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Regulate Privacy in SNS: Privacy Control on the Self-Ego Boundary and Dyadic-Boundary

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ABSTRACT

The feeling of lacking of privacy has become a critical inhibitor of SNS’s development. To investigate how privacy concerns in SNS influence self-disclosure behavior, this study attempts to understand individuals’ privacy regulation strategy based on two distinct boundaries. Specifically, we propose that role conflict and interpersonal distrust positively influence privacy concerns, and perceived communication privacy control and SNS type moderating these two relationships respectively. The ultimate goal of this study is to provide useful guidelines for SNS practitioners to better design the functions that meet users’ needs for privacy control.

Keywords: Privacy regulation, Self-ego boundary, Dyadic boundary, SNS

INTRODUCTION

Recently, social network site (SNS) has attracted worldwide users and is becoming an indispensable part in people’s daily life (Chen et al. 2016). However, previous research has found that privacy related issues act as an important inhibitor that prevents people to be active in SNSs, and users even considered quitting the network due to the feeling of lacking of privacy (Dienlin and Metzger 2016). Therefore, it is important to understand how users deal with privacy and how to provide better designs to encourage inactive user to disclose more information.

Considerable privacy studies in Information Systems (IS) have shifted their attention to investigate privacy in SNS recently (Dienlin and Metzger 2016; Li et al. 2015). However, most
of these studies adopted a privacy calculus perspective to capture the self-disclosure behavior, under the basic assumption that people exchange privacy for certain benefits (Barth and de Jong 2017). Despite the considerable merits of these studies, the privacy calculus model often fails to explain the widely reported phenomenon—the privacy paradox. That is, although people almost report a high degree of privacy concerns, they still readily self-disclose a lot in various contexts (Barth and de Jong 2017). This paper draws upon the privacy regulation theory to explore individuals’ privacy regulation behaviors in SNS. From this privacy control perspective, we can better understand self-disclosure in SNS as the strategies to maintain the optimal amount of social activities.

More importantly, we believe that the sources of privacy concerns in SNS are quite different from that in the traditional context and the boundary of privacy in SNS is not well understood yet. To capture such privacy concerns in SNS and the boundary of privacy regulation, we adopt the framework proposed by Derlega and Chaikin (1977) that distinguish two different boundaries of privacy — the self-boundary and the dyadic-boundary of privacy in this paper. The ultimate goal of this study is to provide useful guidelines for SNS practitioners to better design the functions of their websites that meet users’ needs for privacy control.

THEORETICAL BACKGROUND

In the social network context, people maintain social activities to prevent themselves from loneliness. Given this assumption, privacy regulation theory, which focuses on the privacy management from a control perspective, is more promising to be used in this study. The basic assumption of privacy regulation theory is that social activity is a kind of spontaneous action for people to meet their inner needs. If people have few social interactions with others, they will feel lonely or isolated. Oppositely, if people are highly connected with others, they will feel annoyed,
crowded, and lacking of privacy (Kaya and Weber 2003). Privacy concern is thus regarded as a major inhibitor that prevent people from a great deal of social interaction. In this regard, privacy can be regarded as a non-monotonic function. Both a too low and too high degree of perceived privacy are not what people want. They have to regulate their communication and interaction with the outer world to reach the optimal level of privacy. According to Altman (1976, p. 17), there are four mechanisms for people to form their privacy regulation strategy — “verbal and paraverbal behavior, nonverbal use of the body, environmental behaviors and cultural norms and customs”. In this study, we specifically pay attention to the mechanism of environmental behaviors to understand how the environmental settings help people to regulate their privacy.

In consistency with Altman’s privacy regulation theory, Derlega and Chaikin (1977) further explored how people regulate their privacy on two distinctively different boundaries—the self-boundary and the dyadic-boundary of social network privacy. Specifically, the self-boundary refers to the self-disclosure boundary between the one and other people with whom the individual directly communicate. People typically regulate their privacy on self-boundary by controlling and adjusting their self-disclosure in the communication with whom directly connect with them. The dyadic-boundary, on the other hand, refers to the boundary between the direct-audiences and “the uninvited third parties” (Derlega & Chaikin, 1977, p. 104). Privacy regulation on the dyadic-boundary is thus a kind of collaborative regulation strategies (Lampinen et al. 2011) — to negotiate with the direct audiences and regulate their retransmitting behaviors.

**RESEARCH MODEL AND HYPOTHESES**

Drawing upon the privacy regulation theory and the two-boundary framework, we identify two sources that result in users’ privacy concerns in SNS and inhibit their SNS use— role conflict and interpersonal distrust.
First, role conflict among user’s friends results in privacy concerns when private information spread across the self-boundary. Specifically, role conflict is defined as the incongruence or incompatibility in the expectations and requirements of the role (Rizzo et al. 1970). Such incongruence results in “various kinds of conflicts” such as the “conflict between several roles for the same person which require different or incompatible behaviors” and receiving “conflicting requests from others” (Rizzo et al., 1970, p. 155), which in turn make an individual stressed, dissatisfied, and less effective in his or her performance (Biddle 1979).

Due to the diversity of online social network, role conflict readily causes online tension, under which people do concern about how to regulate their privacy to avoid such role conflicts (Binder et al. 2009; Vitak 2012). Consistently, scholars have found a positive relationship between role conflict and the privacy concerns in online social networks (Zhang et al. 2011). When the degree of role conflict in one’s social network is relatively high, the individual will be afraid to disclose his/her behavior or private information to the whole network. This is mainly because information disclosure can only meet the expectations of the target audiences, but cause conflicts with other unwanted audiences. Therefore, we hypothesize:

\[ H1: \text{Role conflict is positively related to privacy concerns in SNS.} \]

In the SNS context, people have the rights and abilities to control how they communicate with their direct audience, which largely relies on the functions provided by the website. In consistent with previous literature, we define perceived communication privacy control as individual’s ability to “control over what, how, and to whom a person communicates information about the self” (Altman, 1976, p. 8). With a high degree of perceived privacy control, people have the possibility to disclose private information to a certain group of friends, or give people different authorities to visit their homepage and profile information, or control the status to give
a signal whether a communication is welcome at current moment, etc. Therefore, we hypothesize:

\[ H2: \text{Perceived communication privacy control negatively moderates the relationship between role conflict and privacy concerns in SNS.} \]

In explaining the dyadic-boundary privacy regulation in SNS, we adopt interpersonal distrust as a major factor that influences individual’s privacy concerns. Interpersonal distrust is defined as a “lack of confidence in the other”, a concern that “the other may act so as to harm one”, and “does not care about one’s welfare or intends to act harmfully” (Govier 1994). Here we specifically refer to an individual’s distrust toward all his or her direct friends in an SNS.

According to previous research, there is a positive relationship between personal distrust towards SNS friends and social network privacy concerns (Milberg et al. 1995). If people believe that their SNS friends care little about their welfare, they are more likely to suspect that their SNS friends will retransmit their private information for various reasons such as for fun, attracting others’ attention, and even deliberately doing harm to them. Being afraid that the direct audiences may repost their private information to the unwanted outer network, SNS users will have a high degree of privacy concerns on the dyadic-boundary. Thus, we propose that:

\[ H3: \text{Interpersonal distrust is positively related to privacy concerns in SNS.} \]

Compared with the control on the self-boundary, people cannot totally be aware what happens on the dyadic-boundary about their disclosed private information. However, social network websites provide users the capability to control and regulate privacy on the dyadic-boundary, for instance, the information transmission mechanism and network structure design. To be more specific, although the existence of weak ties greatly promotes the exchange of information among different social groups, it also becomes a significant weakness of weak ties
when we consider about the privacy related issues in a reversed way of thinking. Adopting the theory of the strength of weak ties, we believe that the existence of weak ties will make an individual more easily to lose control on the dyadic-boundary. This is mainly because that weak ties are more effective in information diffusion than strong ties, especially when the information is interesting enough to allow it spread across the whole network, such as gossips and rumors (Lai and Wong 2002). However, such effectiveness of weak ties in promoting information exchange makes the individual lack of control on the dyadic-boundary to protect privacy. Thus, in a weak tie-based network, when the user distrust their direct friends with whom they have strong ties, they will concern more about the privacy related issues since it is more likely for those distrusted friends to retransmit their private information to unwanted third parties.

**H4: In a weak-tie-based social network, the influence of interpersonal distrust on privacy concerns is stronger than that in a strong-tie-based social network.**

The negative impact of information privacy concerns on self-disclosure has been widely tested in previous literature (Smith et al. 2011; Taddicken 2014). We believe that this conclusion also holds true in the context of SNS. When people have a high level of privacy concerns, they generally perceive their social network as an unsafe environment. With the sense of lacking privacy and afraid of being violated, people adjust their regulation strategies to make their optimal level of privacy, and finally lead to disclosing little about themselves. Thus,

**H5: Perceived privacy concerns are negatively related with self-disclosure behavior.**

**METHODOLOGY**

The aim of this research is to develop a theoretical model to investigate users’ privacy concern and to capture its possible antecedents from a privacy regulation perspective. An online survey of SNS users will be conducted to address the proposed research model empirically.
Users of a strong-tie based SNS and a weak-tie based SNS will be invited to take the survey. Measurements of the other constructs will be adapted from previous studies into the context of SNS use, and use seven-point Likert scales ranging from “strongly disagree” to “strongly agree.” The measurement model and theoretical model will be validated using AMOS.

DISCUSSION

With our proposed research model, this study attempts to contribute to extant privacy research and respond to the calls for studies on the SNS privacy concern. First, we contribute to research on privacy by specifying the privacy concerns in SNS context and identifying the boundary of privacy regulation. Through distinguishing the different boundaries of privacy in social network as self-boundary and the dyadic-boundary of privacy, we believe it is more effective to understand and capture the underlying mechanism of self-disclosure behavior from a scientific standpoint. We also provide practical implications for SNS service providers in IT design. The expected results show that perceived communication privacy control and weak-tie-based network structure will moderate the relationship between privacy regulation and privacy concerns. From this perspective, SNS designers should (1) strength individuals’ perception of communication control on the self-boundary by providing effective audience management functions, and (2) prevent private information to spread across weak ties, by providing design features such as “not allow to repost” and “burn after reading”.

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