

AJZEN'S THEORY OF PLANNED BEHAVIOR APPLIED
TO THE USE OF SOCIAL NETWORKING BY COLLEGE STUDENTS

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ABSTRACT

The Theory of Planned Behavior (TPB) predicts that planned behaviors are determined by behavioral intentions which are largely influenced by an individual's attitude toward a behavior, the subjective norms encasing the execution of the behavior, and the individual's perception of their control over the behavior (Ajzen, 1975). Ajzen's theory has been used to predict an array of behaviors (Martin et al., 2010; Quine & Rubin, 1997; Stone, Jawahar, & Kisamore, 2010). Social networking sites are defined as online products such as Facebook, MySpace, Twitter, or other websites focused on maintaining and/or building relationships. The current study surveyed 221 participants about their use of these sites and projected assistance offered to others with social networking among hypothetical friends and relatives at ages: 20, 40 and 60 years. Participants' age varied from 18 to 27 years or older ($M = 20.37$) and was comprised of 71 males, 148 females. Purposes of this study were to: (1) assess the effectiveness of the TPB in predicting students' use of social networking sites (SNS); (2) determine the participants' estimates of a hypothetical student's success in helping another use SNS; (3) measure the estimation of the hypothetical student's required time to help another use SNS. Success and Time estimates in the hypothetical scenarios depended upon the recipient's age (20, 40, or 60 years) and relationship (acquaintance or relative). Hypotheses were: (1) factor analysis will show that items for each of the TPB's components will correlate with the other items within the same component and (2) the factor analysis will lead to a regression model showing that SNS use conforms to Ajzen's model. Further, a predictive model for helping others in the use of SNS can be produced in order to predict responses

to the hypothetical assistance scenarios. Finally, we predicted significant age and relationship differences will occur in estimates for Success and Time required facilitating other's SNS use in the hypothetical scenarios, while participants will estimate the least Success and most estimated Time required in helping 60 year olds. Results showed that Ajzen's model was not supported. Factor Analysis showed that Intention and Behavior factors were highly correlated and not separate factors. A regression model showed that Behavior and prior Help experience predicted the estimated success in helping 20-year olds, with Behavior explaining a greater proportion of the variance than prior USE. Prior experience helping others and Behavior were also predictive in the 40 and 60 year old groups, but with helping being the stronger predictor. Further, two repeated measures 3x2 ANOVAs showed: learner's age had a significant effect on estimated Success for facilitating others with SNS use, and relationship had a significant effect on estimated amount of Time required. Estimated Success in SNS use decreased with increasing age. The lowest estimated Success was helping the 60 year old group (mean success scores of hypothetical 60-year old relatives and 60-year old acquaintances). These findings suggest that the TPB does not predict routinized SNS use behaviors; other studies reported either novel behaviors (Quine & Rubin, 1997) or the cessation of addictive behaviors (Hoie, Moan, & Rise, 2009). Although the age demographic above 50 years is the fastest growing SNS user age (Madden, 2010), our results showed possible age stereotyping in assisting older individuals in the use of SNS.

Ajzen's Theory of Planned Behavior Applied to the Use of Social Networking by College Students

A minimal amount of research has been conducted in the area of social networking and predictive behaviors. Ajzen (1991) proposed the Theory of Planned Behavior (TPB) wherein the individual's behavior is best predicted by one's intentions; intentions are, in turn, predicted by attitudes about the behavior, the subjective norms (a person's perception of important others' beliefs that he or she should or should not perform the behavior) encasing the execution of the behavior, and the individual's perception of their control over the behavior (See Figure 1).

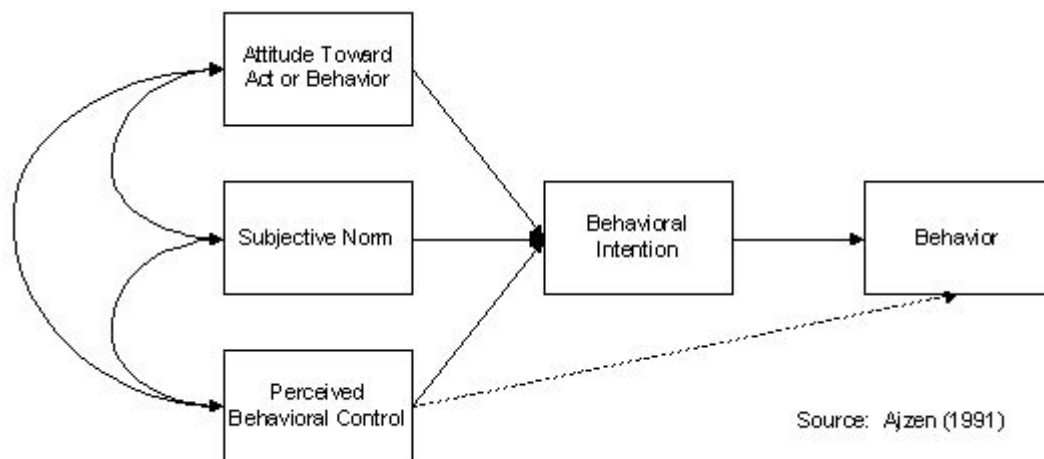


Figure 1. Ajzen's Theory of Planned Behavior

The Theory of Planned behavior has been used to predict many different behaviors ranging from gambling behaviors to the use of hormone replacement therapy.

Review of Applications of Ajzen's Theory of Planned Behavior

Kisamore and Stone (2010) conducted a study in Oklahoma which studied the Theory of Planned Behavior predicting academic misconduct intentions and behavior. They studied the cheating intentions and behavior of a sample of 241 business undergraduates. They found that the TPB accounted for 21% of the variance in cheating

intentions and 36% of cheating behavior. The finding of their study was that the TPB model is a valuable tool for predicting cheating behaviors and could further research on academic misconduct.

Robinson and Doverspike (2006) applied the Theory of Planned Behavior to individuals' intentions to enroll in either an online version or a traditional classroom version of an experimental psychology class. A sample of 112 psychology majors, ages ranging from 18 to 51 years old, completed a questionnaire which included a fabricated description of an experimental psychology course at the university. The questionnaire measured each of the components of Ajzen's theory. General attitudes and subjective norms directly predicted intentions to register for an online course.

Women's intentions to receive hormone replacement therapy were measured using Ajzen's theory in a study performed at the Center for Research in Health in Canterbury, England. Questionnaires were sent to a random sample of women, aged 38 to 58 years old, found in the Kent Family Health Services Authority records. This questionnaire was designed to measure each component of the Theory of Planned Behavior. A hierarchical multiple regression analysis was done and showed that past behaviors were shown to induce behavior through attitude and perceived behavioral control. They also found that the beliefs of their loved ones, their perceived behavioral control, and their personal beliefs were all important in predicting their intention to receive hormone replacement therapy (Quine & Rubin, 1997).

The Theory of Planned Behavior has also been used to predict gambling behaviors. A survey was given to 80 college students which attempted to assess the utility of Ajzen's theory in predicting gambling behavior and frequency. The results of

this study support the efficacy of using this theory to clarify gambling behavior in this population. They found that perceived behavioral control and subjective norms predicted past gambling, and subjective norms, attitudes and perceived behavioral control predicted the frequency of gambling behaviors (Martin et al. 2010).

Hoie, Moan and Rise (2009) did a study which supported the TPB in the context of the intention to quit smoking. They hypothesized that the predictive utility of the TPB model on intentions would be enhanced by past experiences with the behavior. The Theory of Planned Behavior components accounted for 12.3% of variance in the intention of quitting with the strongest impact coming from past behaviors.

Ajzen's Theory of Planned Behavior was recently applied to social networking. Baker and White (2010) conducted a study examining the use of the Theory of Planned Behavior to predict adolescents' use of social networking. A questionnaire was given to 160 students that measured the components of Ajzen's theory and then they were asked to return a week later to report their social networking site use in the preceding week. Their study found support for the TPB's components of attitude, perceived behavioral control, and group norms in predicting intentions to use social networking sites. They then found support that intentions predict behavior.

Review of Age and relationships as determinants for estimating helping others use of social media

Madden (2010) showed that while users aged 18-29 years old are among the heaviest users of social networking sites, the 50-64 year old age group far surpasses them in the amount of new users. Internet users in the 50-64 year old range that admitted to using social networking sites has grown 88% and 100% for users 65 and older. Research

showed many users of social networks do so in order to connect with people from their past. Those nearing the age of retirement may find these connections more valuable as their need for social support increases. They are also more likely to have a chronic disease which makes them more likely to seek out support online. Social networking sites also help bridge the generational gap.

Chung, Park, Wang, Fulk, and McLaughlin (2010) examined different age groups' perceptions of online communities. Those who were studied were not currently participating in these online communities and had not in the past. The researchers used the Technology Acceptance Model to study the factors that influence future intention to partake in these new social communities. They found that an individual's perceived usefulness of the site positively influenced behavioral intention. They also found that age, internet self-efficacy and perceived quality of social community websites were all negatively correlated with one another. They concluded that perceived usefulness, perceived ease of use, and intention to participate in these online communities did not change with age.

Relationships (friend versus kin) may be another salient factor predicting estimates of success and time required to aid others' use of social media. Evolutionary biologist W.D. Hamilton (1975) proposed that individuals would be more inclined to help a member of their own family, or kin, than an individual who was not apart of their family, or non-kin. Stewart-Williams (2007) examined helping behaviors between the individual, kin and non-kin. A survey was completed by 295 undergraduate students and the results showed that as the cost of helping increased the individual was more likely to help their kin rather than their non-kin. When the helping cost was low the individual

was more likely to give help to a friend but as the cost increased the individual was less inclined to offer help to the friend over the family member.

The purposes of this study were to: (1) assess the effectiveness of the Theory of Planned Behavior in predicting college students' use of social networking sites (SNS); (2) to determine the participant's estimates of a hypothetical student's success in facilitating another's use of SNS; (3) to measure the estimation of the hypothetical student's required time to facilitate another's use of SNS. Social networking sites are defined as online products such as Facebook, Myspace, Twitter, or other websites which focus on maintaining and/or building relationships. In Study 1 the hypotheses were: a factor analysis will show that items for each of TPB's components will correlate within the component and the factor analysis will lead to a regression model showing that SNS use as a planned behavior conforms with Ajzen's model. In Study 2 the hypothesis was that in hypothetical scenarios a predictive model for helping others in the use of SNS can be produced. In Study 3 the hypotheses were: significant age and relationship differences will occur in estimates for success in facilitating another's use of social media and in the hypothetical scenarios 60 year olds will have the least estimated success.

Method

Participants

There were 221 participants (71 males and 148 females) along with two participants who did not report their gender. The ages of the participants ranged from 18 to 27 or older, with a mean of 20.37 years; five participants did not report their age. Participants had the following ethnicities: 131 were Caucasian, 3 were Native American, 9 were African-American, 3 were Asian, 49 were Latino, 16 were multi-racial, 4

identified themselves as other, and 6 preferred not to answer. Participants were compensated by receiving extra credit in their Human Sexuality class.

Materials and Procedure

The participants were given one of two different packets, each with a different form number and corresponding packet color. Participants were told to complete the entire questionnaire provided to them even if they did not use social networking sites. Participants were provided no identifying information; their responses were anonymous.

The first section was comprised of biographical items. Responses to all subsequent items were based on a 10-point scale, ranging from low (1) to high (10). Items about social networking are shown in Appendixes A and B, there were 4-5 items for each category: (a) participants' estimates of their own social networks' use of social networking e.g., the participant, relatives' and friends (Use); (b) estimates of how much the participant helped their peers/relatives use social networking (Help); (c) attitudes about use of social media (Attitude); (d) participant's perception of important others' beliefs that he or she should or should not perform the behavior (Subjective Norms); (e) participant's perceived ease or difficulty of performing a particular behavior (Perceived Behavioral Control); (f) intentions to use social networks in the future (Intention) and (g) participant's reported behaviors related to the use of social media (Behavior).

In the final section participants were presented with six hypothetical scenarios involving a fictional college student named K.W. whom is depicted as being just like the participant. K.W. uses social networking to keep in touch with friends and family. Participants were instructed to rate K.W.'s perceived success (Success) and time required to help (Time) a 20, 40, or 60 year old, who is either K.W.'s friend or family member

(sibling, parent, or grandparent). The order of age was rotated in to two groups in order to account for potential order effects in the summed data for each age group: Form A; 20, 40, 60 years old (see Appendix A), or Form B; 60, 40, 20 years old (See Appendix B).

Results

Study 1

A factor analysis was performed to determine whether the data for Attitudes, Social Norms, Perceived Behavioral Control, Intention and Behavior conformed to Ajzen's Theory of Planned Behavior. A varimax, non-forced factor analysis with a cut-off point of .400 did not show factors consistent with Ajzen's theory. The factor analysis showed that 4 Intention and 5 Behavior items loaded in the same factor. All of the Attitudes items and one Intention item comprised the second factor. All five of the Perceived Behavior Control items loaded in the same factor. The Social Norms items were all in the same factor as well. The pattern matrix for the factor analysis is shown in Table 1.

Table 1

	Component			
	1	2	3	4
Intention 4	.871			
Behavior 2	.860			
Behavior 1	.814			
Behavior 3	.795			
Behavior 4	.781			
Intention 2	.779			
Behavior 5	.720			
Intention 5	.683			
Intention 3	.488			
Attitudes 4		.733		
Attitudes 3		.720		
Attitudes 5		.701		
Intention 1		.656		
Attitudes 2		.585		
Attitudes 1		.544		
Perceived Behavioral Control 3			.886	
Perceived Behavioral Control 4			.851	
Perceived Behavioral Control 2			.802	
Perceived Behavioral Control 5			.801	
Perceived Behavioral Control 1			.712	
Social Norms 2				.867
Social Norms 3				.601
Social Norms 4				.587
Social Norms 1		.445		.544
Social Norms 5				.426

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Study 2

In order to create a model to predict success in facilitating SNS use, we performed a factor analysis to see which items were predictive of success. Five factors were found in the varimax, non-forced factor analysis participant's reported social networking behaviors (Self); participant's estimated daily use of SNS (Use); participant's amount of experience in helping his/her siblings, close friends, and parents in using social networking (Help); estimated success helping 40 and 60 year old relatives and acquaintances (40/60YR); and estimated success of 20 year old relatives and acquaintances (20YR).

Two step-wise regression analyses were then performed to determine the relationship between the factors, the results of which can be seen in Table 2. The first factor (Self) had the highest strength in predicting the perceived success of 20 year old relatives and acquaintances in using social networking $F(2, 188) = 14.89, p < .001$. The second factor (Help) predicted the perceived success of 20 year olds (20YR) at a smaller strength. Self and Help contributed 12 and 2 percent of the variance, respectively. Combined they explained 14 percent of the variance (see Table 2). Help and Self also predicted success in helping 40 and 60 Year Olds (40/60YR), $F(2,189) = 9.73, p < .001$, explaining 8 and 1 percent of the variance, respectively. Together they explained 9 percent of the variance. The results can be seen in Table 3. All other factors had negligible strength in the regression analysis.

An order effect was found in the hypothetical scenarios results. However, the two different forms offset this effect.

Table 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.344 ^a	.118	.114	2.03744
2	.370 ^b	.137	.128	2.02154

a. Predictors: (Constant), Behavior

b. Predictors: (Constant), Behavior, Help

Table 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.273 ^a	.075	.070	1.97427
2	.306 ^b	.093	.084	1.95936

a. Predictors: (Constant), Help

b. Predictors: (Constant), Help, Behavior

Study 3

Estimated Success in helping others use SNS decreased as those others increased in age. The Estimated Success in helping the 20 year old group (mean of 20 year old relatives and 20 year old acquaintances) was highest ($M= 7.47$, $SD= 2.17$), followed by the 40 year old group ($M= 5.07$, $SD= 2.26$) and the 60 year old group ($M= 3.62$, $SD= 2.39$). Estimated Time required in facilitating SNS use in others increased as those others increased in age. The Estimated Time in helping the 60 year old group was highest estimated Time ($M= 5.76$, $SD= 3.14$), followed by the 40 year old group ($M= 5.73$, $SD= 2.27$) and the 20 year old group ($M= 5.04$, $SD= 2.42$).

Repeated measures 3x2 ANOVAs were performed to determine how age (20, 40, 60 years old) and the relationship variables (acquaintance or relative) influenced participants' responses to their estimated Success facilitating others' social media networking and estimated Time required (see Table 4 and Table 5). Relationship and Age had a significant effect in Success (see Figure 2). Only Relationship had a significant effect on Time required estimates (see Figure 3).

Table 4

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter
<u>Age</u>	Pillai's Trace	.584	147.492 ^a	2.000	210.000	.000	.584	294.983
	Wilks' Lambda	.416	147.492 ^a	2.000	210.000	.000	.584	294.983
	Hotelling's	1.405	147.492 ^a	2.000	210.000	.000	.584	294.983
	Roy's Largest Root	1.405	147.492 ^a	2.000	210.000	.000	.584	294.983
<u>Relationship</u>	Pillai's Trace	.152	37.758 ^a	1.000	211.000	.000	.152	37.758
	Wilks' Lambda	.848	37.758 ^a	1.000	211.000	.000	.152	37.758
	Hotelling's	.179	37.758 ^a	1.000	211.000	.000	.152	37.758
	Roy's Largest Root	.179	37.758 ^a	1.000	211.000	.000	.152	37.758

Table 5

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter
<u>Age</u>	Pillai's Trace	.052	5.684 ^a	2.000	209.000	.004	.052	11.367
	Wilks' Lambda	.948	5.684 ^a	2.000	209.000	.004	.052	11.367
	Hotelling's	.054	5.684 ^a	2.000	209.000	.004	.052	11.367
	Roy's Largest Root	.054	5.684 ^a	2.000	209.000	.004	.052	11.367
<u>Relationship</u>	Pillai's Trace	.186	48.076 ^a	1.000	210.000	.000	.186	48.076
	Wilks' Lambda	.814	48.076 ^a	1.000	210.000	.000	.186	48.076
	Hotelling's	.229	48.076 ^a	1.000	210.000	.000	.186	48.076
	Roy's Largest Root	.229	48.076 ^a	1.000	210.000	.000	.186	48.076

Figure 2

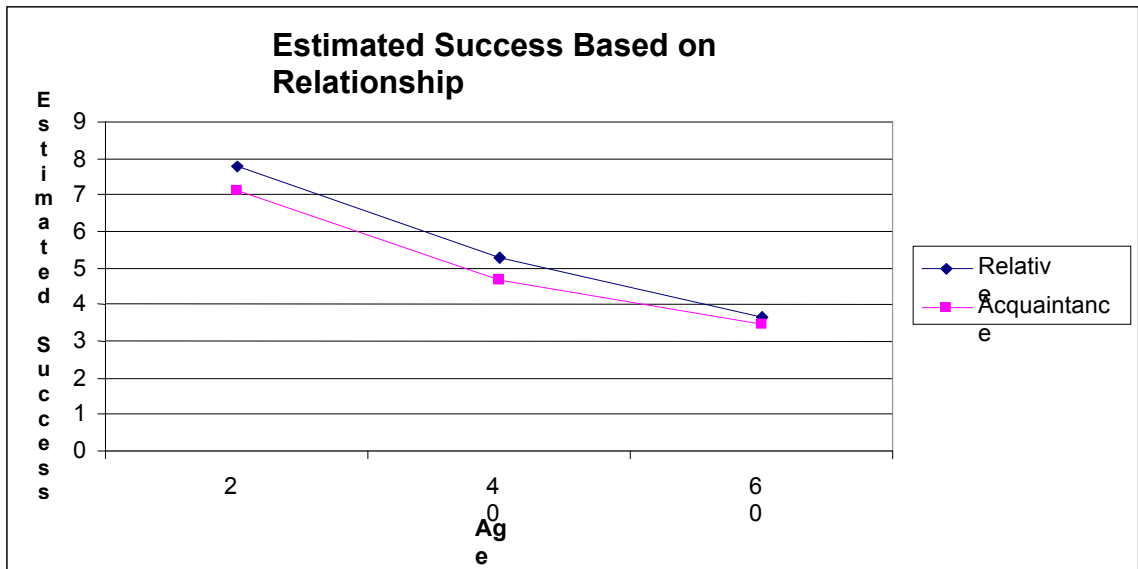
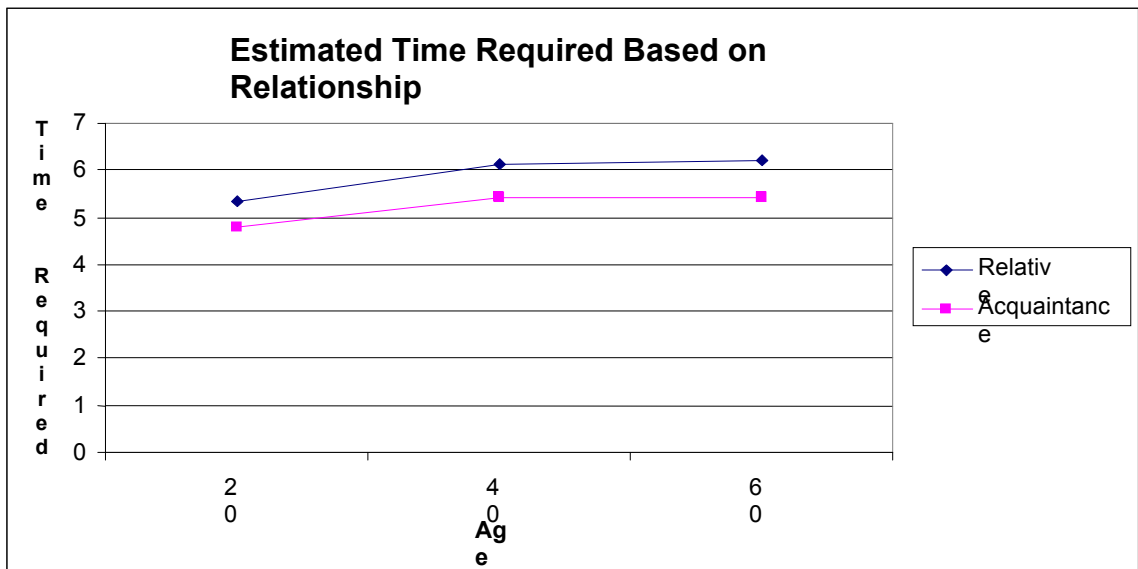


Figure 3



Discussion

Study 1

Intentions were not significantly predicted by Attitudes, Subjective Norms, and Perceived Behavioral Control. Intentions were grouped with the Behaviors in the factor analysis; in Ajzen's theory Intentions and Behaviors should be separate factors so this hindered further analysis; perhaps an outcome resulting from the Behaviors being reported at the same time as the Intentions. The participants did not have time to make their actual Behaviors different from their Intentions. Therefore, Intention and Behavior scores were too similar to test Ajzen's model. Other studies which have found support for Ajzen's theory examined activities which an individual planned to do or planned to stop doing. In this study participants were asked to plan an activity in which they were already engaged, which may have made it difficult to differentiate the Intention from the Behavior responses. In the past, the TPB has been criticized due to the lack of a prior experience component. For example, in a study performed by Bentler and Speckart (1979) it was determined that factors other than intentions were more important in predicting behavior. Perhaps our study would have supported Ajzen's theory if there was a component consisting of the participants' prior experience included in the model.

By contrast, the participants in the Baker and White (2010) study were asked to report their behavior a week later, thus giving the respondents time to differentiate their intentions from their behavior. This is a large difference between the current study and Baker and White's study, and could account for Ajzen's model being supported in one study but not in the other.

Study 2

The participant's Behavior was the strongest predictor in helping 20 year olds' to use social networking. The mean age of the participants was 20.37 years which may account for the difference in their perceived Success. A previous study found that 86% of 18-29 year olds use social media sites (Madden, 2010). Most likely the majority of the participants have already been exposed to social networking and are helping others use social networking. The participant's own behavior would reflect their perception of their own age group's experience. Therefore the amount of perceived help needed for the participants' own age group would be affected by their age group's ample experience with social networking and technology in general.

Success in helping 40 and 60 year olds use social networking was best predicted by the participant's previous Help experience. Another study showed internet users aged 50 and older have less experience with social networking; only 50% of 50-64 year olds and 26% of 65 and older use social networking. At the same time, internet users 50 years and older are the fastest growing age group in social media use; 88% growth in 50-64 year olds and 100% growth in 65 years and older (Madden, 2010). Clearly the older age group, on average, is less experienced in social networking use but is in the process of entering the social networking experience. Therefore, previous experience in teaching others to use social networking sites would play a large role in the success of K.W.'s 40 or 60 year old acquaintance/relative SNS use because K.W. is like the participant in every way.

Study 3

Estimated success in helping others use SNS decreased with others' increasing age. The participants estimated that they would have the greatest success helping the 20 year old group followed by the 40 year old group and then the 60 year old group. The 60 year old group had the highest time required, followed by the 40 year old and 20 year old groups. Relationship and Age were significantly related to Success, while only Relationship was significantly correlated with Time required estimates; with alpha at .001, Age effect was .004 for Time estimated to assist others.

These findings suggest that Relationship is a slightly more important factor than Age in facilitating social networking use. However, age is not to be overlooked. The importance of relationship could be explained by evolutionary theories concerning kin versus non-kin assistance, such as W. D. Hamilton's theory that an individual is more likely to assist their kin than someone who is not genetically related (1975). In a study done by Stewart-Williams (2007) results showed that as the difficulty of helping another person increased the likelihood of selecting to assist kin over non-kin increased. In the hypothetical scenarios assisting another individual with the use of SNS could be seen as a difficult task, especially as age increased. The participants may have estimated increased time based on relationship because the kin were given higher quality assistance and thus increased time. The increased Time may account for the increased estimated Success as well.

Conclusions

In later investigations of this issue behaviors should be measured at a later time than the other components of Ajzen's theory. Even though the routinization of social

networking is an important aspect of our results, the instant feedback on behavior may have impacted the results in our study. Also a more accurate measure of estimated Time required would be advantageous to avoid any problems associated with the varied perception of time. Further studies could incorporate lab observations to investigate the Success and Time required facilitating another's SNS use. This could show how a participant's perception could affect their estimates of Success and Time required facilitating SNS use.

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Appendix A

On the answer key, please do not fill out any personal information (e.g. name, id number).

This is an anonymous survey about the use of social networking. Social networking refers to services such as Facebook, MySpace, Twitter, or other online services that have a primary focus of keeping/building relationships. It is impossible to identify any individual in this survey because the surveys and answer sheets are completely anonymous and have no identifiers in them. The data will be analyzed as a whole group and no individual can or will be identified. Questions are divided into five sections: (a) Participants' characteristics (b) Use of Social Networking Sites (c) Predictors of Behavior (d) Behavior and (e) Hypothetical scenarios.

PLEASE ANSWER THE ANONYMOUS SURVEY QUESTIONS HONESTLY AND FAITHFULLY. YOUR SINCERE TRUTHFULNESS IS NECESSARY.

1. Form

(1) Yellow (2) Purple

Section A: Participants' characteristics

2. Age in Years

(1) 18 (2) 19 (3) 20 (4) 21 (5) 22 (6) 23 (7) 24 (8) 25 (9) 26 (10) 27 or older

3. Sex

(1) Male (2) Female

4. Ethnicity

(1) White (2) Native American (3) Black (4) Asian (5) Latino
(6) Bi-Racial/Multi-Racial (7) Other (8) Prefer not to answer

5. Do you use social networking sites?

(1) Yes (2) No

In this survey, social networking refers to services such as Facebook, MySpace, Twitter, or any other online service that is focused on keeping/building relationships.

Section B: Use of Social Networking

If any item on this page does not apply to you (for example, you are an only child with no siblings), then leave the item blank.

In the following section, evaluate the amount of time spent using social networking (1) being low to (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

6. On average, estimate the amount of time that **you** use social networking each day.
7. On average, estimate the amount of time your **siblings** use social networking each day.
8. On average, estimate the amount of time your **parents** use social networking.
9. On average, estimate the amount of time your **grandparents** use social networking.
10. On average, estimate the amount of time your **close friends** use social networking each day.

In the following section, evaluate how much that you agree with the statements presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

11. I have helped a **sibling** by answering questions about how to use social networking.
12. I have helped a **parent/guardian** by answering questions about how to use social networking.
13. I have helped a **grandparent** by answering questions about how to use social networking.
14. I have helped a **friend** by answering questions about how to use social networking

In the following Sections C & D, evaluate how much you agree with the statements presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

Section C: Predictors of Behavior

Attitudes – Attitudes represent an individual's likes, dislikes, beliefs and opinions regarding a particular behavior.

15. I think that using social networking sites is enjoyable.

16. I think social networking sites are useful.

17. I think it is important to check my social networking site often.

18. I think using social networking sites will benefit my social life.

19. I think using a social networking site will positively impact the way others see me.

Subjective Norm – Subjective Norms represent a person's perception of important others' (family friends) beliefs that he or she should or should not perform the behavior.

20. People that are important to me recommend and/or encourage that I use social networking sites.

21. If I use a social networking site people that are important to me would approve.

22. Others feel that I am more accessible because I use a social networking site.

23. I think most of my acquaintances use social networking.

24. I think my use of social networking is typical for my age group.

Perceived Behavioral Control – Perceived Behavior Control represents an individual's perceived ease or difficulty of performing a particular behavior.

25. For me, participating in social networking is easy.

26. I feel capable enough to use the site to do what I want to do.

27. I feel competent enough to use all the functions of social networking sites.

28. I rarely encounter problems that I cannot overcome when using a social networking site.

29. I know how to use social networking sites.

Intention – Intention represents an indication of an individual's readiness to perform a given behavior.

30. In the future I intend to use social networking sites as often as I do now.

31. I plan to log on to a social networking site sometime within the next week.

32. I believe I will be using social networking sites as much or more this time next year.
33. I plan to communicate with others using a social networking site in the next week.
34. I intend to post more content for others to view in the next week (e.g. upload photos, change statuses, etc.).

Section D: Behaviors - Behavior represents how likely an individual will perform a given behavior.

35. I use social networking sites...
36. I communicate with others using a social networking site...
37. I check to see if anyone has sent me anything on my social networking site...
38. I check for updates on people that are important to me...
39. I update my own social networking site...

Section E: Hypothetical Scenarios

In the following section, evaluate the level of success or amount of time spent offering assistance in the scenarios presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

In the following scenarios KW is a college student and is a person just like you. KW uses social networking to keep in touch with friends and family.

KW has a **sibling** in their **20's** that has never used social networking. KW asks the **20 year old sibling** to join a social network and offers any assistance the **sibling** might need.

40. Estimate how much success KW will have with getting the **20 year old sibling** to engage in social networking.
41. Estimate how much time KW will spend offering assistance to the **20 year old sibling**.

KW has an **acquaintance** in their **20's** that has never used social networking. KW asks the **20 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

42. Estimate how much success KW will have with getting the **20 year old acquaintance** to engage in social networking.
43. Estimate how much time KW will spend offering assistance to the **20 year old acquaintance**.

KW has a **parent/guardian** in their **40's** that has never used social networking. KW asks **the 40 year old parent/guardian** to join a social network and offers any assistance the **parent/guardian** might need.

44. Estimate how much success KW will have with getting the **40 year old parent/guardian** to engage in social networking.

45. Estimate how much time KW will spend offering assistance to the **40 year old parent/guardian**.

KW has an **acquaintance** in their **40's** that has never used social networking. KW asks the **40 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

46. Estimate how much success KW will have with getting the **40 year old acquaintance** to engage in social networking.

47. Estimate how much time KW will spend offering assistance to the **40 year old acquaintance**.

KW has a grandparent in their **60's** that has never used social networking. KW asks the **60 year old grandparent** to join a social network and offers any assistance the **grandparent** might need.

48. Estimate how much success KW will have with getting the **60 year old grandparent** to engage in social networking.

49. Estimate how much time KW will spend offering assistance to the **60 year old grandparent**.

KW has an acquaintance in their **60's** that has never used social networking. KW asks the **60 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

50. Estimate how much success KW will have with getting the **60 year old acquaintance** to engage in social networking.

51. Estimate how much time KW will spend offering assistance to the **60 year old acquaintance**.

Appendix B

On the answer key, please do not fill out any personal information (e.g. name, id number).

This is an anonymous survey about the use of social networking. Social networking refers to services such as Facebook, MySpace, Twitter, or other online services that have a primary focus of keeping/building relationships. It is impossible to identify any individual in this survey because the surveys and answer sheets are completely anonymous and have no identifiers in them. The data will be analyzed as a whole group and no individual can or will be identified. Questions are divided into five sections: (a) Participants' characteristics (b) Use of Social Networking Sites (c) Predictors of Behavior (d) Behavior and (e) Hypothetical scenarios.

PLEASE ANSWER THE ANONYMOUS SURVEY QUESTIONS HONESTLY AND FAITHFULLY. YOUR SINCERE TRUTHFULNESS IS NECESSARY.

1. Form

(1) Yellow (2) Purple

Section A: Participants' characteristics

2. Age in Years

(1) 18 (2) 19 (3) 20 (4) 21 (5) 22 (6) 23 (7) 24 (8) 25 (9) 26 (10) 27 or older

3. Sex

(1) Male (2) Female

4. Ethnicity

(1) White (2) Native American (3) Black (4) Asian (5) Latino
(6) Bi-Racial/Multi-Racial (7) Other (8) Prefer not to answer

5. Do you use social networking sites?

(1) Yes (2) No

In this survey, social networking refers to services such as Facebook, MySpace, Twitter, or any other online service that is focused on keeping/building relationships.

Section B: Use of Social Networking

If any item on this page does not apply to you (for example, you are an only child with no siblings), then leave the item blank.

In the following section, evaluate the amount of time spent using social networking (1) being low to (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

6. On average, estimate the amount of time that **you** use social networking each day.
7. On average, estimate the amount of time your **siblings** use social networking each day.
8. On average, estimate the amount of time your **parents** use social networking.
9. On average, estimate the amount of time your **grandparents** use social networking.
10. On average, estimate the amount of time your **close friends** use social networking each day.

In the following section, evaluate how much that you agree with the statements presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

11. I have helped a **sibling** by answering questions about how to use social networking.
12. I have helped a **parent/guardian** by answering questions about how to use social networking.
13. I have helped a **grandparent** by answering questions about how to use social networking.
14. I have helped a **friend** by answering questions about how to use social networking

In the following Sections C & D, evaluate how much you agree with the statements presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

Section C: Predictors of Behavior

Attitudes – Attitudes represent an individual's likes, dislikes, beliefs and opinions regarding a particular behavior.

15. I think that using social networking sites is enjoyable.

16. I think social networking sites are useful.

17. I think it is important to check my social networking site often.

18. I think using social networking sites will benefit my social life.

19. I think using a social networking site will positively impact the way others see me.

Subjective Norm – Subjective Norms represent a person's perception of important others' (family friends) beliefs that he or she should or should not perform the behavior.

20. People that are important to me recommend and/or encourage that I use social networking sites.

21. If I use a social networking site people that are important to me would approve.

22. Others feel that I am more accessible because I use a social networking site.

23. I think most of my acquaintances use social networking.

24. I think my use of social networking is typical for my age group.

Perceived Behavioral Control – Perceived Behavior Control represents an individual's perceived ease or difficulty of performing a particular behavior.

25. For me, participating in social networking is easy.

26. I feel capable enough to use the site to do what I want to do.

27. I feel competent enough to use all the functions of social networking sites.

28. I rarely encounter problems that I cannot overcome when using a social networking site.

29. I know how to use social networking sites.

Intention – Intention represents an indication of an individual's readiness to perform a given behavior.

30. In the future I intend to use social networking sites as often as I do now.

31. I plan to log on to a social networking site sometime within the next week.

32. I believe I will be using social networking sites as much or more this time next year.
33. I plan to communicate with others using a social networking site in the next week.
34. I intend to post more content for others to view in the next week (e.g. upload photos, change statuses, etc.).

Section D: Behaviors - Behavior represents how likely an individual will perform a given behavior.

35. I use social networking sites...
36. I communicate with others using a social networking site...
37. I check to see if anyone has sent me anything on my social networking site...
38. I check for updates on people that are important to me...
39. I update my own social networking site...

Section E: Hypothetical Scenarios

In the following section, evaluate the level of success or amount of time spent offering assistance in the scenarios presented with (1) being low and (10) being high.

<-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10----->

In the following scenarios KW is a college student and is a person just like you. KW uses social networking to keep in touch with friends and family.

KW has a grandparent in their **60's** that has never used social networking. KW asks the **60 year old grandparent** to join a social network and offers any assistance the **grandparent** might need.

40. Estimate how much success KW will have with getting the **60 year old grandparent** to engage in social networking.

41. Estimate how much time KW will spend offering assistance to the **60 year old grandparent**.

KW has an acquaintance in their **60's** that has never used social networking. KW asks the **60 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

42. Estimate how much success KW will have with getting the **60 year old acquaintance** to engage in social networking.

43. Estimate how much time KW will spend offering assistance to the **60 year old acquaintance**.

KW has a **parent/guardian** in their **40's** that has never used social networking. KW asks **the 40 year old parent/guardian** to join a social network and offers any assistance the **parent/guardian** might need.

44. Estimate how much success KW will have with getting the **40 year old parent/guardian** to engage in social networking.

45. Estimate how much time KW will spend offering assistance to the **40 year old parent/guardian**.

KW has an **acquaintance** in their **40's** that has never used social networking. KW asks the **40 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

46. Estimate how much success KW will have with getting the **40 year old acquaintance** to engage in social networking.

47. Estimate how much time KW will spend offering assistance to the **40 year old acquaintance**.

KW has a **sibling** in their **20's** that has never used social networking. KW asks the **20 year old sibling** to join a social network and offers any assistance the **sibling** might need.

48. Estimate how much success KW will have with getting the **20 year old sibling** to engage in social networking.

49. Estimate how much time KW will spend offering assistance to the **20 year old sibling**.

KW has an **acquaintance** in their **20's** that has never used social networking. KW asks the **20 year old acquaintance** to join a social network and offers any assistance the **acquaintance** might need.

50. Estimate how much success KW will have with getting the **20 year old acquaintance** to engage in social networking.

51. Estimate how much time KW will spend offering assistance to the **20 year old acquaintance**.