Chapter 75
Health 2.0 and Medicine 2.0:
Safety, Ownership and Privacy Issues

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ABSTRACT

The collaborative nature of Medicine 2.0/Health 2.0 and its emphasis on personalized health care clearly outlines it with respect to e-health and Web 2.0. The Semantic Web uses the notion that the meaning of a concept relates to other concepts. Therefore, it amplifies many of the existing challenges, but also offers new opportunities for the quality problems of Web 2.0 and enhances the potential to translate information into knowledge. Perhaps the most exciting expectation is that people will use the semantic web to search for healthcare providers of the highest quality, using services that take into account their own preferences and employ decentralized data from different sources. On the other hand, the Semantic Web magnifies privacy and may raise concerns about disintermediation between patients and health professionals and over reliance on virtual interactions. Therefore, the perspective of the chapter is to consider the key debates that occur in the literature with respect to the terms Medicine 2.0 and Health 2.0 acknowledging that any authentic solution to health problems has to originate from patient-centered care.

INTRODUCTION

The importance of healthcare information and communications technology (ICT) has grown in an exponential manner over the last 15 years (Institute of Medicine, 2001). Moreover, national strategies with respect to health information infrastructures are emerging across different parts of the world (National Committee on Vital and Health Statistics, 2001; Office of Health and the Information Highway, 1999; Australian Health Information Council, 2004; Department of Health and Children, 2005). Their vision is to improve the safety, quality and effectiveness of patient care by supporting clinical practice, resource management, research and training through the availability of relevant evidence and information. In addition, these strategies ensure interoperability and data

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protection, and incorporate a commitment to promote consumer empowerment and patient self-care through the provision of electronic information and/or telemedicine facilities.

However, e-health definitions vary from the speculative and diffuse to the most detailed. Most definitions conceptualize e-health as a wide range of medical informatics applications, which allow the management and distribution of health care. They include the dissemination of health-related information, storage and exchange of clinical data, inter-professional communication, computer-based support, patient-provider interaction, education, health service management, health communities and telemedicine. They also vary with respect to the targeted functions, stakeholders, contexts and theoretical issues. Most of them incorporate a wide range of specified medical informatics applications or terms that are more general. Nevertheless, the majority emphasizes the communicative functions of e-health and specifies the use of networked digital technologies, especially the Internet, thus differentiating e-health from the field of medical informatics. Finally, some definitions explicitly target health professionals or patients while most of them involve applications for all stakeholder groups. In terms of the functional capacity, most definitions conceptualize e-health as a broad range of medical informatics applications, which facilitate the organization and delivery of health care. In terms of the stakeholders, many definitions emphasize applications for providers--particularly those stressing exchange of clinical and administrative data. Several definitions emphasize the changing educational context of health care; particularly patient empowerment, and point to the capacity of e-health to facilitate shared decision-making. Overall, we might divide e-health into four domains:

- public health policy and prevention
- information service for citizens
- integrated patient care and patient health records
- telecare and independent-living services

We might also relate it to electronic communication as most definitions associate it with the use of networked digital information and communications technologies, especially the Internet, differentiating e-health from its parent domain of medical informatics. One component of electronic communication is when patients use new technologies to try out information about their health and health care options (Pagliari et al., 2005). The potential of the Internet to store large volumes of information provides an unprecedented opportunity to provide high-quality, interactive evidence-based information. Interactive components permit the provision of personalized information to users and provide decision, peer, or behavior modification support.

Health information and interactive components constitute an interactive health communication application (IHCA). Initially, IHCAs were developed on non-Web-based platforms such as CD-ROM (Murray et al., 2005). Lately, the relative prominence has moved toward Internet interventions (Ritterband et al., 2003), including accuracy, completeness, readability, disclosure, and references (Eysenbach et al., 2002). However, we know little about the user perspective on health websites but we do know that patients bring forth different criteria for the value of traditional, non-Web-based information materials (Coulter et al., 1998). Overall, patients are likely to use different criteria to assess the quality of health websites. Although we have made steps developing criteria to evaluate more interactive online health behavior modification and disease management programs (Evers et al., 2005), these also neglect the user perspective. Thus, the perspective of the chapter is to assess, in a patient-centered discourse, the key debates that exist in the literature with respect to the terms Medicine 2.0 and Health 2.0.