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CCT Colloquium Series

Understanding Barriers to Integrated Information System and Information Technology Adoption by Health Care Professionals: Diagnosis, Prescription and Prognosis

Sonja Wiley-Patton, Louisiana State University

Assistant Professor, Information Systems and Decision Sciences

Johnston Hall 338
September 26, 2008 - 12:00 pm

Abstract:

The general dilemma facing many healthcare organizations is a lack of integration between clinical processes by using information technology. One of the major contributing factors of this problem is the resistance of healthcare professionals towards the adoption and integrated use of information systems and information management technologies, such as (CPOE) computerized physician order entry systems, (EMR) electronic medical record systems, electronic prescription (e-prescribing) technology systems, Pocket PCs, Tablet PCs, and Personal Digital Pens. Such information technologies could help to significantly decrease medical errors and reduce costs while improving the quality of healthcare delivery. The integration of clinical processes and information technology (IT) is imperative in improving healthcare quality in America. The benefits of adopting information technology to improve patient care would seem to be obvious, and yet many healthcare professionals remain remarkably resistant. Previous research suggests that technology adoption models that work well in business environments do not explain the technology adoption process and the resistance to technology adoption in the healthcare industry. Certain healthcare specialties (in particular physicians and radiologists) are more resistant to information technology adoption for clinical purposes than others despite the potential economic and quality of care benefits and despite the fact that they may readily use information technology for personal reasons. This CCT Colloquium presentation will present various facets and findings to our ongoing research as it relates to our National Science Foundation Grant award No. 0426593. We have approached the problem from a cross-disciplinary and mix-method perspective combining small in-depth case studies, cognitive mapping sessions, observations and participatory action research with the development of a larger survey which will be administered on a local, regional and national scale to aid in providing new insights into the clinical IT adoption paradox. Our researchers have been working with both healthcare and IT professionals to develop practical guidelines for the development and implementation of integrated medical information systems delivered with new information technology in clinical environments. The researchers continue to work toward devising a set of interventions and guidelines for IT deployment designed to improve healthcare professionals' participation and ultimately the quality of care provided. These guidelines will be integrated into a set of Best Practices that are currently being shared with hospitals to help improve healthcare professionals' understanding and participation in the (SDLC) system development life cycle of clinical information systems. Our findings will also be made available to the with developers of (HIT) healthcare information technology systems and to the individuals within the healthcare organization responsible for the, planning, purchase, implementation and evaluation of such HIT systems.

Speaker's Bio:

Dr. Sonja Wiley-Patton is an assistant professor of Information Systems and Decision Sciences at Louisiana State University in the E. J. Ourso College of Business Administration. Dr. Wiley-Patton joined LSU in 2002. She teaches Healthcare Informatics; Systems Analysis and Design; Business Data Communications, Networking and Social and Organizational Issues in MIS. Dr. Wiley-Patton is a KPMG Doctoral Fellow and received her Ph.D. in Communications and Information Sciences from the University of Hawaii ~ Manoa in Honolulu, Hawaii (2002). Dr. Wiley-Patton's primary research interest lies in understanding and aiding healthcare and information systems, adoption, diffusion, and use. In an effort to better understand the clinical IT adoption dilemma, LSU researchers and local healthcare practitioners have joined to investigate how the adoption of information technology can be utilized to improve patient care, reduce medical errors and decrease cost. With nearly $1 million in funding from the National Science Foundation, Sonja Wiley-Patton and her cross-disciplinary research team including community collaborator Our Lady of the Lake Regional Medical Center have conducted a 48-month study that examines factor that influence or inhibit health care professionals' use of information technology in clinical processes. Dr. Wiley-Patton is a faculty mentor with the LSU Office of Strategic Initiatives' Louisiana Science, Technology, Engineering, and Mathematics Program (LA-STEM), Howard Hughes Medical Institute (HHMI) and the Ronald E. McNair Research Scholars Program. She has been especially valuable as a selection committee member with choosing students that have the potential to become academically successful and acquire a Ph.D. in the STEM areas. Dr. Wiley-Patton is currently the Faculty Director of the LSU Pre-Doctoral Scholars' Institute (PDSI). PDSI is an intensive summer research program that prepares outstanding minority undergraduate students for doctoral study. It introduces underrepresented students to the culture of graduate education and exposes them to professors who personify the realistic and obtainable goal of a doctorate degree. One of the main goals of the PDSI is to increase the number of excellent minority students pursuing doctoral degrees at LSU. PDSI acts as a bridge between undergraduate study and doctoral education. Dr. Wiley-Patton views her role as a mentor for students who choose the path of a graduate school sojourner.

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2003 Digital Media Center • Telephone: +1 225/578-5890 • Fax: +1 225/578-8957