Persuasive systems design, evaluation and research through the PSD model

Harri Oinas-Kukkonen

University of Oulu, Faculty of Information Technology and Electrical Engineering
Oulu Advanced Research on Services and Information Systems,
Oulu, Finland
harri.oinas-kukkonen@oulu.fi

Abstract

Deep understanding of user behavior has become a key for successful design of modern information and communication technology [1, 2]. Moreover, a growing number of software, systems, and services are being developed to change users’ attitudes or behavior or both in areas such as fostering health and promoting sustainable/green behaviors. Despite the fact that attitudinal theories from social psychology have been quite extensively applied to the study of user intentions and behavior, these theories have been developed, for instance, for predicting user acceptance of the information technology rather than providing systematic analysis and design methods for developing persuasive software solutions.

This presentation will introduce conceptual frameworks for designing, evaluating and researching persuasive systems, known as the Persuasive Systems Design (PSD) model [4] and the Behavior Change Support System (BCSS) framework [5]. The PSD describes the process for persuasive systems development and it explains what kind of software functionality may be implemented in the service or product. The model helps select effective persuasive features, and categorizes them into primary task, computer-human dialogue, system credibility, and social influence. It also highlights fundamentals behind any persuasive system and ways to analyze contexts for persuasion [6, 7]. Results from a variety of research projects utilizing approaches based on the PSD model and the BCSS framework will be presented.

The PSD model and BCSS framework can be applied for developing and evaluating both full-fledged interventions [8-10] and lighter persuasive applications [11, 12], carrying out systematic literature reviews [14-16], actually building the software for these applications [17] as well as user experience [3, 10] and actual intervention outcome research with these approaches [13, 18-20]. We make the claim that the topics addressed in this presentation will play a central role in all future IT design and is relevant for all future software business and economy.

Keywords: Behavior change; Behavior Change Support Systems; persuasive technology; Persuasive Systems Design; PSD.

Speaker bio

Harri Oinas-Kukkonen, PhD, is Professor of Information Systems at the University of Oulu, Finland. His main research interests are user behaviors, persuasive systems design, social influence, behavior change, and humanized technologies. His research
has been published in major scientific information systems, human-computer interaction, health and medical informatics and other journals.

References


