Introduction to Minitrack: Information Technology in Health Care Track - IT Adoption, Diffusion, and Evaluation in Healthcare

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The adoption, diffusion, and evaluation of information technology (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 utilized numerous research approaches. Delphi studies, surveys, interviews, and longitudinal case studies all provide different methodological approaches on the broad- based issues underlying the successful adoption, implementation, and evaluation of IT. These four approaches are represented in the papers from this minitrack. Within the HICSS history, this minitrack delivered more than 150 papers. The newest 11 are highlighted underneath.

Paper 1 addressed Australian users' perceptions and expectations of their Personally Controlled EHR, its impact on patient-provider relationship, quality of care, and data security / confidentiality, and thus overall sustainability.

The findings of paper 2 pertained to successful system deployment in German hospitals. The authors found three aligned factors: physician users, process, and system. In addition, leadership and organizational setting were important factors.

Paper 3 studied qualitative data from adults prescribed opioids in an online pain self-management program for chronic pain. Five themes emerged: positive reframing, improved accountability, feeling supported, desire for personalization, and ease of use.

The 4th paper studied patients' reactions towards a new patient portal system. It developed a dual-factor model of technology usage, which integrated the User Resistance Model and the Unified Theory of Acceptance and Use of Technology to explain asymmetric effects.

In the fifth paper, patient compliance with provider orders was explained via three information uncertainty mitigation factors: perceived information asymmetry, fear of opportunism, and physician quality. A structural model was derived from data on 184 patients.

Paper 6 studied stakeholder interests in the early phase of a municipal eHealth project. A qualitative approach revealed two important contradictions: 1) effective service versus efficient service, and 2) technology enthusiasm versus reluctance to change.

In the 7th study, physicians transitioned to a new drug management system. The findings showed relationships during the transition among system-induced stress, satisfaction with the new system, and intention to continue to use the system. Actual usage was also examined.

Paper 8 studies Nicotine Replacement Therapy (NRT) for smoking cessation treatment and found that primary care practices with a drug reference database, a key clinic technology, were 2.3 times more likely to view NRT as a high priority.

Minecraft was examined in paper 9 to explore social connecting practices of children with Autism Spectrum Disorder or Attention Deficit Disorder. The study offered rich descriptions of the social lives of neurodiverse children.

Study 10 empirically tested a model incorporating personality traits and health emotion states in the context of a patient portal. The results suggested that emotion supersedes the influence of personality traits in portal adoption.

In the final study, EHR adoption and assimilation in the Meaningful Use incentive program in the State of Hawai'i were studied. Smaller practices were found to have challenges.

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