Chapter 5.19
Digital Divide and E–Health Implications for E–Collaboration Research

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INTRODUCTION

E-health has rapidly gained attention as a framework for understanding the relationship between using information and communication technologies (ICTs) to promote individual and community health, and using ICTs for improving the management of health care delivery systems. The use of e-collaborative tools is implicit to the delivery and access of e-health. Development of the capacity to transmit and receive digital diagnostic images, use video telecommunications for supporting the remote delivery of specialized care and surgical procedures, and the use of e-communication technologies to support logistical elements of medical care (such as scheduling appointments, filling prescriptions, and responding to patient questions) are just a few ways in which e-communications are transforming how medical care is embedded within institutional, organizational, family, and community settings.

The emerging field of e-collaboration focuses attention on the need for society to critically examine how electronic communication technologies facilitate, shape, and transform the ways in which organizations, groups, and communities interact. There are many works that explain how to (a) develop e-health systems, (b) assess the use of such systems, and (c) analyze the health outcomes that can be achieved with effective e-health applications (Brodie et al., 2000; Eder, 2000; Spil & Schuring, 2006). Less attention has been paid to how advances in e-collaboration research might inform e-health applications development and scholarly discourse. Because of this gap in the literature, few discussions pertain to understanding patient perspectives about the advantages and disadvantages that may result from rapidly emerging interconnections among access to health care, health information, health support systems, and ICTs (Berland et al., 2001; Hesse et al., 2005; Gibbons, 2005; Gilbert & Masucci, 2006).

E-HEALTH AND THE DIGITAL DIVIDE

Facilitating equitable e-health remains a difficult challenge because of persistent disparities in using and accessing ICTs among vulnerable and marginalized population groups (Atkinson & Gold, 2002; Brodie et al., 2000; Gibbons, 2005; Skinner, Biscope, & Poland, 2003; West & Miller, 2006). More research is needed to examine how differing experiences, self-efficacies, and adaptive styles among users of e-communication tools relate to the collaborative aspects of accessing and delivering health care (Atkinson & Gold, 2002; Hsu et al., 2005; Katz, Nissan, & Moyer, 2004). In particular, the collaborative aspects of implementing effective e-health policies could focus on such issues as (a) the role of educational training in using e-systems for accessing health information, health care provider consultations, and health management protocols, (b) the effects of alternative information delivery systems for enhancing patient care and community wellness, (c) the ways in which patient knowledge acquisition processes are related to the use of e-communication systems, (d) the privacy concerns related to e-collaboration strategies for accessing patient health care records, and (e) the tradeoffs associated with a movement to integrate e-communication approaches across the continuum of health care access by patients and health care providers.

In addition, e-collaboration research can lead to an understanding of the ethical implications of advances in e-health. Such methodological approaches as social action research applications in e-collaboration can result in creating tools for implementing e-health systems (such as using e-mail exchanges to foster system compliance) while also investigating the means by these approaches work to improve e-health outcomes (Kock, 2004, 2005). What society stands to gain from inquiry into these issues is a greater understanding of how e-collaborative approaches can enhance the rapid move toward using e-technologies in achieving patient health outcomes and managing the delivery of health care systems (Gibbons, 2005).

Gilbert and Masucci (2005, 2006) have examined the ICT use frameworks among such population groups as a basis for determining the most effective means of understanding and supporting empowerment goals for those groups. A focus on e-health suggests that a consideration of values and experiences with ICTs could connect an understanding of how individuals relate educational training, ICT access, health knowledge acquisition, and health care access to examine the ultimate value placed on the adoption of e-health approaches for one's personal as well as family health (i.e., Cline & Haynes, 2001; Cotten & Gupta, 2004; Houston & Allison, 2002; Kickbush, 2001; Kivits, 2006; Reddick, 2006). And, as e-collaboration tools are examined for their potential to support equitable access to e-health systems, it is important to understand that the context within which they are used relates directly to the potential outcomes that can be achieved.

For instance, an e-health system that is designed to use e-mail reminders for checking blood pressure at home among patients with diabetes may not be effective if the health care provider examines the e-mails once per week due to workplace constraints. E-mail messages sent from a privacy-secured e-mail system within a hospital may not be accessible from remote locations by health care providers, further delaying responses to patients. Patients may not have frequent access to e-mail systems as a basis for reporting blood pressure or other health characteristics. An understanding of the use of the tool for enhancing e-health delivery should examine context as well as how different ICT use patterns shapes perspectives about (a) the benefits of e-health systems, (b) the challenges associated with learning how to use such systems, and (c) the different ways in which patients and providers approach e-communications and other e-collaboration tools for implementing such systems.

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