Chapter XVII
E-Health and Online Medical Transactions
Alec Holt and John D. Gillies
University of Otago, New Zealand

INTRODUCTION

Electronic medical consultation as a means of health delivery is available worldwide. While only in its infancy in New Zealand, it is likely to gain momentum and acceptance, and will impact on both the health deliverer and consumer. Adoption of electronic consultation has the capacity to radically change the environment of healthcare. Emergence of new business models and social impacts are just two of the areas where there could be significant change. As technology is embraced by commercial, health and other interests, we see law and governance left struggling to keep up with the changes. Will the gap between the “haves” and “have-nots” widen or close? Has a beast been unleashed, or are we embarking into a brave new world where anyone can access the health information they need, regardless of socio-economic status, race or geographic situation? We discuss these questions with an emphasis on the New Zealand scene. In researching this chapter it seems that the positions about the future impact and appropriateness of telemedicine is polarized. At one pole are the “tele-evangilists” who think telemedicine will lead to a more patient-focused model. At the other pole are the “tele-luddites” who think that telemedicine introduces technology that complicates an already complex healthcare environment and will always come second to face-to-face interactions.

E-Health

Traditionally, patients and health providers have interacted face-to-face. The arrival of the telephone revolutionized communication; yet, it did not significantly alter the way health providers and patients interacted. The introduction of the Internet into the public arena throughout the 1990s has paved the way for significant advances in communication and information exchange in health. The facility of e-mail, via the Internet, allows transmission of a written message to a targeted receiver quickly and efficiently. This chapter predicts profound alterations in healthcare infrastructure, providing exciting opportunities at all levels of healthcare from individual providers to large multinational corporation initiatives.

E-mail consultation has numerous opportunities for patients including, for example, convenience, the ability to access second opinions and the ability to choose from a wide range of specialists who might otherwise have been inaccessible. Jones (2000) suggests that although there are many concerns over the rise of “Web doctors,” numbers are likely to increase (Jones, 2000). A study analyzing requests for consultations at a free paediatric e-mail consultation service for parents concluded that: parents would rather use e-mail than face a “harassed” doctor for further explanations, and parents were not overly concerned about posting personal details that may not be secure. The authors concluded that e-mail was a legitimate form for patients to receive disease-specific information in a timely manner (Borowitz and Wyatt, 1998).

Apparently, many patients find it difficult to discuss embarrassing or “taboo” subjects with their doctors. Howe (1997) reports that this anonymous, faceless form of consultation can be at once personalized and anonymous (Howe, 1997). In New Zealand, Dr. Mulholland, a Taranaki general practitioner, operates a commercial e-health service called doctorglobal that is reported to be outstandingly successful. This type of enterprise is gaining the attention of professional medical associations who believe that some standards and protocols should be set (Coddington, 2000). Conversely, commenting on the launch of doctorglobal, Dr. Wiles, chairman of the New Zealand College of General Practitioners, described e-mail consultation as “dangerous nonsense” (Howe, 1997). However, there are publicly funded initiatives in New Zealand taking advantage of the possibilities offered by e-health include (Mandl et al., 1998): The Waikato Tele-Dermatology, The Waitemata Tele-Psychiatry, The South Island Tele-Medicine Project, The Christchurch Tele-Medicine Service and The New Zealand Tele-Paediatric Service.

The use of electronic signatures for prescriptions enhances the drive for a complete package of online health. It in effect activates the online consultation by allowing for the prescription and notes to be processed online. Ultimately the consultation can be achieved while the patient is at home and the prescription can be delivered to their front door. In New Zealand 68,000 prescriptions are filled each day. The latest Pharmac figures suggest 48 million scripts per year (Improving Our Health, 2000). Currently, health professionals write prescriptions on paper. The patient then gives the written prescription to the pharmacist who forwards it to Health Benefits Ltd. for reimbursement. There are major developments overseas to
Related Content

Architectural Guidelines and Practical Experiences in the Realization of E-Gov Employment Services
[www.igi-global.com/article/architectural-guidelines-practical-experiences-realization/55494?camid=4v1a](www.igi-global.com/article/architectural-guidelines-practical-experiences-realization/55494?camid=4v1a)

An Empirical Investigation of Factors Affecting Web-Based and Face-to-Face Student Satisfactions with Course Website
[www.igi-global.com/article/empirical-investigation-factors-affecting-web/65745?camid=4v1a](www.igi-global.com/article/empirical-investigation-factors-affecting-web/65745?camid=4v1a)

A Simulation Study to Derive the Optimal Cycle Length for Feeder Transit Services
Shailes Chandra, Chung-Wei Shen and Luca Quadrifoglio (2013). *Implementation and Integration of Information Systems in the Service Sector* (pp. 142-162).
[www.igi-global.com/chapter/simulation-study-derive-optimal-cycle/72548?camid=4v1a](www.igi-global.com/chapter/simulation-study-derive-optimal-cycle/72548?camid=4v1a)
Measures for Cloud Computing Effectiveness Assessment
[www.igi-global.com/article/measures-for-cloud-computing-effectiveness-assessment/120244?camid=4v1a](www.igi-global.com/article/measures-for-cloud-computing-effectiveness-assessment/120244?camid=4v1a)