Chapter 45
An Overview of E-Health Development in Australia

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ABSTRACT

This chapter is a discussion of e-health development in Australia. The Australian government has been very proactive in e-government and applications of e-government such as e-health in the last five years. E-health is an important application of e-government in Australia for innovation of the public sector, as well as due to its very sparsely populated large rural areas. E-health development in this chapter is analysed using Layne and Lee's (2001) e-government development model due to the similarities in the stages of development of both applications. This chapter illustrates that in Australia e-health development is mostly at the informational stage. It also indicates that e-health developments can be established in four stages of information; transaction; vertical and horizontal integration of services.

INTRODUCTION

E-health is a new application of e-government, widely adopted around the world. Australia, like its international counterparts is also adopting e-health to improve health organisational processes and to deliver relevant services and information quicker to its citizens. The public sector regards IT as a crucial component in reinventing government. The utilization of IT by government has enabled efficient service-state delivery, improved effectiveness and reduced bureaucracy (Sarikas & Weerakkody, 2007).

E-government has been defined as the use of ICTs to improve the efficiency, effectiveness, transparency, and accountability of government

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(The World Bank, 2006); use of ICTs, particularly the Internet, to provide optimal public administration services to citizens (OECD, 2003); and the use of web-based information systems by governments to enhance the delivery of public services to citizens and businesses (Silcock, 2001). E-government is similar to e-business in relation to stages of development (Janssen, Kuk & Wagenaar, 2008). The similarities include establishment of an Internet presence, application of different kinds of models and creating customer value (Layne & Lee, 2001). E-government development is an extension of e-business principles (Janssen, Kuk & Wagenaar, 2008), and e-health, e-tax, e-citizenship, e-democracy and e-voting are major applications of e-government.

In this chapter we discuss e-health development based on e-government and e-business development models. In Australia, Healthcare is 87 billion dollar service industry (Department of Human Services, 2008) for the prevention, management and response to health risks for the nation. This accounts to 9% of Australian GDP. Such a strategy is aimed to provide a safer, high quality, more equitable and sustainable health system for Australians from all regions, including patients from rural and remote areas (Department of Human Services, 2008). Although e-health is a major application of e-government services in Australia, to date there is a lack of any comprehensive evaluation on the development and maturity of e-health services. This chapter aims to provide an insight into the development and maturity of e-health services in Australia.

The remainder of this chapter is structured into four sections. Section 2 is a review of literature on e-government, e-health and the e-government maturity model. Section 3 describes the research method employed in this study. Section 4 analyses the development and maturity of e-health services in Australia. Finally, the last section concludes with the main research findings, an overview of the current state of Australian e-health services.

LITERATURE REVIEW

E-government is the use of information technology in general, and e-commerce in particular, to provide citizens and organizations with more convenient access to government information and services to citizens, business partners and suppliers, and those working in the public sector (Turban, 2002). Other definitions of e-government suggest that it is the transformation of public administration towards modern administration and democracy (Wimmer & Traunmuller, 2001); and the use of technology to simplify and automate transactions between governments, constituents and business (Milford, 2000). The Australian government has been actively exploiting information technology (IT) to enhance efficiency and accessibility in the provision of e-services to citizens. Singh et al. (2008) advocate that in Australia e-government services are deployed by all three levels of administration, the Federal, State and Local. They also advocate that the most popular e-government services in Australia to date are informational, followed by services that are interactive such as health (Medicare) and transactional which include e-tax and vehicle registration. They also confirm that citizens prefer bundled services with access to from a one stop shop. Other e-government services adopted by the government of Australia include e-procurement and e-health (AGIMO, 2006). The focus of this chapter is e-health.

E-health refers to all forms of electronic healthcare delivered over the Internet, ranging from informational, educational and commercial "products" to direct services offered by professionals, non-professionals, businesses or consumers themselves (McLendon, 2000). It also includes a variety of the clinical activities that have been traditionally known as telehealth, delivered via the Internet (Eysenbach, 2001) Simply stated, e-health is making healthcare more efficient, while allowing patients and professionals to do the previously impossible (McLendon, 2000). Medi-

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