

9-28-2022

Psychological Contract Violations on Information Disclosure: A Study of Institutional Arrangements in Social Media Platforms

Bryan Iwata Hammer

Management Science and Information Systems, Oklahoma State University,
bryan.hammer.phd@outlook.com

Forough Nasirpouri Shadbad

Business Information Systems, Oregon State University

Follow this and additional works at: <https://aisel.aisnet.org/cais>

Recommended Citation

Hammer, B. I., & Shadbad, F. N. (2022). Psychological Contract Violations on Information Disclosure: A Study of Institutional Arrangements in Social Media Platforms. *Communications of the Association for Information Systems*, 51, pp-pp. <https://doi.org/10.17705/1CAIS.05111>

This material is brought to you by the AIS Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in *Communications of the Association for Information Systems* by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.



Psychological Contract Violations on Information Disclosure: A Study of Institutional Arrangements in Social Media Platforms

Bryan Iwata Hammer

Management Science and Information Systems
Oklahoma State University
bryan.hammer.phd@outlook.com

Forough Nasirpouri Shadbad

Business Information Systems
Oregon State University

Abstract:

Previous research investigating information disclosure with online merchants has extended social contract theory using psychological contracts to explain the nature of the relationship between the consumer and merchant. This research extends the role of psychological contracts to social media platforms (SMP) by investigating how institutional psychological contract violations (PCV) influence trust in the SMP through institutional arrangements. Using a sample from MTurk, we presented two hypothetical scenarios manipulating the degree of PCV. Our findings suggest institutional PCVs act differently on institutional arrangements. Institutional PCVs impact attitudes toward institutional arrangements and trust in the SMP.

Keywords: Privacy, Trust, Psychological Contract Violation, Social Media, Social Contract.

This manuscript underwent peer review. It was received 6/30/2020 and was with the authors for 33 months for three revisions. Kent Marett served as Associate Editor.

1 Introduction

One of the underlying tenets of privacy is that situations involving information disclosure generate uncertainty (Acquisti & Grossklags, 2005b; Pavlou et al., 2007) or perceptions of risk (Dinev & Hart, 2006; Malhotra et al., 2004; Van Slyke et al., 2006) due to concerns over secondary use of personal information (Culnan, 1993; Van Slyke et al., 2006). This uncertainty can occur because individuals cannot establish all future conditions due to imperfect information (Pavlou et al., 2007) or discount future threats and risks in lieu of immediate benefits (Acquisti & Grossklags, 2005b). Research has shown that uncertainty can be mitigated by institutional structures such as privacy seals (McKnight et al., 2004; Rifon et al., 2005), information transparency (Awad & Krishnan, 2006), privacy statements (Liu et al., 2005), or employment of fair information practices (Culnan & Armstrong, 1999). Yet, this extant research has mainly focused on Internet users' relationships with online merchants in which information disclosure occurs between a faceless entity and user. Information disclosure on social media platforms occurs between users within interpersonal relationships (Nosko et al., 2010), whose information exchanges are not governed well by institutional structures (Obar & Oeldorf-Hirsch, 2016).

Social media platforms (SMPs) have significant influence on society, politics, commerce, etc. (Kokolakis, 2017). Anecdotal evidence and research suggest that the increase in the number of SMP users is associated with some challenges for individual users: lack of privacy, cyberbullying, and mental well-being resulting in lower levels of mood, increased levels of anxiety, stress, and depression (Brown, 2018). This is alarming because the daily active users of SMPs continue to increase (i.e., the number of daily active Facebook users has increased to 1.93 billion in 2021 (Statista, 2021)). For perspective, the population in the United States in 2020 was estimated to be 329.48 million (World Bank, 2020). SMPs collect so much personal information that users generally become concerned about whether their privacy is invaded. Subsequently, user engagement (e.g., posting likes and comments) decreases due to institutional privacy concerns (Jozani et al., 2020).

Even with the existence of institutional structures to combat privacy concerns, all structures (which behave and operate like contracts) are inherently incomplete (Macneil, 1980) resulting in the inclusion of the implicit, psychological component (Pavlou & Gefen, 2005; Rousseau & Parks, 1993). This implicit component, or *psychological contract*, is an individual's belief regarding the terms and conditions of a reciprocal exchange agreement between the individual and another party (Rousseau, 1989; Rousseau & Greller, 1994; Rousseau & Parks, 1993). The idea of reciprocity is ingrained in who we are. As humans, we seek out reciprocated welfare and experiences, which lead to increases in emotional stability and well-being, as well as decreases in resource constraints (Baumeister & Leary, 1995; Rousseau & Greller, 1994; Scott & Davis, 2007). Psychological contracts create certainty and reciprocal obligations within other parties (Rousseau, 1989, 1995). Humans are social beings who desire social experiences (Baumeister & Leary, 1995; Maner et al., 2007) even in online environments (Williams et al., 2000) leading to the creation of psychological contracts. As one possible mechanism of psychological contracts in action, previous research suggests that perceptions of normative beliefs conform behaviors into predictable patterns (Ajzen, 1985, 1991; Ajzen & Fishbein, 1973), including during the usage and adoption of technology (Davis et al., 1989, 1992; Taylor & Todd, 1995).

Due to the inherent risk with online exchange relationships, violations are bound to occur (Robinson, 1996; Robinson & Rousseau, 1994). These violations are *psychological contract violations* (PCV) and occur when one party perceives that the other party has failed to fulfill its obligations or promises (Rousseau, 1995). PCVs are not limited to physical proximity (Dawson et al., 2014) and span across time (Robinson et al., 1994), implying the ability of violations to overcome digital barriers of online relationships. Previous research in Information Systems (IS) determined that PCVs between online merchants and users decreased trust, increased risk perceptions, and decreased information disclosure via transaction intentions (Pavlou & Gefen, 2005).¹ In other IS research, PCV has been applied in e-commerce (Chiu et al., 2010; Salam et al., 2005; Xiao & Benbasat, 2011) and IT-outsourcing (Koh et al., 2004; Sabherwal, 1999). Yet, what is not clear is how PCVs influence privacy concerns, trust, and information disclosure in social media platforms. Additionally, previous research has examined how institutional arrangements

¹ While Robinson and Morrison (Robinson & Morrison, 2000) distinguish between psychological contract violation (feeling) and psychological contract breach (perception), we follow the original unitary conceptualization by Rousseau (Rousseau, 1989) as used by Pavlou and Gefen (2005).

(Granovetter, 1985) govern exchange relationships involving perceptions of contract violations (Pavlou & Gefen, 2005), still research has yet to elucidate the relationship these types of mechanisms have when PCVs are present. Based on these gaps in the literature, we explore the following research questions:

RQ1: How will PCVs operate in social media platforms?

RQ2: What institutional arrangement mechanisms govern social contracts in social media platforms?

To address the research questions, we draw from the information privacy, trust, and psychological contract literature to develop and validate a model that analyzes the effects of institutional PCV on trust and information disclosure through institutional arrangements. We conceptualize and operationalize our model constructs to the context of SMP. The results, based on the survey data analysis of 401 Facebook users, show that institutional PCV influences institutional arrangements, which in turn negatively impact trust in SMP. Consequently, lower levels of trust perceptions reduce information disclosure. The paper contributes to the literature by (1) extending the literature to the context of social media platforms, (2) identifying institutional arrangements within SMPs, and (3) highlighting the importance of institutional arrangements on online users' information disclosure via trust.

Next, we develop the research model and hypotheses drawing on the literature on psychological contract violation, institutional arrangement, trust, and information disclosure. Figure 1 illustrates our proposed research model and the relationships between the constructs.

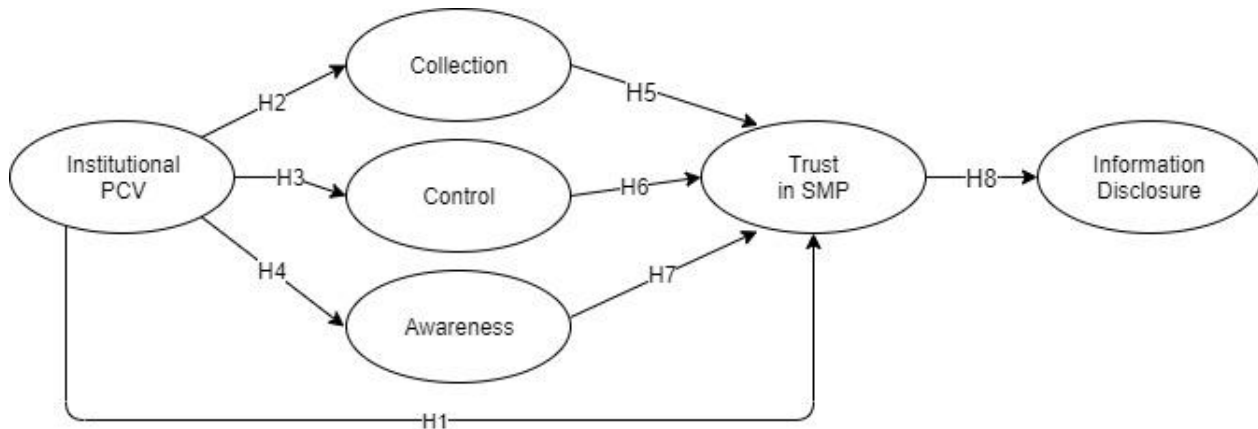


Figure 1. Research Model

2 Theoretical Development

2.1 Social Contract Theory and Psychological Contract Violation

According to social contract theory (SCT), people in society follow a social agreement governing rights and rules of behavior. The theory focuses on both morality and government. The former consists of the practices acceptable by rational people; the latter ensures compliance with essential moral rules (Rachels & Rachels, 1986). At the organizational or institutional level, SCT interactions occur through existing contracts and through hypernorms (universal principles) and moral free space (Donaldson & Dunfee, 1999). At a more granular level, rules and obligations are made by individuals in institutions. One approach to understanding individual-level SCT is using the concept of psychological contract (Thompson & Hart, 2006) as it concerns the perception of reciprocal obligations between individuals and their organizations. In other words, individuals construct their own beliefs of principles which determine how their institutions should behave.

Unlike legal or explicit contracts where two parties reach an agreement, a psychological contract is one person's belief regarding the reciprocal relationship, which is perceptual, unwritten, and implicit (Argyris, 1960; Rousseau, 1989; Weick, 1979). Since no contract can be perfectly complete (Hart & Moore, 1999), there is a psychological component in all contracts, where a party to the agreement will assume certain obligations from the other party and vice versa. The expectations stem from individual differences in goal attainment. Individuals with desires for high levels of privacy will expect exchange relationships to adhere

to higher standards of protection, control, disclosure, and use (Taylor et al., 2015). Personality traits and dispositions influence information disclosure (Junglas et al., 2008) and dispositions related to privacy and trust influence situational expectations of privacy (Davazdahemami et al., 2018; Malhotra et al., 2004; Taylor et al., 2015) and trust (Colquitt et al., 2007; Lim et al., 2006; Lowry et al., 2008; Mayer et al., 1995; Mcknight et al., 1998; McKnight et al., 2004; Pavlou & Gefen, 2004). Dispositions surrounding privacy and trust dictate behavioral norms, the extent of reciprocal exchanges, and fair treatment; thus, the formation of psychological contracts is dictated by these dispositions.

PCVs occur when enough discrepancy exists between expectations of privacy and perceived privacy. The discrepancy can occur due to renegeing and incongruence. *Reneging* occurs when a party knowingly fails to meet expectations due to opportunism or incompetence (Morrison & Robinson, 1997; Pavlou & Gefen, 2005). *Incongruence* is defined as the difference between party members' understanding or expectations of obligations (Morrison & Robinson, 1997; Pavlou & Gefen, 2005). Organizational behavior literature has examined how PCV influences employment relationships (Morrison & Robinson, 1997; Robinson & Morrison, 2000; Robinson & Rousseau, 1994; Rousseau, 1989). When employees believe an organization fails to fulfill one or more obligations or promises, he or she will develop feelings of anger and betrayal toward the organization (Morrison & Robinson, 1997).

While PCV has not been explicitly applied in the context, to the best of our knowledge, Choi, Jiang, Xiao, and Kim (2015) revealed that embarrassing exposures will affect perceived privacy invasion and subsequent behaviors. These exposures, such as getting tagged in a Facebook post for sleeping in a lecture, can be perceived as a violation of a psychological contract. Studies in other subfields of IS have more explicit applications of PCV. For example, the effect of PCV has been investigated for buyer-seller relationships in e-commerce (Bansal et al., 2010; Chiu et al., 2010; Pavlou & Gefen, 2005; Salam et al., 2005; Xiao & Benbasat, 2011) and for interorganizational relationships in IT-outsourcing (Koh et al., 2004; Sabherwal, 1999).

The role of trust in online exchange is well-established and has been extensively applied in both e-commerce (Chen & Dhillon, 2003; Gefen, 2000; Kim et al., 2005; McKnight et al., 2002; Salam et al., 2005) and social media (Chow & Chan, 2008; Dwyer et al., 2007; Sledgianowski & Kulviwat, 2009; Valenzuela et al., 2009). *Trust in the SMP* reflects the user's perception that effective mechanisms are in place to assure that the service will behave consistently with the user's favorable expectations (Lowry et al., 2008; McKnight et al., 2002; Shapiro, 1987; Stewart, 2003).

Trust is closely related to psychological contracts. PCV is typically accompanied by feelings of anger and betrayal, which will reduce the trustor's belief in the trustee. We extend previous research by hypothesizing a relationship between institutional PCV and trust in SMP. When violations occur, the trustee has failed to fulfill certain obligations in the eyes of the trustor, subsequently diminishing trust. This is because PCV acts as a "negative retrospective appraisal of past problems" (Pavlou & Gefen, 2005) with trustees (Robinson, 1996; Robinson et al., 1994). This mechanism has also been found to operate in other contexts such as e-commerce (Pavlou & Gefen, 2005), suggesting that institutional PCV influences the trust of institutions such as SMPs, as well as others operating within the SMP. Thus, we extend this research by hypothesizing the following:

Hypothesis 1: Institutional psychological contract violation will have a negative effect on trust in the SMP.

2.2 Institutional Arrangements

In their research on psychological contract violations, Pavlou and Gefen (2005) theorized that *institutional structures* aid in enhancing trust and reducing perceptions of risk with individuals (Reichheld & Scheffer, 2000) and about a community (Pavlou, 2002; Pavlou & Gefen, 2004). These institutional structures provide rules and policies influencing behavior to secure a more predictable future. This is similar in concept to *institutional arrangements* (Granovetter, 1985). Institutional arrangements are necessary in undersocialized environments (such as online merchants) to guide behavior (Granovetter, 1985) and include institution-based structural assurances and institution-based situational normality (Gefen et al., 2003). An undersocialized environment involves interchangeable parties, such that if malfeasance occurred, an individual can readily exchange with a different party (Granovetter, 1985; Shapiro, 1987). Due to the fairly anonymous nature of parties in undersocialized environments, institutional arrangements are necessary. Granovetter (1985) claims these institutional arrangements are a mere substitute for trust. Pavlou and Gefen (2005) theorized four institutional structures exist in online buyer-seller environments:

feedback technologies, escrow services, credit card guarantees, and trust in the intermediary (Pavlou & Gefen, 2004).

In SMPs, these specific institutional structures are different. Social contracts govern psychological contracts by individuals internalizing assumptions, beliefs, and norms concerning appropriate behavior within a particular social unit (Homans, 1974). Social contract governs the execution of the psychological contract, indicating how the reciprocal exchange in a psychological contract should be carried out (Morrison & Robinson, 1997). The social contract serves as a backdrop for individuals' interpretation of contract violation (Morrison & Robinson, 1997). Relying on social contract theory, Malhotra et al. (2004) posited three mechanisms governing privacy concerns:

- **Collection:** Emphasizes equitable information exchange based on the agreed social contract and the perceived fairness of outcomes (Culnan, 1993).
- **Control:** Represents a voice to control procedures based on procedural justice (Gilliland, 1993; Thibaut & Walker, 1975; Tyler, 1994).
- **Awareness:** Indicates knowledge and understanding about established policies of actual practices (Culnan, 1995).

SMPs provide institutional arrangements and mechanisms to aid in governing information disclosure. We conceptualize these institutional arrangements as a concern over collection, control, and awareness. That is, these three are what constitute institutional arrangements, rather than feedback technologies, escrow services, credit card guarantees, etc. (Pavlou & Gefen, 2004). Malhotra et al. (2004) conceptualized these three pillars of privacy concerns as a second-order construct. We decompose these into three distinct concepts to enhance the extant theory. By theorizing and testing hypotheses for each mechanism, we can develop a richer theory on social contract. As an example of decomposing a construct, Lowry, Gaskin, Twyman, Hammer, and Roberts (2012) replace enjoyment in TAM (see Van der Heijden (2004)) with the first-order constructs of cognitive absorption. This allows for generating individualized causal mechanisms for each sub-construct, inducing parsimony of theory and explanatory power into the model.

Many definitions of privacy concerns include the concept of collection as a dimension. For example, privacy concern is defined as the extent to which an individual is worried about the perceived fairness of the collection, storage, and usage of personal information (Dinev & Hart, 2006; Milberg et al., 2000; Smith et al., 1996; Van Slyke et al., 2006). *Collection* is "the degree to which a person is concerned about the amount of individual-specific data possessed by websites" (Hong & Thong, 2013, p. 278; see also Malhotra et al., 2004). Collection of personal information is regulated by privacy (Sheng et al., 2008) and may elicit concerns involving the primary or secondary usage of that personal information (Culnan, 1993) especially without consent (Roussos et al., 2002). When individuals surrender personal information for collection, an expectation of benefits is created (Culnan, 1993; Laufer & Wolfe, 1977; Stone et al., 1983), though the benefits may not be realized in the short-term (Acquisti, 2004; Acquisti et al., 2006; Acquisti & Grossklags, 2005a). Utilizing institutional arrangements and structures can alleviate concerns over the collection of personal information (Granovetter, 1985; Pavlou & Gefen, 2005) such as implementing fair information practices (FIP) (Lee et al., 2011).

The concept of control and limited access to information has been widely studied in the information privacy literature (Culnan & Williams, 2009; Il-Horn et al., 2007) either as one central element of information privacy or by defining general privacy as control (Smith et al., 2011). In defining privacy, control typifies the regulation of personal information, limiting access to third parties, including the solicitation, storage, and use of said information (Il-Horn et al., 2007). Information privacy is the ability of the individual to control his personal information in terms of how and to what extent the information is communicated to others (Westin, 1967) over transactions between parties enhancing autonomy and reducing vulnerability (Lanier Jr & Saini, 2008; Margulis, 1977). Control is a social issue and context-specific (Margulis, 2003; Xu et al., 2012), and invasions of privacy and control over information are dependent on the number of parties involved during information exchange (Sheehan & Hoy, 2000). This is because control governs the boundaries of information exchange between the self and others (Hong & Thong, 2013; Malhotra et al., 2004).

Awareness refers to the extent to which users are informed about privacy procedures and practices regarding the use of disclosed information (Correia & Compeau, 2017; Dinev et al., 2006; Donaldson & Dunfee, 1994; Hong & Thong, 2013; Hui et al., 2007; Malhotra et al., 2004; Phelps et al., 2000). Scholars found that consumers' privacy concerns increase when they realize that organizations have collected or used their information without their consent (Cespedes & Smith, 1993; Nowak & Phelps, 1992). While

data can be collected without individuals' awareness (Soliman et al., 2006), Schwartz (1999) developed multidimensional rules for personal information practices in cyberspace in which organizations are responsible for limiting the use of personal data and for transparent information processing systems. Privacy statements help impact individuals' privacy beliefs. Users perceive collection of personal information is fair when they are aware of policies that assure them they have control over the disclosure and subsequent use of information (Culnan & Bies, 2003). According to Malhotra et al. (2004) awareness incorporates two types of justice: interactional and informational. Interactional justice "includes issues of transparency and propriety of information made during the enactment of procedures"; informational justice relates to "the disclosure of specific information" and "perceptions of fairness" are exhibited with specificity of information. Referring to the idea of procedural fairness, Culnan and Armstrong (1999) conceptualize fair information practices as encompassing notice and consent in that people "have the right to know why the information is being collected, its expected uses, the steps that will be taken to protect its confidentiality, integrity and quality, the consequences of providing or withholding information, and any means of redress available to the individual" (Culnan & Armstrong, 1999, p. 107). Thus, previous research has established that awareness is necessary for information exchange with online institutions and a requisite component for trusting beliefs (Malhotra et al., 2004).

2.3 PCV on Institutional Arrangements

Pavlou and Gefen (2005) theorized that psychological contract violations decrease the perceived effectiveness of institutional structures. Individuals who perceive conditions are secured perceive an increase in the effectiveness of institutional structures (Pavlou & Gefen, 2004). In an online marketplace, when an individual experiences outcomes or situations that are contrary to expectations of conduct, then their faith in the institution decreases. In their original model, Pavlou and Gefen (2005) conceptualize the perceived effectiveness of institutional structures as a second-order formative construct including feedback technologies, escrow services, credit card guarantees, and trust in intermediaries. We theorize institutional arrangements facilitate information disclosure in SMPs, but as different mechanisms. Rather than feedback technologies, escrow services, credit card guarantees, and trust in intermediaries as previously studied, we theorize that institutional arrangements of SMPs include concerns over collection, control, and awareness. We hypothesize that a failure to adequately safeguard a user of a SMP will positively influence attitudes toward concerns over collection, control, and awareness. Based on the discussion above, we hypothesize that:

Hypothesis 2: Institutional psychological contract violations will increase concerns over collection.

Hypothesis 3: Institutional psychological contract violations will increase concerns over control.

Hypothesis 4: Institutional psychological contract violations will increase concerns over awareness.

2.4 Trust and Institutional Arrangements

Pavlou and Gefen (2005) theorized that perceptions of institutional structures and arrangements influence trust in the community of sellers, citing previous work (Fukuyama, 1995; Pavlou & Gefen, 2004; Zucker, 1986). Two viewpoints dictate the influence institutional structures have on relationships: they reduce perceptions of risk and uncertainty or they function to increase trust. Pavlou and Gefen (2005) take the latter view as do we. In this section, we discuss how institutional arrangements (collection, control, and awareness) influences trust in a SMP.

2.4.1 Collection

Privacy concerns first arise during the initial interaction with another party when personal information is collected (Hong & Thong, 2013). Importantly, social contract theory (Donaldson & Dunfee, 1994) "suggests that the fairness of collection of personal information on a website can only be justified if an online consumer is granted control and informed of the intended use of the information" (Hong & Thong, 2013, p. 277). Thus, implicit in psychological contracts is the idea of fair treatment by the other party. This fair treatment can also include the accuracy of the collection (Stewart & Segars, 2002) and subsequently an accurate representation of the individual. An individual (principal) who shares information with another party (agent) gives the agent power (and becoming vulnerable to the agent) to represent the principal's

interests in subsequent dealings (Pavlou et al., 2007) especially when handing that information over to third parties. This vulnerability is a willingness on the principal's part to be vulnerable by accepting the power of the agent (Lowry et al., 2008; Mayer et al., 1995; Mcknight et al., 1998). These agents provide a specialty that the principal is unable to provide and therefore trusts the assessment of the agent in determining how much and what type of information to collect (Shapiro, 1987). In oversocialized situations normative beliefs, morals, and societal and community values may regulate the extent of this collection, whereas in undersocialized communities, institutional arrangements, structures, legal contracts regulate collection (Granovetter, 1985). In SMP, information is collected by other users (i.e. oversocialized) and the company itself (i.e. undersocialized) requiring vulnerability on the part of the primary sharer of information. Thus, we hypothesize that an increase in the collection of information in an SMP is related to a decrease in trust.

Hypothesis 5: An increase in concerns over collection will lead to a decrease in trust in the SMP.

2.4.2 Control

Control is a necessary, but not sufficient condition for information disclosure. Perceptions of control over the practices of gathering and handling of personal information may lend legitimacy to an organization's practices (Alge et al., 2006) instilling trust in an individual. Perceived control over information impacts individuals' perceptions of trust in online social networks (Taddei & Contena, 2013). When users perceive less control, the level of trust decreases. Lack of trust arises from a lack of customers' control over their personal information through institutional arrangements and mechanisms (Hoffman et al., 1999). In studying online services, Aïmeur, Lawani, and Dalkir (2016) showed that control of private data increases trust. Furthermore, in the context of healthcare, scholars found that a lack of control over data collection practices and awareness of usage through health information exchange (HIE) systems increase patient concern over health records and reduce trust in HIE (Esmailzadeh, 2019; Perera et al., 2011). Privacy concern, defined as a mechanism of control, increases trust in HIE (Bansal et al., 2010). Thus, we replicate previous research by theorizing that control is important in generating trust in an organization, that when individuals perceive a lack of control, their trust in that organization decreases.

We also theorize that perceptions of control surrounding trust operate in online social exchanges such as those found in SMPs. In studying an organizational context, Alge et al. (2006) identify two facets of information privacy: control over the gathering of personal information (collection and storage) and control over handling of that information after collection (use and dissemination). Hoadley, Xu, Lee, and Rosson (2010) found that Facebook users perceive fewer privacy concerns when control over information disclosure increases. Thus, in relationships, individuals require a degree of control over the information disclosed online. In SMP, control exhibits itself in diverse ways. In general, the user can control how information is disseminated on SMPs by specifying groups or individuals who will see a post via tagging, using tags to direct a post to specific channels of communication, or ultimately limiting who is connected to the individual online. Additionally, most SMPs allow deleting or changing the level of privacy of posts.

Hypothesis 6: An increase in concerns over control will lead to a decrease in trust in the SMP.

2.4.3 Awareness

In theorizing awareness, context appears to play a role in its relationship with information disclosure. It is possible that personal information disclosure requires situational awareness and that it plays a key role in individuals' privacy behavior and decision making (Sim et al., 2012). For example, Xu, Dinev, Smith, and Hart (2008) found that awareness is a significant predictor of disposition to value privacy in e-commerce, finance, and healthcare but not in SMPs. One explanation is that SMPs provide features that allow users to control who can access their personal information but may not generate awareness during an actual post. In a different study, Young and Quan-Haase (2009) find evidence suggesting Facebook users are reluctant to expose their information due to a lack of awareness concerning who could access their information. This agrees with previous research suggesting privacy concerns trigger when online users are uncertain who has access to personal information and its subsequent use (Dinev & Hart, 2006). Furthermore, studies revealed that awareness has a significant negative influence on self-disclosure on Facebook suggesting that when users are more informed and aware of privacy, they will have higher privacy concerns and subsequently will be less likely to disclose personal information (Culnan, 1995; Zlatolas et al., 2015). Thus, in an SMP, trusting beliefs will be influenced by awareness of the access to

personal information and its subsequent use, such that as awareness increases, interpersonal trust will decrease.

Hypothesis 7: An increase in concerns over awareness will decrease trust in SMP.

2.4.4 Trust in Information Disclosure

We replicate previous research by hypothesizing the relationship between trust and information disclosure. Information disclosure is defined as the intention to provide information in a social exchange which includes both user-business (Belanger et al., 2002; Malhotra et al., 2004) and interpersonal (Lee & Ma, 2012; Nosko et al., 2010). A well-established positive relationship exists between trust and intention in online exchange relationships (Chiu et al., 2010; Dinev et al., 2006; Gefen et al., 2003; Pavlou & Gefen, 2005; Sledgianowski & Kulviwat, 2009). When the trustor expects the trustee to fulfill the trustor's expectation and feels less likely to be taken advantage of, he or she will be more likely to disclose information to the other party.

Hypothesis 8: An increase in the trust of a SMP will lead to greater information disclosure.

3 Methodology

We assessed the theoretical model empirically using a sample of Facebook users. Facebook was chosen as the underlying platform because it is the largest SMP in terms of the number of users (Clement, 2020). We used an online crowdsourcing market, Amazon Mechanical Turk, a platform that allowed us to utilize an online survey to collect data anonymously among individuals within the U.S. This platform has seen use in multiple fields of research outside of Information Systems (Buhrmester et al., 2018; Hunt & Scheetz, 2019; Kees et al., 2017). Previous research has validated the use of this platform for collecting data and provides recommendations to optimize data collection (Lowry et al., 2016; Steelman et al., 2014). Respondents were asked to pass a screening question about whether they are active Facebook users and then were allowed to continue responding to all of the survey questions if they were active users. They received a small monetary reward (\$0.40) for providing an honest and complete response. Twenty-one responses were eliminated due to incomplete or unconscious answers (e.g., fail to answer attention check questions). In the end, 203 responses were included in the data analyses with diversity in levels of education, employment, gender, and usage behavior on Facebook. Table 1 reports our sample demographics utilized for all analyses.

Table 1. Descriptive Statistics of Survey Respondents (n=203)

		Frequency	Percentage
Gender	Male	85	41.8
	Female	118	58.12
Age	18-30 years	61	30.05
	31-40 years	74	36.45
	41-50 years	27	13.3
	51-60 years	23	11.33
	Above 60 years	18	8.87
Education	High School or equivalent	36	17.73
	College graduate	109	53.69
	Higher-Education	58	28.57
Employment status	Full-time	125	61.58
	Part-time	35	17.24
	Unemployed	43	21.18
Years of experience	Less than 1 year	12	5.91
	1-3 years	22	10.84
	4-10 years	45	22.17
	Above 10 years	124	61.08

Table 1. Descriptive Statistics of Survey Respondents (n=203)

Daily Time Spent on Facebook	Less than 30 minutes	50	24.63
	30-60 minutes	71	34.98
	1-2 hours	52	25.62
	2-4 hours	24	11.82
	More than 4 hours	6	2.96
Frequency of checking Facebook per day	Less than 3 times	56	27.59
	3-5 times	62	30.54
	6-10 times	41	20.20
	11-20 times	27	13.30
	More than 20 times	17	8.37

To ensure that participants experience feelings of violation, we provided scenarios presenting violations. These scenarios were assigned randomly to each participant. To capture different types of privacy violations and to reduce a potential bias of perceived violations by respondents, we considered a low and high level of violation for institutional PCV. We also asked participants to rate the severity of the assigned scenario to evaluate to what extent they agree that the assigned scenario violated their privacy. The scenarios are presented in Table 2.

Table 2. Scenarios for Psychological Contract Violation

		Scenarios	Mean	St.dev	t-test
High	Institutional PCV	Your entire Facebook profile was unlawfully extracted to aid a political campaign due to the negligence of Facebook.	5.89	1.61	1.13 (p > 0.05)
Low	Institutional PCV	Your Facebook friend list was exposed to a gaming app on Facebook due to the hidden terms of Facebook.	5.66	1.23	

Surprisingly, the mean differences between the two scenarios were not very significant. Prior to this study, we pilot tested four different scenarios with students and MTurk users. While two of those scenarios did not exhibit any difference, the two we included in the final study for this research did exhibit a significant difference ($p < 0.000$; one-tailed) in the pilot. The mean of High Institutional PCV in the pilot study was 6.06 (Std. 1.34) whereas the mean of Low Institutional PCV was 4.97 (Std. 1.45). The pilot test was conducted a year prior to the study in this research, so it is possible that environmental factors (e.g., events related to Facebook in the news) influenced the perception of these scenarios.

At this point we have a decision to make regarding the data: merge the groups and continue with the analysis or retain them separately. In analyzing the mean differences of the other measures, none of them are significantly different. The only measure that comes close is institutional PCV with a p-value of 0.052. Given these results, and the scenarios not resulting in a statistical difference, we do not feel justified in conducting the analysis with separate groups. Consequently, we merged the data from the two scenarios as we continued our analysis.

To measure the constructs of the proposed model, we drew on the literature to select an initial set of items from well-established measures. Then, we modified some items to reflect the Facebook context to the measurement items. The measures for institutional PCV (Robinson & Morrison, 2000) were adapted based on validated measures. For example, here are two items from Robinson & Morrison (2000):

- I feel a great deal of anger toward my organization.
- I feel betrayed by my organization.

These were adapted to read as follows:

- I feel a great deal of anger toward Facebook.
- I feel betrayed by Facebook.

Collection, control, and awareness (Malhotra et al., 2004) and Trust in SMP (Sledgianowski & Kulviwat, 2009) were adapted for the context of Facebook. Finally, intention to disclose information was measured using validated items (Lee & Ma, 2012). All items used a seven-point Likert scale. Table 3 presents a complete list of items used in the survey.

Table 3. Measurement Items and Standardized Latent Construct Loadings

Latent variable	Item	Loading	CR	AVE	α
Institutional PCV	I feel a great deal of anger toward Facebook.	0.85	0.94	0.79	0.94
	I feel betrayed by Facebook.	0.91			
	I feel that Facebook has violated the user agreement between us.	0.85			
	I feel extremely frustrated by how I have been treated by Facebook.	0.93			
Control	Social network users have a right to exercise control and autonomy over decisions about how their information is collected, used, and shared.	0.64	0.77	0.53	0.76
	Social network users control of personal information lies at the heart of user privacy.	0.81			
	I believe that social network users' privacy is invaded when control is lost or unwillingly reduced as a result of a marketing transaction.	0.72			
Awareness	A social network seeking information should disclose the way the data are collected, processed, and used.	0.78	0.87	0.70	0.87
	A good social network's privacy policy should have a clear and conspicuous disclosure	0.89			
	It is very important to me that I am aware and knowledgeable about how my personal information will be used.	0.83			
Collection	It usually bothers me when social networks ask me for personal information.	0.80	0.89	0.66	0.88
	When social networks ask me for personal information, I sometimes think twice before providing it.	0.80			
	It bothers me to give personal information to so many social networks	0.83			
	I'm concerned that social networks are collecting too much personal information about me.	0.84			
Trust in SMP	I feel that Facebook is honest.	0.88	0.90	0.63	0.89
	I feel that Facebook is responsible.	0.68			
	I feel that Facebook understands its customers.	0.72			
	I feel that Facebook cares about me.	0.81			
	I feel that Facebook is very professional.	0.87			
Intention to disclose information	I intend to keep sharing on Facebook in the future.	0.91	0.93	0.81	0.92
	I expect to share Facebook posts contributed by other users.	0.82			
	I plan to keep sharing on Facebook regularly.	0.96			

Note: CR: composite reliability; AVE: average variance explained; α : Cronbach's alpha

4 Data Analysis and Results

To test the measurement and structural models in our study, we used Mplus as the primary statistical tool (Muthén & Muthén, 2016) and conducted structural equation modeling, a covariance-based technique to analyze constructs and their relationship in our model (Kline, 2015).

4.1 Measurement Model

To assess the psychometric properties of the measurement model, we examined model fit, convergent validity, composite reliability, and discriminant validity of the constructs (Barclay et al., 1995). First, we conducted a confirmatory factor analysis on the entire set of items where each observed variable was restricted to load on its construct. The results of fit indices (CFI, RMSEA, SRMR) satisfied the threshold of

good model fit (Kline, 2015). Table 4 reports the results of the CFA analysis. All values are above/below the suggested cutoff values, suggesting that the data fit the model well. Also, as reported in Table 3, all the items showed high-factor loadings (mostly above 0.70) and are above the recommended minimum value of 0.60, indicating that each latent variable accounts for at least 50% of the variance of the underlying construct (Chin, 1998). Moreover, we calculated the average variance explained (AVE) for each construct which all are above the recommended value, 0.50 (Chin, 1998).

Table 4. Goodness of Fit Measures for the Measurement and Structural Model

Goodness of fit measures	χ^2 (d.f.)	CFI	RMSEA	SRMR
Good model fit threshold	Non-Sig.	>90	<0.1	<0.1
CFA model	426.79 (194)	0.93	0.077	0.057
SEM model	546.457 (201)	0.90	0.092	0.126

Second, to evaluate the reliability of constructs, we assessed Cronbach's alpha reliability and composite reliability (see Table 3). The values of alpha range from 0.76 to 0.94, and composite reliability ranges from 0.77 to 0.94, above the required score of 0.70 (Gefen et al., 2000). Finally, the discriminant validity of each construct was verified by comparing the square root of the AVE (see Table 5) to the inter-construct correlation coefficients (Fornell & Larcker, 1981).

To assess the presence of common method bias, we conducted Harmon's one-factor test (Podsakoff et al., 2003) and correlation test between constructs (Pavlou et al., 2007). Harmon's one-factor test resulted in the emergence of six factors, with the 74% cumulative variation with the largest of 38% variation for a single factor. This is less than the commonly accepted value of 50% confirming that common method bias is not a problem. Furthermore, following Pavlou et al. (2007), a correlation matrix between constructs was generated to check whether there is a high correlation among constructs ($r^2 > 0.90$). According to the results of Table 5, we did not observe a high correlation among constructs. This suggests that common method bias is not a concern in our study.

Table 5. Latent Variable Statistics

Construct	Mean	SD	1	2	3	4	5	6
1. Inst. PCV	3.94	1.81	0.89					
2. Control	5.27	1.44	0.32	0.73				
3. Aware	6.07	1.19	0.24	0.70	0.84			
4. Collection	5.53	1.47	0.47	0.55	0.54	0.81		
5. Trust in SMP	3.55	1.73	-0.55	-0.25	-0.37	-0.47	0.79	
6. Info. Disclos.	4.40	1.74	-0.36	-0.13	-0.16	-0.32	0.61	0.90

Note: The diagonal entries are square roots of the AVE.

4.2 Structural Model

We tested the hypothesized model by employing structural equation modeling. The fit indices were assessed and as reported in Table 4, they all exhibited a converged and adequate fit (except for SRMR). The results of the structural model provided evidence for the hypothesized relationships. Figure 2 shows the standardized path coefficient, the significance of the path coefficients, and the amount of explained variances (R^2). The structural model explained 37% of the variance related to intention to share.

The negative effect of institutional PCV on trust in SMP ($\beta = -0.44$, $p < 0.001$) provided support for H1. Regarding to institutional arrangement constructs, institutional PCV showed positive significant effects on control ($\beta = 0.30$, $p < 0.01$), awareness ($\beta = 0.26$, $p < 0.001$), and collection ($\beta = 0.49$, $p < 0.001$) which provided support for H2, H3, and H4. Moreover, both awareness ($\beta = -0.23$, $p < 0.01$) and collection ($\beta = -0.21$, $p < 0.01$) exhibited negative effects on trust in SMP while control did not show a significant impact on trust in SMP ($\beta = 0.15$, $p > 0.05$), providing supports only for H5 and H7. Finally, trust in SMP ($\beta = 0.61$, $p < 0.001$) had positive effects on information disclosure indicating support for H8. Table 6 provides a summary of all hypotheses in this study and indicates whether or not they were supported.

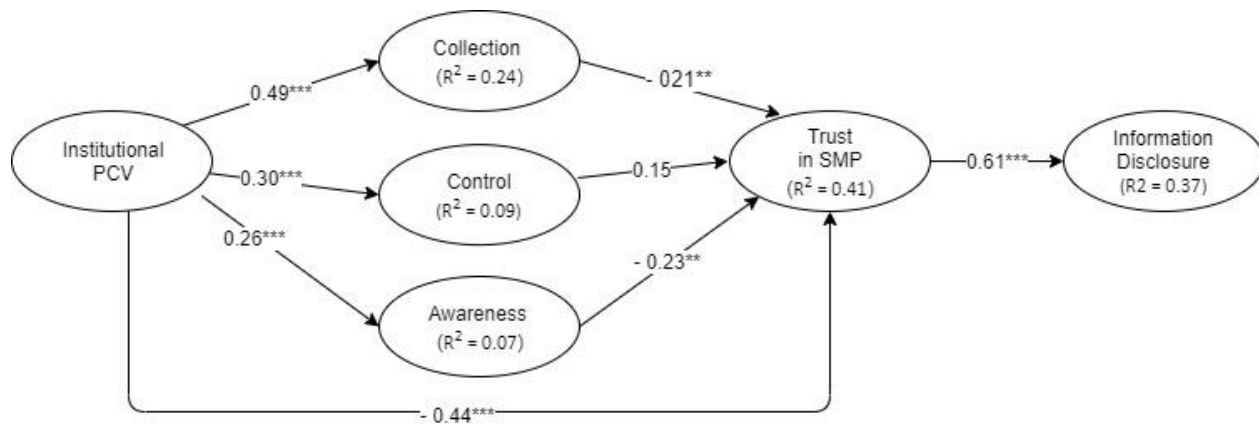


Figure 2. Results of the Structural Model Assessment (* p <0.05, ** p <0.01, *** p < 0.001)

Table 6. Summary of Hypothesis Support

Hypothesis	Supported
H1. Institutional psychological contract violation will have a negative effect on trust in the SMP.	Yes
H2. Institutional psychological contract violations will increase concerns over collection.	Yes
H3. Institutional psychological contract violations will increase concerns over control.	Yes
H4. Institutional psychological contract violations will increase concerns over awareness.	Yes
H5. An increase in concerns over collection will lead to a decrease in trust in the SMP.	Yes
H6. An increase in concerns over control will lead to a decrease in trust in the SMP.	No
H7. An increase in concerns over awareness will decrease trust in SMP.	Yes
H8. An increase in the trust of a SMP will lead to greater information disclosure.	Yes

5 Discussion

The purpose of this study was to 1) examine how PCVs operate in social media platforms and 2) develop a theoretical explanation for what institutional arrangements govern social contracts in social media platforms (SMP). We extended previous research on psychological contract violations (Pavlou & Gefen, 2005) into SMPs. We theorized that institutional arrangements (concerns over control, collection, and awareness) govern relationships via psychological contracts. The concepts of collection, control, and awareness were originally conceptualized as first order constructs in the second order construct of IUIPC (Malhotra et al., 2004), a context specific version of online privacy concerns. In previous research privacy concerns were found to play a significant role (Gerlach et al., 2015; Krasnova & Veltri, 2010; Stutzman et al., 2011). Our study used a sample of experienced Facebook users to test our hypotheses. Our findings indicate that psychological contract violations operate through the institutional arrangements of control, collection, and awareness. We also demonstrate that collection and awareness decrease trust in the SMP; control, however, did not. Finally, trust in the SMP leads to greater information disclosure.

One surprising result of this study is the nonsignificant relationship between control and trust. This result corresponds with recent findings of other privacy research. For instance, Ayaburi and Treku (2020) reported a non-significant correlation between privacy concerns and social media trust. They argue that privacy concern in social media is too complex and context-specific of a construct to be understood. Some SMP users could pay less attention to their privacy control after active presence. Similarly, Chang et al. (2017) showed that Facebook users' trust is not significantly related to their privacy concerns. But their further investigation suggested that privacy concerns would impact the trust of LinkedIn users. One possible explanation of this is the type of social media platform and information exchanged determine the association between control afforded by the platform and user trust. Regarding Facebook, one can infer individuals immerse themselves so much that the platform has become an inseparable part of life. Therefore, regardless of the potential negative consequences, users take risks to engage in SMPs. This idea is corroborated by an article published by the BBC indicating that despite the detrimental effects of SMP use (decrease in social well-being, increases in anxiety, stress, depression, etc.), individuals are still willing to engage and use these services (Brown, 2018).

5.1 Contributions

First, this paper extends previous research on social contracts by examining how psychological contract violations operate online in social media platforms. This was done by performing a study using Facebook as the context with experienced users of that social media platform. We theorized that PCVs operate through institutional arrangements and trust in the SMP. As theorized, PCVs lead to a decrease in trust and an increase in concerns over control, awareness, and collection. Psychological contracts act as implicit contracts between an institution and its users. These psychological contracts establish expectations of outcomes, especially those related to the handling of personal information. When expectations are violated, trust is lost in the SMP and concerns increase. This leads to a decrease in information disclosure.

Second, we theorize that PCVs operate through institutional arrangements much like online exchange relationships with online merchants rely on institutional arrangements and structures (Granovetter, 1985; Pavlou & Gefen, 2005). We theorized that collection, control, and awareness govern social exchange to facilitate trust in online environments. The possibility exists that other institutional arrangements exist that were not tested in this study. For example, specific website functionality may act as institutional mechanisms, which may increase or decrease trust depending on how information is governed.

5.2 Limitations

A limitation of this study is that constructs were conceptualized and operationalized at a context-specific level, rather than the specific level (Davazdahemami et al., 2018; Taylor et al., 2015). Interpersonal relationships are varied and can be extremely complex, described as multiplex (Haythornthwaite, 2001; Scott & Davis, 2007). Privacy, as a social construct, may exhibit differently when individuals are studied embedded within those relationships as opposed to atomized actors (Granovetter, 1985). As a possibility, studying this phenomenon as situational (as opposed to general or contextual) may yield more insights into how institutional arrangements, psychological contracts, and privacy breaches may operate. Using the embedded view, or a network-based lens, would provide a means to study privacy in dyads, within a network, assessing the extent to which multiplexity exhibits privacy concerns and interpersonal trust. This suggests that the dyad level would exhibit a situational or state tendency and the individual level of analysis as a trait.

Another limitation is related to the nonsignificant difference between the manipulation groups. In the original pilot test, the two groups tested significantly different. The high PCV condition did not change from the pilot test to this study; however, the low PCV condition resulted in a 1-point increase. One possible explanation is that much more variance in the population exists, such that various samples (even those of sufficient size) may vary because of the underlying characteristics of the population. Another possible explanation is a shift in attitudes within the population. With the prevalence of social media and how embedded it is in the lives of people, the possibility exists that attitudes are becoming more normative as a whole across large portions of the population. This might also explain the nonsignificant relationship between control and trust: attitudes related to control may have shifted in the population. Further investigation should delve deeper into providing a wholistic view of the entire population, perhaps even implementing a longitudinal study to determine how it changes over time.

5.3 Future Research

This research and previous research (Pavlou & Gefen, 2005) studies have focused on the relationship between the user and institution. While utilitarian systems (i.e., mobile banking, e-commerce) typically have a singular relationship (i.e., user-institution), social media platforms maintain a multitude of relationships among its users. Unlike the institutional relationships studied here, interpersonal relationships among users may operate differently. This suggests that contract violations not only occur between users and an online merchant, but also among online users as well. This suggests that psychological contract violations occur within interpersonal relationships, not just institutional ones. Additionally, interpersonal trust would influence information disclosure.

Given this possibility, it is possible that spillover effects may exist between interpersonal PCV and institutional PCV, as well as interpersonal trust and trust in the SMP. Violations with one party may be generalized to unrelated parties (Folkes & Patrick, 2003; Pugh et al., 2003). Pavlou and Gefen (2005), in theorizing about online merchants, state that PCV is conceptualized at two distinct levels: *individual seller* and a *community of sellers*. For the individual seller, the relationship exists between the user of the online

merchant and the party selling the product the user wishes to purchase. When a violation occurs, the attribution of blame lays with the direct seller of the product or service, yet can extend to all sellers who belong. Thus, it is possible that when a violation occurs between users on SMPs, this extends to the institution and other users. As a possible explanation for a spillover effect of trust from interpersonal to the SMP may occur via the cognitive process of trust transference (Stewart, 2003) which transpires when initial trust in one party extends to another related party. Trust transference between parties is explained by way of entitativity, or the perception of the similarity, proximity, and common fate of the parties (Campbell, 1958). Thus, the possibility exists for spillover effects between relationships.

5.4 Conclusion

The purpose of this study was to investigate how institutional psychological contract violations influence users' trust and their intention to disclose information on social media platforms through institutional arrangements. This research supports the idea that institutional arrangements—including control, collection, and awareness—play a role with institutions via social contracts. Our findings demonstrated that institutional PCVs act through institutional arrangements and trust. Institutional PCVs impact concerns of control, awareness, and collection. These findings suggest that the perception of a violation could incriminate SMPs since PCVs are positively associated with trust in the SMP. Our research contributes to the understanding of the role of institutional arrangements in relationships on social media platforms.

References

- Acquisti, A. (2004). Privacy in electronic commerce and the economics of immediate gratification. In *Proceedings of the 5th ACM Electronic Commerce Conference*.
- Acquisti, A., & Grossklags, J. (2005a). Privacy and rationality in individual decision making. *IEEE Security & Privacy*, 3(1), 26-33.
- Acquisti, A., & Grossklags, J. (2005b). Uncertainty, ambiguity and privacy. In *Proceedings of the 4th Annual Workshop Economics and Information Security*.
- Acquisti, A., Friedman, A., & Telang, R. (2006). Is there a cost to privacy breaches? An event study. In *International Conference on Information Systems*.
- Aïmeur, E., Lawani, O., & Dalkir, K. (2016). When changing the look of privacy policies affects user trust: An experimental study. *Computers in Human Behavior*, 58, 368-379.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1973). Attitudinal and normative variables as predictors of specific behavior. *Journal of Personality and Social Psychology*, 27(1), 41.
- Alge, B. J., Ballinger, G. A., Tangirala, S., & Oakley, J. L. (2006). Information privacy in organizations: Empowering creative and extrarole performance. *Journal of Applied Psychology*, 91(1), 221.
- Argyris, C. (1960). *Understanding organizational behavior*. The Dorsey Press.
- Awad, N. F., & Krishnan, M. S. (2006). The personalization privacy paradox: An empirical evaluation of information transparency and the willingness to be profiled online for personalization. *MIS Quarterly*, 30(1), 13-28.
- Ayaburi, E. W., & Treku, D. N. (2020). Effect of penitence on social media trust and privacy concerns: The case of Facebook. *International Journal of Information Management*, 50(February), 171-181.
- Bansal, G., Zahedi, F. M., & Gefen, D. (2010). The impact of personal dispositions on information sensitivity, privacy concern and trust in disclosing health information online. *Decision Support Systems*, 49, 138-150.
- Barclay, D., Higgins, C., & Thompson, R. (1995). *The partial least squares (PLS) approach to casual modeling: Personal computer adoption and use as an illustration*. Walter de Gruyter.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497.
- Belanger, F., Hiller, J. S., & Smith, W. J. (2002). Trustworthiness in electronic commerce: The role of privacy, security, and site attributes. *The Journal of Strategic Information Systems*, 11(3-4), 245-270.
- Brown, J. (2018). *What the science suggests so far about the impact of platforms such as Facebook, Twitter or Instagram on your mental well-being*. British Broadcasting Company (BBC). Retrieved from <https://www.bbc.com/future/article/20180104-is-social-media-bad-for-you-the-evidence-and-the-unknowns>.
- Buhrmester, M. D., Sanaz, T., & Gosling, S. D. (2018). An evaluation of Amazon's Mechanical Turk, its rapid rise, and its effective use. *Perspectives on Psychological Science*, 13(2), 149-154.
- Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral science*, 3(1), 14-25.
- Cespedes, F. V., & Smith, H. J. (1993). Database marketing: New rules for policy and practice. *MIT Sloan Management Review*, 34(4), 7.
- Chang, S. E., Liu, A. Y., & Shen, W. C. (2017). User trust in social networking services: A comparison of Facebook and LinkedIn. *Computers in Human Behavior*, 69, 207-217.

- Chen, S. C., & Dhillon, G. S. (2003). Interpreting dimensions of consumer trust in e-commerce. *Information Technology and Management*, 4(2-3), 303-318.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS Quarterly*, 22(1), vii-xvi.
- 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.
- Choi, B. C., Jiang, Z., Xiao, B., & Kim, S. S. (2015). Embarrassing exposures in online social networks: An integrated perspective of privacy invasion and relationship bonding. *Information Systems Research*, 26(4), 675-694.
- Chow, W. S., & Chan, L. S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45(7), 458-465.
- Clement, J. (2020). *Most popular social networks worldwide as of January 2020, ranked by number of active users*. Retrieved from <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4), 909-927.
- Correia, J., & Compeau, D. (2017). Information privacy awareness (IPA): A review of the use, definition and measurement of IPA. In *Proceedings of the 50th Hawaii International Conference on System Sciences*.
- Culnan, M. J. (1993). "How did they get my name?": An exploratory investigation of consumer attitudes toward secondary information use. *MIS Quarterly*, 17(3), 341-363.
- Culnan, M. J. (1995). Consumer awareness of name removal procedures: Implications for direct marketing. *Journal of Direct Marketing*, 9(2), 10-19.
- Culnan, M. J., & Armstrong, P. K. (1999). Information privacy concerns, procedural fairness, and impersonal trust: An empirical investigation. *Organization Science*, 10(1), 104-115.
- Culnan, M. J., & Bies, R. (2003). Consumer privacy: Balancing economic and justice considerations. *Journal of Social Issues*, 59(2), 323-342.
- Culnan, M. J., & Williams, C. C. (2009). How ethics can enhance organizational privacy: Lessons from the ChoicePoint and TJX data breaches. *MIS Quarterly*, 33(4), 673-687.
- Davazdahemami, B., Hammer, B., Luse, A., & Kalgotra, P. (2018). The role of parallelism in resolving the privacy paradox of information disclosure in social networks. In *Thirty Ninth International Conference on Information Systems*.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111-1132.
- Dawson, G. S., Karahanna, E., & Buchholtz, A. (2014). A study of psychological contract breach spillover in multiple-agency relationships in consulting professional service firms. *Organization Science*, 25(1), 149-170.
- Dinev, T., & Hart, P. (2006). An extended privacy calculus model for e-commerce transactions. *Information Systems Research*, 17(1), 61-80.
- Dinev, T., Bellotto, M., Hart, P., Russo, V., Serra, I., & Colautti, C. (2006). Privacy calculus model in e-commerce-a study of Italy and the United States. *European Journal of Information Systems*, 15(4), 389-402.
- Donaldson, T., & Dunfee, T. W. (1994). Toward a unified conception of business ethics: Integrative social contracts theory. *Academy of Management Review*, 19(2), 252-284.

- Donaldson, T., & Dunfee, T. W. (1999). *Ties that bind: A social contracts approach to business ethics*. Harvard Business School Press.
- Dwyer, C., Hiltz, S., & Passerini, K. (2007). Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace. In *AMCIS 2007 Proceedings*.
- Esmailzadeh, P. (2019). The process of building patient trust in health information exchange (HIE): The impacts of perceived benefits, perceived transparency of privacy policy, and familiarity. *Communications of The Association for Information Systems*, 45(1), 21.
- Folkes, V. S., & Patrick, V. M. (2003). The positivity effect in perceptions of services: Seen one, seen them all? *Journal of Consumer Research*, 30(1), 125-137.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. The Free Press.
- Gefen, D. (2000). E-Commerce: The role of familiarity and trust. *Omega*, 28(6), 725-737.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of The Association for Information Systems*, 4(1), 7.
- Gerlach, J., Widjaja, T., & Buxmann, P. (2015). Handle with care: How online social network providers' privacy policies impact users' information sharing behavior. *The Journal of Strategic Information Systems*, 24(1), 33-43.
- Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review*, 18(4), 694-734.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *The American Journal of Sociology*, 91(3), 481-510.
- Hart, O., & Moore, J. (1999). Foundations of incomplete contracts. *The Review of Economic Studies*, 66(1), 115-138.
- Haythornthwaite, C. (2001). Exploring multiplexity: Social network structures in a computer-supported distance learning class. *The Information Society*, 17(3), 211-226.
- Hoadley, C. M., Xu, H., Lee, J. J., & Rosson, M. B. (2010). Privacy as information access and illusory control: The case of the Facebook News Feed privacy outcry. *Electronic Commerce Research and Applications*, 9(1), 50-60.
- Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80-85.
- Homans, G. C. (1974). *Social Behavior: Its Elementary Forms*.
- Hong, W., & L. Thong, J. Y. (2013). Internet privacy concerns: An integrated conceptualization and four empirical studies. *MIS Quarterly*, 37(1), 275-298.
- Hui, K.-L., Teo, H. H., & Lee, S.-Y. T. (2007). The value of privacy assurance: An exploratory field experiment. *MIS Quarterly*, 31(1), 19-33.
- Hunt, N. C. & Scheetz, A. M. (2019). Using mturk to distribute a survey or experiment: Methodological considerations. *Journal of Information Systems*, 33(1), 43-65.
- Il-Horn, H., Kai-Lung, H. U. I., Sang-Yong Tom, L. E. E., & Png, I. P. L. (2007). Overcoming online information privacy concerns: An information-processing theory approach. *Journal of Management Information Systems*, 24(2), 13-42.
- Jozani, M., Ayaburi, E., Ko, M., & Choo, K.-K. R. (2020). Privacy concerns and benefits of engagement with social-media-enabled apps: A privacy calculus perspective, *Computer in Human Behavior*, 107(June), 106260.

- Junglas, I. A., Johnson, N. A., & Spitzmüller, C. (2008). Personality traits and concern for privacy: An empirical study in the context of location-based services. *European Journal of Information Systems*, 17(4), 387-402.
- Kees, J., Berry, C., Burton, S., & Sheehan, K. (2017). An analysis of data quality: Professional panels, student subject pools, and Amazon's Mechanical Turk. *Journal of Advertising*, 46(1), 141-155.
- Kim, D. J., Song, Y. I., Braynov, S. B., & Rao, H. R. (2005). A multidimensional trust formation model in B-to-C e-commerce: A conceptual framework and content analyses of academia/practitioner perspectives. *Decision Support Systems*, 40(2), 143-165.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford.
- Koh, C., Ang, S., & Straub, D. W. (2004). IT outsourcing success: A psychological contract perspective. *Information Systems Research*, 15(4), 356-373.
- Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, 64, 122-134.
- Krasnova, H., & Veltri, N. F. (2010). Privacy calculus on social networking sites: Explorative evidence from Germany and USA. In *Proceedings of the Annual Hawaii International Conference on System Sciences*.
- Lanier Jr, C. D., & Saini, A. (2008). Understanding consumer privacy: A review and future directions. *Academy of Marketing Science Review*, 12.
- Laufer, R. S., & Wolfe, M. (1977). Privacy as a concept and a social issue: A multidimensional developmental theory. *Journal of Social Issues*, 33(3), 22-42.
- Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), 331-339.
- Lee, D.-J., Ahn, J.-H., & Bang, Y. (2011). Managing consumer privacy concerns in personalization: A strategic analysis of privacy protection. *MIS Quarterly*, 35(2), 423-444.
- Lim, K. H., Sia, C. L., Lee, M. K. O., & Benbasat, I. (2006). Do I trust you online, and if so, will I buy? An empirical study of two trust-building strategies. *Journal of Management Information Systems*, 23(2), 233-266.
- Liu, C., Marchewka, J. T., Lu, J., & Yu, C.-S. (2005). Beyond concern--A privacy-trust-behavioral intention model of electronic commerce. *Information & Management*, 42(2), 289-304.
- Lowry, P. B., D'Arcy, J., Hammer, B., & Moody, G. D. (2016). "Cargo Cult" science in traditional organization and information systems survey research: A case for using nontraditional methods of data collection, including Mechanical Turk and online panels. *The Journal of Strategic Information Systems*, 25(3), 232-240.
- Lowry, P. B., Gaskin, J., Twyman, N., Hammer, B., & Roberts, T. (2012). Taking 'fun and games' seriously: Proposing the hedonic-motivation system adoption model (HMSAM). *Journal of the Association for Information Systems*, 14(11), 617-671.
- Lowry, P. B., Vance, A., Moody, G., Beckman, B., & Read, A. (2008). Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of e-commerce web sites. *Journal of Management Information Systems*, 24(4), 199-224.
- Macneil, I. (1980). *The new social contract: An inquiry into modern contractual relationships*. Yale University Press.
- Malhotra, N. K., Kim, S. S., & Agarwal, J. (2004). Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model. *Information Systems Research*, 15(4), 336-355.
- Maner, J., DeWall, C., Baumeister, R., & Schaller, M. (2007). Does social exclusion motivate interpersonal reconnection? Resolving the 'Porcupine Problem'. *Journal of Personality and Social Psychology*, 92(1), 42-55.
- Margulis, S. T. (1977). Conceptions of privacy - Current status and next steps. *Journal of Social Issues*, 33(3), 5-21.

- Margulis, S. T. (2003). On the status and contribution of Westin's and Altman's theories of privacy. *Journal of Social Issues, 59*(2), 411-429.
- Mayer, R. C., Davis, J. H., & David, S. F. (1995). An integrative model of organizational trust. *Academy of Management Review, 20*(3), 709-734.
- 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.
- McKnight, D. H., Kacmar, C. J., & Choudhury, V. (2004). Shifting factors and the ineffectiveness of third party assurance seals: A two-stage model of initial trust in a web business. *Electronic Markets, 14*(3), 252-266.
- Mcknight, D., Cummings, L., & Chervany, N. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review, 23*(3), 473-490.
- Milberg, S. J., Smith, H. J., & Burke, S. J. (2000). Information privacy: Corporate management and national regulation. *Organization Science, 11*(1), 35-57.
- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review, 22*(1), 226-256.
- Muthén, L., & Muthén, B. (2016). *Mplus: The comprehensive modelling program for applied researchers: user's guide*. Muthén & Muthén.
- Nosko, A., Wood, E., & Molema, S. (2010). All about me: Disclosure in online social networking profiles: The case of Facebook. *Computers in Human Behavior, 26*(3), 406-418.
- Nowak, G. J., & Phelps, J. E. (1992). Understanding privacy concerns: An assessment of consumers' information-related knowledge and beliefs. *Journal of Direct Marketing, 6*(4), 28-39.
- Obar, J. A., & Oeldorf-Hirsch, A. (2016). The biggest lie on the Internet: Ignoring the privacy policies and terms of service policies of social networking services. In *TPRC 44: The 44th Research Conference on Communication. Information and Internet Policy*.
- Pavlou, P. A. (2002). Institution-based trust in interorganizational exchange relationships: The role of online B2B marketplaces on trust formation. *The Journal of Strategic Information Systems, 11*(3-4), 215-243.
- Pavlou, P. A., & Gefen, D. (2004). Building effective online marketplaces with institution-based trust. *Information Systems Research, 15*(1), 37-59.
- Pavlou, P. A., & Gefen, D. (2005). Psychological contract violation in online marketplaces: Antecedents, consequences, and moderating role. *Information Systems Research, 16*(4), 372-399.
- Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and mitigating uncertainty in online exchange relationships: A principal-agent perspective. *MIS Quarterly, 31*(1), 105-136.
- Perera, G., Holbrook, A., Thabane, L., Foster, G., & Willison, D. J. (2011). Views on health information sharing and privacy from primary care practices using electronic medical records. *International Journal of Medical Informatics, 80*(2), 94-101.
- Phelps, J., Nowak, G., & Ferrell, E. (2000). Privacy concerns and consumer willingness to provide personal information. *Journal of Public Policy Marketing, 19*(1), 27-41.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.
- Pugh, S. D., Skarlicki, D. P., & Passell, B. S. (2003). After the fall: Layoff victims' trust and cynicism in re-employment. *Journal of Occupational and Organizational Psychology, 76*(2), 201-212.
- Rachels, J., & Rachels, S. (1986). *The elements of moral philosophy*. McGraw-Hill.
- Reichheld, F. F., & Scheffer, P. (2000). E-loyalty: Your secret weapon on the web. *Harvard Business Review, 78*(4), 105-113.
- Rifon, N., LaRose, R., & Choi, S. (2005). Your privacy is sealed: Effects of web privacy seals on trust and personal disclosures. *Journal of Consumer Affairs, 39*(2), 339-362.

- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly*, 41(4).
- Robinson, S. L., & Morrison, E. W. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior*, 21(5), 525-546.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15(3), 245-259.
- Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, 37(1), 137-152.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), 121-139.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Sage.
- Rousseau, D. M., & Greller, M. M. (1994). Human resource practices: Administrative contract makers. *Human Resource Management*, 33(3), 385-401.
- Rousseau, D. M., & Parks, J. M. (1993). The contracts of individuals and organizations. *Research in Organizational Behavior*, 15, 1-1.
- Roussos, G., Tuominen, J., Koukara, L., Seppala, O., Kourouthanasis, P., Giaglis, G., & Frissaer, J. (2002). A case study in pervasive retail. In *Proceedings of the 2nd International Workshop on Mobile Commerce*.
- Sabherwal, R. (1999). The role of trust in outsourced IS development projects. *Communications of the ACM*, 42(2), 80-86.
- Salam, A. F., Iyer, L., Palvia, P., & Singh, R. (2005). Trust in e-commerce. *Communications of the ACM*, 48(2), 72-77.
- Schwartz, P. M. (1999). Privacy and democracy in cyberspace. *Vanderbilt Law Review*, 52(6), 1607-1702.
- Scott, W. R., & Davis, G. F. (2007). *Organizations and organizing: Rational, natural, and open systems perspectives*. Pearson College Division.
- Shapiro, S. P. (1987). The social control of impersonal trust. *American Journal of Sociology*, 93(3), 623-658.
- Sheehan, K. B., & Hoy, M. G. (2000). Dimensions of privacy concern among online consumers. *Journal of Public Policy & Marketing*, 19(1), 62-73.
- Sheng, H., Nah, F., & Siau, K. (2008). An experimental study on ubiquitous commerce adoption: Impact of personalization and privacy concerns. *Journal of the Association for Information Systems*, 9(6), 344-377.
- Sim, I., Liginlal, D., & Khansa, L. (2012). Information privacy situation awareness: Construct and validation. *Journal of Computer Information Systems*, 53(1), 57-64.
- Sledgianowski, D., & Kulviwat, S. (2009). Using social network sites: The effects of playfulness, critical mass and trust in a hedonic context. *Journal of Computer Information Systems*, 49(4), 74-83.
- Smith, H. J., Dinev, T., & Xu, H. (2011). Information privacy research: An interdisciplinary review. *MIS Quarterly*, 35(4), 989-1016.
- Smith, H. J., Milberg, S. J., & Burke, S. J. (1996). Information privacy: Measuring individuals' concerns about organizational practices. *MIS Quarterly*, 20(2), 167-196.
- Soliman, K. S., Affisco, J. F., Belanger, F., & Hiller, J. S. (2006). A framework for e-government: Privacy implications. *Business Process Management Journal*, 12, 48-60.
- Statista. (2021). *Number of daily active Facebook users worldwide as of 3rd quarter 2021 (in millions)*. Retrieved from <https://www.statista.com/statistics/346167/facebook-global-dau/>.
- Steelman, Z. R., Hammer, B. I., & Limayem, M. (2014). Data collection in the digital age: Innovative alternatives to student samples. *MIS Quarterly*, 38(2), 355-378.

- Stewart, K. A., & Segars, A. H. (2002). An empirical examination of the concern for information privacy instrument. *Information Systems Research, 13*(1), 36-49.
- Stewart, K. J. (2003). Trust transfer on the world wide web. *Organization Science, 14*(1), 5-17.
- Stone, E. F., Gueutal, H. G., Gardner, D. G., & McClure, S. (1983). A field experiment comparing information-privacy values, beliefs, and attitudes across several types of organizations. *Journal of Applied Psychology, 68*(3), 459.
- Stutzman, F., Capra, R., & Thompson, J. (2011). Factors mediating disclosure in social network sites. *Computers in Human Behavior, 27*(1), 590-598.
- Taddei, S., & Contena, B. (2013). Privacy, trust and control: Which relationships with online self-disclosure? *Computers in Human Behavior, 29*(3), 821-826.
- Taylor, J. F., Ferguson, J., & Ellen, P. S. (2015). From trait to state: Understanding privacy concerns. *Journal of Consumer Marketing, 32*(2), 99-112.
- Taylor, S., & Todd, P. (1995). Understanding information technology usage - A test of competing models. *Information Systems Research, 6*(2), 144-176.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Erlbaum.
- Thompson, J. A., & Hart, D. W. (2006). Psychological contracts: A nano-level perspective on social contract theory. *Journal of Business Ethics, 68*(3), 229-241.
- Tyler, T. R. (1994). Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality and Social Psychology, 67*, 850-863.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site? Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication, 14*(4), 875-901.
- Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly, 28*(4), 695-704.
- Van Slyke, C., Shim, J. T., Johnson, R., & Jiang, J. (2006). Concern for information privacy and online consumer purchasing. *Journal of the Association for Information Systems, 7*(6), 415-444.
- Weick, K. E. (1979). *The social psychology of organizing*: McGraw-Hill.
- Westin, A. (1967). Legal safeguards to insure privacy in a computer society. *Communications of the ACM, 10*(9), 533.
- Williams, K., Cheung, C., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the internet. *Journal of Personality and Social Psychology, 79*(5), 748-762.
- World Bank. (2020). *Population, total*. Retrieved from <https://data.worldbank.org/indicator/SP.POP.TOTL>.
- Xiao, B., & Benbasat, I. (2011). Product-related deception in e-commerce: a theoretical perspective. *MIS Quarterly, 35*(1), 169-196.
- Xu, H., Dinev, T., Smith, H. J., & Hart, P. (2008). *Examining the formation of individual's privacy concerns: Toward an integrative view*. In *ICIS 2008 Proceedings*.
- Xu, H., Teo, H. H., Tan, B. C. Y., & Agarwal, R. (2012). Effects of individual self-protection, industry self-regulation, and government regulation on privacy concerns: A study of location-based services. *Information Systems Research, 23*(4), 1342-1363.
- Young, A. L., & Quan-Haase, A. (2009). Information revelation and internet privacy concerns on social network sites: a case study of facebook. In *Proceedings of the Fourth International Conference on Communities and Technologies*.
- Zlatolas, L. N., Welzer, T., Heričko, M., & Hölbl, M. (2015). Privacy antecedents for SNS self-disclosure: The case of Facebook. *Computers in Human Behavior, 45*, 158-167.
- Zucker, L. (1986). Production of trust: Institutional sources of economic structure, 1840-1920. *Research in Organizational Behavior, 8*(1), 53-111.

About the Authors

Bryan Iwata Hammer is a faculty member at the Spears School of Business, Oklahoma State University. His research interests include interpersonal trust and privacy in digital work groups, technology's impact on individuals with intellectual and developmental disabilities, text-based deception detection, social media usage, and the interrelationship between information systems and neuroscience. Outlets for research include *MIS Quarterly*, *Journal of the Association for Information Systems*, *Information Systems Journal*, *Journal of Strategic Information Systems*, *Communications of the Association for Information Systems*, the *International Conference on Information Systems*, *International Journal of People-Oriented Programming*, and proceedings of the *NeuroIS Gmunden Retreat*.

Forough Nasirpouri Shadbad is an Assistant Professor at Oregon State University, College of Business. Her research interests include intentional/unintentional insider threats, technostress, gamification, and information privacy in social networking sites. She has published in *Information Technology & People*, *Journal of Computer Information Systems*, and in the proceedings of the Americas Conference on Information Systems, the Hawaii International Conference on Systems Sciences, and other proceedings.

Copyright © 2022 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints are via e-mail from publications@aisnet.org.