

Risk Hurts Fun: The Influence of Perceived Privacy Risk on Social Network Site Usage

Completed Research Paper

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Abstract

Some studies suggest that *Perceived Privacy Risk* exerts no influence on the *Actual System Use* of a Social Network Site. However, the potential indirect relationships between *Perceived Privacy Risk* and *Actual System Use* through its central antecedents have so far been overlooked. In this paper, we postulate that *Perceived Privacy Risk* exerts a negative influence on the *Perceived Enjoyment* of Social Network Sites, one of the central antecedents of *Actual System Use*. After surveying 415 students and applying a structural equation modeling approach, we confirmed an indirect negative effect of *Perceived Privacy Risk* on *Actual System Use* through *Perceived Enjoyment*. Overall, our study suggests that SNS service providers need to actively manage people's perceptions of privacy risk.

Keywords

Actual System Use, Perceived Enjoyment, Perceived Privacy Risk, Social Network Site.

Introduction

Social Network Sites (SNSs) such as *Facebook* provide many opportunities to disclose personal information. As a result, the use of SNSs carries risks with regards to members' privacy, since they cannot know and/or control how, when, or to what extent, someone might (mis)use their information (cf. Westin 1968). The findings of some studies suggest that *Perceived Privacy Risk* — the degree to which a person believes that using an SNS has negative consequences with regards to his/her privacy (cf. Chen 2013; Dinev and Hart 2006; Featherman and Pavlou 2003; Kim et al. 2008; Krasnova et al. 2010b; Peter and Ryan 1976; Wu et al. 2009) — exerts no influence on SNSs' *Actual System Use*, i.e., how often SNSs are used (e.g., Von Stetten et al. 2011).

However, the potential *indirect* influences of *Perceived Privacy Risk* on *Actual System Use* through its central antecedents have not yet been examined (cf. Davis et al. 1989; Van der Heijden 2004). In this paper, we postulate that *Perceived Privacy Risk* has a negative influence on SNSs' *Perceived Enjoyment*, which is one of the central antecedents of *Actual System Use* (e.g., Van der Heijden 2004) and is defined as “the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use” (Venkatesh 2000, p. 351).

After surveying 415 students and applying a structural equation modeling approach, we further the state-of-the-art of SNS research by confirming an indirect negative effect of *Perceived Privacy Risk* on *Actual System Use* through *Perceived Enjoyment*, a relationship that has been overlooked in the literature so far. Overall, our study suggests that SNS service providers need to actively manage people's perception of the privacy risks regarding their service in order to achieve an even greater market penetration and maintain their strong growth trajectory.

The next section explains the theoretical foundations of *Perceived Enjoyment* and *Perceived Privacy Risk*. Following this, we present our research model and research design. We then reveal and discuss our results before summarizing our findings, presenting their theoretical as well as practical implications, and providing an outlook on further research.

Theoretical Background

Perceived Enjoyment's Role on SNSs' Actual System Use

SNSs are generally acknowledged to be (partly) hedonic technologies (cf. Ernst et al. 2013a) that “aim to provide self-fulfilling value to the user, ... [which] is a function of the degree to which the user experiences fun when using the system” (Van der Heijden 2004, p. 696). Indeed, SNS members have fun while using SNSs in general and, in particular, experience joy from the social interactions they enable (e.g., Boyd and Ellison 2007; Hu et al. 2011; Sledgianowski and Kulviwat 2008; Thambusamy et al. 2010).

Perceived Enjoyment — “the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use” (Venkatesh 2000, p. 351) — reflects a hedonic system’s intrinsic motivations, such as fun, enjoyment, and other positive experiences, which stem directly from the system-user interaction (Brief and Aldag 1977; Van der Heijden 2004; Venkatesh et al. 2012). Various studies in multiple contexts have consistently confirmed that *Perceived Enjoyment* is a central antecedent of the *Actual System Use* of hedonic technologies (e.g., Van der Heijden 2004). Indeed, the findings of Ernst et al. (2013b), Hu et al. (2011), and Sledgianowski and Kulviwat (2008) suggested that *Perceived Enjoyment* is an important influence factor of SNSs’ *Actual System Use*.

Perceived Privacy Risk

Definition

Privacy is “the claim of individuals ... to determine for themselves when, how, and to what extent information about them is communicated to others” (Westin 1968, p. 7) and *risk* can be generally described as “the extent to which there is an uncertainty in significant and disappointing outcomes that may be realized” (Chen 2013, p. 1222; Sitkin and Pablo 1992). *Perceived Risk* is thus consistently understood as “the expectation of losses associated with ... [specific actions]” (Peter and Ryan 1976, p. 185).

In an SNS context, Krasnova et al. (2010b, p. 112) described *Perceived Privacy Risk* generically as “[b]eliefs about the potential uncertain negative consequences related to individual self-disclosure on ... [SNSs]”. Wu et al. (2009) provided insights into which negative consequences are most important with regards to an individual’s privacy (cf. Dinev and Hart 2006): while they referred explicitly to only one central aspect of *privacy risk* in their definition, that is, *the potential misuse of personal information*, their construct measurement implicitly includes another central aspect: *the loss of control over personal information*. This is consistent with the understanding of *Perceived Privacy Risk* in other research contexts (e.g., Featherman and Pavlou 2003). Indeed, the first aspect (*the misuse of personal information*) includes any unwelcome use of an individual’s personal information: this includes using the information for commercial purposes, becoming the target of personal attacks (for example, bullying), data being misinterpreted, and/or becoming an unknowing participant in illegal activities (for example, identity theft) (cf. Krasnova et al. 2010a). The second aspect of *privacy risk* (*the loss of control over personal information*) depicts any loss of control regarding how, when, or to what extent, someone [for example, employers, teachers, parents, unknown persons (Krasnova et al. 2010a)] might see/use personal information (cf. Westin 1968).

Drawing from the works presented above, we describe *Perceived Privacy Risk* as the degree to which a person believes that using an SNS has negative consequences with regards to his/her privacy (cf. Chen 2013; Dinev and Hart 2006; Featherman and Pavlou 2003; Kim et al. 2008; Krasnova et al. 2010b; Peter and Ryan 1976; Wu et al. 2009).

Previous Research

Perceived Risk, in general, can exert an influence on people’s behavior (e.g., Tan 1999). This influence has been a popular topic in previous research, especially in studies related to e-commerce and e-services. Indeed, multiple studies confirmed the existence of a negative influence of *Perceived Risk* on the usage of

such services and their associated products (e.g., Featherman and Pavlou 2003; Jarvenpaa et al. 2000; Malhotra et al. 2004; Pavlou 2001; Pavlou 2003).

Since SNSs offer innumerable opportunities to disclose personal information, the influence of privacy risk-related constructs on people's usage behaviors is of particular interest to SNS research. Indeed, multiple studies have confirmed a negative influence of *Perceived Privacy Risk* on SNS members' information disclosure behavior. For example, Lo (2010) found that *Perceived Privacy Risk* negatively influences the general *Willingness to provide personal information to SNSs*; Krasnova et al. (2010b) found that it has a negative influence on the actual amount of self-disclosed information.

In contrast, only little is known about the role of *Perceived Privacy Risk* on SNSs' *Actual System Use*. Whereas some findings suggest that it has no influence on *Actual System Use*, others suggest it does. For example, Von Stetten et al. (2011) were not able to confirm an influence of a privacy risk-related construct (*Privacy Concerns*) on *Usage*. However, Chen (2013) confirmed a positive influence of a privacy risk-related construct (*Privacy Abuse Concern*) on general risk perception, which, in turn, was found to exert a negative influence on SNSs' *Site Use*.

However, no study we are aware of has examined the potential *indirect* influence of *Perceived Privacy Risk* on SNSs' *Actual System Use* through its central antecedents so far (cf. Davis et al. 1989; Van der Heijden 2004). Our study aims to fill this gap in the literature. Indeed, we believe that *Perceived Privacy Risk* *indirectly* influences *Actual System Use* through *Perceived Enjoyment*, which is one of the central antecedents of *Actual System Use* (e.g., Van der Heijden 2004).

Research Model

In the following section, we will present our research model in Figure 1 and then outline our corresponding hypotheses.

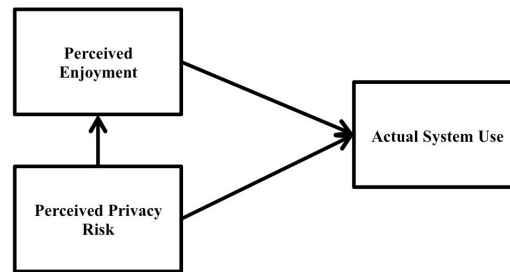


Figure 1. Research Model

As described earlier, members have fun while using SNSs in general and, in particular, experience joy from the social interactions they enable (e.g., Boyd and Ellison 2007; Thambusamy et al. 2010). Therefore, SNSs are at least partly hedonic systems (Ernst et al. 2013a; Van der Heijden 2004) that provide positive feelings and experiences for their users in the form of *Perceived Enjoyment* (Ernst et al. 2013b; Hu et al. 2011; Sledgianowski and Kulviwat 2008). *Perceived Enjoyment* has been shown to be an important antecedent of hedonic technologies' *Actual System Use* (e.g., Van der Heijden 2004). Indeed, Ernst et al. (2013b), Hu et al. (2011), and Sledgianowski and Kulviwat (2008) identified a positive influence of *Perceived Enjoyment* on SNS usage. We hypothesize that:

There is a positive relationship between the Perceived Enjoyment of a Social Network Site and its Actual System Use (H1).

Perceived Risk, in general, can alter an individual's feelings (Yüksel and Yüksel 2007). Specifically, due to the perceived negative consequences associated with it, *Perceived Risk* causes negative feelings such as anxiety, discomfort and uncertainty (Dowling and Staelin 1994; Featherman 2001). Indeed, in a shopping context, Yüksel and Yüksel (2007) confirmed a negative influence of *Perceived Risk* on *Pleasure*, which is "the degree to which the person feels good, joyful, happy, or satisfied in the situation" (Yüksel and Yüksel 2007, p. 706). In this sense, due to its potential negative consequences with regards to an individual's privacy, *Perceived Privacy Risk* can also be expected to cause negative feelings, i.e., to negatively influence an individual's *Perceived Enjoyment*. We hypothesize that:

There is a negative relationship between the Perceived Privacy Risk of a Social Network Site and its Perceived Enjoyment (H2).

The *Theory of Reasoned Action* (Fishbein and Ajzen 1975) postulates that an individual's behavior is influenced by his/her particular beliefs concerning the behavior's consequences (e.g., *Perceived Enjoyment*). Consequently, *Perceived Privacy Risk* can be expected to exert an influence on *Actual System Use*. More precisely, since *Perceived Privacy Risk* is associated with negative feelings, the influence it could be exerting on *Actual System Use* is probably negative. Although the findings regarding this relationship in a SNS context are ambiguous (cf. Chen 2013; Von Stetten et al. 2011), multiple studies from other contexts have confirmed that various risk perceptions negatively influence usage behavior (Featherman and Pavlou 2003; Jarvenpaa et al. 2000; Pavlou 2001; Pavlou 2003). Hence, we choose to include the direct relationship between *Perceived Privacy Risk* and *Actual System Use* into our research model and hypothesize that:

There is a negative relationship between the Perceived Privacy Risk of a Social Network Site and its Actual System Use (H3).

Research Design

Data Collection

To empirically evaluate our research model, we surveyed students from a German university attending an *Introduction to information systems* course. In this manner, we obtained 415 complete paper-and-pencil questionnaires. 220 respondents were male (53 percent) and 195 were female (47 percent). The average age was 21.17 years (standard deviation: 2.63).

Measurement

We used existing reflective scales to measure *Actual System Use* and *Perceived Enjoyment* so as to ensure the content validity of our measurement model (Davis et al. 1989; Davis et al. 1992). For *Perceived Privacy Risk*, we adapted three items from Chen (2013) (cf. Dinev and Hart 2006), Featherman and Pavlou (2003), and Krasnova et al. (2010b) (cf. Malhotra et al. 2004).

Construct	Items (Labels)	Source/adapted from
Actual System Use	On average, how often do you use SNSs? (AU1)	Davis et al. (1989)
	How frequently do you use SNSs? (AU2)	
Perceived Enjoyment	I have fun using SNSs (PE1)	Davis et al. (1992)
	Using SNSs is pleasant (PE2)	
	I find using SNSs to be enjoyable (PE3)	
Perceived Privacy Risk	Using SNSs leads to a loss of control over the privacy of my personal data (PPR1)	Chen (2013) Featherman and Pavlou (2003) Krasnova et al. (2010b) (cf. Dinev and Hart 2006; Malhotra et al. 2004)
	Using SNSs allows others to misuse my personal data (PPR2)	
	Overall, I see a threat to my privacy due to my presence on SNSs (PPR3)	

Table 1. Items of our Measurement Model

Table 1 presents the resulting items and the corresponding sources. *Actual System Use* was measured in the same manner as Davis et al. (1989, p. 991), and all other items were measured using a seven-point Likert-type scale ranging from "strongly agree" to "strongly disagree". In our sample, the mean (standard deviation) was 6.03 (1.43) for *Actual System Use*, 5.11 (1.14) for *Perceived Enjoyment*, and 5.56 (1.15) for *Perceived Privacy Risk* (based on the item average of each construct).

Results

Measurement Model

To test our measurement model for reliability, validity, and model fit, we computed *Cronbach's alpha* for each construct using *SPSS 21.0.0.0* and performed a confirmatory factor analyses using *AMOS 21.0.0.0*. Parameters were estimated using maximum likelihood and, since our data was not distributed joint multivariate normal, a bias-corrected bootstrapping approach with 2000 replications was used to test for significance (Byrne 2001; Krasnova et al. 2010b).

Cronbach's alpha was .84 or greater for all constructs (Table 2). All items loaded high (.73 or higher) and significant ($p < .01$) on their parent factor (Table 3); Table 4 presents the *Composite Reliability* (CR), *Average Variance Extracted* (AVE), *Maximum Shared Squared Variance* (MSV), and *Average Shared Squared Variance* (ASV) of all factors as well as the correlations between constructs; *Bollen-Stine corrected p-value*, *Relative Chi-Square* (CMIN/DF), *Goodness of Fit Index* (GFI), *Adjusted Goodness of Fit Index* (AGFI), *Comparative Fit Index* (CFI), *Root Mean Square Error of Approximation* (RMSEA), and *Standardized Root Mean Square Residual* (SRMR) were .279, 1.466, .985, .968, .996, .034, and .018, respectively. Hence, our measurement model is well-specified since it meets all desirable reliability, convergent/discriminant validity, and model fit thresholds.¹

	Actual System Use	Perceived Enjoyment	Perceived Privacy Risk
Cronbach's alpha	.89	.93	.84

Table 2. Cronbach's Alphas

Item labels	AU1	AU2	PE1	PE2	PE3	PPR1	PPR2	PPR3
Parent factor loadings	.85	.95	.95	.92	.84	.73	.76	.93

Table 3. Parent Factor Loadings

	CR	AVE	MSV	ASV	AU	PE	PPR
Actual System Use (AU)	.898	.815	.469	.240	-		
Perceived Enjoyment (PE)	.931	.819	.469	.246	.685	-	
Perceived Privacy Risk (PPR)	.849	.655	.023	.017	-.105	-.153	-

Table 4. CR, AVE, MSV, ASV and Correlations between Constructs

Structural Model

To test our research model, we conducted a structural equation modeling approach using *AMOS 21.0.0.0*. Parameters were estimated using maximum likelihood and significance was assessed by using a bias-corrected bootstrapping approach with 2000 replications (Byrne 2001; Krasnova et al. 2010b). Fit measures indicated a good model fit (Bollen-Stine corrected p-value = .279, CMIN/DF = 1.466, GFI = .985, AGFI = .968, CFI = .996, RMSEA = .034, SRMR = .018). Figure 2 presents the standardized

¹To ensure reliability and convergent/discriminant validity, *Cronbach's alpha* is recommended to be greater than .70 (Nunnally 1978); the loading of each item on its parent factor should be significant and exceed the threshold of .60 (Bagozzi and Yi 1988); the CR should be greater than the AVE and they should lie above .70 and .50, respectively (Hair et al. 2009); the square root of the AVE of each construct should be larger than the absolute value of the construct's correlations with its counterparts (Fornell and Larcker 1981); and, finally, the AVE should be greater than the MSV and ASV (Hair et al. 2009). To ensure model fit, the Bollen-Stine corrected p-value, GFI, AGFI, and CFI should be higher than .05, .90, .80, and .95, respectively (Byrne 2001; Hu and Bentler 1999; Jöreskog and Sörbom 1989). Additionally, the CMIN/DF, RMSEA, and SRMR should be less than 3.00, .06, and .08, respectively (Hair et al. 2009; Hu and Bentler 1999).

regression weights regarding the previously hypothesized relationships as well as the R^2 s of each endogenous variable (** = $p < .01$, * = $p < .05$, ns = non-significant).

Perceived Enjoyment ($\beta = .685$, $p < .01$) was found to have a positive influence on the *Actual System Use* of SNSs and *Perceived Privacy Risk* was found to have a negative influence on *Perceived Enjoyment* ($\beta = -.153$, $p < .05$), confirming hypotheses 1 and 2. In contrast, but in line with the findings of other similar studies (e.g., Von Stetten et al. 2011), hypothesis 3 was not confirmed since *Perceived Privacy Risk* had no significant direct influence on *Actual System Use* ($\beta = .000$, $p < .929$).²

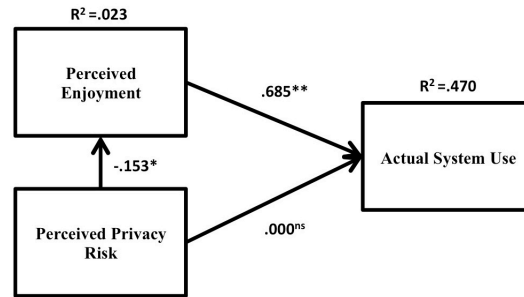


Figure 2. Findings

Conclusions

We studied the role of *Perceived Privacy Risk* on SNS usage, i.e., its relationship to *Perceived Enjoyment* and *Actual System Use*. After surveying 415 students and applying a structural equation modeling approach, we confirmed an indirect negative effect of *Perceived Privacy Risk* on *Actual System Use* through *Perceived Enjoyment*.

Our study has some limitations. First, it suffers from the general problems of using a student sample. Indeed, our results might not hold true for people from other countries, with different educational backgrounds or from different age groups. Also, we did not base our study on a specific SNS; rather, we used generic items that asked about SNSs as a whole. Hence, there might be differences between SNSs that are used for professional reasons, such as *LinkedIn*, and SNSs that are used for personal reasons, such as *Facebook*. Consequently, future studies might address our limitations by testing the influences of *Perceived Privacy Risk* for different demographic groups and differentiating between professional and personal SNSs in order to broaden our understanding of *Perceived Privacy Risk*'s role on SNS usage.

In summary, our study furthers the state-of-the-art of SNS research by confirming an indirect negative effect of *Perceived Privacy Risk* on *Actual System Use* through *Perceived Enjoyment*, a relationship that has been overlooked in the literature so far. Additionally, our findings have practical implications for SNS service providers. Indeed, our findings suggest that SNS service providers need to actively manage people's privacy risk perception, in order to increase their *Perceived Enjoyment* and, hence, also their *Actual System Use*, to ultimately achieve an even greater market penetration and to maintain their strong growth trajectory.

References

- Bagozzi, R.P., and Yi, Y. 1988. "On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science* (16:1), pp. 74-94.
- Baron, R., and Kenny, D. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology* (51:6), pp. 1173-1182.

² The direct effect of *Perceived Privacy Risk* on *Actual System Use* was also not significant when *Perceived Enjoyment* was not included into the model. Overall, we found no fully or partially mediated effect of *Perceived Privacy Risk* on *Actual System Use* but rather an *indirect effect* through *Perceived Enjoyment* ($\beta = -.105$, $p < .05$) (cf. Baron and Kenny 1986; Hair et al. 2009).

- Boyd, D.M., and Ellison, N.B. 2007. "Social Network Sites: Definition, History, and Scholarship," *Journal of Computer-Mediated Communication* (13:1), pp. 210-230.
- Brief, A.P., and Aldag, R.J. 1977. "The Intrinsic-Extrinsic Dichotomy: Toward Conceptual Clarity," *Academy of Management Review* (2:3), pp. 496-500.
- Byrne, B.M. 2001. *Structural Equation Modeling with Amos: Basic Concepts, Applications, and Programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Chen, R. 2013. "Member Use of Social Networking Sites - an Empirical Examination," *Decision Support Systems* (54:3), pp. 1219-1227.
- Davis, F.D., Bagozzi, R.P., and Warshaw, P.R. 1989. "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Management Science* (35:8), pp. 982-1003.
- Davis, F.D., Bagozzi, R.P., and Warshaw, P.R. 1992. "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace," *Journal of Applied Social Psychology* (22:14), pp. 1111-1132.
- Dinev, T., and Hart, P. 2006. "An Extended Privacy Calculus Model for E-Commerce Transactions," *Information Systems Research* (17:1), pp. 61-80.
- Dowling, G.R., and Staelin, R. 1994. "A Model of Perceived Risk and Intended Risk-Handling Activity," *Journal of Consumer Research* (21:1), pp. 119-134.
- Ernst, C.-P.H., Pfeiffer, J., and Rothlauf, F. 2013a. "Hedonic and Utilitarian Motivations of Social Network Site Adoption." Johannes Gutenberg University Mainz: Working Papers in Information Systems and Business Administration.
- Ernst, C.-P.H., Pfeiffer, J., and Rothlauf, F. 2013b. "The Influence of Perceived Belonging on Social Network Site Adoption," *AMCIS 2013 Proceedings*.
- Featherman, M. 2001. "Extending the Technology Acceptance Model by Inclusion of Perceived Risk," *AMCIS 2001 Proceedings*, Paper 148.
- Featherman, M.S., and Pavlou, P.A. 2003. "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," *International Journal of Human-Computer Studies* (59:4), pp. 451-474.
- Fishbein, M., and Ajzen, I. 1975. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Fornell, C., and Larcker, D.F. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research* (18:1), pp. 39-50.
- Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. 2009. *Multivariate Data Analysis*, 7th ed. Upper Saddle River, NJ: Prentice Hall.
- Hu, L.-t., and Bentler, P.M. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives," *Structural Equation Modeling* (6:1), pp. 1-55.
- Hu, T., Poston, R.S., and Kettinger, W.J. 2011. "Nonadopters of Online Social Network Services: Is It Easy to Have Fun Yet?," *Communications of the Association for Information Systems* (29:1), pp. 441-458.
- Jarvenpaa, S.L., Tractinsky, N., and Vitale, M. 2000. "Consumer Trust in an Internet Store," *Information Technology and Management* (1:1/2), pp. 45-71.
- Jöreskog, K., and Sörbom, D. 1989. *Lisrel 7: User's Reference Guide*. Mooresville, IN: Scientific Software International.
- Kim, D.J., Ferrin, D.L., and Rao, H.R. 2008. "A Trust-Based Consumer Decision-Making Model in Electronic Commerce: The Role of Trust, Perceived Risk, and Their Antecedents," *Decision Support Systems* (44:2), pp. 544-564.
- Krasnova, H., Kolesnikova, E., and Guenther, O. 2010a. "Leveraging Trust and Privacy Concerns in Online Social Networks: An Empirical Study," *ECIS 2010 Proceedings*, Paper 160.
- Krasnova, H., Spiekermann, S., Koroleva, K., and Hildebrand, T. 2010b. "Online Social Networks: Why We Disclose," *Journal of Information Technology* (25:2), pp. 109-125.
- Lo, J. 2010. "Privacy Concern, Locus of Control, and Salience in a Trust-Risk Model of Information Disclosure on Social Networking Sites," *AMCIS 2010 Proceedings*, Paper 110.
- Malhotra, N.K., Kim, S.S., and Agarwal, J. 2004. "Internet Users' Information Privacy Concerns (Iuipc): The Construct, the Scale, and a Causal Model," *Information Systems Research* (15:4), pp. 336-355.
- Nunnally, J. 1978. *Psychometric Theory*, 2nd ed. New York, NY: McGraw-Hill.
- Pavlou, P.A. 2001. "Integrating Trust in Electronic Commerce with the Technology Acceptance Model: Model Development and Validation," *AMCIS 2001 Proceedings*, Paper 159.
- Pavlou, P.A. 2003. "Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model," *International Journal of Electronic Commerce* (7:3), pp. 69-103.
- Peter, J.P., and Ryan, M.J. 1976. "An Investigation of Perceived Risk at the Brand Level," *Journal of Marketing Research* (13:2), pp. 184-188.

- Sitkin, S.B., and Pablo, A.L. 1992. "Reconceptualizing the Determinants of Risk Behavior," *The Academy of Management Review* (17:1), pp. 9-38.
- Sledgianowski, D., and Kulviwat, S. 2008. "Social Network Sites: Antecedents of User Adoption and Usage," *AMCIS 2008 Proceedings*, Paper 83.
- Tan, S.J. 1999. "Strategies for Reducing Consumers' Risk Aversion in Internet Shopping," *Journal of Consumer Marketing* (16:2), pp. 163-180.
- Thambusamy, R., Church, M., Nemati, H., and Barrick, J. 2010. "Socially Exchanging Privacy for Pleasure: Hedonic Use of Computer-Mediated Social Networks," *ICIS 2010 Proceedings*, Paper 253.
- Van der Heijden, H. 2004. "User Acceptance of Hedonic Information Systems," *MIS Quarterly* (28:4), pp. 695-704.
- Venkatesh, V. 2000. "Determinants of Perceived Ease of Use: Integrating Perceived Behavioral Control, Computer Anxiety and Enjoyment into the Technology Acceptance Model," *Information Systems Research* (11:4), pp. 342-365.
- Venkatesh, V., Thong, J.Y.L., and Xu, X. 2012. "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," *MIS Quarterly* (36:1), pp. 157-178.
- Von Stetten, A., Wild, U., and Chrennikow, W. 2011. "Adopting Social Network Sites – the Role of Individual It Culture and Privacy Concerns," *AMCIS 2011 Proceedings*, Paper 290.
- Westin, A.F. 1968. *Privacy and Freedom*. New York, NY: Atheneum.
- Wu, Y.A., Ryan, S., and Windsor, J. 2009. "Influence of Social Context and Affect on Individuals' Implementation of Information Security Safeguards," *ICIS 2009 Proceedings*, Paper 70.
- Yüksel, A., and Yüksel, F. 2007. "Shopping Risk Perceptions: Effects on Tourists' Emotions, Satisfaction and Expressed Loyalty Intentions," *Tourism Management* (28:3), pp. 703-713.