We continue to see increasing interest in reaching, engaging, and empowering healthcare consumers directly through various forms of information and telecommunication systems. The success of such initiatives largely depends on the extent to which healthcare IT is perceived as usable and useful for its intended audience -- healthcare professionals and providers, health consumers and patients. Not surprisingly, it becomes increasingly important and relevant to pay focus on HCI issues in healthcare IT. The objective of this Minitrack is to provide an outlet for sharing research that focuses on improving healthcare IT through an HCI lens.

This year, the HCI and Consumer Health Informatics Minitrack team selected six excellent articles from a pool of highly competitive submissions.

The minitrack session will begin with “A Health Belief Messaging Framework and a Randomized Controlled Trial of an SMS-based Intervention for Cancer Patient Outcomes” by Constantinos Coursaris, Sandra Spoelstra, Charles W. Given, Alla Sikorskii, Atreyee Majumder, Tracy DeKoekkoek, Monica Schueller, and Barbara A. Given. This interesting article addresses the effectiveness of oral anticancer agent (OA) treatment based on Short Message Service (SMS) messaging. The article discusses a 2-group, 80-patient, randomized controlled trial of a tailored, daily SMS intervention and its effects on adherence and patient satisfaction.

Next, our Minitrack will feature an article by Ming Yang and Melody Kiang titled “Extracting Consumer Health Expressions of Drug Safety from Web Forum.” This article proposes an automatic key-phrase extraction approach to identify consumer health expressions with regard to adverse drug reaction (ADRs) in social media. The proposed method can be applied to other problem domains that require automatic key-phrase extraction when there is a mismatch between the languages used by the layperson and the professionals.

Our fifth article, “Social Media, Big Data and Public Health Informatics: Ruminating behavior of Depression revealed through Twitter” by Priya Nambisan, Zhihui Luo, Akshat Kapoor, Timothy Patrick, and Ron Cisler. This article examines how micro-blogging tweets could be used to screen for and potentially detect depression. The authors base their analysis on research on depressive disorders, including repetitive thoughts and ruminating behavior of people with depression.

Our final article for this session is “Designing Patient-Centered mHealth Technology Intervention to Reduce Hospital Readmission for Heart-Failure Patients” by Ala Alluhaidan, Edward Lee, Nagla Alnosayan, Samir Chatterjee, Linda Houston-Feenstra, Wayne Dysinge, and Mercy Kagoda. This article discusses a trial of the MyHeart application, a telehealth system designed by the authors to help congestive heart failure patients transition to the home environment. The system, which is currently in use in a major California hospital, uses wireless health devices and a mobile application to collect patients’ data and to message them about self-care.
The design includes a rule-based expert system and dashboard for clinicians.

We are honored by with the consistent and strong interest in the HCI and Consumer Health Informatics Minitrack and would like to thank all twenty-six of this year’s contributing authors for submitting their outstanding and interesting research.