



Guest Lecture

Timothy Bickmore

**Promoting Health in Disadvantaged
Populations with Conversational Agents**

Tuesday, November 28, 2017, 4:15pm - 5:45pm

ETH Zurich Weinbergstrasse 56/58, 8092 Zürich, Room F109-111

About Timothy Bickmore

Dr. Timothy Bickmore is a Professor in the College of Computer and Information Science at Northeastern University. The focus of his research is on the development and evaluation of computer agents that emulate face-to-face interactions between health providers and patients for use in health education and long-term health behavior change interventions, with a particular focus on the emotional and relational aspects of these interactions. Prior to Northeastern, he spent two years as an Assistant Professor of Medicine at the Boston University School of Medicine. Dr. Bickmore received his Ph.D. from MIT, doing his dissertation work in the Media Lab studying emotional interactions between people and animated computer characters. For more information see <http://www.ccs.neu.edu/home/bickmore/>

About the Lecture

A significant portion of adults in the world have low health literacy, the ability to obtain, read, and use healthcare information. These individuals also tend to have low computer literacy, and studies have shown that even the simplest conventional user interfaces for health education or behavior change are unusable by this population. I will present a series of automated health interventions that my lab has developed over the last decade that use conversational agents in the interface to make the intervention more approachable, acceptable, and usable by individuals with low health, reading, and computer literacy. Conversational agents present users with a virtual animated coach that uses simulated face-to-face conversation, including appropriate use of hand gesture, facial display, and other nonverbal behavior, to provide a more intuitive and comfortable medium for those unfamiliar with technology. I will also present usability studies showing the difficulty disadvantaged populations have with conventional user interfaces, and direct comparisons of these interfaces with functionally equivalent ones that incorporate conversational agents. I will focus on application domains of exercise promotion, patient education at hospital discharge, oncology clinical trial navigation, and family health history collection.

Prof. Dr. Elgar Fleisch

Prof. Dr. Florian von Wangenheim

Dr. Tobias Kowatsch

ETH Zurich & University of St.Gallen

Prof. Dr. Urte Scholz

Prof. Dr. Mathias Allemand

Prof. Dr. Christoph Flückiger

University of Zurich