Game changer: how informatics moved from a supporting role to a central position in healthcare

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The digital revolution had a late start in healthcare, but recent developments are helping it catch up quickly with other industries. Electronic health record (EHR) systems are expected to be adopted in the large majority of US institutions by 2015, and it is anticipated that they will contribute significantly to quality improvement initiatives, as well as to clinical and translational research. These contributions will no longer be primarily originated from large academic medical centers, as data will be collected electronically from more typical healthcare settings. EHR phenotyping (i.e., the complex processing of EHR data for the purpose of characterizing phenotypes of interest for healthcare quality improvement and for research) is a biomedical informatics subspecialty that is rapidly evolving and can have a significant role in demonstrating whether the large investments on EHR systems will be associated with new knowledge that improves care and facilitates discoveries.

In this special focus issue, guest editors Jyotishman Pathak, Abel Kho, and Joshua Denny (see page e206) introduce recent work in EHR phenotyping in the USA and abroad. Following a call for papers in early 2013, JAMIA received over 60 submissions on this topic (some submissions are still under revision, and are expected to appear in 2014). Through careful selection by the guest editors and the senior editorial team, we are able to present in this special issue a wide range of algorithms and tools to transform EHR-collected data into information that is useful for researchers, clinicians, administrators, and policy makers.

JAMIA is helping close the gap among these different constituencies through a significant expansion in scope. An analysis of JAMIA articles from 2009 to 2012 (see page e198) helps us understand how our readers’ interests have been evolving over time. Reflecting the impressive growth of informatics as a discipline in the past three years, the number of JAMIA submissions has more than doubled, interest in topics related to EHR phenotyping has markedly increased, informatics boundaries have become fuzzier, and JAMIA’s outreach to the global informatics community has significantly expanded.

Looking around us, people are more than ever connected to the Internet via mobile devices, and are increasingly demanding faster, more intuitive, and more efficient systems to collect and analyze data, display and interpret information. It is no surprise that people expect that information technology will help promote health, prevent disease, and accelerate cure. Accordingly, informatics has moved from the periphery of a healthcare system based on local expertise to the center of a new health promotion and care system based on the transformation of data into actionable knowledge. There is no way back from the digital revolution in healthcare; there is instead an exciting landscape of opportunities ahead, and informatics is at its center.

This special holiday issue of JAMIA marks the completion of the third year of activities for the current editorial team, as well as the end of the two-year term for AMIA’s board chair, who describes important advances brought on by AMIA during this time. These advances include, among others, the accreditation of Clinical Informatics as a medical subspecialty, and several positive outcomes from the government’s Meaningful Use program (see page e367).

The editorial team would like to thank JAMIA’s readers, authors, and guest editors for their continued support for the journal, and wishes a productive and transformative new year for the informatics community. As always, we welcome your suggestions on how to improve processes and further widen the dissemination of JAMIA to a global community of readers.