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# Three Research Essays on Examining Online Privacy Concerns: The Role of Personal Dispositions, Contexts and Privacy-Assurance Features

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## Abstract

*Information privacy is a major concern of internet users; however, online vendors need information provided by consumers to sell products and services. This work proposes three essays to explore online privacy behavior of internet users. The first essay examines the role of personal dispositions in impacting information sensitivity, privacy concern, and trust in the context of providing health information online. The second essay studies the relative influence of context (health, financial and personal) on privacy concern, trust, and intention to disclose information online. The third essay investigates the role of privacy policies and privacy-assurance cues in enhancing web customer's trust in disclosing their information online across the three different contexts (health, financial and personal). Together, these essays provide insight to the personal and contextual factors impacting online privacy concerns.*

**Keywords:** Information Context, Privacy Concern, Trust, Personality, Culture

## Introduction

The Digital Future Report (USC 2004) identifies that 88.2% of the internet users are concerned about their privacy online. Due to the privacy concern, consumers are often unwilling to disclose their personal information. There are several reasons consumers desire to keep information private such as fear of invasion of privacy, public disclosure of embarrassing facts, false public portrayal, and use of a person's name without permission (Milne 1997) This lack of consumer confidence in online information privacy has been identified as a major problem hampering the growth of internet, particularly in healthcare, banking and e-commerce (Medical News Today, Dec 6, 2006; SXIP Identity, Sep 6, 2005; Malhotra et al 2004). There is inadequate research on the role of dispositions and context in privacy concerns and trust to provide private information online and the impact of privacy-assurance features in enhancing trust to disclose information.

My proposed work, which comprises of three essays, examines online privacy concerns from multiple perspectives. Essay 1 examines the impact of personal dispositions comprising of traits related to physiological, personal, social and web-based experiences. Essay 2 examines the role of different "contexts" in disclosing information online. Finally, the Essay 3 studies the role of privacy policies and privacy-assurance cues in enhancing trust and intention to disclose information online.

Thus in order to develop a better understanding of behavior associated with online information privacy concern, my proposed work attempts at bridging the gap in the privacy literature. A brief description of the proposed three essays is given below.

### ***Essay 1: The Impact of Personal Dispositions on Privacy and Trust in Disclosing Health Information Online***

Evidence suggests that privacy of health information is of focal concern for individuals (Bodenheimer et al. 2003; Westin 2003). Rindfleisch (1997) argues that because of health information privacy concern, individuals avoid healthcare in sensitive areas. Since information sensitivity is a personality trait (Stone and Stone 1990), it could be argued that individuals will avoid online healthcare in those areas which they consider sensitive. There is little known about the role of various personal dispositions in forming information sensitivity and privacy concerns about disclosing health information online. To

address this gap, the study aims at providing a comprehensive list of constructs related to the personal dispositions in this context. Hence, the research question: how salient personal dispositions impact perceived sensitivity of health information, privacy concern and trust levels in decision to provide personal health information online?

The essay views disclosing health information online as a decision that individuals have to make in their encounter with online healthcare providers. Furthermore, the essay examines the role of four personal dispositions (1) health status, (2) personality, (3) cultural traits (individualism, femininity, and humane orientation), and (4) web experiences (familiarity with the website, prior privacy invasion, and risk beliefs about the online health information privacy) on information sensitivity, privacy concern, trust, and intention to disclose health information online.

The essay is grounded in prospect theory which argues that decision making is a psychological analysis of risk and value, which inherently depends on one's personal disposition. The essay also finds support from utility theory as well, which posits that consumer preferences are a function of their personal characteristics.

Data were collected using a lab experiment. The results show that personal dispositions have significant impacts on factors that determine health information privacy concern, trust, and intention to disclose personal health information online. This study involved students from introductory Business classes. Use of the student participants has been argued to be appropriate for online context (e.g. Song and Zahedi 2005). The data were analyzed using SEM approach. Rigorous statistical approach was used to ensure reliability, discriminant and convergent validity of the model. Common method variance was examined and found to be non-existent.

This work contributes to the research in health information privacy concern based on utility and prospect theories and sheds some light on the role of personality and culture in the examination of privacy-trust constructs. Furthermore, the results of this study could be of use for web-based healthcare providers and other health-related websites, which collect health related information from their clients online.

### ***Essay 2: Privacy Concern and Intention to Disclose Information: The Role of Information Context***

As noted above, privacy concerns have been identified as a major issue hampering the growth of internet based - health care (Medical News Today, Dec 6, 2006), -banking (SXIP Identity, Sep 6, 2005), and e-commerce (Malhotra et al 2004). The interest arises whether the degree of concern is same across all these contexts or does it vary? Addressing this concern, the Essay 2 attempts to examine the impact of different contexts on online privacy concerns. The essay poses the following research question: what is the comparative impact of different contexts (1) health, (2) financial, and (3) personal on the relationship between personal dispositions, privacy concern, trust, and intention to disclose private information online?

The constructs from essay 1 are used to examine the impact across the different contexts. The essay is grounded in the arguments from Contingency theory that states that some aspects of behavior apply to some situations but not to others (Yukl 2002); and that the relationship between individual differences and outcomes is contingent on the nature of the task or organization (Kristof 1996). Using the contingent approach, the argument is made that the decision to disclose personal information online is "contingent upon" some external factor, in this case information context.

Using the lab experiments, the research model from essay 1 was replicated across two different contexts: finance and personal information and the results contrasted against those of health context from essay 1. The data analyses were carried out using SEM approach. Discrete examination of measurement and estimation model was done separately for each context. Reliability and validity tests showed that the models were quite robust.

The research has both practical and theoretical implications. The research would help online companies in devising better strategies to collect online information by enhancing their understanding of the context driven privacy behavior. Theoretically, the research contributes to our understanding of the contingency model of information privacy.

### ***Essay 3: Role of Privacy Policy and Privacy-Assurance Cues on Trust for Disclosing Personal Information Online in Different Contexts***

Researchers (e.g., McKnight et al 2002; Malhotra 2004) generally believe that a trusted online environment would lead for more private information disclosure on the web. Privacy policy and privacy-assurance cues are among the most important website features that online providers could use in alleviating web customers' privacy concerns (Milne and Culnan 2002; 2004). However, the examination of the role of the online privacy policies in creating a trusted environment has been either limited to their mere presence (as a "trust cue"), or has been ignored in the literature (Milne and Culnan 2004). Hence the goal of this essay is to examine the influence of privacy policy and privacy assurance cues in developing trust in a website and generating intention to disclose personal information. The essay poses the following research question: what is the

relative impact of perceived privacy policy quality and privacy assurance-cues in enhancing trust of web customers in disclosing their information online across three different contexts: health, financial and personal?

The essay first develops a scale to measure “privacy policy quality” and then contrasts the role of perceived privacy policy quality with privacy-assurance cues for high and low PC individuals. Trust beliefs are measured using three factors, benevolence, integrity and ability. Trusting intentions and intention to disclose are the dependent constructs. Role of familiarity with the website, reputation of the website and website risk beliefs are examined as well.

The essay utilizes the elaboration likelihood theory (Petty and Cacioppo 1986) which states that people in the high elaboration likelihood state (high PC in this case) are more likely to engage in thoughtful processing of an information message (privacy policy) and, therefore, tend to be more persuaded by argument quality (privacy policy quality) than by peripheral cues (privacy assurance cues). In contrast, those in the low elaboration likelihood state (low PC), lacking the motivation to deliberate thoughtfully, tend to be motivated by peripheral cues.

The research will have multiple contributions, not only it will enhance our understanding of the role of online privacy policies and privacy-assurance cues in building an online trusted environment, it will also enhance our understanding of the ELM theory in the perspective of information privacy as well.

## **Conclusion and Dissertation Readiness**

The proposed work contributes to the scholarly discourse surrounding the behavior associated with the disclosure of private information online. Each essay seeks to clarify and understand a different aspect of privacy behavior, from different theoretic perspectives. This strategy attempts at building a more complete picture of privacy behavior, than one particular study and theoretic examination would provide. Information systems literature is informed through the examination of a core phenomenon: information privacy. Psychology and Management theories add to our understanding of the privacy behavior, but their use in this context also contributes to these reference disciplines.

Lab experiments on essay 1 and essay 2 have already been completed and are in the process of being submitted to the major conferences in the MIS area. Data on essay 3 will be collected during summer 2007 - fall 2007 semester. The findings will be communicated to an outlet by early spring 2008. My plan is to complete my dissertation by summer 2008.

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