Journal of Electronic Commerce in Organizations
Volume 20 • Issue 1

Can Social Media Make Us More Trusting?

Jeffrey Bohler, Troy University, USA
https://orcid.org/0000-0002-9035-4181

John R. Drake, East Carolina University, USA*
https://orcid.org/0000-0002-1065-3211

Ravi R. Paul, East Carolina University, USA
https://orcid.org/0000-0001-9290-1698

Eric L. Kisling, East Carolina University, USA
https://orcid.org/0000-0003-0934-6350

ABSTRACT

The usage of social networking sites requires continuous trusting actions through the sharing of personal information. According to social cognitive theory, such behavior and resulting experiences should have an impact on the beliefs that led to the behavior. In this study, the authors explore how usage of social networking sites impacts the disposition to trust. A model of how this process takes place is developed. The results of a survey suggest that increasing usage of social networking sites increases disposition to trust, mediated by optimism, innovativeness, and trust in the social networking site. Implications of these findings are discussed.

KEYWORDS

Innovativeness, Optimism, Social Networking, Technology Readiness, Trust

INTRODUCTION

The broad usage of social networking sites (SNS) has changed how we communicate, get our news, share life events, find employment, interact socially and professionally, and even find a mate. SNS usage continues to rise, with over 72% of adults now using a social networking site and over 84% of individuals between ages 18-29 using one (Auxier & Anderson, 2021).

We know that SNS users are motivated by sharing information, attempting to entertain others, keeping up with trends, showing off, transcending temporal and geographic limitations, and expressing affection for others (Waters & Ackerman, 2011; Xu et al., 2012). These motivations precede usage. The amount of perceived effort taken to perform these tasks impacts the trust in SNS (Chang et al., 2017). These findings suggest a relationship between SNS usage and the development of trust.

Trust, to some degree, is a fundamental element for reaping the benefits of a more connected world, where more and more social interactions are occurring through online transactions. “Trust is

DOI: 10.4018/JECO.305738 *Corresponding Author

the confidence that another person or group will act in a favorable way" (Drake et al., 2021, p. 94). Users are more willing to share within sites they trust even if there is low satisfaction with the site (Kourouthanassis et al., 2015). Trust in SNS indicates that the SNS user believes that SNS will protect their concerns and reduce the user's social uncertainty and risk. Trust acts as a decision mechanism to determine any undesirable risk (Hsu et al., 2010). There must be some trust, whether ordering an item online or exchanging personal information on a dating website. Trust established and nurtured in face-to-face exchanges has been well researched (Barbalet, 2009; Misztal, 2011; Sorrentino et al., 1995; Webb et al., 2016) but research on building trust through SNS is more sparse.

Furthermore, research has found that trust impacts the continuance intentions in social networking sites (Lankton & McKnight, 2011; Meng-Hsiang et al., 2011) and technology in general (Nancy K. Lankton et al., 2015). However, using these technologies provides experiences that could impact individual dispositions. SNS users and non-users show marked differences between dispositional factors such as self-disclosure, sociability, and shyness (Grace et al., 2015). While these dispositional differences may be caused by self-selection, it is unclear how much is caused by self-selection or caused by SNS use. SNS use provides exposure to multiple interactions between people and with the technology, not just between an individual and their friends, but also observations between their friends and others. This exposure allows individuals to observe a large multitude of interactions and outcomes, which can be integrated subconsciously. This inductive process could influence dispositional factors. Yet, it is not clear if and how these continued observations impact an individual's disposition to trust?

Nevertheless, it is not clear if SNS usage would increase or decrease disposition to trust. SNS usage is often associated with negative impacts on the user's life, such as poor body image (de Vries et al., 2015), reduced academic performance (Doleck & Lajoie, 2018), privacy violations in job searches (Drake & Furner, 2020), and increased social anxiety (Dobrean & Pasarelu, 2016). However, the continued popularity of SNS suggests there exist positive aspects to SNS usage. It is critical to understand not only the adverse effects but also the positive effects of SNS usage to fully appreciate the effects on society, culture, and individuals. Research into all facets of these phenomena is needed, but we focus our attention on one aspect of this problem by asking the research questions: What effect does SNS usage have on disposition to trust? What pathways does it take? We look to social cognitive theory to provide the theoretical foundations and to the well-established technology readiness and trust frameworks to guide our study.

SUMMARY OF KEY RELATED RESEARCH

Social Cognitive Theory

Social Cognitive Theory suggests that environment, behavior, and cognition work in reciprocal and interacting ways (Wood & Bandura, 1989). Within environments, individuals develop beliefs and feelings about what they can do, called self-efficacy, which impacts future behaviors they pursue. As individuals pursue additional actions and observe others who likewise act in that environment, they further revise their self-beliefs about acting in that environment. These behaviors result from self-satisfying actions, actions that bring a sense of satisfaction once complete. The most studied aspect of social cognitive theory is self-efficacy, the belief that an individual has the ability to control their environment. Self-efficacy is built through a self-diagnostic function by observing past and current thought patterns and actions in terms of recurrent themes (Bandura, 1991). These patterns provide the individual with the agency to judge their own thoughts and actions, enabling self-regulation of one's behavior. Applied to SNS usage, individuals that use this technology will observe and assess their thoughts and actions. Comparing these observations with the outcomes, individuals gain the ability to regulate future usage of those platforms. Through self-regulation, individuals gain personal agency in that usage.

Social Cognitive Theory identifies three modes of agency: direct personal, proxy, and collective agency (Bandura, 2002). Effective interaction in a network or community will require the exercise of all three modes and may vary across cultures. Individuals will work together, form alliances, pool their resources, skills, and knowledge, and work with others to accomplish what they cannot do themselves. Inevitably, trust is necessary to volunteer one's resources on behalf of another party in hopes of securing positive outcomes. Efficacy beliefs in the trustworthiness of the network become a group-level property based on the group dynamics (Bandura, 2002). Thus, we see instances of users opting out of social network usage when the perceived behavior of the group diverges from personal expectations. However, research does indicate that perceived group efficacy can positively impact network functioning in a way that personal efficacy improves individual performance (Stajkovic et al., 2009). This finding indicates that individuals would prefer to stay in a community or social network if their actions are "rewarded." The converse is also true, betrayal of expectations may lead to disengagement.

According to Social Cognitive Theory (Bandura, 1986), most individuals avoid activities that exceed their perceived abilities, focusing instead on activities they believe they are capable of managing. Avoidance is chosen more from an individual's self-doubts than real inabilities. These self-beliefs drive motivation, determine perseverance and produce the amount of effort given to any task. Stated from a positive orientation, individuals choose activities they feel they are more capable of handling. What's more, greater repetition of that activity leads to greater confidence in handling future activities that are similar to the one handled. This positive reinforcement cycle creates a growing belief in one's abilities. In other words, a user's actions within an environment builds their confidence that they can readily handle new situations within that environment. As individuals' confidence in their ability grows, they become more venturesome in that environment (Bandura, 1989). Confidence leads to less worry about negative outcomes because the individual believes they can cope with risky situations. Confidence manifests itself by having more positive feelings toward a situation.

In a technology environment, confidence translates into technology readiness, the propensity to embrace and use new technologies (Parasuraman, 2000). Within SNS, the more someone uses SNS, the greater their propensity to embrace and develop positive feelings toward new SNS technologies.

Technology Readiness

Technology Readiness (TR) is a framework for understanding an individual's propensity to embrace new technologies at home or work (Parasuraman, 2000). TR recognizes that individuals may harbor positive and negative feelings about a technology simultaneously. However, the sum total of those feelings tends to fall on a continuum anchored by strongly positive and strongly negative. An individual's position on the continuum correlates strongly with that individual's propensity to adopt that technology (Blut & Wang, 2019).

TR consists of four dimensions, two positive - innovativeness and optimism - and two negative - insecurity and discomfort (Parasuraman, 2000). However, several studies have reported problems with this dimensionality of TR, leading some authors to include only the optimism and innovativeness dimensions (Liljander et al., 2006). That failure, combined with the focus of our study on the positive influences of SNS, led us to focus on the innovativeness and optimism dimensions of TR. Furthermore, these two dimensions are considered the drivers of TR (Lin et al., 2007) or the motivators of TR.

Innovativeness is the tendency to be a technology pioneer, experimenting with new technologies, features, or modes of operation (Parasuraman, 2000). Individuals with high innovativeness are often seen as thought leaders with the technology, inspiring others to ask questions of them about how to implement and use the technology. Individuals adopt innovations due to their usefulness and ease of use for the individual. This perceived usefulness is based on the individual's belief that it will enhance performance while ease of use is based on the lack of effort required to use the innovation (Lin & Hsieh, 2007). This points to the individual's willingness to "try out" newer technologies (Lu

et al., 2012). Innovators do not want to miss out on trying new technologies (Walczuch et al., 2007) while keeping a positive attitude toward the new technology (Lin & Chang, 2011).

Optimism focuses on the customer beliefs of control, flexibility, convenience, and efficiency of technology (Parasuraman, 2000). Whereas self-efficacy looks inward to one's internal capacity, optimism, as defined by Parasuraman, looks outward at the technology's capabilities. Self-efficacy was higher for individuals who had a Positive Technology Readiness, defined as "people's propensity to embrace and use new technologies for accomplishing goals in home life and at work" (Parasuraman, 2000). Optimism is from an individual's positive belief about the possible ease of use and usefulness of the technology (Shin & Lee, 2014) and focuses on the individual's willingness to put newer technologies to use at home or work (Lu et al., 2012).

Whether with self-service kiosks (Lin & Hsieh, 2007), C2C platforms (Lu et al., 2012), or B2B systems (Richey et al., 2008; Vize et al., 2013), technology readiness has proven to be relevant in multiple environments. Because of the rapidly changing nature of SNS experience with SNS today does not guarantee readiness for changes in the systems or the usage of alternative SNS. Therefore, this study considers SNS readiness as a specific technology readiness within the SNS suite of technologies.

Trust

Trust is a multidisciplinary concept composed of dispositions to trust, institutional-based trust, trusting beliefs, and trusting intentions (McKnight et al., 1998). Trust can further be broken down into integrity, ability, and benevolence beliefs (Nancy K Lankton et al., 2015; Mayer et al., 1995; McKnight et al., 2002; Y. Wang et al., 2015). The trustee's "believed" characteristics can vary over time and can change based on the outcome of situations where trust was extended. While trust is a complicated concept, ample research has attempted to define and conceptualize the critical elements of trust in human-to-human or human-to-institution relationships.

TRUST IN INFORMATION SYSTEMS

While most research on trust within information systems focuses on trust's impact on usage, few studies explore how information system usage impacts trust with a few noted exceptions (e.g. Chen et al., 2010; Chiu et al., 2010). Research findings from several studies into the human-to-human versus human-to-technology trust relationships strongly suggest that the trust in technology constructs are different in these two environments (Meng-Hsiang et al., 2011; Nabi et al., 2013; Vize et al., 2013; Y. Wang et al., 2015). A significant reason for this difference is that technology, unlike a human trustee, does not have the volition or the ability to make ethical decisions. For example, perceived responsiveness, shared vision, and knowledge quality were essential determinants of trust in the virtual community, affecting users' trust toward other members of a virtual community and in the information system that supported the virtual community that knowledge growth occurred (Meng-Hsiang et al., 2011). In another study, technology readiness (TR) was found to be an antecedent to trusting disposition with. integrity, benevolence, ability, and trusting stance as dimensions of disposition to trust. (Y. Wang et al., 2015). Trust is essential in innovative uses of information systems where there are transactions of personal, financial, or social data (Gefen et al., 2003; Heirman et al., 2013; Jin, 2013; Lankton & McKnight, 2011; Nancy K Lankton et al., 2015; McKnight et al., 2002). The extent to which one is willing to depend on technology based on the belief that the technology possesses desirable trust characteristics is called trust-in-technology (McKnight, 2005).

Van Lange (2015) argues that trust is influenced by personal social interaction experiences, experiences of others close to the person, and societal experiences picked up through communities, media, and social networks (including SNS). Participation in networks and communities, real or virtual, builds feelings about that world. For example, experiences of norm violations, self-control failure, and self-centered behavior could lead to a reduction in generalized trust (Van Lange, 2015). On the other hand, the less information they have about a situation, the more likely the participant will

expect a negative outcome. Stated conversely, the more information a person has about a situation, the more likely they will expect a positive outcome. This echoes research that shows individuals are more likely to trust in-group members than out-group members (Foddy et al., 2009).

However, establishing trust in social network relationships has become necessary in business and personal interactions (Meng-Hsiang et al., 2011). Given the global nature of life in the Information Age, the best supplier for a company may be foreign, and a person's best friend may be someone only interacted with online. In an exploratory study to determine factors for establishing trust in offshore software outsourcing, face-to-face meetings were found to be crucial, along with improved communications and a better definition of expectations between parties (Niazi et al., 2013).

THEORETICAL FRAMEWORK AND HYPOTHESES

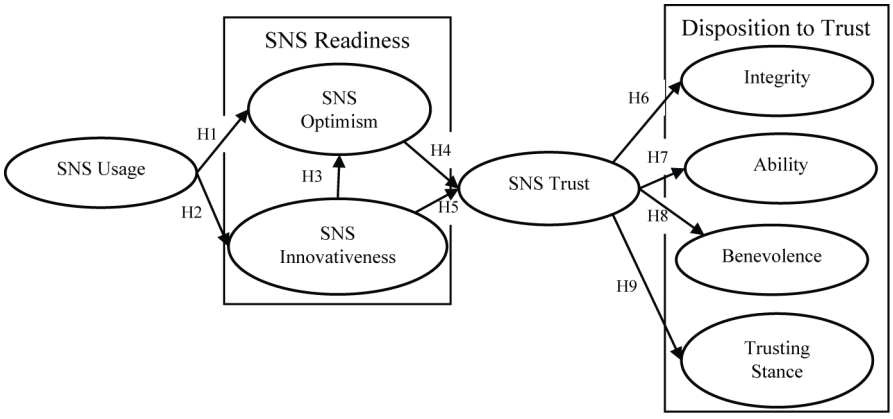
These theories and frameworks suggest that increased usage of SNS leads to increased levels of technology readiness, which in turn leads to increased levels of trust. A representation of the theoretical framework is presented in Figure 1.

SNS Usage and SNS Optimism and SNS Innovativeness

The more an individual uses SNS technology, the more experiences they will have to develop feelings for SNS. Increasing usage of SNS manifests in increased self-efficacy in handling SNS situations (D. Wang et al., 2015). These feelings of self-efficacy help individuals feel more confident in attempting behaviors on a computer (Compeau & Higgins, 1995). Expressed in terms of SNS, this confidence manifests as optimism with using SNS, that the individual has a positive view of the technology and what it offers people in terms of control and flexibility. Likewise, self-efficacy manifests in a belief that one can deal with new and novel situations, in essence, their innovativeness (Bandura, 1986). Users discover new and innovative ways to incorporate SNS into their lives and work as usage increases. As it relates to technology readiness, optimism is a positive view of technology, that the technology is beneficial to people's lives. At the same time, innovativeness in the context of technology readiness denotes the tendency to be an early adopter of technology. Thus, we propose the following hypotheses:

Hypothesis 1: Social network site usage positively impacts social network site optimism.
Hypothesis 2: Social network site usage positively impacts social network site innovativeness.
Hypothesis 3: Social network site innovativeness positively impacts social network site optimism levels.

Figure 1. Model of SNS usage pathwats to disposition to trust



Technology Readiness and SNS Trust

Technology Readiness (TR) in general impacts trust in SNS (Y. Wang et al., 2015). In this study, we break apart the technology readiness construct and look at each positive dimension separately to determine the role of each in impacting SNS trust.

Within human relationships, optimism correlates with trust in an organization (Stander et al., 2015). With technology, research has shown that higher levels of optimism lead to increased perceived ease of use and usefulness of that technology (Shin & Lee, 2014; Walczuch et al., 2007). What's more, optimism has been shown to impact technology trust in terms of customer-to-customer platforms (Lu et al., 2012). We expect this relationship to hold true within SNS because they similarly depend on user interactions within the technology itself. Thus, we propose the following hypothesis:

Hypothesis 4: Social network site optimism positively impacts social network site trust.

While optimists tend to expect good outcomes in using new technologies, innovative individuals are willing to "try out" new technologies showing their quickness to trust the technologies (Thatcher et al., 2007). In C2C platform providers, innovativeness positively impacted platform trust (Lu et al., 2012). Innovative individuals do not need assistance related to using and understanding new technologies (Parasuraman, 2000). These individuals also want to be first in using the new technologies, be open to the technologies (Blut & Wang, 2019), and exhibit trust toward trying the technologies even when they lack control over the results (Thatcher et al., 2007). Thus, we propose the following hypothesis:

Hypothesis 5: Social network site innovativeness positively impacts social network site trust.

Disposition to Trust

Two broad types of institutional-based trust, situational normality (SN) and structural assurances (SA) (McKnight et al., 1998), have been refined to five components: SN-General, SN-Benevolence, SN-Integrity, SN-Competence, and SA (McKnight et al., 2002). Situational normality is the belief that success is likely because the trustor is in a normal situation and expects little risk (e.g., paying for a purchase at the cash register). Structural assurances promote trust through the shared knowledge of regulations, guarantees, or access to legal recourse. Structural assurances may play a more significant role in establishing trust earlier in a relationship when the trustee has not had the opportunity to establish trust based on situational normality, as they do not know what is normal yet. Also, the trustor's general level of trust in others may moderate their trust in institutions (Barbalet, 2009). In a study of underage Internet users (Heirman et al., 2013), researchers found that the user's decision to disclose different categories of personal information to a commercial website was influenced by their trust in the specific website, the perceived level of risk, their general level of trust in others, and familiarity with the website, a finding supported by similar research on other populations. In other words, a user who regularly conducts transactions on an e-commerce website trusts the transaction as it is normal; they are familiar with the website and have recourse if there is something wrong with the transaction, indicating a flow of trust from the trustor to the trustee. Further, it is the direct behavioral information obtained by the direct relationship between the trustor and trustee and indirect behavioral information gathered by the trustor from third parties that can influence trust (Zarolia et al., 2017). Thus, we propose the following hypotheses:

Hypothesis 6: Social network site trust positively impacts the disposition to trust others' integrity.
Hypothesis 7: Social network site trust positively impacts the disposition to trust others' ability.
Hypothesis 8: Social network site trust positively impacts the disposition to trust others' benevolence.
Hypothesis 9: Social network site trust positively impacts the disposition to have a general trusting stance.

DATA AND METHODS

Sample

With the focus of our study on social networking, we focused our target population on those most likely to have experience with SNS, individuals in their 20s and 30s (Perrin, 2015). We contacted graduate and upper-level undergraduate students from three public U.S. universities and offered them extra credit for participation. Seventy-five percent of the participants were 35 years old or younger.

Data Collection

Study participants took part in this study through an online survey solicited through email invitations. We used a web-based survey so participants could answer the questions in a place of their choosing to help ensure confidentiality. We collected 285 responses, of which 250 were usable. Thirty-five responses were omitted due to incompleteness, trivial responses (e.g., selecting all 1s for every response), no experience with SNS, or duplicate responses (as identified by IP address).

Measurement

Constructs were adapted from existing measures. SNS Optimism and SNS Innovativeness came from two dimensions of technology readiness construct (Jin, 2013), modified to focus on SNS. Each dimension contained four items measured on a Likert-like scale. Integrity, benevolence, ability, and trusting stance are dimensions of disposition to trust, three items each measured on a Likert-like scale and modified to fit our research context (Y. Wang et al., 2015). SNS trust was modified from the Institutional trust construct to focus on SNS, also measured with Likert-like items (Setterstrom et al., 2013). Social networking usage was a formative construct that captured three dimensions usage, intensity (how long per visit), duration (length of time they have used social media), and frequency (how often did they visit). All three were self-reported. A pilot study of 65 participants evaluated the measures and provided feedback on the wording of questions.

Table 1. Demographic information

Age	18-25	13.7%
	26-30	36.1%
	31-35	24.1%
	35-40	17.7%
	41-50	6.0%
	51-60	1.6%
	61+	0.0%
Education	High school	1.2%
	Some undergraduate	25.8%
	Bachelor's degree	13.3%
	Some graduate work	42.7%
	Master's degree	14.9%
	Doctorate's degree	2.0%
Gender	Male	55.4%
	Female	43.8%

ANALYSIS AND RESULTS

We performed partial least squares analysis using SmartPLS version 3.0. We chose component-based SEM rather than covariance-based SEM because our study analyzes a complex predictive relationship between latent variables. PLS analysis is appropriate for situations with high complexity and when theoretical explanations are scarce, such as this study. Most constructs were measured reflectively, requiring traditional means of assessing construct reliability and validity (Chin, 2010; Gefen & Straub, 2005). We calculated internal consistency with composite reliability for each latent construct and found that all constructs were greater than 0.70, indicating sufficient internal consistency (Table 2). Convergent validity was established by calculating t-values of the outer model loading of all items (Gefen & Straub, 2005), which also extended beyond the 0.70 heuristic. Discriminant validity was established by checking that HTMT<.85 for all constructs (Hair et al., 2017). All HTMT values were less than .70, thereby indicating sufficient discriminant validity. We also found that all AVEs were above 0.50 heuristic, suggesting that the principal components capture construct-related variance rather than error variance.

To check for common method bias, we performed two tests - Harman's single-factor test (Podsakoff et al., 2003) and examined the correlation matrix of the constructs to determine if any correlations were above 0.90 (Pavlou et al., 2007). In the first test, the model fit was not significant, suggesting that no single factor explained the results. In the second test, the highest correlation was 0.58, whereas results >0.90 suggest a common bias in the data. Common method bias is unlikely because we did not find those high correlations.

Given our validity checks, we tested the path model. Path estimates were calculated using a bootstrap method with 500 re-samples. Figure 2 summarizes the test of hypotheses and variance explained as reported by R^2 values. Hypotheses 1-4 and 6-9 were supported. Only hypothesis 5, SNS innovativeness impacting SNS trust, failed its test for significance.

DISCUSSION

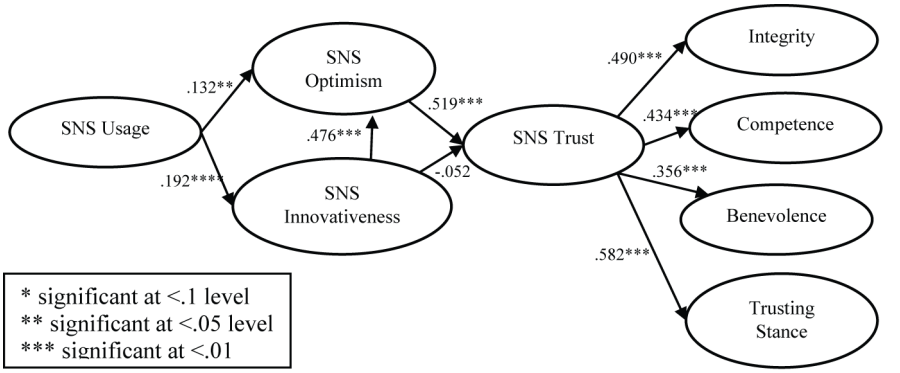
The findings from this research have important implications for the theory and practice of SNS.

Table 2. Summary of construct means, reliability, and correlations

	Mean (St. Dev.)	Composite Reliability	Benevolence	Competence	SNS Innovativeness	SNS Trust	Integrity	SNS Optimism	SNS Usage	Trusting Stance
Benevolence	3.840 (1.66)	0.924	0.898							
Competence	4.583 (1.46)	0.906	0.286	0.873						
SNS Innovativeness	4.817 (1.64)	0.894	0.115	0.219	0.864					
SNS Trust	3.558 (1.51)	0.917	0.352	0.436	0.186	0.855				
Integrity	4.002 (1.46)	0.933	0.547	0.485	0.103	0.495	0.908			
SNS Optimism	4.561 (1.45)	0.837	0.266	0.359	0.484	0.490	0.251	0.790		
SNS Usage	N/A	N/A	0.109	0.092	0.338	0.187	0.111	0.275	N/A	
Trusting Stance	3.716 (1.63)	0.899	0.434	0.484	0.168	0.584	0.550	0.444	0.083	0.865

* Square root of the AVEs on diagonal.

Figure 2. Path analysis and hypothesis testing



Implications for Theory

While a plethora of research explores trust's impact on behavior, this research demonstrates how the reverse is also true, where SNS usage impacts the disposition to trust through the technological readiness pathways. Within SNS, we found that usage impacts optimism and innovativeness, and in turn, optimism leads to increased trust in SNS. Trust in the SNS likewise impacts the individual's trusting disposition. Thus, our model suggests that increased usage of SNS can, over time, develop the beliefs that impact the disposition to trust.

According to social cognitive theory, this relationship between beliefs, environment, and behavior interrelates. Behaviors create experiences. Observations about those experiences lead to beliefs, which impact later behaviors. Repeated observations from usage lead to an inductive development of concepts and beliefs instead of deductive usage of those ideas in a specific context. Previous research has shown that trust leads to more SNS usage (Zhou & Li, 2014) and online engagement (Warren et al., 2014). Our findings suggest that SNS usage creates a positive feedback effect leading to more trust, which leads to more SNS usage. While the findings in this research did not check for when this positive feedback effect fails, prior research suggests that the feedback effect may get derailed if a strong negative event breaks the cycle, such as during SNS privacy violations (Drake et al., 2016). However, the overall tendency appears to be cyclical towards more SNS usage leading to greater dispositions to trust.

Implications for Practice

With the usage of SNS increasing (Perrin, 2015), these results have the potential for both good and bad consequences. Trust is an instrumental characteristic of successful e-commerce transactions (Ba & Pavlou, 2002; Gefen et al., 2003; McKnight et al., 2002). Increasing usage of SNS suggests that the disposition to trust will also increase, leading to a greater potential for positive e-commerce relationships when searching for products on SNS (Mikalef et al., 2013) or online auctions (Drake & Byrd, 2013). While organizations have found success in marketing on social networks, this research helps explain why individuals on SNS may be better targets for marketing efforts due to their increased trusting disposition. Organizations can use this to have confidence in putting resources into SNS campaigns for their goods and services knowing that the users of SNS are not hesitant to participate in these campaigns on these sites. SNS users may click on an organization's advertisement/information avoiding having to go to the organization's website to have the same opportunity and/or experience.

The results might have some interesting applications for virtual education. For example, instructors can better prepare their students for jobs by exposing them to a SNS platform in class because of the link between usage and innovativeness and optimism, even if the student never uses that particular SNS platform at work. Organizations may also find new employees more innovative and optimistic about using internal SNS platforms if they have extensive experience with SNS in the past.

Increasing levels of trust, however, may have negative impacts as well. Too much trust may lead to more vulnerabilities to social engineering attacks or identity theft. For example, Facebook's friend suggestions are vulnerable to reverse social engineering attacks, a technique where the victim is not contacted directly but tricked into contacting the attacker (Irani et al., 2011). This technique works because the victim has developed trust in the SNS. Individuals that use SNS frequently may be more susceptible to these types of attacks if they readily trust others. Security professionals and SNS companies should become cognizant of this vulnerability, particularly younger users who may be less savvy with the technology.

Limitations and Future Research

While this study provides a basis for answering the research questions, several limitations provide opportunities for future research. We explore some of those below.

This study consisted of a cross-sectional study that limits the conclusions we can draw about the impact of SNS usage on trust over time. This study alone cannot confirm that greater SNS usage will result in the development of trust. It can, however, suggest that a relationship exists and that, combined with social cognitive theory, technology readiness theory, and trust theory, provides support for the conclusion. By looking at a specific point in time, the observations suggest that usage currently impacts technology readiness, that technology readiness impacts SNS trust, and that SNS trust impacts trusting disposition. Future research could explore if usage over time has a similar effect, which could be accomplished by measuring trust changes multiple times and observing how usage prior to those measurements impacted trust. Another interesting follow-up research study would be to study the relationship between SNS usage and naivety/susceptibility to being scammed.

We also captured self-reported usage of SNS, not actual usage. Participants in the study may have under or over-reported their usage. It is unknown if under or over-reporting directly relates to their propensity to trust. Future research may explore that relationship as well. First, does self-reported usage of SNS vary predictably from actual usage? Does trust moderate the difference between self-report and actual usage? What does that mean for causation?

Another limitation of this study was its focus on trust. While well understood in e-commerce usage, trust is only one psychological effect that may be impacted by SNS usage. We might find other factors positively impacted by SNS usage, particularly for certain types of usage and with certain personality types. For example, introverts may find SNS usage a positive social experience enabling them greater control over how and when they interact with others, as found with using online games (Reer & Kramer, 2017). Interaction between notions of privacy and trust may also be impacted by SNS usage.

CONCLUSION

In this study, the effects of SNS usage on trusting disposition were theorized and measured. In particular, SNS usage was predicted to influence SNS optimism and SNS innovativeness, which in turn would influence SNS institutional trust. Ultimately, this increase in SNS institutional trust influenced disposition to trust others in general. The results from an empirical survey suggest these relationships hold true. These findings suggest that increased usage of SNS will impact trusting

disposition, with potential societal implications. Research should further assess how the usage of SNS impacts individual beliefs, motivations, and dispositions.

CONFLICT OF INTEREST

The authors of this publication declare no conflict of interest.

FUNDING AGENCY

The publisher has waived the Open Access Processing fee for this article.

REFERENCES

Auxier, B., & Anderson, M. (2021). *Social Media Use in 2021*. Pew Research Center. https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/

Ba, S., & Pavlou, P. A. (2002). Evidence of the Effect of Trust Building Technology in Electronic Markets: Price Premiums and Buyer Behavior. *Management Information Systems Quarterly*, *26*(3), 243–268. doi:10.2307/4132332

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall.

Bandura, A. (1989). Human Agency in Social Cognitive Theory. *The American Psychologist*, *44*(9), 1175–1184. doi:10.1037/0003-066X.44.9.1175

Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organizational Behavior and Human Decision Processes*, *50*(2), 248–287. doi:10.1016/0749-5978(91)90022-L

Bandura, A. (2002). Social Cognitive Theory in Cultural Context. *Applied Psychology*, *51*(2), 269–290. doi:10.1111/1464-0597.00092

Barbalet, J. (2009). A characterization of trust, and its consequences. *Theory and Society*, *38*(4), 367–382. doi:10.1007/s11186-009-9087-3

Blut, M., & Wang, C. (2019). Technology readiness: A meta-analysis of conceptualizations of the construct and its impact on technology usage. *Journal of the Academy of Marketing Science*.

Chang, S. E., Liu, A. Y., & Shen, W. C. (2017). Users trust in social networking services: A comparison of Facebook and LinkedIn. *Computers in Human Behavior*, *69*(1), 207–217. doi:10.1016/j.chb.2016.12.013

Chen, Y.-H., Chien, S.-H., Wu, J.-J., & Tsai, P.-Y. (2010). Impact of Signals and Experience on Trust and Trusting Behavior. *Cyberpsychology, Behavior, and Social Networking*, *13*(5), 539–546. doi:10.1089/cyber.2009.0188

Chin, W. W. (2010). How to Write Up and Report PLS Analyses. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of Partial Least Squares*. Springer Berlin Heidelberg. doi:10.1007/978-3-540-32827-8_29

Chiu, C.-M., Huang, H.-Y., & Yen, C.-H. (2010). Antecedents of trust in online auctions. *Electronic Commerce Research and Applications*, *9*(2), 148–159. doi:10.1016/j.elerap.2009.04.003

Compeau, D. R., & Higgins, C. A. (1995). Computer Self-Efficacy: Development of a Measure and Initial Test. *Management Information Systems Quarterly*, *19*(2), 189–211. doi:10.2307/249688

de Vries, D. A., Peter, J., de Graaf, H., & Nikken, P. (2015). Adolescents' Social Network Site Use, Peer Appearance-Related Feedback, and Body Dissatisfaction: Testing a Mediation Model. *Journal of Youth and Adolescence*, *45*(1), 211–224. doi:10.1007/s10964-015-0266-4

Dobrean, A., & Pasarelu, C.-R. (2016). Impact of Social Media on Social Anxiety: A Systematic Review. In F. Durbano & B. Marchesi (Eds.), *New Developments in Anxiety Disorders*. IntechOpen. doi:10.5772/65188

Doleck, T., & Lajoie, S. (2018). Social networking and academic performance: A review. *Education and Information Technologies*, *23*(1), 435–465. doi:10.1007/s10639-017-9612-3

Drake, J. R., & Byrd, T. A. (2013). Searching for Alternatives: Does your Disposition Matter? *International Journal of Technology and Human Interaction*, *9*(1), 18–36. doi:10.4018/jthi.2013010102

Drake, J. R., Crawford, A., Deale, C., & White, B. J. (2021). Tourism in the Sharing Economy: How Novelty Seeking Impacts Travel Intentions. *Journal of Electronic Commerce in Organizations*, *19*(1), 92–110. doi:10.4018/JECO.2021010105

Drake, J. R., & Furner, C. P. (2020). Screening Job Candidates with Social Media: A Manipulation of Disclosure Requests. *Journal of Organizational and End User Computing*, *32*(4), 63–84. doi:10.4018/JOEUC.2020100104

Drake, J. R., Hall, D. J., Becton, B., & Posey, C. (2016). Job Applicants' Information Privacy Protection Responses: Using Social Media for Candidate Screening. *AIS Transactions on HCI*, *8*(4), 160–184. doi:10.17705/1thci.00084

Foddy, M., Platow, M. J., & Yamagishi, T. (2009). Group-Based Trust in Strangers: The Role of Stereotypes and Expectations. *Psychological Science*, *20*(4), 419–422. doi:10.1111/j.1467-9280.2009.02312.x

Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in Online Shopping: An Integrated Model. *Management Information Systems Quarterly*, *27*(1), 51–90. doi:10.2307/30036519

Gefen, D., & Straub, D. W. (2005). A Practical Guide to Factorial Validity Using PLS-Graph: Tutorial and Annotated Example. *Communications of the AIS*, *16*, 91–109. doi:10.17705/1CAIS.01605

Grace, D., Ross, M., & Shao, W. (2015). Examining the relationship between social media characteristics and psychological dispositions. *European Journal of Marketing*, *49*(9/10), 1366–1390. doi:10.1108/EJM-06-2014-0347

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Sage Publications.

Heirman, W., Walrave, M., Ponnet, K., & Van Gool, E. (2013). Predicting adolescents' willingness to disclose personal information to a commercial website: Testing the applicability of a trust-based model. *Cyberpsychology (Brno)*, *7*(3), 1–15. doi:10.5817/CP2013-3-3

Hsu, M.-H., Chang, C.-M., & Yen, C.-H. (2010). Exploring the antecedents of trust in virtual communities. *Behaviour & Information Technology*, *30*(5), 587–601. doi:10.1080/0144929X.2010.549513

Irani, D., Balduzzi, M., Balzarotti, D., Kirda, E., & Pu, C. (2011). Reverse Social Engineering Attacks in Online Social Networks. *International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment*.

Jin, C. H. (2013). The perspective of a revised TRAM on social capital building: The case of Facebook usage. *Information & Management*, *50*(4), 162–168.

Kourouthanassis, P., Lekakos, G., & Gerakis, V. (2015). Should I stay or should I go? The moderating effect of self-image congruity and trust on social networking continued use. *Behaviour & Information Technology*, *34*(2), 190–203. doi:10.1080/0144929X.2014.948489

Lankton, N. K., & McKnight, D. H. (2011). What Does it Mean to Trust Facebook? Examining Technology and Interpersonal Trust Beliefs. *The Data Base for Advances in Information Systems*, *42*(2), 32–54. doi:10.1145/1989098.1989101

Lankton, N. K., McKnight, D. H., & Tripp, J. (2015). Technology, Humanness, and Trust: Rethinking Trust in Technology. *Journal of the Association for Information Systems*, *16*(10), 880–918. doi:10.17705/1jais.00411

Liljander, V., Gillberg, F., Gummerus, J., & van Riel, A. (2006). Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services*, *13*(3), 177–191. doi:10.1016/j.jretconser.2005.08.004

Lin, C. H., Shih, H.-Y., & Sher, P. J. (2007). Integrating technology readiness into technology acceptance: The TRAM model. *Psychology and Marketing*, *24*(7), 641–657. doi:10.1002/mar.20177

Lin, J. S. C., & Chang, H.-C. (2011). The role of technology readiness in self-service technology acceptance. *Managing Service Quality*, *21*(4), 350–372. doi:10.1108/09604521111146243

Lin, J.-S. C., & Hsieh, P.-L. (2007). The influence of technology readiness on satisfaction and behavioral intentions toward self-service technologies. *Computers in Human Behavior*, *23*(3), 1597–1615. doi:10.1016/j.chb.2005.07.006

Lu, J., Wang, L., & Hayes, L. A. (2012). How do technology readiness, platform functionality and trust influence C2C user satisfaction. *Journal of Electronic Commerce Research*, *13*(1), 50–69.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integration model of organizational trust. *Academy of Management. Academy of Management Review*, *20*(3), 709. doi:10.2307/258792

McKnight, D. H. (2005). Trust in information technology. *The Blackwell encyclopedia of management, 7*, 329-331.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and Validating Trust Measures for e-Commerce: An Integrative Typology. *Information Systems Research*, *13*(3), 334–359. doi:10.1287/isre.13.3.334.81

McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial Trust Formation in New Organizational Relationships. *Academy of Management Review*, *23*(3), 473–490. doi:10.5465/amr.1998.926622

Meng-Hsiang, H., Chun-Ming, C., & Chia-Hui, Y. (2011). Exploring the antecedents of trust in virtual communities. *Behaviour & Information Technology*, *30*(5), 587–601. doi:10.1080/0144929X.2010.549513

Mikalef, P., Giannakos, M., & Pateli, A. (2013). Shopping and Word-of-Mouth Intentions on Social Media. *Journal of Theoretical and Applied Electronic Commerce Research*, *8*(1), 5–6. doi:10.4067/S0718-18762013000100003

Misztal, B. A. (2011). Trust: Acceptance of, Precaution Against and Cause of Vulnerability. *Comparative Sociology*, *10*(3), 358–379. doi:10.1163/156913311X578190

Nabi, R. L., Prestin, A., & So, J. (2013). Facebook Friends with (Health) Benefits? Exploring Social Network Site Use and Perceptions of Social Support, Stress, and Well-Being. *Cyberpsychology, Behavior, and Social Networking*, *16*(10), 721–727. doi:10.1089/cyber.2012.0521

Niazi, M., Ikram, N., Bano, M., Imtiaz, S., & Khan, S. U. (2013). Establishing trust in offshore software outsourcing relationships: An exploratory study using a systematic literature review. *IET Software*, *7*(5), 283–293. doi:10.1049/iet-sen.2012.0136

Parasuraman, A. (2000). Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, *2*(4), 307–320. doi:10.1177/109467050024001

Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principle - Agent Perspective. *Management Information Systems Quarterly*, *31*(1), 105–136. doi:10.2307/25148783

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavior Research: A Critical Review of the Literature and Recommended Remedies. *The Journal of Applied Psychology*, *88*(5), 879–903. doi:10.1037/0021-9010.88.5.879

Reer, F., & Kramer, N. C. (2017). The Connection Between Introversion/Extraversion and Social Capital Outcomes of Playing World of Warcraft. *Cyberpsychology, Behavior, and Social Networking*, *20*(2), 97–103. doi:10.1089/cyber.2016.0439

Richey, R. G. Jr, Tokman, M., & Skinner, L. R. (2008). Exploring technology utilization in retailer–supplier performance. *Journal of Business Research*, *61*(8), 842–849. doi:10.1016/j.jbusres.2007.09.011

Setterstrom, A. J., Pearson, J. M., & Orwig, R. A. (2013). Web-enabled Wireless Technology: An Exploratory Study of Adoption and Continued Use Intentions. *Behaviour & Information Technology*, *32*(11), 1139–1154. doi:10.1080/0144929X.2012.708785

Shin, S., & Lee, W. (2014). The Effects Of Technology Readiness And Technology Acceptance On Nfc Mobile Payment Services In Korea. *Journal of Applied Business Research*, *30*(6), 1615–1626. doi:10.19030/jabr.v30i6.8873

Sorrentino, R. M., Hanna, S. E., Holmes, J. G., & Sharp, A. (1995). Uncertainty Orientation and Trust in Close Relationships: Individual Differences in Cognitive Styles. *Journal of Personality and Social Psychology*, *68*(2), 314–327. doi:10.1037/0022-3514.68.2.314

Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009). Collective efficacy, group potency, and group performance: Meta-analyses of their relationships, and test of a mediation model. *The Journal of Applied Psychology*, *94*(3), 814–828. doi:10.1037/a0015659

Stander, F. W., de Beer, L. T., & Stander, M. W. (2015). Authentic Leadership as a source of optimism, trust in the organization, and work engagement in the public health sector. *SA Journal of Human Resource Management*, *13*(1). Advance online publication. doi:10.4102/sajhrm.v13i1.675

Thatcher, J. B., Loughry, M. L., Lim, J., & McKnight, D. H. (2007). Internet anxiety: An empirical study of the effects of personality, beliefs, and social support. *Information & Management*, *44*(4), 353–363. doi:10.1016/j.im.2006.11.007

Van Lange, P. A. M. (2015). Generalized Trust: Four Lessons From Genetics and Culture. *Current Directions in Psychological Science*, *24*(1), 71–76. doi:10.1177/0963721414552473

Vize, R., Coughlan, J., Kennedy, A., & Ellis-Chadwick, F. (2013). Technology readiness in a B2B online retail context: An examination of antecedents and outcomes. *Industrial Marketing Management*, *42*(6), 909–918. doi:10.1016/j.indmarman.2013.05.020

Walczuch, R., Lemmink, J., & Streunkens, S. (2007). The effect of service employees' technology readiness on technology acceptance. *Information & Management*, *44*(2), 206–215. doi:10.1016/j.im.2006.12.005

Wang, D., Xu, L., & Chan, H. C. (2015). Understanding the continuance use of social network sites: A computer self-efficacy perspective. *Behaviour & Information Technology*, *34*(2), 204–216. doi:10.1080/0144929X.2014.952778

Wang, Y., Sun, S., Drake, J. R., & Hall, D. (2015). Job Applicants' Information Privacy-Protective Response: Exploring the Roles of Technology Readiness and Trust. *Twenty-first Americas Conference on Information Systems*.

Warren, A. M., Sulaiman, A., & Jaafar, N. I. (2014). Social media effects on fostering online civic engagement and building citizen trust and trust in institutions. *Government Information Quarterly*, *31*(2), 291–301.

Waters, S., & Ackerman, J. (2011). Exploring Privacy Management on Facebook: Motivations and Perceived Consequences of Voluntary Disclosure. *Journal of Computer-Mediated Communication*, *17*(1), 101–115. doi:10.1111/j.1083-6101.2011.01559.x

Webb, B., Hine, A. C., & Bailey, P. E. (2016). Difficulty in Differentiating Trustworthiness From Untrustworthiness in Older Age. *Developmental Psychology*, *52*(6), 985–995. doi:10.1037/dev0000126

Wood, R., & Bandura, A. (1989). Social Cognitive Theory of Organizational Management. *Academy of Management Review*, *14*(3), 361–384. doi:10.2307/258173

Xu, C., Ryan, S., Prybutok, V., & Wen, C. (2012). It is Not for Fun: An Examination of Social Network Site Usage. *Information & Management*, *49*(5), 210–217. doi:10.1016/j.im.2012.05.001

Zarolia, P., Weisbuch, M., & McRae, K. (2017). Influence of Indirect Information on Interpersonal Trust Despite Direct Information. *Journal of Personality and Social Psychology*, *112*(1), 39–57. doi:10.1037/pspi0000074

Zhou, T., & Li, H. (2014). Understanding mobile SNS continuance usage in China from the perspectives of social influence and privacy concern. *Computers in Human Behavior*, *37*(1), 283–289. doi:10.1016/j.chb.2014.05.008

Jeffrey Bohler received his Ph.D. in the Management of Information Technology and Innovation from Auburn University in 2009 and is currently serving as the chair of the Decision Systems and Sciences department of the Sorrell College of Business at Troy University. His research interests include the impact of technology innovations on the higher education business model, decision making, and the instruction of data analytics tools and techniques.

John R. Drake is an Associate Professor of Management Information Systems at East Carolina University. He holds a BS in Physics from Southern Illinois University at Edwardsville and a Ph.D. in Management of Information Technology and Innovation from Auburn University. His research has been published in journals such as AIS Transactions on HCI, Journal of Business Ethics, IEEE Transactions on Professional Communication, Journal of Information Technology Theory and Application, and Journal of Theoretical and Applied Electronic Commerce Research. He is also author of eCommerce: A Stakeholder Approach. His current research interest focuses on thinking and morality with information systems, exploring social media privacy, search strategies, online education, and general business ethics. A second research stream focuses on virtual teamwork, exploring the role of trust, risk, and virtuality of teams in successful completion of their projects.

Ravi Paul is an Associate Professor and Chair of the Department of Management Information Systems at East Carolina University in Greenville, NC. Ravi earned both his MS and Ph.D. in Industrial Management (MIS emphasis) from Clemson University. His current research interests focus on virtual teams, online learning, and cognitive approaches to enhance decision-making. His research has appeared in journals such as Information and Management, Journal of Information Technology Education, Decision Sciences Journal of Innovative Education, and IEEE Transactions on Professional Communications. Prior to entering academia, Ravi worked for several years in the IS/IT industry, holding technical, managerial and consulting positions in systems analysis, design, development, and administration.

Eric L. Kisling received the master's degree in Aeronautical Science from Embry-Riddle Aeronautical University, Daytona Beach, FL, USA, in 1997, and the M.S.E (1997) and Ph.D. (2006) degrees in Instructional Systems Technology from Indiana University, Bloomington, IN, USA. He is currently an Associate Professor with the Management Information Systems Department, East Carolina University, Greenville, NC, USA. His research has appeared in Journal of Internet Commerce; IEEE Transactions on Professional Communication; Amity Journal of Management; Community College Journal of Research and Practice; Journal of Global Business Education; World Academy of Science, Engineering, and Technology; and Educational Technology Research and Development. His research interests include issues related to virtual team management, agile-based methodologies, IS/IT Education, and sociotechnical systems methodologies.