

Integrating Information Systems Theory and Health Informatics Research

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The need for effective information systems to improve the quality of health care while controlling its cost has never been greater. In fact, many now perceive health care as one of the most information-intensive industries. Theoretically-informed research is needed to help both researchers and practitioners in health informatics fields to understand the social, organizational, and institutional challenges of successfully implementing information technology applications in health care settings.

We believe that many opportunities exist for synergy between health-care related IS research and research in more traditional settings, and that theoretical insights that mutually inform health care IS research and traditional IS research could result from exploring and exploiting such opportunities. Some examples: Do loosely coupled organizational structures, such as those frequently found in health care settings, influence system development practices? How do diverse and semi-autonomous professional groups influence user requirements analysis for health care systems, and how does this compare to experiences in other sectors? What is the effect of private, public and mixed funding structures on the development and diffusion of technology? Are these effects similar or different for specialized health care IT (e.g., cat scans, MRI, lab testing) and traditional types of information systems, such as those used in business (e.g., DSS, Groupware and Executive Support Systems)? What are the organizational and institutional challenges associated with developing integrated patient care record systems, and how do these compare to enterprise-wide systems integration efforts in other industries? What are the similarities and differences between e-commerce and e-health care, in terms of strategy, and organizational effects, development approaches?

The goals of this mini-track are to draw health-care IS research closer to the general body of IS research and to demonstrate its value in testing and further developing IS theory. In this, our second year at HICSS, we were particularly interested in papers which draw theoretical insights from non-health care fields and apply or test them in health care settings, or which explored potential synergy or conflict between health-

care IS research and traditional IS research topics. The three papers included in the mini-track reflect these themes. Chiasson and Davidson's paper "Getting the two to dance: Examining barriers to health information systems research in mainstream IS journals " explores the paucity of IS research conducted in a health care setting and discusses assumptions about the nature of health information systems research that might limit its publication in mainstream IS journals. Possible approaches to overcoming barriers are considered. Kouroubali's paper, "Structuration theory and conception-reality gaps in the implementation of health care information systems: a theoretical framework," explores limitations of structuration theory for investigating external "change triggers" such as a new technology; the paper outlines ways in which Heek's theory of conception-reality gaps helps to explain the implications of external structuring influences such as new technology systems. Croteau and Vieru's paper, "Telemedicine Adoption by Different Groups of Physicians ," tests the IS technology acceptance model (TAM) among physicians considering the use of telemedicine. Findings of the paper support others' work using TAM to study telemedicine, which indicate that "usefulness" is more important to professionals such as physicians than is "ease of use." This paper also explores the effect of differences in background and environment on physicians' intent to use telemedicine. These three papers provide a special view into the relationship between medical informatics and IS research, and various ways the two areas can inform each other about the unique task of system conceptualization, development, and implementation within health care settings.