Trust and Perceived Risk of Personal Information as Antecedents of Online Information Disclosure: Results from Three Countries

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ABSTRACT

Individuals have to disclose personal information in order to utilize the manifold options of the Internet. Online users frequently trade data for benefits (privacy calculus). Trust in both the Internet and the vendor has been identified as an important antecedent to disclosing personal information online. The authors introduce the perceived risk of disclosing specific data types as an additional factor in the field of study. The results from a survey in three countries (Austria, Australia, and Hong Kong) show that the perceived risk of disclosing personal information is a stronger stimulus for the intention to provide personal information than having trust in the Internet or in the online vendor. Several significant differences are found in the relationships between the perceived risk of disclosing personal information, trust, and the willingness to disclose personal information.

Keywords: E-Commerce, Information Disclosure, Internet Privacy, Personal Information, Privacy Calculus, Trust

INTRODUCTION

It took only a couple of years for the Internet to turn from a repository of scholarly information, which was primarily used by academics, into a serious economic driver with unprecedented growth rates and worldwide coverage. With its potential for individualization, the World Wide Web has significantly influenced the way consumers and businesses conduct commercial transactions in this day and age. In order to target their customers in the best possible approach, companies need demographic, behavioral and attitudinal personal information (Reutterer, Mild, Natter, & Taudes, 2006; Heilman, Kaefer, & Ramenofsky, 2003). However, the process of collecting users’ data and personalizing goods and services can affect customers’ privacy concerns and their intention to shop online (Greenberg, Wong-On-Wong, & Lui, 2006; Sheng, Nah, & Siau, 2008).
In the online realm, even the visit of a virtual store leaves electronic traces behind, of which further usage of such data is often unknown to the users. Correspondingly, users’ privacy concerns have become the focus of attention for both practitioners and scholars (Smith, Milberg, & Burke, 1996; Stewart & Segars, 2002; Taylor, Davis, & Jililalli, 2009; Volo, 2000). Communicating with companies or completing transactions online requires personally identifying information which might impose a severe risk for consumers in the case of data misuse (Shih, Dedrick, & Kraemer, 2005). Even if their private information is used in compliance with the law, users inevitably forfeit parts of their privacy when interacting with businesses online (Feigenbaum, Parkes, & Pennock, 2009; Culnan & Armstrong, 1999).

We extend previous research, which has identified trust in the vendor (Pavlou, Liang, & Xue, 2007) and trust in the Internet (Dinev et al., 2006) as major antecedents to the disclosure of personal information, by adding the construct Perceived Risk of Personal Information. The importance of risk and trust in the context of online purchasing decisions has been highlighted in the literature (Kim, Ferrin, & Rao, 2009; Verhagen, Meents, & Tan, 2006). Other than in previous publications, we measure this construct by directly assessing users’ attitudes toward disclosing specific data types. Following the research from Xie, Teo, and Wan (2006), we take into account that a multitude of data types exists and that the risks involved in disclosing them vary between the different types. We therefore assume that the level of perceived risk an individual assigns to personal information affects the willingness to disclose it (Metzger, 2004; Li, Sarathy, & Xu, 2010), and that this effect might vary for different types of information (Krasnova, Spiekermann, Koroleva, & Hildebrand, 2010).

In this paper we investigate whether perceptions of risk associated with personal information influence the intention to disclose information directly or indirectly via trust as a mediating factor. In order to study if information disclosure habits remain stable over time, we include the level of Internet experience as a moderating factor (Gefen & Heart, 2006). Additionally, we test the stability of our model in a survey which was conducted in three countries on different continents and investigate if differences between the countries exist. We refine the existing privacy calculus theory by adding perceived risk of personal information as an additional antecedent and Internet experience as a moderator. Testing the results in different countries helps us to validate the stability of the model. The results will not only be useful for theory improvement, but will also help practitioners to better understand customers’ willingness to provide personal information in an online context.

THEORETICAL FRAMEWORK

The Privacy Calculus

Other than in interpersonal communication, the expectation of benefits leads individuals in commercial transactions to disclose personal information (Olivero & Lunt, 2004). Therefore there exists a trade-off between personalization and privacy, which Chellappa and Shivendu (2006) labeled as the personalization for privacy (P4P) ratio. This ratio can be expressed as the marginal value of personalized services and privacy concerns, measured in terms of information privacy costs. The so-called “privacy calculus” represents an approach to measure this trade-off. Laufer and Wolfe (1977) pointed out that various situational constraints (e.g., norms and anticipated behavior) predict individuals’ willingness to disclose personal information. Since privacy issues gained significant importance in Information Systems research, several authors made use of the privacy calculus in order to predict user behavior. Culnan and Armstrong (1999), for example, showed how individuals calculate the potential benefits and risks of information disclosure when deciding to purchase products and services. Further refinements of the model were made by Dinev, Bellotto, Hart, Russo, Serra, and Colautti (2006b), and Dinev and Hart (2006). In the former paper,
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