

## ▼ Introduction to IT Adoption and Evaluation in Healthcare Minitrack

Ton Spill  
University of Twente  
a.a.m.spil@utwente.nl

Ken Trimmer  
Idaho State University  
trimkenn@isu.edu

Cynthia LeRouge  
Saint Louis University  
lerougec@slu.edu

Carla Wiggins  
Idaho State University  
wiggcarl@isu.edu

This minitrack focuses on the role of adoption, implementation, diffusion, and evaluation factors and the interaction of these factors at various levels to healthcare system success. These topics continue to present challenges to organizations, society in general, and the research community. IT is seen as an enabler of change in healthcare organizations both nationally and locally. However, IT adoption decisions in healthcare are complex given a multitude of technologies, stakeholders, and potential levels of analysis. The papers in this minitrack convey the complexity and breadth of issues in addressing diffusion within this domain. Papers are dispersed in the technology of interest (e.g. telehealth, mobile computing, clinical information system) and level of analysis (e.g. individual, organizational, national). The collection of papers also conveys the breadth of research approaches relevant to the study of adoption, implementation, diffusion, and evaluation in the health care context. Research methods include Delphi procedures, surveys, interviews, and longitudinal case studies. Each method provides a unique perspective for analyzing adoption, implementation, and evaluation issues.

Electronic health, or E-Health adoption is discussed by Cho et al., in “From Adoption to Diffusion of a Telehealth Innovation”. This longitudinal case study focuses on a telehealth innovation that enables physicians at a teaching hospital to access and diagnose strokes in rural environments. The perspectives of various stakeholders regarding the innovation and its adoption are presented in this manuscript. Another longitudinal study, also addressing issues at a teaching hospital, is presented by Ryan et al. “Soft Innovation as Data-driven Process Improvement Exploited via Integrated Hospital Information Systems” discusses the eventual process improvements that came about after the implementation of a new information system for the hospital’s preoperative services.

Two nationally focused studies are in this year’s minitrack. Burley et al., in “The Internal Value of

Mobile Computing in Emergency Medical Services: An Australian Case Study”, presents another case study. Focusing on stakeholders, effectiveness and efficiency issues regarding mobile systems is presented along with advantages and the balance between the internal system requirements and external systems. The second paper with a national focus is “A TeleMedicine Transfer Model for Sub-Saharan Africa” by Mbarika et al. Focusing on Information Communications Technology (ICT) and infrastructure, the authors report their analysis of survey data provided by physicians in twenty-one different African Nations. The results of their analysis are presented as providing policy makers in Sub-Saharan Africa with a perspective on ICT projects. In addition, a third research piece from Sood et al., “Electronic Medical Records: A Review Comparing the Challenges in Developed and Developing Countries”, provides a perspective on barriers to adaptation and implementation between different countries.

Pare et al. used a Delphi study to generate their results in “Prioritizing Clinical Information System Project Risk Factor: A Delphi Study”. This Canadian study confirms many of the risk factors previously identified in both implementation and health informatics. The Unified Theory of Acceptance and Use of Technology (UTAUT), along with interviews of physicians involved in a residency program for family physicians is provided by Trimmer, et al.,. In this study, “Electronic Medical Records Use – An Examination of Resident Physician Intentions”, physicians experienced with an EMR provide their perspectives on future use and adoption of EMRs. The UTAUT and EHealth are addressed by Goh and Agarwal in “Taking Charge of Your Health: The Drivers of Enrollment and Continued Participation in Online Health Intervention Programs”. In this study, the authors analyzed responses from an online health portal to assess adoption and post-adoption of an online program. Their analysis provides a discussion of direct and interaction effects of a theoretical model.