

**Studies on Users' Affective Evaluations of mHealth Monitoring Services:
Antecedents, Consequences, and Contingent Effects**

By

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**Date: 27 April 2018 (Friday)
Time: 9:30am-10:30am
Venue: R603, Shirley Chan Building
The Hong Kong Polytechnic University**

(Conducted in English)

Abstract:

In healthcare, there is emerging use of mobile information and communication technologies to provide monitoring services for the elderly and patients with chronic diseases. However, there is low user stickiness of mobile health (mHealth) monitoring services (MMSs) in China. This thesis will examine the low acceptance rate, low active use, and low continuous use of MMSs in the mHealth monitoring market from an affective perspective. The aims of the present research are to explain the low recognition of MMSs among patients with chronic diseases in China and elucidate inconsistent results in the affect literature. Three empirical studies were conducted to achieve the research objectives, as follows.

Study 1 focuses on the adoption stage and explains how potential users decide whether to adopt MMSs. Guided by the Affective Response Model and the taxonomy of affective constructs, this study explores how patients with chronic diseases develop affective evaluation (i.e., affective attitude) on using MMSs from perceived enjoyment and anxiety, which also subsequently contribute to their intention to adopt MMSs. Further, two contingent factors, namely, negative health emotion and health consciousness, are proposed to explain inconsistent results in the literature regarding the effects of perceived enjoyment and anxiety.

Study 2 focuses on the use stage and investigates how actual users make MMS use decisions. This study examines how MMS users (i.e., patients with chronic diseases) develop affective evaluation (i.e., emotional attachment) on using MMSs based on their learned affective evaluations on the service components, which subsequently influence their MMS usage decisions. We draw on the affect transfer theory to explain how learned affective evaluations are transferred through both cognitive and misattribution routines and whether the transfer process is contingent on the health rationality of patients with chronic diseases.

Study 3 focuses on the post-use stage and inspects how actual users decide whether to continue MMS usage. This study proposes that users' previous affective evaluations (i.e., affective attitude at the adoption stage in Study 1 and emotional attachment at the use stage in Study 2) can influence continuous use through final affective evaluation (i.e., user satisfaction) at the post-use stage. To investigate the longitudinal relationships between affective factors, this study further argues that the effects of affective attitude and emotional attachment on user satisfaction are contingent on whether users' prior expectations are confirmed through using MMSs.

Based on a health program at a leading hospital in Beijing, we empirically test the three studies and the posited hypotheses on patients with chronic diseases. The results show that: 1) affective evaluations influence users' adoption intention, usage behavior, and continuous usage; 2) perceived enjoyment and anxiety significantly influence potential users' affective attitude and these relationships are contingent on patients' negative health emotion and health consciousness; 3) users' service-component satisfaction (i.e., device satisfaction and feedback satisfaction) can be transferred to their emotional attachment to using an MMS, and the transfer process is contingent on their health rationality; and 4) users' affective attitude at the adoption stage and emotional attachment at the use stage significantly influence user satisfaction at the post-use stage, and these effects are contingent on user confirmation.

This thesis contributes knowledge to the existing literature by explaining the low recognition of mHealth services in the Chinese market from a purely affective perspective, unraveling the inconsistent results in the affect literature, and elucidating the unique decision-making processes of patients with chronic diseases. The findings of this thesis also provide some practical implications for MMS providers, patients with chronic diseases, and health professionals.

Bio:

Xiaofei Zhang is a PhD candidate in the Department of Logistics and Maritime Studies, The Hong Kong Polytechnic University under the supervision of Prof. Kee-hung Lai, and a PhD candidate in School of Management, Harbin Institute of Technology under the supervision of Prof. Xitong Guo. His research interests are in the area of Human-Computer Interaction, Healthcare IT, and Online Communities with co-authored publications at *Information & Management*, *Electronic Commerce Research and Applications*, *Journal of Electronic Commerce Research*, among others.

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All are welcome!