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The influence of affective cues on positive emotion in predicting instant information sharing on microblogs: Gender as a moderator

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ABSTRACT

Instant information sharing on microblogs is important for promoting social awareness, influencing customer attitudes, and providing political and economic benefits. However, research on the antecedents and mechanisms of such instant information sharing is limited. To address that issue, this study develops a research model to investigate the factors (affective cues in particular) that drive users to instantly share information on microblogs and explores the moderating role of gender. An online survey was conducted on a microblogging platform to collect data for testing the proposed research model and hypotheses. The results confirm the positive effects of informational (i.e., information uniqueness), ambient (i.e., information crowding), and social (i.e., social interactivity) cues on individuals' positive emotion, which subsequently promotes their urge to share information on microblogs. Moreover, the moderating effects of gender are identified. This study contributes to the understanding of instant information sharing from an impulsive behavior perspective. The results also provide important insights for service providers and practitioners who wish to promote instant information sharing on microblogs.

1. Introduction

Microblogs (e.g., Twitter) are proliferating across various domains largely due to their support of instant information sharing (Castillo, Mendoza, & Poblete, 2013). Compared with traditional social media platforms (e.g., discussion forums and blogs), microblogs allow users to create and disseminate content, information, and opinions more widely and quickly, almost as soon as they experience an event (Cambria, Howard, Xia, & Chua, 2016; Tobias, 2011). For instance, Twitter, an information network that uses interest graphs, has been described as the 21st century's newspaper (Wexler, 2014). Statistical reports indicate that 86% of Twitter users use the platform for news, with 74% of them doing so daily (Rosenstiel, Sonderman, Loker, Ivancin, & Kjarval, 2015). To keep up with the news, 40% of Twitter users use the platform to be alerted to breaking news.

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Microblogs have increasingly become a crucial way to enhance situational awareness and obtain a better global picture of events (Tobias, 2011), not only in terms of social issues, but also financial and political issues (Lee & Ma, 2012).

To achieve these benefits, microblogs have continuously encouraged their users to contribute timely and useful information to promote social awareness (Wang et al., 2015). It has been recognized that instant information from social media can enable users to effectively solve problems, share experiences, and store memories (Wang, Park, & Fesenmaier, 2012). Large-scale, real-time information sharing is critical for the development and maintenance of microblogs (Kwak, Lee, Park, & Moon, 2010; Munar & Jacobsen, 2014; Wang et al., 2013). However, most users contribute hardly any information after their initial use: the top 15% of Twitter users contribute around 85% of all tweets (Richter, 2013), and more than 40% of Twitter users never tweet, only following other people's tweets (Brain Statistic Research Institute, 2015). In other words, there is relatively low "real-time" use of social media for content sharing (Munar & Jacobsen, 2014). Hence, it is crucial to understand and capture what drives individuals to instantly share information on microblogs (Lee & Ma, 2012; Stieglitz & Dang-Xuan, 2013).

Despite this emerging trend of instant information sharing, this issue has received little theoretical and empirical research attention (Malik, Dhir, & Nieminen, 2016; Wang et al., 2015) and the limited number of existing studies tend to merely use descriptive approaches or content analysis (Nagarajan, Purohit, & Sheth, 2010; Sakaki, Okazaki, & Matsuo, 2010; Wang et al., 2012). The underlying mechanism of instant information sharing has yet to be empirically verified. To fill this research gap, the first objective of this study is *to investigate the antecedents that influence users' to instantly share information on microblogs*, with particular attention given to emotion as a potential driver. Typically, instant information sharing occurs when individuals experience an unplanned situation suddenly and thoughtlessly (Bermingham & Smeaton, 2010; Tobias, 2011). There is then a continuous loop of interaction between users and the social media environment that generates spontaneous, unstructured, and multi-faceted user responses (Rosso, Bosco, Damiano, Patti, & Cambria, 2016). Moreover, information sharing on microblogs always conveys individuals' emotional state and the intended emotional communication (Bollen, Pepe, & Mao, 2011), which might trigger a high level of arousal and information diffusion (Stieglitz & Dang-Xuan, 2013). Hence, we propose that microblogs provide and reinforce affective cues (environmental signals that can influence emotions) through which instant information sharing can be more emotional and impulsive, and less rational and deliberate.

Moreover, the relative effects of these antecedents in predicting information sharing in microblogs are likely to be contingent on individual characteristics such as gender (Walton & Rice, 2013; Zhang, Benyoucef, & Zhao, 2015). Gender differences have been extensively investigated in various decision-making processes, including information sharing (Holmberg & Hellsten, 2015; Lu & Hsiao, 2009; Taylor, 2004). However, previous research suggests that the contingency of gender differences in technology use depends on the nature of the technology and the usage settings (Venkatesh & Morris, 2000; Zhou et al., 2014). Hence, caution is needed when extending previous findings regarding traditional information sharing behavior (as a reasoned action) to the context of instant information sharing in microblogs (as an impulsive behavior). Given the research gap on this issue, the second objective of this study is *to investigate the role of gender differences in individuals' instant information sharing behavior on microblogs*.

The remainder of this paper is organized as follows. First, we provide a review of the literature relevant to instant information sharing in microblogs. Next, we develop the research model and propose the associated hypotheses. This is followed by a description of the methodology, data analysis, and results. Finally, we conclude with discussions on the implications for both theory and practice, as well as the limitations and directions for future research.

2. Theoretical background and research model

2.1. Instant information sharing in microblogs

Unlike sharing professional knowledge or past experience, information sharing on microblogs tends to be temporally and cognitively constrained, and to function in a relatively unplanned, spontaneous, and emotional manner (i.e., sharing news anywhere and anytime) (Lee & Ma, 2012; Wang et al., 2015). Time constraints limit one's attention to the elements of the environment (Howard & Sheth, 1969) and consequently lead a decision maker to choose a satisfying solution instead of an optimal one (Gao, Frejinger, & Ben-Akiva, 2011). Hence, when an incident occurs, information is delivered immediately on microblogs without a reduction in the timeliness of the information provided (Tobias, 2011). Such behavior is referred to as *instant (real-time) information sharing* (Bermingham & Smeaton, 2010). Research shows that instant information sharing can change individuals' behavior and emotional states by addressing a wide variety of needs (Wang et al., 2012). Furthermore, it is extremely valuable for monitoring societal changes in contexts and mental states (Zhao & Rosson, 2009) as information is shared and distributed across society in a timely and direct fashion (Lee & Ma, 2012). For these reasons, microblogs have become a widely used platform for individuals to create and publish information and thoughts in real time (Oh & Syn, 2015).

In short, instant sharing behavior is always spontaneous and reactive in nature (Bermingham & Smeaton, 2010). This "reactiveness" is aligned with the impulsivity of human behavior, i.e., the need to express emotions predominantly precedes its anticipated utility (Strack, Werth, & Deutsch, 2006). Therefore, instant information sharing on microblogs tends to be a stochastic behavior rather than a deterministic event (Gao et al., 2011) and, hence, can be conceptualized as a reactive and impulsive behavior (Wang et al., 2015). Based on this conceptualization, theories of impulsive behavior are appropriate in capturing and understanding the underlying mechanisms of instant information sharing in microblogs. However, prior studies have investigated information sharing primarily from the lens of reasoned action and behavioral intention, using