**Thesis:** The Impact of User Control And Transparency in App Design on Privacy Concerns and Behavior of Mobile App Users

**Abstract:** Mobile apps have unprecedented access to sensitive personal information. The increasing commodification of mobile-user data motivates us to explore the vital role of app developers in protecting users’ privacy. This dissertation examines the privacy of mobile app users from the perspective of HCI. According to Communication Privacy Management (CPM) theory, people believe they own their personal information and have the right to control how or with whom they share this information. In practice, individuals manage their privacy system and the boundaries between the public and private domain. Users make privacy disclosure decisions in accordance with their individual characteristics, as well the perceived contextual factors where the request to disclose is initiated. With such a theoretical framework and a customized mobile app developed for this study, a lab and online experiment were conducted to compare the impact of two design elements derived from the key concepts of CPM: app transparency and user control, and their interaction, on users’ privacy concerns and their disclosure decisions. Findings show that user trust perception on a new mobile app is influenced by her/his control over disclosure decisions and influenced by the level of transparency about the app privacy practices pertaining to their disclosed information. The study also shows that when the app forces users to disclose personal information, a high level of intrusion perception is triggered. Both trust and intrusion perceptions have significant impact on user’s privacy concerns. The results of this study can assist HCI researchers in developing a more comprehensive understanding of privacy-related perceptions and behavior of mobile app users which can lead to better mobile interface designs that aim to protect user’s privacy.

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