Track: Information Technology in Healthcare

Minitrack: HCI and Consumer Health Informatics Issues in Healthcare IT

There are a wide range of users affected by emerging technologies in health care and a wide range of services these technologies can offer. On the side of health care professionals, healthcare organizations worldwide are currently undertaking massive transformations and additions to their IT infrastructure. Health care professionals use health technologies to comply with changing regulations, improve patient care, and provide improved support for office staff, clinicians, and patients.

In addition after decades of development of health technology systems designed primarily for physicians and other healthcare managers and professionals, there is an increasing interest in reaching and empowering patients directly through computers and telecommunications systems. Consumer participation may take place at various points in the care process: prevention, diagnosis, treatment, monitoring, and/or maintenance, and HCI issues emerge at each stage.

History suggests that the success of emerging healthcare applications and new innovations will depend to a large degree on the ability of people to use them effectively and efficiently. Human-computer interaction (HCI) research can provide valuable guidance to the design, implementation, and evaluation processes to improve the usability of healthcare IT.

Thus, potential exists for HCI and consumer health informatics researchers to apply existing knowledge to improve healthcare IT, formulate new theories and practices, and create new technologies in light of HCI considerations specific to the healthcare context. This minitrack provides a focused outlet at HICSS for HCI and consumer health informatics researchers in healthcare domains to share and discuss the results of their work. Research is welcomed on any work that focuses on users (health consumers, medical professionals, and others) and related usability. Various methodologies (design science, qualitative, and quantitative work) are welcome. Broad categories of suitable papers will include:

- Usability, design, and other HCI issues related to health technology such as:
  - personal health record (PHR) applications
  - patient care monitoring systems
  - chronic care management tools
  - home health care devices
• media and devices to better enable communication between doctor and patient
• telemedicine devices
• medical knowledge management systems
• systems assisting patients in self-management, maintaining safety, and communicating with medical professionals.
• online reference sources like WebMD
• practice management systems
• preventive care systems
• public health informatics
• electronic medical records applications
• Innovation of new tools and devices with a strong usability or HCI consideration
• Interaction issues in new technologies to empower and inform health care for consumers
• Interaction issues in navigating the wealth of health information on the Internet
• HCI issues in using health technologies across cultures or geographic regions.

Minitrack Co-chairs

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Ann Fruhling is associate professor in the Department of Information Systems at the University of Nebraska at Omaha (UNO). Dr. Fruhling’s research interests include human-computer interaction and usability evaluation, user interface design, agile methods, and software engineering solutions for health care emergency response systems. She has received numerous grants for research focusing on a public health emergency response system called STATPack, (Secure Telecommunication Application Terminal Package), a bioterrorism preparedness system that supports remote laboratory diagnostics and consultation. Her research studies have appeared in publications including Journal Management Information Systems, Communications of the Association for Information Systems, Journal of Computer Information Systems, International Journal of Electronic Health Care, International Journal of Cooperative Information Systems, and Journal of Electronic Commerce Research. She also has book chapters in Value Based Software Engineering, Patient-Centered E-Health, and Advances in Management Information Systems (forthcoming) and numerous conference papers.
Rich Burkhard is assistant professor in the Department of MIS in the College of Business at San Jose State University, and Research Fellow at the Kay Center for e-Health at Claremont Graduate University. Rich's research work focuses on e-Health Systems and Services, Emergency Health Services, Virtual Collaboration, and the design of systems to serve these goals. Rich's research is published in the Communications of the AIS (CAIS), the Journal of Homeland Security and Emergency Management, the Journal of Marketing Theory and Practice, as well as chapters and conference proceedings in related areas.

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