Chapter 14
Evaluating and Designing Electronic Government for the Future: Observations and Insights from Australia

Nigel Martin
The Australian National University, Australia

John Rice
University of Adelaide, Australia

ABSTRACT
This paper uses data from a program of customer interviews and focus group research conducted by the Australian government to develop an electronic services evaluation and design framework. A proven theory building approach has been used to develop and confirm the various components of electronic government (e-government) use and satisfaction from original government studies conducted in Australia and to create the new evaluation framework. Building on the extant e-government literature, the reintroduction of the original data into the framework yielded some emergent observations and insights for future e-government design, including the somewhat paradoxical importance of human contacts and interactions in electronic channels, service efficiency and process factors that impinge on customer satisfaction and dissatisfaction, and a potential growth trajectory for telephony based e-government for older segments of the community.

INTRODUCTION
In 2004, the Australian Government commissioned an exploratory study into Australians’ use and satisfaction with e-government services over 2004-2005 (Commonwealth of Australia, 2005). This single use study was repeated in 2006, 2007 and 2008 to sample services use and customer satisfaction over time (Commonwealth of Australia, 2006, 2007, 2008). The intent of the study was to explore the following: (1) how people use the electronic and physical service delivery channels...
to contact government (i.e. the study concentrated on the electronic and physical service domains); (2) satisfaction with these service channels, and the reasoning for the levels of satisfaction and dissatisfaction; (3) motivating factors and barriers to using online and telephony service channels; and (iv) preferences for future services delivery. Importantly, the study was also directed at assessing what potential changes in the Australian community (e.g. demographic, socio-economic, technological) might impact future e-government offerings. However, while the methodology used telephone interviews combined with community focus groups to explore specific service delivery issues, no contextual or evaluative model was developed for the study.

Over the past twenty years, researchers and analysts have asserted that the development of a logical or contextual evaluation model is an important cornerstone of social science investigations, commercial assessments and research inquiries (Bernard, 2000; Bickman 1987, 1990; Bryman, 2004; Chen, 1990; Cooper & Schindler, 2007; Weiss, 1998; Wholey et al., 1994). Experts suggest that the model forms a useful frame of guidance for the description of constructs and their inter-relationships, including contextual factors, enabling objects, outcomes and outputs, integrated behaviours, and future intentions and preferences (Wholey, 1983). Accordingly, our study was motivated by the requirement to identify and model e-government constructs and more fully comprehend their relationships. In doing this, we are able to contribute to a broader understanding of electronic public services mechanisms and what directions future e-government designs might take in the light of changing human and technological contexts (e.g. ageing populations, growing work commitments, varying technology skill levels). This study combined theory building practices with the original federal government studies on electronic services use and satisfaction to create an evaluation model. Some of the original data has been reanalysed in the context of this new model in order to recursively inform future service design directions and options for government.

The theory building approach is suited to this study as it calls for a detailed examination and analysis of the component parts (i.e. the original research data and initial results) and the mapping of the components or constructs into a higher level representation of the phenomenon under analysis (i.e. the evaluation model) (Berkley & Gupta, 1994; Glaser, 1992; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1990). Indeed by using theory building, the abstraction and specification of the evaluation model has offered additional insights on e-government design not previously exposed during the initial analysis. Accordingly, the approach adds to our overall understanding, and highlights the importance, of technical e-government services and process design (Chen et al., 2006; Goldstein et al., 2002; Hill et al., 2002; Karwan & Markland, 2006; Tax & Stuart, 1997), particularly in the light of such a substantial consumer research program. The results of this study are considered to be internationally applicable and comparable.

The balance of the article is developed as follows. We discuss the background to the original study and data collection by the Australian government. Next, we develop a discussion of the extant e-government literature that relates primarily to electronic services design, implementation and delivery into the community. This is followed by a description of the research method, including the theory building, and compilation of the proposed evaluation model. Important trends and results, including alternative insights on electronic services design, from the reintroduction of the data into the model are discussed. The paper concludes with a summary of key remarks.