

Older adults and online social networking: relating issues of attitudes, expertise, and use

2011

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OLDER ADULTS AND ONLINE SOCIAL NETWORKING: RELATING
ISSUES OF ATTITUDES, EXPERTISE, AND USE

by

ELISE HERNANDEZ

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
and in The Burnett Honors College
at the University of Central Florida
Orlando, Florida

Summer Term 2011

Thesis Chair: Dr. Janan Smither

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ABSTRACT

The social transition to older adulthood can be challenging for elderly individuals and their families when isolation poses a threat to well-being. Technology is currently providing younger generations with an opportunity to stay in contact with social partners through the use of online social networking tools; it is unclear whether older adults are also taking advantage of this communication method. This study explored how older adults are experiencing online social networking. Specifically, this research addressed how older adults' attitudes towards online social networking are related to their expertise in using computers and the internet for this purpose. A survey methodological approach was employed whereby older adults aged 65 and over were recruited from senior centers across the Central Florida area to fill out a series of questionnaires. The Computer Aversion, Attitudes, and Familiarity Index (CAAFI) was used to measure attitudes and expertise with computers. The Internet Technical Literacy and Social Awareness Scale was used to measure interest and expertise with the internet. The relationship between older adults' use of online social networking and their attitudes and expertise was also investigated. Finally, social connectedness, (measured using the Social Connectedness Scale) and subjective well-being (measured using the Satisfaction with Life Scale) were measured to explore whether older adults receive a psychosocial benefit from using online social networking. Findings showed expertise and attitudes scores were strongly correlated, and these scores were also predictive of online social networking use. The results of this study may help social service providers for elderly individuals begin to understand the many factors associated with using new forms of technology.

DEDICATION

For my mother, Aracelis, whose love, friendship, and sacrifice, have allowed me to keep pursuing my dreams: *one day* does come true.

For my brother, Lito, whose unconditional love and support have given me the confidence to be the person I am today.

For older adults everywhere who've given me the opportunity to pursue my life's passion as my career.

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INTRODUCTION

The rapid expansion of technological innovation has made computer and internet research a growing area of study. Research on older adults has become increasingly important because this population is the fastest growing segment of users of this technology. Yet many societal and psychological obstacles keep older adults from using interactive technology, making them the smallest group to utilize this type of technology (Madden, 2010). Researchers consider factors such as training, attitudes, and benefits, when trying to understand older adults' experience with computers and the internet.

Training is one of the issues discussed in the literature regarding computer and internet use. Older adults have different expectations and needs compared to younger adults when learning about computers. First, older adults prefer learning skills specific to their own needs rather than learning general skills (Mayhorn, Stronge, McLaughlin, & Rogers, 2004). Older adults also engage in longer training sessions and are likely to make more mistakes when tested on newly acquired skills (Broady, Chan, & Caputi, 2010). Additionally, studies have shown that older adults prefer to have peer instructors in classroom settings with other older adults (Kim, 2008). Obstacles extend to internet use as well. Limited information on navigating the web (Morrell & Mayhorn, 2000) along with a lack of available internet training resources intended for elderly individuals (Cresci, Yarandi, & Morrell, 2010) makes internet training harder to achieve for them. Therefore, older adults who attend training programs not fulfilling the aforementioned computer and internet learning needs tend to have difficulties using these technologies. As a result, older adults get frustrated with infrequent or ineffective help and

become discouraged (Mellor, Firth, & Moore, 2008; Gatto & Tak, 2008). Frustration and discouragement, in turn, have implications for creating barriers to use.

Findings pertaining to older adults' barriers and concerns with training have led to research investigating the implementation of training programs in the community. These studies have found that older adults who participate in satisfactory computer and internet training gain confidence when using computers and the internet (Lagana, 2008). As anxiety towards the technology decreases, the likelihood of their computer and internet use increases (Jung et al., 2010). This means that training can yield expertise with computers and the internet as a result, though the applicability of this outcome to newer web-specific developments remains to be investigated.

However, training is not always available nor is it useful for all older adults who participate. Hence, barriers relating to a lack of or ineffective training are pervasive and influence attitudes towards computer and internet use. Stereotype threat is one example of an obstacle that stems from lack of training. Older adults believe they can't use computers and the internet because society believes they are not good at it (Morris, Goodman, & Brading, 2007) and therefore, refrain from taking computer classes. Similarly, without proper training, some elderly individuals perceive computers as overly complicated and are afraid they will damage computers they interact with (Carpenter & Buday, 2007). These findings pertain to general computer and internet barriers but there is little information on how these barriers transfer to recent purpose-specific computer and internet tools like online social networking.

Difficulties notwithstanding, older adults have several motivations for using computers and getting online. Some older adults choose to engage in computer and online activity as a life-

long learning opportunity or to improve their cognitive skills (Kim, 2008). Others engage in computer and internet use for several practical reasons. Health management activities and leisurely activities such as online games encompass some common reasons for older adults to get online (Sum, Mathews, & Hughes, 2009). However, communication remains the most popular incentive for older adults to use computers and the internet, particularly with regards to email (Kiel, 2005; Sum Mathews, & Hughes, 2009). Older adults who use computers and the internet for communication evidence social benefits including frequent contact with social network members (Beckenhauer & Armstrong, 2009).

Attitudes towards computers and the internet change when motivations help older adults overcome barriers. Previous studies on the benefits of computer and internet training found that older adults experienced increased positive attitudes towards the technology over the course of instructional sessions (Lagana, 2008; Wood, Lanuza, Baci, MacKenzie, & Nosko, 2010). Another study found that computer lessons, yielding higher expertise and more positive attitudes, also lead to continued use of computers after lessons commenced (White et al., 2002). Therefore, there appears to be an established positive relationship among expertise, attitudes, and use.

The benefit of internet use in later life extends further into the realm of social connectedness. It allows older adults to nurture new relationships online (Gilleard, Hyde, & Higgs, 2007) and reinforce pre-established offline relationships (Hogeboom, McDermott, Perrin, Osman, & Bell-Ellison, 2010; Xie, 2007). Some older adults gain a greater sense of social connectedness when using computers and the internet (Gatto & Tak, 2008). Previous research in this area focused on older adults who already use computers and the internet, thereby excluding

individuals with less expertise. Therefore, it is unclear whether older adults who have limited experience with computers and the internet exhibit similar social rewards.

Social connectedness is important because aging individuals are more isolated from their social networks when compared to younger adults (Cornwell, Laumann, & Schumm, 2008). Older adults who become socially isolated have higher rates of depression and a lowered sense of well-being (Golden et al., 2009). Researchers have reintroduced activity theory as a framework for understanding the social networking patterns of older adults because it emphasizes the significance of informal social participation for optimal adjustment in later life (Adamns, Leibbrandt, & Moon, 2011). Facing challenges in this domain has been shown to increase older adults' well-being as they build coping mechanisms for social changes (Warr, Butcher, & Robertson, 2004). Through computer interaction, internet use may provide an optimal adjustment for social contact in later adulthood when aging-in-place is no longer possible: it allows older adults to learn new communicative methods so they can stay socially integrated from long distances. If this is a possibility, it is important to understand older adults' skill set in utilizing this tool.

Online social networking is a relatively new development in computer and internet use. It has revolutionized how individuals communicate with one another. At its outset, online social networking became popular almost exclusively among younger adults. However, its rapid growth has expanded participation to other age groups, including older adults. Although younger adults comprise the largest portion of social networking users, the use of online social networking is growing at a much faster rate for older adults; however, only a small segment of the overall older adult population utilizes online social networking (Madden, 2010). Because

online social networking is a new area of the computer and internet domain, there is little research on older adults' experience with specific websites like Facebook and Twitter. Therefore, the current study assessed how computer and internet expertise, attitudes, and use are related when older adults consider the possibility of using these tools for social networking purposes.

The Present Study

Older adults' expertise and attitudes were assessed to determine whether previous findings correlating competence and interest also extend to the use of computers and the internet for online social networking. It was predicted that participants' who scored higher on expertise would score higher on attitudes. Put another way, participants who expressed the most confidence in using computers and the internet for social networking would have the most favorable opinions towards it. Additionally, it was predicted that participants who scored higher on expertise and attitudes would be more likely to use computers and the internet for social networking tools.

Research on online social networking use, limited to younger adults, illustrated a psychosocial benefit when using the website Facebook to stay connected (Quan-Haase & Young, 2010). The current study explored whether a similar benefit, not limited to Facebook alone but generalized to computer and internet use in general, exists among older adults. Older adults who regularly use computers and the internet exhibit predilections for social communication, both online and offline, and thus have more experience using technology. As such, it was predicted that higher use scores would be positively correlated with social connectedness scores.

The positive relationship between social connectedness and well-being in later life has been described strongest for individuals who learn how to remain socially engaged by adjusting

to changes in their life (Riediger, Li, & Lindenberger, 2006). Given that higher expertise scores indicate an ability to adjust to technological changes, it was predicted that the relationship between well-being and social connectedness would be strongest for those with high expertise scores.

METHODS

Participants

Participants were recruited from senior centers and other older adult gathering sites across the Orlando, Florida area. The sample consisted of 37 adults including 29 women and 8 men, aged 65 and over ($M=71.6$, $SD=5.4$). The sample was well educated with 60% of participants having completed a college education or higher. Most participants self-identified as White (84%), with remaining participants self-identifying as African-American (16%). Marital status breakdowns were as follows: 54% married, 27% widowed, 11% divorced, and 8% single. Participation in this study was limited to English-speaking individuals in good mental health. Participants did not receive compensation for their time.

Measures

Participants filled out five questionnaires. The first survey gathered basic demographic information. The Social Connectedness Scale (Lee & Robbins, 1995) addressed participants' perceived closeness to other people. The scale employed a Likert-type scale with 20 items, where 1 represented "strongly disagree" and 6 represented "strongly agree", for a maximum of 120 points. The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) assessed subjective well-being. A five-item Likert-type scale, where 1 represented "strongly disagree" and 7 represented "strongly agree" was used for a maximum of 35 possible points. Questionnaires regarding computers and the internet were preceded by a directive created by the researcher, priming participants to think about their experience, if any, with online social networking tools.

The most recent Computer Aversion, Attitudes and Familiarity Index (CAAFI) (Schulenberg & Melton, 2008) measured older adults' attitudes towards, expertise with, and use of computers; the researcher categorized 30 Likert-type statements, where 1 represented "absolutely false" and 7 represented "absolutely true", into three respective concepts. Statements 6, 7, 9, 10, 12, 13, 15, 17, 20, 22, 24, and 26 comprised computer expertise; a maximum of 84 points was possible. Statements 1, 2, 4, 5, 14, 16, 18, 25, 27, 28, and 29 comprised computer attitudes; a maximum of 77 points was possible. Statements 3, 8, 11, 19, 21, 23, and 30 comprised computer use; a maximum of 49 points was possible.

The Internet Technical Literacy and Social Awareness Scale (Dinev & Hart, 2006) measured competence with internet use and participants' interest in using various other resources to learn more about the internet. Because the survey had 12 Likert-type statements where 1 represented "extremely competent" and 5 represented "extremely incompetent, the researcher reversed these scores to better convey higher responses representing higher scores in internet expertise, internet attitudes, and internet use. Statements 1 thru 5 comprised internet expertise; a maximum of 25 points was possible. Statements 6 and 8 comprised internet attitudes; a maximum of 10 points was possible. Statements 7, 9, 10, 11, and 12 comprised internet use; a maximum of 25 points was possible.

RESULTS

Descriptive Statistics

Descriptive statistics yielded the following results. Participants' mean computer expertise score was 54.41 ($SD=15.00$). Their mean computer attitudes score was 54.62 ($SD=13.71$). Their mean computer use score was 27.73 ($SD=9.12$). Participants' mean internet expertise score was 14.41 ($SD=5.47$). Their mean internet attitudes score was 8.62 ($SD=1.69$). Their mean internet use score was 19.65 ($SD=3.82$).

Overall online social networking scores were computed by averaging computer and internet scores for each category. Participants' mean overall online social networking expertise score was 34.41 ($SD=9.17$). The mean overall online social networking attitudes score was 31.62 ($SD=6.93$). The mean overall online social networking use score was 23.69 ($SD=5.95$). The mean score for social connectedness was 97.76 ($SD=17.60$). Participants' mean subjective well-being score was 27.89 ($SD=4.36$).

Regression Analysis

A series of bivariate linear regression analyses were run to examine the relationship among the three primary variables of interest: overall online social networking use, overall online social networking expertise and overall online social networking attitudes. Overall online social networking expertise and overall online social networking attitudes were significantly related ($r=0.649$, $p<.001$). On average, participants with higher overall online social networking expertise scores have more positive attitudes towards online social networking. Overall online social networking use was significantly related to overall online social networking attitudes

($r=0.870$, $p<.001$). Overall networking use and overall networking expertise were also related ($r=0.688$, $p<0.001$). Correlation scatterplots can be found in Appendix C.

The multiple regression equation included online social networking use as the dependent variable, and online social networking expertise and online social networking attitudes as independent variables. The overall model had significant predictive value, explaining 78.4% of the variance in online social networking use. The best predictor was attitudes ($\beta=0.731$, $t=6.97$, $p<.001$) followed by expertise ($\beta=0.214$, $t= 2.04$, $p<.049$).

An analysis of the scatterplot correlating social connectedness with overall online social networking use ($r=-0.161$, $p<.342$) did not exhibit a linear relationship. Additionally, an analysis of the scatterplot correlating subjective well-being with overall online social networking expertise ($r=0.257$, $p<.124$) showed no linear relationship. Therefore, no regression analyses were conducted to examine how subjective well-being would be related to online social networking expertise given social connectedness scores.

DISCUSSION

The goal of this study was to summarize the relationship between determinants of older adults' online social networking use. Specifically, the study correlated online social networking expertise with attitudes and measured each of those domains as predictive factors in online social networking use. The study also explored the relationship between two psychosocial benefits, namely social connectedness and subjective well-being, and online social networking expertise.

Expertise and Attitudes

The relationship between older adults' ability to master new technological skills and their attitudes towards using technological tools has been well documented as being positive in nature. The present study tested this correlation applied specifically to online social networking as a relatively new technology. The hypothesis was supported: participants with high expertise scores tended to have more positive attitudes towards computer interaction.

However, the causal direction of this relationship cannot be determined from the survey data collected in this study. Whereas previous studies have implemented quasi-experimental designs gauging the effect of training on expertise and attitudes, this study did not collect information on the extent of participants' prior experience with online social networking. Therefore, it is difficult to infer whether negative attitudes towards online social networking inhibit older adults from seeking training that will improve expertise or whether frustrations stemming from challenges in training lead older adults to have a disregard for the technology.

Explaining Online Social Networking Use

Analyzing expertise and attitudes scores was important in order to determine how these factors play a role in whether older adults actually use online social networking. The hypothesis that participants with higher expertise scores, and more positive attitudes, would use online social networking tools was supported. Participants are more likely to score higher on online social networking use when they feel more competent using those tools. Likewise, older adults who do not have negative feelings about online social networking technology engage in more online social networking activity.

An intriguing finding was that attitude was better than expertise as a predictor for online social networking use. Attitudes seem to explain a larger part of online social networking use patterns. This is a significant finding because while both expertise and attitudes must be addressed when trying to get older adults to use online social networking tools, it may be that changing attitudes towards the technology is more effective or more urgent than improving expertise. Therefore, senior centers and elderly computer classes may want to begin training sessions by informing their students about common negative misconceptions regarding computer and internet use. It may be helpful for senior centers to offer counseling to older adults who completely refuse to engage in training about how their fears or anxiety towards computers are hindering. Additionally, this study did not analyze how various types of negative and positive attitudes influence online social networking use. For example, fear of privacy may be more closely tied to non-use than curiosity.

Lack of Psychosocial Benefits

This research explored the possibility that older adults gain psychosocial benefits, such as increased social connectedness if they feel confident in their online social networking skills. The hypothesis stating that participants who scored higher on online social networking expertise would have higher scores on social connectedness was not evidenced in the data. Consequently, the prediction that the association among subjective well-being and social connectedness would be stronger for participants with higher expertise scores was also not examined. Interestingly, there was no correlation between social connectedness and subjective well-being. This is contrary to previous research documenting the strong relationship between subjective well-being and a sense of closeness with others and integration in society (Pinquart & Sorensen, 2000). However, this finding can be partially explained by overwhelming high scores for social well-being which may be due to the bias of highly educated participants in the sample (Meeks & Murrell, 2001). Alternatively, participants may have exhibited response bias whereby they claimed to have a high sense of well-being simply because they thought the researcher warranted that response (Kozma & Stones, 1987).

If studies have shown younger adults experience more social connectedness when they use online social networking tools, why did older adult participants in this study not show similar psychosocial benefits? For a possible explanation, we can look to the highly educated sample. Highly educated older adults, with access to more resources for traveling and community housing, may not necessarily turn to online social networking as a way to stay in touch with others. Another possibility may be that older adults have different values for what constitutes

substantive relationships. In other words, receiving an email or seeing a status update on Facebook may not feel as personable as getting a letter or going out for coffee.

This study also neglected to assess an essential piece of information when understanding the nature of social connectedness: social network members (Lang & Carstensen, 1994; Koenig & Cunningham, 2001). Knowing that older adults use online social networking does not give us information on whether they are communicating with important people in their lives. For instance, chatting with a friend from college may not lead to the deeper sense of connectedness that talking to a grandchild or close lifetime friend might. Furthermore, this study did not assess how online social networking may adversely affect already-established social relationships. Online social networking, with increased communication, may reveal opportunities for conflict.

Notwithstanding flaws in the data collection, the absence of social connectedness and well-being as benefits of online social networking does have a relevant implication. First of all, it seems apparent that online social networking has social benefits for a particular population in society. Webpage developers and online social networking companies may not be considering older adults as a targeted demographic. They may not be creating tools that can fulfill the different social needs older adults have. It could be useful for webpage developers and online social networking companies to survey older adults to find out what applications they would like to use on their websites.

Limitations and Future Directions

This study was novel in its attempt to summarize how online social networking technology is experienced by older adults. It exhibited patterns in important factors like attitude and expertise that need to be taken into consideration before we understand why older adults are

or are not taking advantage of this rapidly growing communicative form. There are several areas in which this study can be enhanced to gain a more comprehensive understanding of how older adults are interacting with online social networking tools.

First, there are some sampling issues. This sample was limited to a small area in only one state. Therefore, it is unsafe to extrapolate this information to older adults in general. This is especially true because the state of Florida has a large proportion of elderly individuals where there may be more centralized resources for older adults to access training and social support outside of the net. The sample was also limitedly diverse, with an overwhelming number of educated White participants. As aforementioned in previous sections of the study, education has implications with regards to financial and social resources. It may also be that White older adults exhibit different social networking patterns than older adults from different ethnic backgrounds. Therefore, future research would benefit from extending this research to different geographical locations but also oversampling racial minorities and a variety of socio-economic and educational backgrounds.

Secondly, there were flaws with the measures used to assess the three main variables of interest: online social networking attitudes, expertise, and use. The three questionnaires used were not originally developed for online social networking and thus, address more global computer and internet concepts. These questionnaires were chosen instead of creating new measures because they have been validated and tested for reliability. However, only the Social Connectedness Scale and Satisfaction with Life Scale have been used specifically with older adults. The researcher's directive may not have been enough to maintain participants' thoughts on online social networking exclusively. Additionally, the researcher divided each of the

questionnaires' statements into attitudes, expertise and use categories. These categorizations were not checked by inter-researcher validity. This research could be improved by developing instruments that are specific to online social networking and the skills older adults need to navigate online social networking sites like Facebook or Twitter.

Future research on the topic of older adults and online social networking may also benefit from some information that was not collected in this study. For example, the frequency of participants' online social networking use was not determined. Questionnaire statements referencing use were dichotomous and did not involve how often participants might or might not use any given online social networking tool. Related to the issues of frequency of use is the idea of access to computers and the internet. This research could not address how access to computers and the internet can be related to online social networking attitudes, expertise, and use. It would be wise for prospective studies to include questions that ask participants to disclose whether they have access to computers and the internet and why they chose to have (or not have) access. Finally, an essential part of understanding older adults and their experience with online social networking is Human Factors. For example, previous studies have shown that natural physical and cognitive declines that accompany the aging process make it difficult for older adults to use different technological devices, such as computers (Adams, Stubbs, & Woods, 2005). Research that intends to build on the current study should gather data on how older adults feel about the user-friendliness and design of online social networking tools.

Conclusion

As online social networking continues to become more popular with people of all ages, it will be important for individuals, families, social services, housing and online social networking

developers to understand the complexity that accompanies the use of these tools for everyone. This study's exploration of the issue helps us understand that attitudes and expertise go hand in hand with use. Therefore, it will not suffice for individuals and groups to simply assume older adults do not use online social networking simply because they are afraid of it or simply because they do not know how. This study leads us into inquiries about how attitudes and expertise can be broken down to increase older adults' use of computer and internet use for communication and online social networking. Furthermore, psychosocial benefits resulting from computer and internet use were not revealed here but further research should be done to test whether this is true of older adults in general. In an aging society where many older adults choose to move away from loved ones and into elderly communities, it may be useful to extend the benefits of social integration and connectedness younger people experience from online social networking to older adults.

APPENDIX A: EXPLANATION OF RESEARCH CONSENT FORM



EXPLANATION OF RESEARCH

Title of Project: Older Adults and Online Social Networking

Principal Investigator: Elise Hernandez

Faculty Supervisor: Dr. Janan Smither, Psychology Department

You are being invited to take part in a research study. Whether you take part is up to you.

We are trying to understand how older adults are interacting with social partners using online social networking. Questionnaires will be handed out to help us understand older adults' use of online social networks.

If you would like to take part in this study, you will be asked to fill out five surveys given by the researcher. When you finish the surveys, you may be contacted by the researcher for an interview over the phone.

The researcher will go to you and administer questionnaires on-location. We expect the surveys to last about 45min to 1 hour but you will be given as much time as you need. Phone interviews are expected to last about 30 minutes but you will be given as much time as you need.

You must be 65 years of age or older to take part in this research study.

Study contact for questions about the research or to report a problem: If you have questions or complaints, please feel free to contact Dr. Janan Smither, Faculty Supervisor, Psychology Department, at (407) 823-5859 or by email at smither@mail.ucf.edu.

IRB contact about your rights in the study or to report a complaint: Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional

Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

APPENDIX B: QUESTIONNAIRE PACKET

QUESTIONNAIRE PACKET
DEMOGRAPHIC INFORMATION

Older Adults and Online Social Networking Study

ID: _____

Name: _____

Age: _____

Gender: Male Female

Are you Hispanic/ Latino/a? Yes No

Race (check all that apply):

African American/Black Asian or Pacific Islander
 Native American White Other

What is the highest grade in school you have completed? _____

Marital Status: _____

Would you like to be contacted about taking part in a follow-up phone interview? Yes No

If yes, please fill in the following information

Telephone Number: _____

Email Address: _____

Do you prefer to be contacted by
phone or email?

Phone

Email

Best time(s) to call/email you? :

Appointment Date (optional):

QUESTIONNAIRE PACKET
SOCIAL CONNECTEDNESS SCALE

Directions: Following are a number of statements that reflect various ways in which we view ourselves. Rate the degree to which you agree or disagree with each statement using the following scale (1 = Strongly Disagree and 6 = Strongly Agree). There is no right or wrong answer. Do not spend too much time with any one statement and do not leave any unanswered.

Strongly Disagree 1
Disagree Mildly 2
Disagree 3
Mildly Agree 4
Agree 5
Strongly Agree 6

- Strongly Disagree Strongly Agree
30. I feel comfortable in the presence of strangers..... 1 2 3 4 5 6
2. I am in tune with the world..... 1 2 3 4 5 6
3. Even among my friends, there is no sense of brother/sisterhood..... 1 2 3 4 5 6
4. I fit in well in new situations..... 1 2 3 4 5 6
5. I feel close to people..... 1 2 3 4 5 6
6. I feel disconnected from the world around me..... 1 2 3 4 5 6
7. Even around people I know, I don't feel that I really belong..... 1 2 3 4 5 6
8. I see people as friendly and approachable..... 1 2 3 4 5 6

9. I feel like an outsider..... 1 2 3 4 5 6
10. I feel understood by the people I know..... 1 2 3 4 5 6
11. I feel distant from people..... 1 2 3 4 5 6
12. I am able to relate to my peers..... 1 2 3 4 5 6
13. I have little sense of togetherness with my peers..... 1 2 3 4 5 6
14. I find myself actively involved in people's lives..... 1 2 3 4 5 6
15. I catch myself losing a sense of connectedness
with society..... 1 2 3 4 5 6
16. I am able to connect with other people..... 1 2 3 4 5 6
17. I see myself as a loner..... 1 2 3 4 5 6
18. I don't feel related to most people..... 1 2 3 4 5 6
19. My friends feel like family..... 1 2 3 4 5 6
20. I don't feel I participate with anyone or any group... 1 2 3 4 5 6
- Strongly Disagree Strongly Agree

QUESTIONNAIRE PACKET

SATISFACTION WITH LIFE SCALE

Below are five statements that you may agree or disagree with. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 – Strongly agree
- 6 – Agree
- 5 – Slightly agree
- 4 – Neither agree nor disagree
- 3 – Slightly disagree
- 2 – Disagree
- 1 – Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

QUESTIONNAIRE PACKET
RESEARCHER-CREATED DIRECTIVE

As you read the next couple of surveys, please also keep in mind your experience (if any) with online social networking sites like Facebook, Twitter, MySpace, etc. *and/or* blogs and email.

QUESTIONNAIRE PACKET

COMPUTER AVERSION, ATTITUDES, AND FAMILIARTY INDEX

Instructions: Below is a list of items describing many of the thoughts and experiences that people have with **COMPUTERS**. After reading each statement, circle the number that best describes how true or how false the statement is as it applies to you at this time. If you have no opinion about the item, circle "0", but please use this option only if it is absolutely necessary. Be sure to circle only one number. Please do your best to respond to each item.

1. I enjoy using computers.

-3	-2	-1	0	1	2	3
Absolutely false			Neutral	Absolutely true		

2. Being able to use a computer is important to me.

-3	-2	-1	0	1	2	3
Absolutely false			Neutral	Absolutely true		

3. I keep up with the latest computer hardware.

-3	-2	-1	0	1	2	3
Absolutely false			Neutral	Absolutely true		

4. Computers are beneficial because they save people time.

-3	-2	-1	0	1	2	3
Absolutely false			Neutral	Absolutely true		

5. I like using word-processing programs.

-3	-2	-1	0	1	2	3
----	----	----	---	---	---	---

Absolutely false	Neutral	Absolutely true
6. I feel like a fool when I am using a computer and others are around.		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
7. I am smart enough to use a computer.		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
8. I avoid using computers whenever possible.		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
9. I do not understand how to use computer software (e.g., word-processing programs, spreadsheet programs, etc.).		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
10. I feel that I understand how to use computer files, documents, and folders.		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
11. I use a computer input device every day (e.g., a keyboard, a touch pad, a mouse).		
-3 -2 -1	0	1 2 3
Absolutely false	Neutral	Absolutely true

Absolutely false	Neutral	Absolutely true
12. I can use a computer to successfully perform tasks.		
-3 -2 -1	0	1 2 3

- | | | |
|------------------|---------|-----------------|
| Absolutely false | Neutral | Absolutely true |
|------------------|---------|-----------------|
13. I can add new hardware to a computer.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
14. I enjoy reading computer magazines.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
15. When I use a computer, I am afraid that I will damage it.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
16. I enjoy connecting new computer accessories.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
17. I must have a reference manual or a help file to run computer software.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
18. E-mail is an easy way to communicate with people.
- | | | | | | | |
|------------------|----|----|---------|---|---|-----------------|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | | | Neutral | | | Absolutely true |
19. I use e-mail every day.
- | | | | | | | |
|----|----|----|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
|----|----|----|---|---|---|---|

- | | | |
|------------------|---------|-----------------|
| Absolutely false | Neutral | Absolutely true |
|------------------|---------|-----------------|
20. I am comfortable changing (installing/upgrading) computer software.
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
21. I often read [computer books.]
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
22. My friends often ask me computer-related questions.
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
23. I often read computer magazines.
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
24. Overall, I feel that I don't know how to use a computer.
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
25. Computers are too scientific for me.
- | | | | | | | |
|------------------|---------|-----------------|---|---|---|---|
| -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Absolutely false | Neutral | Absolutely true | | | | |
26. When using a computer, I often[lose data.

-3 -2 -1 0 1 2 3
Absolutely false Neutral Absolutely true

27. I enjoy learning to use new software programs.

-3 -2 -1 0 1 2 3
Absolutely false Neutral Absolutely true

28. I like to use computer input devices such as a keyboard, a touch pad, a mouse, etc

-3 -2 -1 0 1 2 3
Absolutely false Neutral Absolutely true

29. Using a computer is entertaining.

-3 -2 -1 0 1 2 3
Absolutely false Neutral Absolutely true

30. I keep up with the latest computer software.

-3 -2 -1 0 1 2 3
Absolutely false Neutral Absolutely true

QUESTIONNAIRE PACKET

INTERNET TECHNICAL LITERACY AND SOCIAL AWARENESS SCALE

Instructions: Be sure to circle only one number. Please do your best to respond to each item.

Rate the extent to which you feel competent in using the following:

- 1=Extremely Competent
- 2= Competent
- 3= Neither Component nor Incompetent
- 4= Incompetent
- 5= Extremely Incompetent

___ Surfing the World Wide Web

___ Audio software for listening to audio clips or radio stations over the Internet

___ Posting/reading/following a thread on Internet Message and Discussion Boards

___ Downloading files/audio/video/executables from the Internet.

___ Installing software downloaded form the Internet.

To what extent do you agree with the following:

- 1=Strongly Agree
- 2= Agree
- 3= Neither Agree nor Disagree
- 4= Disagree
- 5= Strongly Disagree

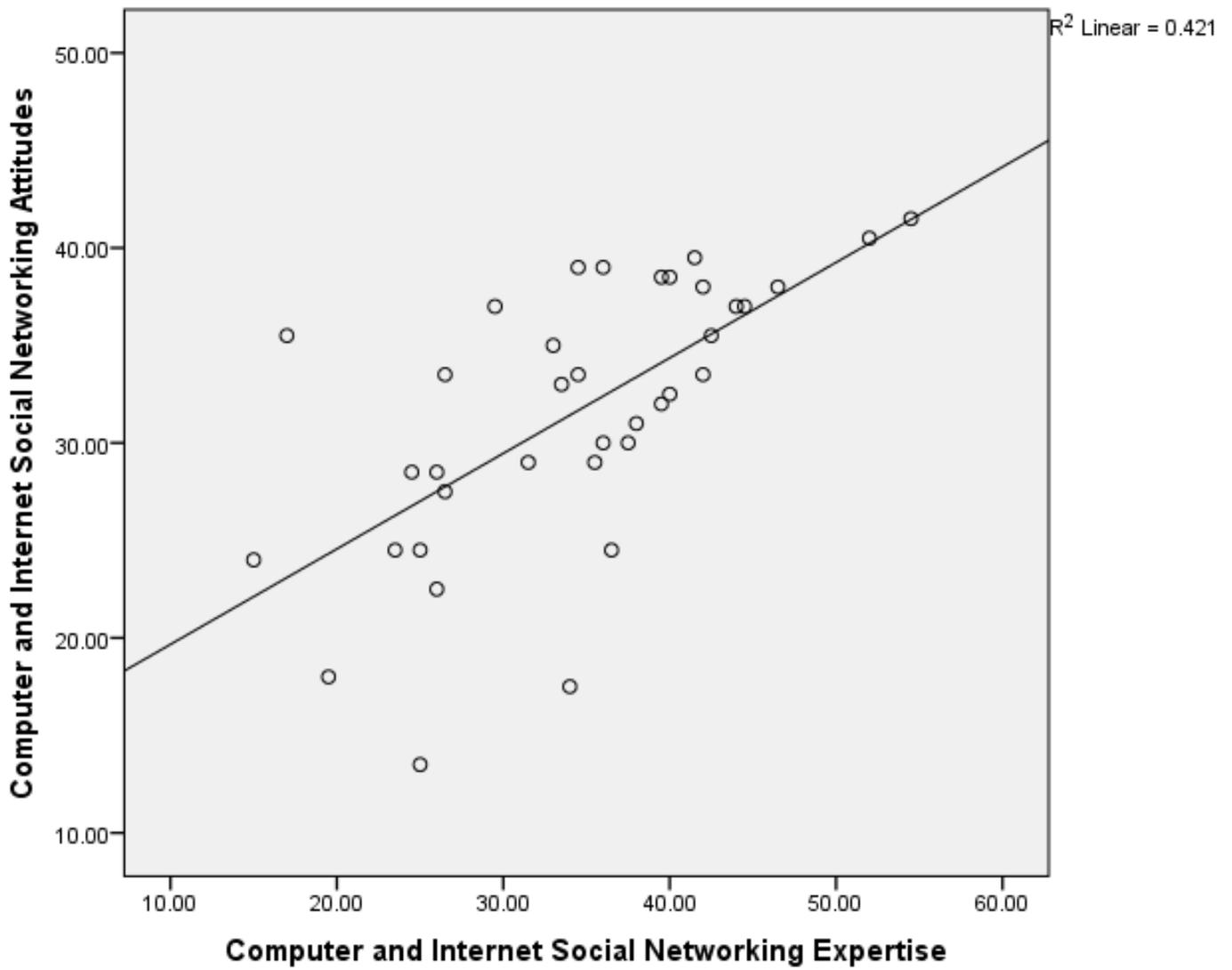
___I am interested in reading political commentaries or watching them on TV.

___I closely follow developments in my community.

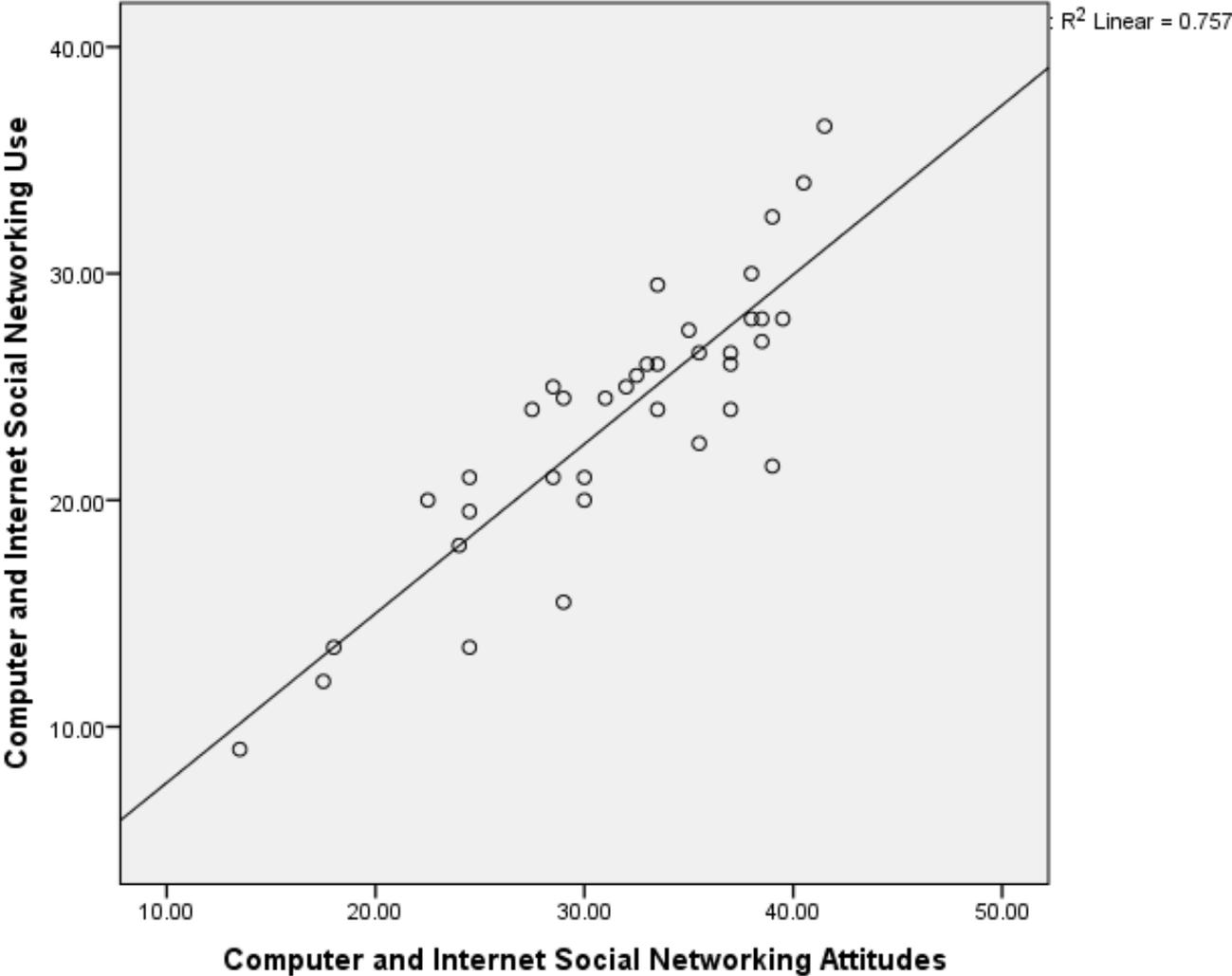
___I enjoy discussing important business or social issues with others

APPENDIX C: SCATTER PLOTS

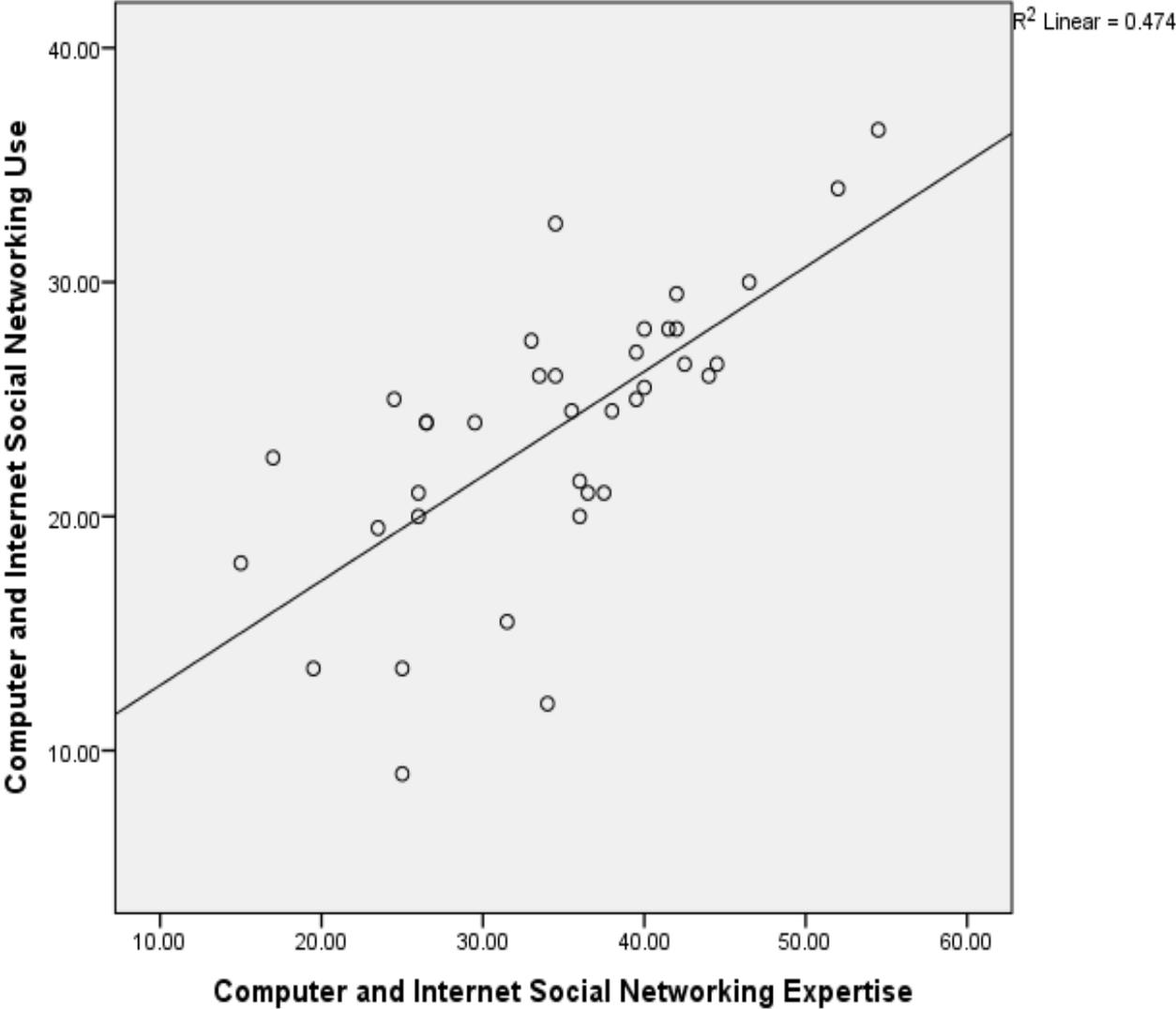
ONLINE SOCIAL NETWORKING ATTITUDES AND EXPERTISE



ONLINE SOCIAL NETWORKING USE AND ATTITUDES



ONLINE SOCIAL NETWORKING USE AND EXPERTISE



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