

Chapter III

Limitations of Evolutionary Approaches to E-Government

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INTRODUCTION

Information and communication technologies (ICTs) have the potential to improve the quality of the overall citizen experience when interacting with government, including information and services (Bourquard, 2003; Dawes, Pardo, & DiCaterino, 1999; Garson, 2004; Gartner, 2000; Grönlund, 2001). State and local governments are increasingly using ICTs in their operational tasks as well as their provision of public services (Holden, Norris & Fletcher, 2003; Moon, 2002; West, 2005). Many of these governments have created Websites and portals, which provide information about the government agencies and, in some cases, electronic transactions such as tax payment systems, online communities, job search, licensing, and vehicle registration, among others. Through the incorporation of these new features and applications, technological and organizational sophistication have been systematically added to e-government initiatives throughout the last few years (Holden, Norris & Fletcher, 2003; Moon, 2002; West, 2005). However, there are few sys-

tematic approaches to evaluate the quality and impact of these initiatives.

One of the most frequently used approaches to understand and evaluate e-government is based on the construction of evolutionary stages, which are assumed to be independent and consecutive (Gil-Garcia & Martinez-Moyano, 2005; Moon, 2002; Sandoval-Almazán & Gil-García, 2006). This evolutionary approach allows an assessment and comparison among e-government initiatives, including Web portals. However, it has important limitations. This study assesses the functionality of Mexican state portals in two consecutive years (2005 and 2006) and discusses some of these limitations. Based on a questionnaire containing qualitative and quantitative items, this research is guided by three interrelated hypotheses. First, e-government stages are not mutually independent and a single Web portal can present characteristics of multiple stages. Second, e-government stages are not necessarily consecutive and therefore, some portals can present only characteristics of an early stage (i.e., information) and an advanced stage (i.e., political participation). Finally, the linear

progression assumed in evolutionary models is problematic when applied to some specific realities. For political, managerial or technical reasons a portal can be considered in an advanced stage one year and be considered in an early stage the next year.

This chapter is organized in seven sections, including this introduction. Section 2 provides an overview of evolutionary approaches to e-government and states some of their most important characteristics and assumptions. Section 3 describes the research method used in this study. Section 4 presents the main findings and discusses the three main hypotheses. Section 5 proposes some future trends within this topic. Finally, section 6 provides some final comments and section 7 suggests areas for future research.

BACKGROUND: EVOLUTIONARY APPROACHES TO E-GOVERNMENT

Electronic government is not a well-defined concept and scholars and practitioners have suggested a great number of definitions (Gil-Garcia & Luna-Reyes, 2006; Prins, 2001; Schelin, 2003). For this study, electronic government is the use of information and communication technologies (ICT) to improve and facilitate citizens' relationships with government through democratic procedures, cost-effective transactions and efficient regulations, all of which enhances this relationship. Understanding and evaluating e-government is at least as difficult as defining it with precision and taking into consideration all the important aspects.

In recent years, different approaches to understand and evaluate e-government have been proposed (for reviews see Gil-Garcia & Luna-Reyes, 2006; Schelin, 2003). One of the most frequently used approaches is the evolutionary perspective, which creates stages and analyzes e-government initiatives according to the characteristics and technical features found in these stages (i.e., presence, information, integration). The evolutionary approach is useful for Web portal evaluation because attempts to measure the degree of innovation and provides clear guidance for the development

and improvement of government Web sites (Sandoval-Almazán & Gil-García, 2006).

This approach maintains the assumption that there is an evolution towards electronic government (Gil-Garcia & Martinez-Moyano, 2005; Layne & Lee, 2001). Some authors contend that each one of the stages is already electronic government. Others delimit in which phases a government can be considered electronic. After reviewing different ways to present the stages of e-government, Sandoval-Almazán & Gil-García (2006) present the following model as a summary of previous theoretical developments (see Table 1).

RESEARCH METHOD

Based on the main stages and characteristics of the evolutionary approach, we developed a questionnaire and applied it to the Mexican state portals. The Mexican state portals were observed and analyzed in January of 2005 and 2006. The features and content of the portals were measured using 38 questions related with the different stages. The survey was applied in a 30-45 minute session for each of the 32 Mexican state portals, including the federal district. The other part of the survey, which is not reported in this paper, contains 12 qualitative measures with a multiple-choice answer system.

UNDERSTANDING SOME LIMITATIONS OF EVOLUTIONARY APPROACHES TO E-GOVERNMENT: THE MEXICAN STATE PORTALS 2005-2006

This section presents the results of the analysis of the Mexican state portals in 2005 and 2006. First, it highlights the main findings of applying the evolutionary approach to the evaluation of the portals. Then, based on these findings, a discussion of the limitations of evolutionary is presented, following the three initial hypotheses of this study.

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