

IT-Enabled Healthcare Coordination

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Healthcare coordination involves organizing and sharing information among all participants involved in patient care in order to provide safer and more effective care. It has been identified as a key strategy to improve effectiveness, safety, and efficiency of healthcare. While the need for healthcare coordination is clear, there are many obstacles, including technical, behavioral, and organizational.

Information technology (IT) has played a role in enhancing productivity through coordination in many industries, both manufacturing and services. However, nowhere is this role more critical than in healthcare, where IT has the potential to improve patient health and, in many cases, save lives, through improved coordination between various parties such as hospitals, providers, and patients. However, use of IT in healthcare presents some unique challenges and issues. This mini-track will focus on the use of technology and non-IT assets such as process changes and interoperability standards to address these challenges to achieve and enable efficient coordination in healthcare.

In the first session, we have several papers that focus on how coordination using information technology alters processes and outcomes. The first paper, “The Transformative Role of Telemedicine” uses a case study approach to investigate how telemedicine alters coordination practices among pathologists, technologists, and surgeons, particularly in terms of predictability, common understanding and accountability. The authors found a shift towards reliance on plans and rules rather than routines, emphasis on standards rather than familiarity, and more individual and contractual rather than collective accountability. “Towards Designing an Assistant for

Semi-Automatic EMS Dispatching” provides a design framework for an assistant that helps dispatch EMS vehicles. The assistant offers explanations for the choice of scheduling algorithms and dispatching suggestions to increase trust and decrease stress in coordinating patient transport assignments. In the third paper, “Building Healthier Communities: Value Co-Creation within the Chronic Care Model for Under-Resourced Areas”, the authors develop a research model for coordination of clinical services and public health resources in delivering chronic care. Their model conceptualizes improved chronic disease health outcomes as co-created value, focusing on triadic actor-to-actor resource integration (patients, family/friends, providers) and service exchange.

In the second session, we have papers focused on the challenges of coordination with information systems. “Bring Your Own Mobile Device (BYOD) to the Hospital: Layered Boundary Barriers and Divergent Boundary Management Strategies” illustrates why implementation of BYOD can be challenging in a hospital environment. The authors identify key issues at the individual, group, and organizational levels. “Challenges to Aligning Coordination Technology with Organizations, People, and Processes in Healthcare” summarizes IT coordination challenges in healthcare using a case study involving coordination of electronic health records.

This mini track provides several different perspectives on the role of different types of information technology in enabling healthcare coordination, the value of such coordination, as well as the challenges associated with it.