Electronic Health Records: How Can Information Systems Research Contribute to Transforming Healthcare?

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Abstract

Electronic health records (EHR) facilitate integration of patient health history for planning safe and proper treatment. Combined with data analytics, aggregate-level EHR enable examination and development of effective medicines and therapies for chronic diseases. Although promising efforts to implement EHRs are underway, social and organizational challenges plague EHR development and widespread use. These challenges are due to lingering issues such as privacy, interoperability, and security among key stakeholders (patients, providers, and purveyors). Based upon stakeholders’ needs and the issues, we identify two primary thematic areas—integration and analytics—in which the information systems (IS) discipline can contribute to EHRs. Through the accumulated body of knowledge, IS researchers are well positioned and have the expertise to design, develop, and facilitate the use of EHR in the delivery of healthcare. We identify potential research opportunities in each of the two thematic areas that have the potential to transform the delivery of healthcare. We conclude with a recommendation for IS scholars to collaborate with allied healthcare disciplines in order to advance the use of EHR to improve patient care.

Keywords: Electronic health records, information systems research, healthcare, electronic medical records, integration, analytics