Introduction to Health Behavior Change Support Systems (HBCSS) Minitrack

Harri Oinas-Kukkonen  
University of Oulu  
harri.oinas-kukkonen@oulu.fi

Khin Than Win  
University of Wollongong  
win@uow.edu

Samir Chatterjee  
Claremont Graduate University  
samir.chatterjee@cgu.edu

The Health Behavior Change Support Systems minitrack discusses how systems and services aimed at influencing health and/or wellbeing behavior can be designed, developed and implemented. Behavior Change Support Systems (BCSS), in general, are defined as “socio-technical information systems with psychological and behavioral outcomes designed to form, alter or reinforce attitudes, behaviors or an act of complying without using coercion or deception.” [1] Thus, all BCSSs are persuasive systems, i.e. they have been designed with the intent to influence user behaviors [2].

Health BCSSs provide a prominent area to apply persuasive systems design [2]. The minitrack highlights how persuasive theories and models can be used to develop efficient and effective BCSSs as interventions for different contexts in healthcare, e.g. persuasive decision support systems for self-care or persuasive games to support chronic care, how end-users can be involved to design BCSS in practice and what evaluation methods are needed to assess the impact of BCSS on healthier living. Three research studies were selected for presentation at the conference.

Taiminen and Taiminen [3] study one of the key persuasive software support categories for BCSS, namely social support. They examine how frequency of use facilitates peer social support in weight loss, suggesting that frequent use of Facebook based solutions facilitates perceived emotional, informational, and instrumental social support, whereas even though online forum based solutions facilitate emotional and informational support they do it to a much lesser extent.

Also Myneni and Iyengar [4] discuss social influence. They present a BCSS study, regarding peer-to-peer communication in health-related online communities while seeking and providing health-related information. They seek to characterize social influence mechanisms embedded in these communication events through large-scale analysis of an online community for smoking cessation.

In their BCSS study, Al-Ramahi, El-Gayar and Liu [5] analyze persuasive system’s actual use through grounded theory and text mining approaches. They seek to extract design concepts from online user reviews and feedback of mobile diabetes applications, suggesting the incorporation of social and structural features into designs.

References