

Reflecting on E-Government Research: Toward a Taxonomy of Theories and Theoretical Constructs

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ABSTRACT

After more than a decade of research in the field of e-government, it is now timely and appropriate to reflect upon the overall developmental directions in the area. This paper explores research progress to date by systematically analyzing the existing body of knowledge on e-government related issues, and reveal if there is lack of theoretical development and rigor in the area. Usable data relating to e-government research currently available were collected from 779 research articles identified from the ISI Web of Knowledge database, and by manually identifying relevant articles from dedicated journals on electronic government such as Transforming Government: People, Process, and Policy (TGPPP), Electronic Government, an International Journal (EGIJ), and International Journal of Electronic Government Research (IJEGR). Based on the investigation of the various studies, findings reveal that generic e-government applications were explored more than any specific applications, and the technology acceptance model (TAM) was the most utilized theory to explain research models. Although a large number of theories and theoretical constructs were borrowed from the reference disciplines, their utilization by e-government researchers appears largely random in approach. The paper also presents limitations and further research directions for future researchers.

Keywords: Applications, E-Government, Taxonomy, Theoretical Constructs, Theories

INTRODUCTION

Electronic government refers to the use of information technology to enhance the efficiency, effectiveness, transparency, and accountability

of the public governments (Kraemer & King, 2003; World Bank, 2000). Viewed as essential, yet inevitable transformation projects (Jaeger, 2003), the implementation of e-government systems has been attracting growing research interest, and is believed to represent one of the most significant information technology (IT) implementation and organizational transforma-

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tion challenges of the next decades (Marche & McNiven, 2003; Warkentin et al., 2002).

Within the last twelve years, governments across the world have attempted adopting electronic government as a means of delivering information and services to citizens 24 hours a day, seven days a week. Nearly all national governments, most sub-national or state governments, and large numbers of local governments have established websites through which they provide e-government (Norris & Lloyd, 2006) services to the citizens, employees of the private and public sectors, and various organizations at different levels.

After a few years of rapid growth in this field, it is now time to pause and reflect on the state of e-government research — what is it all about? The e-government field emerged in the late 1990s as a context within which to share experiences among experts. As the field has grown to considerable size, a substantial intellectual wealth has also been generated; hence, questions about both austerity and relevance should be asked (Gronlund, 2005). One of the major criticisms of existing e-government research is lack of theoretical and methodological rigour. However, such criticisms are largely based on views and opinion and no attempt yet made to explore theoretical diversity and rigour in existing e-government research. Therefore, the aim of this paper is to present retrospections of the existing e-government research by exploring the diversity of theories and theoretical constructs utilized to examine the various issues within e-government context. The main focus is to identify different theories, theoretical models, constructs and variables being used for such research studies. It also explores the various e-government applications that are implemented in various countries and subsequently examined and published by e-government researchers.

The remaining paper is organized as follows: The next section will provide an overview of the research method utilized. The findings will then be presented and discussed in subsequent sections. The last section of this paper will outline conclusions, limitations and future research directions.

METHODOLOGY

This study employed a bibliometric and systematic review approach to identify, collect and analyze relevant e-government publications in order to achieve specified aim. Firstly, we collected the list of all the articles from the comprehensive online database *ISI Web of Knowledge* by using some of the keywords such as “electronic government”, “online government”, “digital democracy”, “adoption”, “acceptance”, “usage”, “diffusion”, “implementation” and “impact” with certain permutation and combination to obtain the appropriate articles in our field of research. A more restricted search process was used by the combination of *logical OR* and *logical AND* to filter out those articles which are mainly in the area of IT adoption, diffusion, usage, application and implementation. We obtained a list of 823 articles on electronic government from the keywords. Our main intention was to find out all the possible articles on electronic government acceptance, adoption, implementation, usage, and diffusion from different conferences and journals. These 823 articles were then looked for their full availability through *Google Scholar*®. Out of total 823 articles, we got an access of 433 journal and conference articles.

In addition to these articles, we also explored articles from dedicated journals like *TGPPP*, *EGIJ*, and *IJEGR*. *TGPPP* had total of 85 articles on electronic government in all its editions from the year 2007 till year 2010 and 26 of them were found to be relevant for our purpose. Similarly, 91 out of 171 articles from *EGIJ* and 83 out of 90 articles from *IJEGR* were found appropriate for this study. For analysis of the constructs used and their significance, the different electronic government applications explored, and the various theories or models applied while conducting the studies, all 779 available articles were analyzed. It was found that total 434 articles were appropriate consisting of the articles from *ISI Web of Knowledge* and the dedicated journal articles. These 434 usable articles were again scanned for their use of constructs and variables, and the use of

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