Minitrack: IT Adoption, Diffusion, and Evaluation in Healthcare

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The adoption, diffusion, and evaluation of IT in healthcare continue to present challenges to organizations and society, as well as to researchers. IT is seen as an enabler of change both nationally and locally in healthcare organizations. However, IT adoption decisions in healthcare are complex because of the uncertainty of benefits and the rate of change of technology.

The papers in this minitrack utilize numerous research approaches. Delphi studies, surveys, interviews, and longitudinal case studies all provide different methods to investigate the range of issues underlying the successful adoption, implementation, and evaluation of IT. These approaches are all represented in this minitrack. Overall, this minitrack contains a variety of interesting papers with some recurring themes.

Paper 1 uses 204 survey results to test a new configurational protection motivation theory. The new theory adds value to decision making in adopting e-health and promotes a more holistic approach.

Paper 2 tests and demonstrates that low automation in the healthcare industry can be attributed to their reliance of judgement and creativity. This study provides theories to explain the unusually low automation in the healthcare professional jobs.

Paper 3 examines the use of health information systems by nurses to support coordination across work shifts. The qualitative study involving nurse staff at a Danish emergency department reveals differences based on specific coordination challenges and the nurses' perception of the HIS.

Paper 4 investigates the impact of IT investments on hospital performance. The paper uses longitudinal data from 500+ hospitals and conducts a panel data analysis. The results provide evidence for a significant positive relationship between IT investments and hospital performance measures.

Paper 5 introduces a taxonomy that is composed by 87 characteristics and 21 categories that organize the information that should be handled by older adults healthcare applications

Paper 6 reports on the use of mobile technology by a multidisciplinary health care team at a large Australian hospital. Communication was the key driver of spontaneous use of mobile technology, while privacy, security and confidentiality were identified as barriers.

Paper 7 analyzes professionals' view of virtual reality (VR) technology on population that benefit from such technology and the potential barriers to their use of VR. The findings of this qualitative study have promises in the development of VR solutions in rehabilitation with improved acceptance to enhance health and participation outcomes.

Paper 8 investigates the role of the use of smart glasses by health care workers in shaping trusting beliefs among patients. Perceived usefulness and privacy concerns were important factors regarding trust in caregivers and opt-in intentions.

Paper 9 analyzed patients in 3 different years for perceptions of information safeguards and the choice to withhold information from providers due to privacy/security concerns. Results indicate that a significant proportion of the population is not firmly confident about data safety. Furthermore, there is heterogeneity in patients and communication quality effects. These results, if better understood, could help increase utilization of EHRs.

Paper 10 extends the privacy concerns research to wearable IS-technologies and its impact on the acceptance of such technology. This empirical study concludes that privacy concerns are fundamental in wearable IS-technologies' acceptance and current advertising do not consider this relationship.

Paper 11 proposes a conceptual model of factors influencing data completeness in EMR. Empirical evaluation of the model revealed a high level of clinical staff's participation, as well as alignment to the care processes influenced the data completeness.

The above 11 papers cover a wide range of challenges healthcare faces and they highlight possible solutions. We look forward to discussing these topics in this minitrack and encourage the authors to consider the feedback they receive advance their studies after the conference. Furthermore, we encourage submissions in the future addressing healthcare technology adoption, diffusion, and evaluation challenges using a variety of methods and research approaches.

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