Chapter XI

Considerations for Deploying Web and Mobile Technologies to Support the Building of Patient Self-Efficacy and Self-Management of Chronic Illness

Elizabeth Cummings, University of Tasmania, Australia
Paul Turner, University of Tasmania, Australia

Abstract

This chapter examines issues relating to the introduction of information and communication technologies that have emerged as part of planning for the Pathways Home for Respiratory Illness project. The project aims to assist patients with chronic respiratory conditions (chronic obstructive pulmonary disease and cystic fibrosis) to achieve increased levels of self-management and self-efficacy through interactions with case mentors and the deployment of ICTs. The chapter highlights that in deploying ICTs, it is important to ensure that solutions implemented are based on a

detailed understanding of users, their needs and complex interactions with health professionals, the health system, and their wider environment. Achieving benefits from the introduction of ICTs as part of processes aimed at building sustainable self-efficacy and self-management is very difficult, not least because of a desire to avoid simply replacing patient dependency on health professionals with dependency on technology. More specifically, it also requires sensitivity toward assumptions made about the role, impact, and importance of information per se given that it is often only one factor among many that influence health attitudes, perceptions, actions, and outcomes. More broadly, the chapter indicates that as ICT-supported patient-focused interventions become more common, there is a need to consider how assessments of benefit in terms of a cohort of patients inform us about an individual patient's experience and what this implies for terms like individualized care or patient empowerment (Muir Gray, 2004). At this level, there are implications for clinical practice and one-size-fits-all care-delivery practices. This collaborative project involves a multidisciplinary team of researchers from the University of Tasmania's School of Medicine, School of Nursing and Midwifery, and School of Information Systems. The project is supported by the Tasmanian Department of Health and Human Services and funded by the Commonwealth Department of Health and Ageing, and is due for completion in June 2008.

Introduction

The crisis in healthcare across the developed world is, ironically, partly due to the success of medical innovations in fighting disease and increasing life expectancy. Aging populations are dramatically changing the nature and demand for medical procedures, medications, and healthcare services such that the need for high-quality, cost-effective approaches to the growth in chronic and/or complex medical conditions has been widely recognized. As part of the response to this need, a number of approaches that empower patients to participate directly in their own care are increasingly being explored as a means of improving disease treatment, management, and education. Underpinning these approaches are assumptions that patients are willing and able to take on these new responsibilities and that when they do, the result will be positive in terms of quality of care and health outcomes. While most evaluations to date report some benefit, the variety of methodologies and assessment procedures used make comparisons of efficacy difficult and highlight the complexity and uncertainty associated with supporting the self-management of chronic illness (Warsi, Wang, LaValley, Avorn, & Solomon, 2004).

E-health initiatives have also been identified as a critical component in the development of responses to the health crisis. By improving opportunities for information

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/considerations-deploying-web-mobile-technologies/31160

Related Content

Transfer Learning for Highlighting Diagnosis in Pathological Anatomy Based on Immunohistochemistry
Mohamed Gasmi, Issam Bendiband Yasmina Benmabrouk (2021). *International Journal of Healthcare Information Systems and Informatics (pp. 1-23).*
www.irma-international.org/article/transfer-learning-for-highlighting-diagnosis-in-pathological-anatomy-based-on-immunohistochemistry/301232

WhatsApp and Health Communication: Its Impact on Promoting Children's Oral Healthcare Among Parents
Siti Ezaleila Mustafa, Nor Zaliza Sarmiti, Zamros Yuzadi Mohd Yusof, Nor Azlida Mohd Norand Mariani Md Nor (2022). *International Journal of E-Health and Medical Communications (pp. 1-13).*
www.irma-international.org/article/whatsapp-and-health-communication/315127

An Android Mobile-Based Environmental Health Information Source for Malaysian Context
Lau Tiu Chung, Lau Bee Thengand H. Lee Seldon (2016). *E-Health and Telemedicine: Concepts, Methodologies, Tools, and Applications (pp. 577-601).*
www.irma-international.org/chapter/an-android-mobile-based-environmental-health-information-source-for-malaysian-context/138420

Diagnosing COVID-19 From Chest CT Scan Images Using Deep Learning Models
Shamik Tiwari, Anurag Jainand Sunil Kumar Chawla (2022). *International Journal of Reliable and Quality E-Healthcare (pp. 1-15).*
www.irma-international.org/article/diagnosing-covid-19-from-chest-ct-scan-images-using-deep-learning-models/299961

Revisiting the Feature and Content Gap for Landmark- Based and Image-to-Image Retrieval in Medical CBIR
Hayit Greenspan (2009). *International Journal of Healthcare Information Systems and Informatics (pp. 68-87).*
www.irma-international.org/article/revisiting-feature-content-gap-landmark/2243