with SET women who were over 40 and new Facebook users. Five themes evolved from the data as relevant related to why these women contributed content and engaged in online communications using Facebook as a medium. The five themes of social connection, visual artifact sharing, shared identity, social investigation, and education were explored. The outcomes demonstrated changing perspectives on their own Facebook use, and increased awareness of use of the platform for various purposes that permeated their lives.

As demonstrated by analysis of themes, SET women over 40 who were new users of Facebook possessed many shared experiences that made them contribute. In Chapter 5, the researcher will consider conclusions and recommendations for improving the user experience for this sample group, and provide clarity on the features most liked or disliked by the participants.

Chapter 5

Conclusions

Introduction

Based on the findings in Chapter 4, Chapter 5 is composed of final thoughts on

themes, answers to the research questions, and demonstrates strengths, weaknesses, and

limitations of the study. Additionally, this chapter provides recommendations for

furthering use of social media by expanding understanding of the features that are most

influential to use in relationship to SET women over 40 who are newcomers to Facebook.

This sample group may demonstrate value to those interested in appealing to this group

for better engagement and, potentially, knowledge sharing.

Conclusions

SET women over 40 who have recently joined Facebook represent a small subset of

the larger population of these women who have embraced use of social media for longer.

However, the implications of what motivates participation further our understanding of

how to engage these women in the conversation. The findings demonstrate that these

women generally have discovered means for enriching their relationships around the

medium, but they use Facebook in a more expansive way. This includes the connection to

other mediums and sources of information, using platforms such as Pinterest to further

depict their personality and present a persona to be better understood.

The previously presented findings were used to answer three research questions:

RQ1. How do SET women who are newcomers to social networking sites like

Facebook experience Facebook?

RQ2. How do SET women experience the journey of interaction using Facebook as a medium?

RQ3. What aspects of Facebook have been most influential in the journey of interaction using Facebook?

The research findings and conclusions for individual question are discussed below. Themes are depicted to demonstrate their relationship to the study questions.

Research Questions

RQ1. How do SET women who are newcomers to social networking sites like Facebook experience Facebook? Each of the participants identified with the concept that they joined Facebook to reconnect with family and friends except Participant 1. Participant 1 only experienced the connection to a larger social community after joining Facebook, and this seems to keep Participant 1 engaged in the site. The participants' interactions through the interface spans a wide range of social interests and meaningful pursuits such as social interaction with like-minded professionals, volunteer work, and hobbies, but they also depicted a world of games and purely for fun activities that they share with friends and family. Facebook is used to further their social connections, and the search option is described as the first feature all the participants used to find connections. Later, the search option is used to find other like-minded people associated with specific interests and hobbies.

Figure 5.1. RQ1 Themes and Findings.
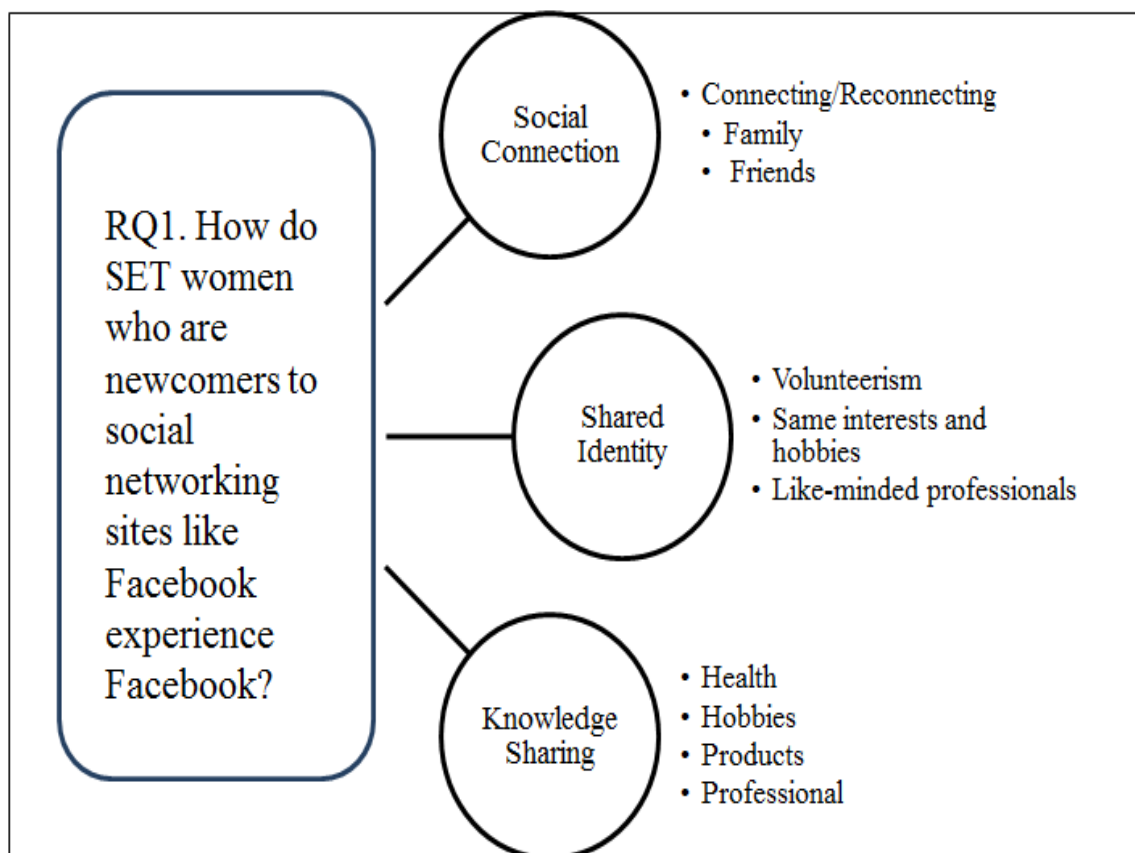
RQ2. How do SET women experience the journey of interaction using Facebook as a medium? The participants' understanding of their journey of interaction using Facebook seemed to evolve through the interview; in some cases, they discovered feelings about their use of the platform that they had never considered. This evolution seemed a natural one, where 80% of participants joined to get in touch with friends and family. The one participant who used Facebook as a means to determine friendships and three of the five participants used the words "excited" and "frustrated" to describe their user experience. Participant 3 described her first user experience as overwhelming, and described a specific problem with setting up her profile page that she had not been able to correct and felt frustrated about each time she logged in.

Participant 4 described frustration with the site's navigation, and not being able to tell how to navigate pages or get back to a previous location. Her frustration also expanded to the lack of insight into specific features of the site and feeling that the site would benefit from better help features that allowed for easy look-up without the need to navigate to another page for insight.

Figure 5.2. RQ2 Themes and Findings.
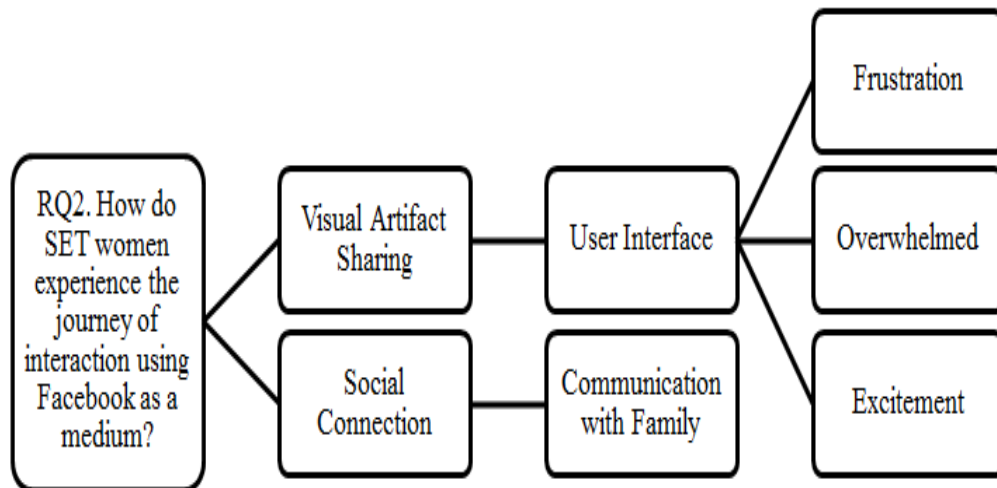
RQ3. What aspects of Facebook have been most influential in the journey of interaction using Facebook? The participants' lives were influenced by various uses of Facebook. The early interaction mostly tied to family and seemed to expand to encompass a greater aspect of their social interaction. In the case of two participants, viewing the world through Facebook before emotionally engaging with others in person eliminated some of the risk that is inherent to building new relationships. The platform

was used as a means to observe the person passively and determine if active, non-Facebook interaction was desired. These participants' trust for others in their various shared groups highlighted the influence interpersonal relationships have on trust of the medium, in this case Facebook. There was stated distrust of those who did not trust, and a trust of those who did.

Figure 5.3. RQ3 Themes and Findings.
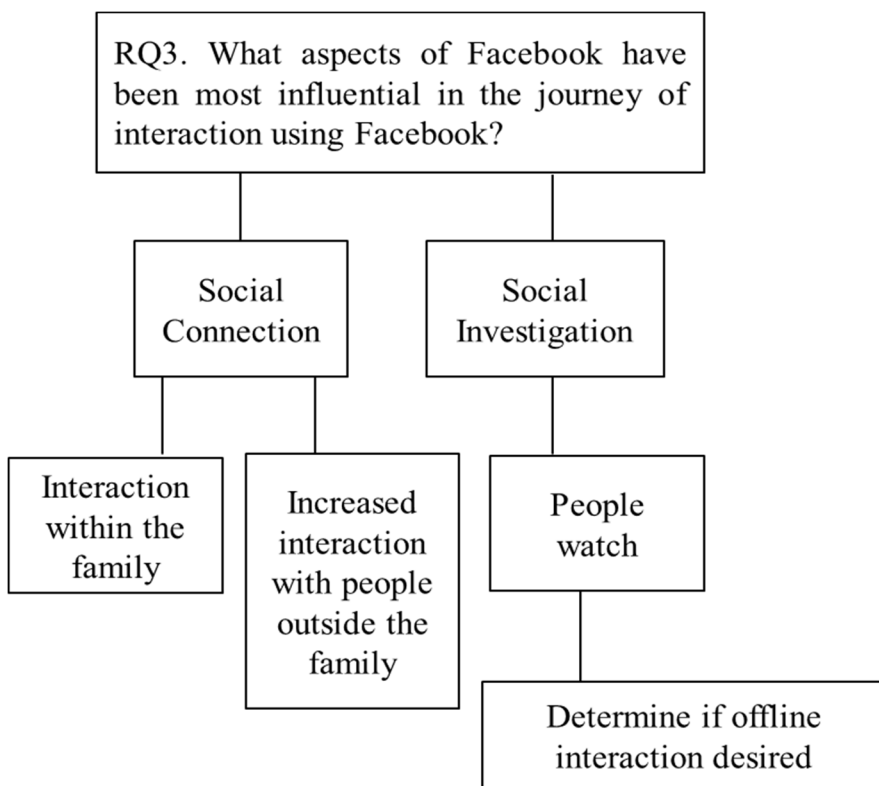
The research questions focused on how women over 40 who are new users to Facebook perceive use of Facebook. According to the data from the interviews, and the themes that emerged, the members of this sample population perceive use of Facebook as a way to share. The use of the term share, either exact use of the word, or closely related words, were the most prevalent in all the interviews. Most participants defined sharing through the use of various features as enabling sharing of self through thoughts, ideas,

and even time. By focusing on this aspect of the participant's answers, the true relevance

and implications of Facebook use are discovered.

Meaning and Relevance

Burke, Marlow and Lento (2009) used the term share to describe the activity of

producing artifacts in Facebook. In reading over the interview data, both closely and

abstractly, the term share has a deeper meaning in the relationship between these new

users and the communications medium.

Figure 5.4. NVivo Cluster Analysis of the Term "Share".
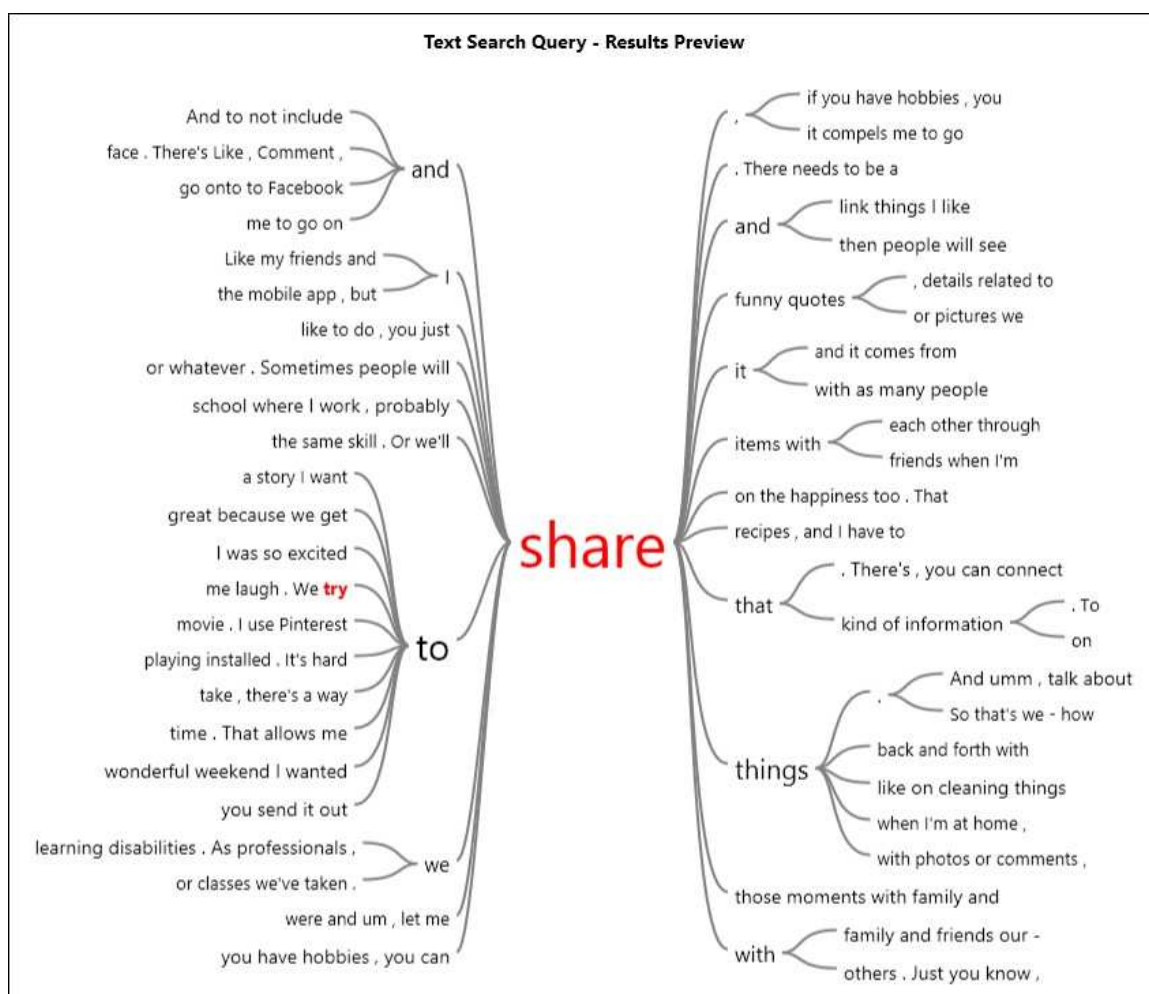
Despite earlier NVivo analysis of the number of times the term was used, analysis of the data from various angles demonstrated a more overarching use of the term "share" than just with artifacts or interaction. The entire reason for these users joining Facebook seemed linked to the desire to give of themselves to those who they need to connect with emotionally. The idea of Facebook only being about a means of informing others is very narrow when compared to the richness of the user's experiences. The true emotion and involvement of these users is not about the interface itself, or the method of sharing, but rather the act of sharing. This was communicated throughout the interviews and the wording used further defined the lack of distinction. The general commitment to the interface seemed personal. The users viewed their commitment to use of the medium as a commitment to the people with whom they interact. This lack of distinction resulted in increased relationship strength with their social network. These findings are also supported by the findings of Burke et al. (2011) wherein their findings demonstrate how this translates to tangible social capital, what sociologists refer to as social support. To turn away from the use of Facebook, by their own interpretation, meant turning away from the people themselves. This researcher can see that Facebook, by nature of social and emotional impact, will be difficult to replace for depth of use and purpose.

This evolution of Facebook use from the early days where it was primarily used by college students with a small subset of activities to the diverse environment of today, resulted in increased emotional connection to the people available through the medium (Burke et al., 2011). The users expanded interaction with friends and family, and this evolved to seeming lack of distinction between the people and the interface. This

researcher believes this lack of distinction demonstrates the true pervasiveness of Facebook use.

Strengths, Weaknesses, and Limitations

The interview process could be considered a strength due to the revelations that were made during the interviews. The perspectives and experiences of each participant were unique, and all of the participants included depth to the interview that allowed for enriched understanding of their feelings when using Facebook as a social enabler. Phenomenological inquiry allows experiences to be expressed from the perspective of the human lived experience, without predefined category systems (Smith et al., 2009). This researcher believes that the experience of these SET women who are over 40 and new users to Facebook demonstrated valuable insight and diversity of experience.

Another strength of this study was that the lived experiences of the sample group, SET women over 40 who are new users to Facebook, represented a significant diversity of experience, background, and interests that is a valid representation of this population. The participants represented a range of tenure in Facebook and a wide age range appropriate to the context of the study. Additionally, the diverse professional backgrounds and personalities provided depth. The participants were not in a centralized geographic location, so region-based use patterns were not a factor.

A weakness might be being an independent researcher, where a research team could have enabled expansion of understanding. However, this weakness was mitigated using extensive narrative from the participants that identified relevant first-person accounts that highlighted findings and offered other researchers the chance to see the lived experience directly. The researcher went to extensive measures to bracket personal bias, identify

opinions that needed bracketing in her research journal, and be an active listener during the interviews, and an attentive reader while reviewing the transcripts.

A limitation of the study could be viewed as the narrow focus of the new user context. Although necessary to understand the phenomenon for this study, this may have limited the overall understanding of Facebook use. However, the need to limit focus of the study in a way that answered specific questions was necessary. Where related to this subset of women, there is a need to understand the motivations behind contribution and how to encourage the use of computer-mediated communication to expand the reach of potential mentors to young women considering, or just starting out in, SET careers.

Validity

Validity in qualitative research requires evaluation in appropriate criteria, and Yardley (2000) presented four principles for determining the quality of qualitative research. The IPA approach addressed all the principles presented by Yardley (2000), namely sensitivity to context, commitment and rigor, transparency and coherence, and impact and importance (Smith et al., 2009). The following detail reflects the use of the four principles in this study.

Sensitivity to context. This study addressed the broad principle of sensitivity to context very early in the research process by choosing IPA as a methodology. The rationale for this study included detail related to the perceived need for sensitivity to context of the participants' lived experiences. According to Munhall and Chenail (2008), the most important aspect of phenomenological studies is the need to respect the language of the participants and should depict the highest degree of respect, sensitivity and empathy. The demonstrated rapport with participants was central to the viability of

this IPA study. Because the IPA study is inherently an interpretative activity (Smith et al., 2009), this researcher was meticulous about presenting the findings in a way that was indicative of the participant's tone portrayed in the interviews. The researcher also demonstrated sensitivity to context by successfully navigating the participant interviews and enabling participant trust to gain depth of understanding from the participants. By being disciplined and immersive, the researcher allowed the participants to explore their lived experiences and valued what can be understood by their personal account of the journey (Smith et al., 2009). Additionally, sensitivity to context is displayed through extensive verbatim participant narratives included in Chapter 4, demonstrating respect for the value of the raw material being analyzed. This allowed the participants to have a voice in the project for better and more explicit interpretation, and less generalized statements presented by the researcher.

Commitment and rigor. Yardley's (2000) second broad principal, commitment in rigor, was demonstrated in this study through absolute attentiveness to the participants during the interviews. Additionally, the researcher took great care in performing analysis of the interviews, field notes, and transcriptions methodically, treating each transcript individually before performing comparisons (Smith et al., 2009). Commitment and rigor were also demonstrated by the researcher by ensuring that each participant was comfortable and was encouraged to provide their personal insights on the Facebook experience (Munhall & Chenail, 2008).

Rigor was addressed in the selection of the participants and the appropriateness of the sample for the study (Munhall & Chenail, 2008). The researcher allowed the participants to guide the semi-structured interviews, and encouraged more depth where the

participants' cues demonstrated the potential for more detail. Some of this rigor was addressed through follow-on interviews, where thorough reading and annotating demonstrated that there was a missed cue or more depth could be captured (Smith et al., 2009). This commitment to rigor was further demonstrated by the thorough and systematic review of interview transcriptions. Due to the small sample size of the study, the researcher was able to provide more depth to Chapter 4, where demonstration of the themes could be highlighted through narrative directly from each participant. The researcher frequently made journal entries related to thoughts and considerations throughout the research process (Smith et al.).

Transparency and coherence. This study has been recounted with the highest degree of transparency and coherence. Each stage of the research process was carefully described throughout this document (Munhall & Chenail, 2008). Examples of this include the careful description of how participants were selected, the construction of the interviews conducted, and the data analysis steps. Tables were included to demonstrate detail for each of the features including the participants, the schedule, and analytic process elements (Smith et al., 2009).

The researcher presented this study in a coherent manner, including descriptions that are clear and concise, yet detailed. The arguments for findings were provided in a comprehensive way, even where contradictions were identified in the analysis of the data (Smith et al., 2009). The evidence of transparency and coherence appears throughout the documentation of the study. This study was conducted as originally proposed, with no necessary changes.

Impact and importance. The intent behind the presentation of this study was performed such that the reader should be able to identify important themes and conclusions derived from the work. While previous studies were focused on various aspects of Facebook and other computer-mediated communications platforms, this study focused specifically on SET women who were over 40 and new users to Facebook. This study is important due to the examination of the experiences of these women as they experience the journey of Facebook use. This allowed for analysis of the decidedly human factors that need to be understood related to the adoption and use of this and other SNSs, and potentially other non-SNS platforms. This research's importance, in context of historical or empirical reference, cannot be predicted, but the findings may affect a greater understanding of the impact of SNS on the human experience.

Gaps in the Research

Although some of the literature cited in this review shared similarities to this study (in terms of topic, objective, and procedure), this research attempted to fill the unexplored gaps. The articles that closely resemble this study are enumerated in Table 1. A comparison between them shall be made in the table, and the gaps that this study attempted to fill are enumerated. These gaps represent the limitations of the current literature that this research used as an opportunity to expand the knowledge in particular topics or areas, such as social networking sites (SNS) and socialization, among others.

Table 5.1. Gaps in the Research.

Year	Authors	Title	Gaps Filled by this Study
2009	Rosson, Carroll, Zhao, and Paone	wConnect: A Facebook-based developmental learning community to support women in information technology	While Rosson, et al.'s (2009) research and this study share similarities (such as the use of women in the field of technology as subjects), this study shall delve deeper into the insight behind the subjects' use of SNS through their lived experiences. Open-ended questions and the semi-structured nature of the interview explored the peculiarities of the SET women, particularly with how their use of Facebook and its features impact their careers. The motivations for joining and participating in Facebook, brought about by their professional situation, was also explored.
2011	Kim and Rieh	User perceptions of the role and value of tags	Kim and Rieh (2011) explored the different perceptions of heavy web users with regards to the purpose and significance behind tagging on social media. The proposed study shall investigate the role and value of tags, among other features of SNS such as Facebook. However, this study will also focus on the social aspect of tagging, as opposed to just its fundamental function (as a link or suggestion to other pages). The sample group shall also consist of individuals with varying degrees of web use, with their Facebook newcomer status serving as their common trait.
2011	Yoder and Strutzman	Identifying social capital in the Facebook interface	Similarly, this study investigated and extended the observations and findings from Yoder and Strutzman (2011). However, this study focused on how social capital (obtained through SNS) on impacts an individual's career. As previously stated, this research also made use of another demographic for its sample group (SET women).
2013	Burke and Kraut	Using Facebook after losing a job: Differential benefits of strong and weak ties	In order to expand or add to the findings of the research of Burke and Kraut (2013), this study explored how social capital (exchanged through SNS use) served as a means of providing career support. However, the key difference is that this study further investigated the effect of the support within a specific minority group, namely SET women. A particular focus is how women who have established a career in a field dominated by men provide support (through SNS such as Facebook) to other women who are just starting out or those who may need assistance.
2013	Wang, Burke, and Kraut	Gender, topic, and audience response: An analysis of user-generated content on Facebook	Wang, Burke, and Kraut's (2013) quantitative study made use of LDA to analyze posts on Facebook made by posters in order to obtain patterns about their topic and the audience response (separated by gender). This study probed deeper into the motivations behind as well as the effects of the use of SNS, beyond the content posted by the user. As previously stated, users went through semi-structured interviews and answered open-ended questions in order to provide an extensive description about their lived experiences.

Implications

The findings from this research study have implications to SNS users and developers, and provide insight to the user experience in what is hoped to be a profound way. There is no known research specifically examining the lived experiences of SET women over 40 who are new users to Facebook. Findings from this study revealed some future research opportunities where the use of various methodologies could produce results that may illuminate nuances not captured by this study. Interviews with the participants are rich with personal experiences and demonstrate the uniqueness of their user experiences as is indicative of IPA studies (Munhall & Chenail, 2008).

Behind the user interface, there are people trying to socially engage with the world around them in ways that fit their lifestyles and interests. Conversations with these professional women demonstrated a wide range of interests and the need to associate with like-minded people. Their willingness to share their stories and feelings was humbling, and Facebook is considered one of many platforms used daily to engage with society and still gain intimacy that is sometimes lost with busy schedules. The use of a wide range of features of Facebook highlights how technology has permeated their professional and now their social lives. Facebook seems to be a significant influence on interaction with many other platforms as well. Encouraging more extensible collaboration platforms through understanding the daily use of Facebook can have wide reaching impact on mentorship and collaboration in the future.

Recommendations

The themes discovered, and the participants' evolved understanding of their use of Facebook, was as significant as the themes themselves. The researcher was surprised at the extensive use of games for socializing on Facebook, and an extended literature review demonstrated work specific to understanding the implications of the popularity of games played and distributed on SNSs. Some of the participants were surprised that they forgot to mention games on the initial interview about their use. Without the IPA approach to this study, that theme would likely have been overlooked by both the participants and the researcher.

This study uncovered details about the use of various platforms to communicate to and through the Facebook environment. This provides a unique view of use from the perspective of various communications mediums and how Facebook, as a computer-mediated communications platform, is being improved from the outside. Navigation in Facebook, expressed as a problem by one of the users, is improved when tied to other accounts through the sharing platform of other sites. The most commonly mentioned was Pinterest. This sharing of appealing content through easy click links enables artifact sharing that is more robust than through Facebook alone.

In light of these findings, recommendations to developers and designers of Facebook and other SNS applications is to include ways to provide transparency across the various sites. Each participant's frustration was lessened by the ability to use other applications seamlessly and transition in and out of Facebook through a wide variety of other communications mediums. The medium-specific context, such as in the case of Pinterest for sharing artifacts but not communicating directly with a "friends" group, was not seen

as a limiter, but rather a way to use various platforms to communicate messages or organize thoughts and ideas. More of these functions are being incorporated daily, but ease of use and understanding seemed the most crucial element. Standardization of presentation, at least to a certain degree, would allow for better navigation within all the platforms.

Facebook is not just for social interaction anymore. It is being used for lightweight collaboration and shared identity. All the conferences the researcher attended had Facebook sites and the ability to collaborate and extensive engagement. Instituting new ways to improve collaboration and mentoring for young women considering, or just starting out, in SET careers are already being realized as a use for the platform. However, perhaps these women's conferences and mentoring groups would benefit from incorporating mentoring games that appeal to a specific type of interest area. For instance, games that increase achievements through to a higher math problem skill would enable shared identity and content generation that is less professional and more social to encourage more casual mentoring by women in SET professions. Sheth et al. (2011) suggested the value of games in encouraging a large group of like-minded people to work together towards a common goal, and suggested that online games mirror the competitive-collaborative nature of software engineering. Social games in Facebook such as Farmville and CityVille are examples cited. This may take form as an environment where engineering skills require the same cognitive approach as the professional training to capture the attention of engineers.

An example of this could be a social group for HCI professionals who look at various aspects of gameplay from a usability perspective to provide developers with informal

feedback on potential improvements. Using Facebook as a means to reach an audience is a viable use of the platform. Gibson and Grasso (2009) found that the use of online games for recruitment and retention of students in underrepresented populations in STEM was extremely effective. Integrating this activity into Facebook as a genre of games that enable shared identity could be one way to build stronger bonds for women in SET.

Recommendations for Future Research

Information systems and computer-mediated communication have been evolving rapidly, and will likely continue to do so. Future research might be conducted involving participants from various age groups to determine the influence of various life stages on the use of Facebook and other SNS platforms. Such research would allow for greater insight into the user experience of social engagement and how to improve the ability to capture the diverse interests of all users.

Another focus of future research could be the impact of various ages using the same computer-mediated communication platform. The responses from these participants highlighted the interaction with various friends and family members of all generations. Participant 5 talked about interacting with her 82-year-old grandmother, and young nieces and nephews via Facebook. A study aimed at understanding how older adults and parents' use of the same medium impacts the communications of a single generation such as teenagers or young college students would demonstrate how to customize features that appeal to all audiences. Facebook has demonstrated the power of one medium for all generations, but uncovering the differences in the use of the medium as the member population of Facebook becomes generationally diverse could be beneficial. A

longitudinal study would provide interesting insight into the effect this generational

diversity has on communications within the platform.

Future studies could also focus on the game integration into Facebook, and the

potential to encourage mentorship between various age groups and interests using gaming

aspects. All of these participants used Facebook games as a way to interact, and the

implications for design of collaboration platforms may provide an established common

ground on which to build. The social network integration and the free-to-play revenue

model make them easily accessible, and the integration of these aspects into more

specific user groups such as SET professionals may be an avenue worth investigating.

Summary

In conclusion, the study was able to achieve its goal, which was to identify how SET

women over 40 experienced Facebook. Given that social media has become popular over

the years, it is beneficial for developers to understand what captures the interests of its

users for them to be able to leverage on this in any expansion or features they plan to

implement. Knowing what captures the users' interests could serve as a guide to reach

more people and increase the number of users. In general, there is a common trend in the

responses gathered from users that they mainly joined Facebook to reconnect with family

and friends. It has served as medium for them to communicate with their family and

friends and be updated about their lives using Facebook. The study proved to be an

important addition to the body of knowledge concerning understanding the experience of

users who join Facebook and their use of Facebook. With a better understanding on this

with the findings provided in this study, developers and designers are more aware of what

they need to focus on to attract more users to use SNSs such as Facebook.

The results also benefit the users, as they are provided a better experience through better features, should the developers and designers consider these findings in further developing SNS. Future researchers are recommended to include participants in various age groups to determine the contribution of different life stages in how SNS platforms are used. It is also suggested that future researchers consider focusing on the impact of various ages in using the same SNS platform. Lastly, the use of Facebook in game integration could also be a focal point of future researches.

Appendix A

IRB Approval Letter – Nova Southeastern University

NOVA SOUTHEASTERN UNIVERSITY

MEMORANDUM

To:	Kristin Raub, M.S.
	Graduate School of Computer and Information Sciences
From:	David Thomas, M.D., J.D.
	Chair, Institutional Review Board
Date:	May 15, 2014
Re:	*A Phenomenological Inquiry into Facebook Newcomer Motivations for Participatory Activities* – NSU IRB No. 04151417Exp.

I have reviewed the revisions to the above-referenced research protocol by an expedited procedure. On behalf of the Institutional Review Board of Nova Southeastern University, *A Phenomenological Inquiry into Facebook Newcomer Motivations for Participatory Activities* is approved in keeping with expedited review category # 6 and #7. Your study is approved on **May 15, 2014** and is approved until **May 14, 2015**. You are required to submit for continuing review by **April 14, 2015**. As principal investigator, you must adhere to the following requirements:

1) CONSENT: You must use the stamped (dated consent forms) attached when consenting subjects. The consent forms must indicate the approval and its date. The forms must be administered in such a manner that they are clearly understood by the subjects. The subjects must be given a copy of the signed consent document, and a copy must be placed with the subjects' confidential chart/file.

2) ADVERSE EVENTS/UNANTICIPATED PROBLEMS: The principal investigator is required to notify the IRB chair of any adverse reactions that may develop as a result of this study. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, consent forms, investigators, etc.) must be approved by the IRB prior to implementation.

4) CONTINUING REVIEWS: A continuing review (progress report) must be submitted by the continuing review date noted above. Please see the IRB web site for continuing review information.

5) FINAL REPORT: You are required to notify the IRB Office within 30 days of the conclusion of the research that the study has ended via the IRB Closing Report form.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: Dr. Ling Wang
Dr. Laurie Dringus
Ms. Jennifer Dillon

Appendix B

Post Interview Communication

Dear [Participant's First Name],

I want to thank you very much for your participation in my study, A Phenomenological Inquiry into Facebook Newcomer Motivations for Participatory Activities. A Phenomenological study such as this cannot be accomplished without volunteers like you. Your generosity with your time to share your valuable experience has been of great value to me and hopefully this study will contribute to a better understanding of web-based social networking use. Please find the attached transcript of our interview session. I would greatly appreciate any comments or corrections you may offer. Any additional comments are welcomes and will be treated, as with the rest of the interview transcripts, with the greatest concern for your confidentiality as delineated in the Informed Consent Agreement. Please contact me if you have any questions or concerns.

I would greatly appreciate if you would forward any comments and/or corrections as soon as possible. If I have not heard from you in two weeks, I will assume that you do not have anything further to communicate and will proceed with my analysis.

Upon completion of the study, I will notify you and provide you with a written summary of the study's findings.

Sincerely,

Kristin Raub

Appendix C

Node Classifications

Name	Sources	References
Ah-ha moment	3	4
Evolution of Use	4	8
Features Used	5	247
Chat	3	8
Comment	5	18
Games	5	30
Groups	3	14
Inside Facebook Artifacts	4	26
Mobile App	5	20
News Feed	3	12
Outside Facebook Artifacts	5	33
Photo Upload	5	30
Posts	5	28
Private Message	5	8
Search	5	15
Tagging	2	4
Knowledge Sharing	5	49
Health	2	6
Hobbies – Activities	2	11
Products	2	11
Professional	3	21
Shared Identity	5	132
Community	5	56
Games	5	20
Health	2	5
Hobbies	4	30
Professional	3	21
Social Connection	5	142
Discovering Family	2	2
Discovering Friends	5	18
Maintaining Family Relationships	5	57
Maintaining Friendships	5	43
Reconnecting Family	4	9
Reconnecting Friends	5	13
Social Investigation	5	46
Determine Friend Potential	2	10
Search for Likeminded People	5	25
Virtual People Watching	5	11
Technical Challenges	5	54
Comment	1	4
Mobile App	3	5
Navigation	3	11
New Features	2	3
Photo Upload	2	4
Security Features	3	17
Tagging	1	1
User Profile Page	1	9

Appendix D

Sample Coding and Annotation

Interviewee: I do. I use the search engine pretty often. I generally don't post or make comments for a while unless people say something about a situation I was involved in, and then maybe I'll post a comment as well. I try to have, uh, representative photos of the things I do with friends when we're taking classes together or we work together. I use Facebook to advertise who I am and my interests, to help other people decide if they have similar interests or hobbies.

[Coded: Hobbies – Social Connection; Shared Identity, Virtual People Watching]

Interviewer: That's interesting. I don't think that I've ever considered that, but it certainly makes sense. Have you used Facebook to interact with others who have common interests, such as hobbies, profession, and background?

Interviewee: Sure. I've, uh, covered some of this, but the professional aspect is something that happens as well. There are certain technology Facebook pages that I follow, such as I Love Java. Uh, there are some others, but I review a lot of the information out there for ideas and events, and there's this common area where I can meet people, and we can discuss going to a big event or meeting, this is, uh, easy interaction so I didn't consider at first.[1] I'm not certain if the reason I joined Facebook is still as relevant as the reason I stay active now.[2] I interact with developers, web people from all over Facebook, and get, uh, a lot of great ideas, insight. There are tons of people on it as well, so getting diversity in development helps as well. I was interacting with developers mostly from the blogs on the website until I became a member of Facebook, and I have such a huge community, I get updates all the time.

[Coded: Professional – Shared Identity, Search for Likeminded people]

Interviewer: Well that's interesting.

Interviewee: Yeah. So I have several colleagues that I exchange ideas with, and private messages or PMs on Facebook, and we, uh, we often, uh, discuss and link details from other places or classes we've taken. We share funny quotes, details related to projects we're working and formally collaborating. Their responses are also pretty fast. You have the ability to, uh, seem pretty snappy with the help of my Facebook group.

[Coded: Professional – Private Messages, Cross-linking]

Annotations
[1]Evolved understanding through the context of the interview.
[2]Evolved use of Facebook for other than expected social engagement.

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