Is there an app for that? Anthropology takes the pulse of e-health

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Electronic devices have rapidly entered people’s lives everywhere around the world, but in such a subtle way that we’ve barely noticed the tremendous changes they have brought to our lives, including in the area of health. Not everyone is familiar with terms such as e-health, m-health and telemedicine, yet it is safe to assume that a large number of people across the globe have already had some experience with these practices.

Defining e-health, m-health, telemedicine and other related terms has proven to be a difficult task; a systematic review of academic literature by Oh and colleagues in 2005 produced 51 unique definitions of e-health alone. According to the World Health Organization, e-health primarily concerns the delivery of health information, for health professionals and health consumers, through information and communication technologies (ICT). E-health is also often understood to include electronic health records, consumer health informatics, health knowledge management, virtual healthcare teams, population health management and healthcare information systems. A growing component of e-health is m-health (mobile health), which refers to medical and public health practices, such as patient monitoring, supported by mobile devices, including mobile phones and other wireless devices. Another part of e-health is telemedicine, which focuses more specifically on the use of ICT in making diagnoses and providing treatment at a distance and is therefore more linked to medical professionals.

Earlier this year the WHO recognized e-health as one of the most rapidly growing fields in health today. This is hardly surprising, given the striking speed of the spread of the Internet and mobile phone use around the globe. The use of the Internet and mobile phones is also significantly related to seeking health information. People increasingly complement the information about health conditions they receive from clinicians, family members and fellow patients with the information they receive online. According to a recent study by the Pew Research Center, 59% of adults in the United States report having looked online for health information, and 35% of them say they have used the Internet specifically with the intention of identifying a medical condition for themselves or someone else.

E-health is increasingly present around the world. The WHO recommends that 75 target countries, including the world’s poorest 49 nations, integrate the use of ICT in their national health information systems and health infrastructure by 2015. The European Commission (EC) has included e-health in its recent action plan to tackle some of the greatest health challenges, such as population aging. India sees telemedicine as a potential solution for improving healthcare services and reaching even the most remote rural populations. Latin American and Caribbean countries have been developing online tools for remote consultation, diagnosing and teaching purposes to overcome the problems of limited availability of highly trained healthcare professionals in remote areas and limited access to healthcare among the poorer segments of populations. Moreover, a Pan-African e-Network for Telemedicine and Tele-education has been launched in cooperation with Indian ICT providers to establish an ICT-based healthcare system across the continent.

Having enormous potential for expanding health markets, e-health is changing health organization, health-seeking behavior and health-related practices substantially. There are also grand challenges that will emerge as e-health becomes even more ubiquitous, including “transforming all health workers into e-health practitioners,” as S. Yunkap Kwankam, the executive director for the International Society for Telemedicine and eHealth (ISfTeH), suggested in the Bulletin of the World Health Organization in 2012. This will without doubt involve significant transformations of doctor-patient relationship and restructing healthcare.

Because small- and large-scale projects as well as everyday practices in e-health
are relatively recent and groundbreaking, it is difficult to evaluate their impact and efficiency with quantitative research methods. As Jeannette Pols argues in her book *Care at a Distance*, ethnography is crucial as a method of investigation of these innovative practices.

Critical medical anthropologists can investigate potential new inequalities, such as an even sharper division between resource-rich urban centers and resource-poor rural locations. The potential for market expansion in e-health calls for “technical criticism” and the examination of the processes and structures that define the extent and significance of new technologies in healthcare.

Potential research topics could be related to concerns over the issues of surveillance, for example by means of electronic health records, and of privacy, confidentiality and ethics, such as in online consultation. Another question is how e-health can represent new means of monitoring and disciplining both health workers and patients in terms of regimes of accountability and performance measures.

E-health also entails numerous questions regarding the commercialization and commodification of health care that force us to re-think the very definition of “care” and the “practice” of medicine. There is a need to critically investigate online health forums and support groups and to critically assess health information available online. Furthermore, as governments seek to extend health access while controlling costs, the links between the ontologies of e-health and the political economy of health care call for scientific investigation.

Finally, international and intercontinental collaborations in telemedicine projects, such as between Latin America and the European Union as well as India and Africa, should be investigated as emerging transcultural and transnational practices that motivate an emerging global social organization and consciousness.

As e-health is a decisively global phenomenon with a significant impact on people’s understanding of care and health practices in their local contexts, critical medical anthropology of health should be attentive to the ethical, ontological and political-economic dimensions that are at stake with these emergent forms of healthcare.

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**Maj. (Dr.) Pedro Lucero,** eICU consultant, explains the capability of the telemedicine system installed here, the first of its kind at military medical centers. (Photo by Kevin Downey, Tripler Public Affairs Office) 2008-02-20-143837