Introduction to Interoperability and Standards in Health Care IT Track/Minitrack

Mark Gaynor  
Boston University  
mgaynor@bu.edu

Steve Moulton  
University of Colorado  
smoulton@10blade.com

James Rawn  
Harvard Medical School  
jrawn@partners.org

This Minitrack addresses the limited ability of current health IT applications to exchange information with semantic meaning. Network economics argue that the value of Electronic Health Records (EHR) grows with the number of applications that can share electronic information. Existing and emerging standards such as ICD-9/10, LOINC, SNOMED and HL7v2.x/v3 do not meet traditional definitions of standards that promote interoperability because independent vendors seem unable or unwilling to achieve interoperability.

The U.S. government has sponsored the health care Information Technology Standards Panel that is harmonizing existing standards. By creating a Minimal Data Set (MDS) of medical information and discovering the overlaps and gaps of these existing standards progress is being made with interoperability.

The papers presented in this track discuss what interoperability is and how to build infrastructure to enable data exchange between heterogeneous medical application across departmental and organizational boundaries. They also discuss metrics to evaluate the effectiveness of medical vocabularies. These papers relate to design science, implementation, case studies, economic arguments for interoperability, and the theory of creating scalable infrastructure to seamlessly exchange semantically defined medical information between heterogeneous applications.