Chapter 1.5 **Health Portals:**An Exploratory Review

Daniel Carbone

Victoria University, Australia

Stephen Burgess

Victoria University, Australia

INTRODUCTION

A lack of health services has long been the thorn in the side of many communities, especially rural and regional communities. The high costs of treating ever growing chronic and complex conditions in traditional settings, where rural allied health services providers are non-existent and doctors are already overcommitted, are prompting a shift in focus to more efficient technology driven delivery of health services. Moreover, these days it is also increasingly unlikely that health professionals will encounter patients who have not used information technology to influence their health knowledge, health behaviour, perception of symptoms, and illness behaviour.

Advances in Internet technologies offer promise towards the development of an e-health care system. This article will postulate whether portal technologies can play a role facilitating the transition to such e-health care systems.

This article aims at reviewing the literature to present to the reader the barriers and opportunities out here for effective health portals. However, the article does not intend to provide a one-fits-all technical/content solution, only to make implementers and developers aware of the potential implications.

BACKGROUND

Many rural and regional communities lack the range of allied health services that are readily available in metropolitan areas, and many rural doctors who are already overcommitted, provide services that an allied health professional could readily provide (Department of Health and Ageing, 2004). The Australian Institute of Health and Welfare data shows that death and disability from chronic disease is higher in rural and regional communities, including Indigenous people. Coronary heart disease, asthma and diabetes are

the biggest killers. Participants in the Regional Australia Summit highlighted chronic disease as a major menace (Department of Health and Ageing, 2004).

This state of affairs is already prompting a change in the health care system to focus more on preventive medicine and health care away from the traditional settings (Yellowlees & Brooks, 1999). According to Yellowlees and Brooks (1999), there are three major drivers for this change:

- The *economic imperative* to restrain health care costs
- *Increasing consumerism*, and the evolution of the "informed patient"
- *Changes in communication technology*, and the evolution of the Internet

PORTALS AND HEALTH

The benefits of Web portals in aggregating information from multiple sources and making that information available to various users is well known; more importantly, they can provide the services of a guide that can help to protect the user from the chaos of the Internet and direct them towards an eventual goal (Tatnall, 2005). More generally, however, a portal should be seen as providing a gateway not just to sites on the Web, but to *all network-accessible resources*, whether involving intranets (within an organisation), extranets (for special partners of an organisation), or the Internet (Tatnall, Burgess, & Singh, 2004). In other words a portal offers centralised access to all relevant content and applications (Tatnall, 2005).

The literature on health portals tells us that the Internet offers a significant amount of health information of varying quality. Health portals, which provide entry points to quality-controlled collections of Web sites, have been hailed as a solution to this problem (Glenton, Paulsen, & Oxman, 2005). However, it has been demonstrated that the information accessible through (government

run and funded) health portals is unlikely to be based on systematic reviews and is often unclear, incomplete and misleading. Portals are only as good as the Websites they lead to (Glenton et al., 2005). However, irrelevant information could easily be filtered using a number of frameworks that can be used to evaluate the quality of Weblocated health information. For example, Sellito and Burgess (2005) have developed a set of affirmative response evaluation features identified across four quality categories: currency/authority, accuracy, objectivity and privacy. And they are used as the basis for determining the fundamental quality of Web-located health information (Sellitto & Burgess, 2005).

THE CONSUMER AND HEALTH INFORMATION

Increasingly, consumers are accessing health information via the Web (Thompson & Brailer, 2004). It has been estimated that 6.4 million Australian adults—almost half the adult population—accessed the Internet during 2000 (Gretchen, Berland, Elliott et al., 2001). This is not just an Australian phenomenon. In the United States, 52 million Americans access health or medical information on the Web (Fox & Fallows, 2003).

The existence of health portals has made life easier for the people that need this information. However, the quality of portal interfaces as well as the portal content has many times been in doubt (Bamidis, Kerassidis & Pappas, 2005). Using popular search engines may be aesthetically appealing and easy to use, but they often provide inaccurate information (Sutherland, Wildemuth, Campbell, & Haines, 2005). What is clear however, is that while most consumers still use word-of-mouth as a primary information source for health care decisions, the use of Internet information is increasing (Snipes, Ingram, & Jiang, 2005). In Australia, for example, more Internet users search

6 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/health-portals-exploratory-review/26205

Related Content

GUI-CAD Tool for Segmentation and Classification of Abnormalities in Lung CT Image

V. Vijaya Kishoreand R.V.S. Satyanarayana (2019). *International Journal of Biomedical and Clinical Engineering (pp. 9-31).*

www.irma-international.org/article/gui-cad-tool-for-segmentation-and-classification-of-abnormalities-in-lung-ct-image/219304

Mobile Virtual Communities in Healthcare The Chronic Disease Management Case

Christo El Morr (2010). *Ubiquitous Health and Medical Informatics: The Ubiquity 2.0 Trend and Beyond (pp. 258-274).*

www.irma-international.org/chapter/mobile-virtual-communities-healthcare-chronic/42937

Dengue Fever: A Mathematical Model with Immunization Program

Mohamed Derouich (2009). Handbook of Research on Systems Biology Applications in Medicine (pp. 809-824).

www.irma-international.org/chapter/dengue-fever-mathematical-model-immunization/21566

Content-Based Image Retrieval for Digital Mammography

Issam El Naqa, Liyang Weiand Yongyi Yang (2010). *Ubiquitous Health and Medical Informatics: The Ubiquity 2.0 Trend and Beyond (pp. 485-508).*

www.irma-international.org/chapter/content-based-image-retrieval-digital/42947

Proposed Threshold Algorithm for Accurate Segmentation for Skin Lesion

T. Y. Satheesha, D. Sathyanarayanaand M. N. Giri Prasad (2015). *International Journal of Biomedical and Clinical Engineering (pp. 40-47).*

 $\underline{www.irma-} in ternational.org/article/proposed-threshold-algorithm-for-accurate-segmentation-for-skin-lesion/138226$