

Motivation vs. Privacy Concerns in Health Interface: How Does Interactivity Play a Role?

YONGNAM JUNG, Penn State University, USA

JIAQI BAO, Penn State University, USA

S. SHYAM SUNDAR, Penn State University, USA

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1 PRIVACY CONCERNS IN HEALTH INTERFACE

Many health application interfaces tend to elicit personal information from users in order to offer personalized services. However, users may not be comfortable with such intrusiveness and therefore hesitate to download or adopt new health apps even when their use could be beneficial to their health and well-being. In our previous study, “Privacy Concerns in Mobile Technology: Can Interactivity Reduce Friction?,” we discovered that “message interactivity” (or contingent back-and-forth interaction in a threaded fashion) has a significant positive effect on attitudes and behavioral intentions pertaining to information disclosure, via three serial mediators (perceived contingency, elaboration, and perceived benefits). How the interface asks for private information and how it responds play an important role in users’ intentions and behaviors.

2 HOW DOES INTERACTIVITY PLAY A ROLE?

Considering the positive role of interactivity in the health interface, we are building on this study in two directions. First, we plan to study how another type of interactivity, specifically “modality interactivity” (i.e., a variety of interaction techniques with which to access information in the app), changes users’ cognitive processing in their private information disclosure in the health app. We would like to see whether more immersive interaction afforded by the various interaction tools will help users to elaborate more, or whether it will end up lowering their elaboration. The latter is likely because of the playfulness stimulated by fancy modalities of interaction, such as sliding through images, swiping, and zooming. In particular, we are going to study whether playfulness mediates the effect of this immersive experience on users’ attitudes toward the health app at the cost of cognitive elaboration. This study will help address an important design challenge pertaining to obtaining user permission for accessing their personal information: “How do we

Authors’ addresses: Yongnam Jung, ybj5141@psu.edu, Penn State University, Fraser Rd, State College, Pennsylvania, USA, 16801; Jiaqi Bao, Penn State University, Fraser Rd, State College, Pennsylvania, USA, 16801, jzb6515@psu.edu; S. Shyam Sundar, Penn State University, Fraser Rd, State College, Pennsylvania, USA, 16801, sss12@psu.edu.

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create friendly consent interfaces that ease onboarding processes while also ensuring fully informed decision-making by the user?” Second, for continued use after onboarding, we plan to study how to sustain users’ intrinsic motivation. According to Self-Determination Theory (SDT), competence, autonomy, and relatedness are important for individuals to be intrinsically motivated toward a goal. Applying SDT to the context of interface affordances, the Motivational Technology Model (MTM) argues that technological features such as navigability, customization, and interactivity can trigger an individual’s competence, autonomy, and relatedness respectively. Our plan is to study how different types of interactivity influence these three factors, ultimately helping users benefit fully from the health interface, in keeping with this workshop’s themes of “engagement and motivation.” The challenges of intelligent, conversational, data-driven health interfaces can be overcome by integrating theory-driven interactivity into the user experience. By applying communication theories and insights from previous studies on the differential psychological effects of different types of interactivity, we would like to determine how to nudge users toward making informed decisions about personal information disclosure, so that they can make optimal use of the health interface.