The reciprocal effects of social network site use and the disposition for self-disclosure: A longitudinal study ☆

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ABSTRACT

Since the advent of social network sites (SNSs), scholars have critically discussed the psychological and societal implication of online self-disclosure. Does Facebook change our willingness to disclose personal information? The present study proposes that the use of SNSs and the psychological disposition for self-disclosure interact reciprocally: Individuals with a stronger disposition show a higher tendency to use SNSs (selection effect). At the same time, frequent SNS use increases the wish to self-disclose online, because self-disclosing behaviors are reinforced through social capital within the SNS environment (socialization effect). In a longitudinal panel study, 488 users of SNSs were surveyed twice in a 6 months interval. Data were analyzed using structure equation modeling. The proposed reciprocal effects of SNS activities and self-disclosure were supported by the data: The disposition for online self-disclosure had a positive longitudinal effect on SNS use which in turn positively influenced the disposition for online self-disclosure. Both effects were moderated by the amount of social capital users received as a consequence of their SNS use.

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1. Introduction

Social network sites (SNSs) are of fast growing relevance for research concerning self-disclosure. SNSs are not only allowing users to share information such as uploaded videos or pictures, but also to communicate with each other about this content, to chat with other users and to post messages to smaller or larger audiences pre-defined by the users via friends-lists and other settings (Smock, Ellison, Lampe, & Wohn, 2011). Prior research has come to the conclusion that SNSs seem to require self-disclosure by default and that intimate self-disclosure is a common practice among users of SNSs (Joinson, Houghton, Vasalou, & Marder, 2011; Ledbetter et al., 2011; Nguyen, Bin, & Campbell, 2012). Self-disclosure is defined as verbal and non-verbal communication revealing information about an individual (Greene, Derlega, & Mathews, 2006). On SNSs, self-disclosure has been demonstrated to be particularly rewarding in terms of social contacts and friendships (Hargittai & Hsieh, 2010; Nosko, Wood, & Molema, 2010; Steinfield, Ellison, & Lampe, 2008). On SNSs, a variety of non-verbal (e.g., gestures or gazes) and social cues (e.g., somatic signs of uncertainty or social anxiety) available in face-to-face interaction

are filtered out (High & Caplan, 2009; Schouten, Valkenburg, & Peter, 2007; Walther, Van der Heide, Kim, Westerman, & Tom Tong, 2008). Consequently, the SNS environment demands a greater depth and breadth of self-disclosing behaviors to bridge missing cues and allow for mutual understanding (Antheunis, Valkenburg, & Peter, 2010; Christofides, Muise, & Desmarais, 2009; Gibbs, Ellison, & Lai, 2011). There is a plethora of anecdotal evidence for the increasing open-heartedness of SNS users (Thompson, 2008). However, empirical evidence on long-term effects of SNS use on its users' predisposition for self-disclosure is scarce and so are theoretical approaches that appear capable of capturing and adequately addressing the dynamic interplay of SNS use, social capital, and the individual disposition for online self-disclosure (Joinson, Reips, Buchanan, & Paine Schofield, 2010; Steinfield et al., 2008; Trepte & Reinecke, 2011; Valkenburg & Peter, 2009).

It thus seems relevant to learn more about the long-term effects of the practices of social interaction on SNSs and to investigate whether the continuous engagement in SNS use leads to an increased willingness for online self-disclosure over time. In the present study, we propose that individuals with a stronger disposition for disclosing private information online actively select SNSs to satisfy their need for social interaction (selection effect: the users' predispositions affect media use) and that the use of SNSs socializes its users towards more openness (socialization effect: media affordances affect the users' predispositions). We further expect selection and socialization processes to interact reciprocally rather than being mutually exclusive. Finally, the present research

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addresses the role of social capital as an underlying reinforcing mechanism fueling the reciprocal effects of SNS use and the disposition for online self-disclosure. Social capital is usually defined as the positive outcomes and resources which individuals derive from interpersonal contacts (Putnam, 1995). The idea of linking social capital to SNS use or to online-self-disclosure it not new (Ellison, Steinfield, & Lampe, 2007; Steinfield et al., 2008; Valenzuela, Park, & Kee, 2009); however, to refer to it as a driver in the reinforcing spiral of online self-disclosure and SNS use is. We believe that addressing the reinforcing role of social capital for online self-disclosure is crucial since personal online disclosures belong to one of the most widely discussed internet-issues today. However, the underlying psychological processes and driving forces of online self-disclosure in the SNS environment have only partially been uncovered in prior research. The present study aims at extending our insight into the dynamic processes of SNS use, online self-disclosure, and the reinforcing role of social gratifications.

In communication research as well as in the field of media psychology, the growing awareness of the necessity to overcome simple effects models of unidirectional causation has led to the development of a research tradition of studies investigating the mutual interaction of media uses and effects. Reciprocal influences have been discovered in a variety of contexts, such as the use of violent media and aggressiveness in adolescents (Slater, Henry, Swaim, & Anderson, 2003) or the use of political media and knowledge (Eveland, Shah, & Kwak, 2003). In the present study, we adopt this perspective of reciprocal influences to explain self-disclosure on SNSs by accounting for both, the role of selection effects based on the psychological disposition for self-disclosure and the socialization effects SNS use may have on the willingness for self-disclosure.

Within the following sections, we will first elaborate on the theoretical origins of self-disclosure research, the psychological disposition for self-disclosure in computer-mediated communication, its causes and consequences, as well as its relationship with the use of SNSs. In the subsequent section, we present theoretical arguments substantiating the notion of a reciprocal relationship between self-disclosure and SNS use and the role of social capital as a moderator of this relationship. The proposed model of reciprocal influences will then be tested based on the data obtained in a two-wave panel study among users of SNSs. The results will be discussed with regard to the mutual effects of the disposition for self-disclosure and SNS use and their theoretical implications for future research in the field of online communication.

2. The psychology of self-disclosure in online realms

Self-disclosure is theoretically rooted in social psychology and refers to information which a person communicates to another person (for an overview cf. Greene et al., 2006; Ignatius & Kokkonen, 2007). However, researchers have not always agreed upon a common definition of self-disclosure. For some, the term refers to all forms of verbal and non-verbal communication that reveal any information about an individual (Cozby, 1973; Wheeless, 1976, 1978). For others, self-disclosure exclusively refers to *willful* disclosures that provide insights into personal thoughts and feelings (Berg & Derlega, 1987; Jourard, 1971). In the present study, the latter definition of self-disclosure is adopted. From that perspective, self-disclosure refers to communication behavior with which the speaker consciously makes him- or herself known to another person (Berg & Derlega, 1987; Derlega & Berg, 1987). Very often, self-disclosing utterances refer to sentences starting with "I feel" or "I think". Prior research on self-disclosure can be subdivided into four fields of interest: (1) the *content* of self-disclosure, its (2) *predictors*, (3) *functions*, as well

as its (4) *consequences*. In terms of its content, the breadth, depth or intimacy, and the duration of self-disclosure have been investigated (Cozby, 1973). Furthermore, the truthfulness of self-disclosure or its reference to social norms have been considered (for an overview of dimensions of disclosure content cf. Greene et al., 2006). In terms of predictors, prior research has taken individual differences, emotional states, cultural factors, and motivational aspects into account (Ignatius & Kokkonen, 2007). With regard to self-disclosure functions, relationship-initiation and maintenance have been considered in previous research (Fehr, 2008; Sprecher, Wenzel, & Harvey, 2008). Research on the consequences of self-disclosure has addressed its effects on relationship formation, interpersonal attraction, and liking (Archer & Burleson, 1980). In addition to the social effects of self-disclosure, self-worth, identity, and psychological health and well-being have been considered as further consequences of self-disclosure (Greene et al., 2006; Kernis, 2003; Kernis & Goldman, 2006).

These four fields of research in self-disclosure are also represented in research on computer-mediated communication (CMC). With the advent of new communication technology, self-disclosure has soon become an influential theoretical concept in research on communication in online realms (Bane, Cornish, Erspamer, & Kampman, 2010; Cho, 2007; Gibbs, Ellison, & Heino, 2006; Joinson, 2001; Joinson & Paine, 2007; Joinson et al., 2010; Kim & Dindia, 2011; Nguyen et al., 2012; Peter, Valkenburg, & Schouten, 2005; Qian & Scott, 2007; Tidwell & Walther, 2002). Particularly with regard to CMC-research that addresses social interaction in the online context, self-disclosure can be considered a 'driver' of relationships-initiation and quality. Two generations of CMC-research can be distinguished. While the first generation of research explored self-disclosure in early, anonymous CMC-settings, the second generation focuses on self-disclosure in social media. In both lines of research, the *content* of self-disclosure and mediated communication as a *predictor* of self-disclosure were main areas of interest.

In the first generation of early CMC-research, the *content* of self-disclosure, its breadth, and depth were investigated in laboratory studies (Joinson, 2001; McKenna, Green, & Gleason, 2002; Tidwell & Walther, 2002). This research is an important milestone for our understanding of online self-disclosure as it demonstrates that self-disclosure in *anonymous* CMC-settings is usually higher as in face-to-face settings (cf. Section 2.1). This line of research has identified anonymity as an important *predictor* of self-disclosure. In contrast to early modes of CMC such as chat or online forums, however, communication in social media is no longer characterized by anonymity but rather provides direct links between online communication and the offline identity of the users via the use of real names and the presence of photos and offline acquaintances (Warkentin, Woodworth, Hancock, & Cormier, 2010). Consequently, a second generation of research has started to address self-disclosure in social media and compared it to offline-settings (cf. Nguyen et al. (2012) for an overview). This research has demonstrated a strong relationship between the individual willingness to self-disclose personal information and social media use (cf. Section 2.2). With the present study, we aim at extending the existing research by addressing the question of whether the correlations between self-disclosure and the use of social media found in prior research are indicative of a selection or a socialization effect. To our knowledge, the present study is the first to combine both, *predictors and consequences* of self-disclosure in a unifying theoretical model. Taking previous research into account, we will argue that it seems unlikely that the interplay of social media use can be explained by unidirectional socialization or selection processes, but rather resembles a reinforcing spiral. This process of mutual reciprocity will be substantiated based on Slater's (2007) theoretical concept of reinforcing spirals (cf. Section 2.3). From this departing point, we are