The Role of End User in E-Government Application Development: A Conceptual Model in the Agricultural Context

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ABSTRACT

This paper describes a new conceptual approach of e-government application development in which end users such as government managers, responsible officials and citizens at different levels can engage in effective service delivery, particularly in the agricultural sector. This approach provides end-user specific customizable provisions in which responsible government officials can design public services for the target end-user groups/local citizens such as primary producers. In the G2C (Government to Citizen) dimension, the author focuses on a hypothetical case of an e-government solution that provides various agricultural extension services such as training, awareness, consultation services, and knowledge sharing services provision, according to individual or farming requirements. This initiative reinforces a shift from the traditional information portal process to a new provision where citizens/primary producers can actively contribute in designing their useful services from the relevant government agencies. This paper presents a generic process model and identifies the critical interplaying roles between the end-user groups. The study argues that the process model may be operationalized in various other government service sectors.

Keywords: Citizen, E-Government Services, End User Roles, Government to Citizen (G2C), Interplaying User Roles

INTRODUCTION

Over the past few years many governments around the world have engaged in various ICT-enabled transformational activities. This activity involves new process development, namely, in the rapid use of electronic governance for enhancing ways of government interaction with the most important entity, the citizen, in terms of providing various public services (Bekkers & Homburg, 2007; Verdegem & Verleye, 2009). In many sectors, including agriculture, government agencies face challenges on effective provision of public services to fulfill the rapidly changing needs of their citizens (Bertot & Jaeger, 2008; Ntaliani et al., 2009; Gamper & Augsten, 2003). Recently, user-centric e-government (electronic government) strategies
have become popular for more citizen-driven approaches in service delivery (Verdegem & Verleye, 2009; McGovern, 2007). However, a citizen-driven approach in e-government involves many challenges beyond those dealing with citizens’ engagement and their active participation. Citizen-driven e-government must deal with the paradox of the critical interplaying roles between the end-user groups related to government service delivery. Studies on the interplaying roles of the stakeholders and their boundaries are still emerging and may be of increasing interest to researchers in the field of end-user computing for e-government. Bertot and Jaeger (2006) argue that user-centered e-government must be a priority for governments in order to improve the interactions between governments and citizens.

To address this growing call, the study identifies the requirement of the critical interplaying roles of the relevant end users for enhancing the interaction between government and citizens. The objective of this study is to outline a process of government extensional service delivery in an agricultural sector. The interplaying roles in the citizen-centric process are defined for the non-technical end-user groups such as government managers, extension professionals, and citizens in the e-government service creation and delivery. This study is informed through the tailorable design theory (Germonprez, Hovorka, & Collopy, 2007), and based on a solution model (Miah, 2009) in an agricultural solution development context. It is suggested that the equally significant end users’ role is not only paramount for improving government internal processes, but also for achieving citizens’ engagement in e-government rollout and its successive use (Luk, 2009; Jain & Kesar, 2008). The study undertakes a hypothetical problem of obtaining government extension services to the farming community in a developing country context.

With rapidly growing end user provision in technologies, a range of e-government services needed to adapt to users’ provisions. Appropriate adaptations allow citizens to be empowered through their participation in delivering services that are tailored to their specific requirements. Verdegem and Verleye (2009) suggest that user-centered principles in e-government are becoming more prominent because most of the public services are changing into a demand-driven delivery approach (Kunstelj, Jukic, & Vintar, 2004, 2007; van Dijk, Peters, & Ebbers, 2008). Findings from the studies (Schedler & Summermatter, 2007; van Dijk, Peters, & Ebbers, 2008) suggest that the use of customizable technology to support relevant end-users’ roles are essential to enhancing citizens’ participation in the governance process, as opposed to the traditional static e-government way based on information portals. In addition, a recent study by Sharif and Manian (2010), on “citizen’s features as success indicators,” reinforces the citizen-driven method in e-government service development. West (2004) suggests that greater user satisfaction can be achieved through efficient e-government systems. To achieve the tailorable design needs through a citizen-driven approach in service development, the key design factor depends on how effectively government officials (the service creators) play their role in developing services for the target citizen groups. This requirement can be linked to the tailorable design theory. A tailorable technology accommodates dynamic requirements of end users with some forms of ‘recognizable features’ for enabling users to fit the technology through its features (Germonprez et al., 2007). The proposed process facilitates specific features for end users within their own context. In the instance of extension service delivery in e-government, different end-user groups could utilize this technology for developing and delivering the services.

A previous solution model, in the Australian rural industry context, promises to meet the dynamic requirements of both parties, the service creators, and service users (Miah, Kerr, & Gammack, 2009; Miah, 2009). In other words, this study introduced an approach in which government extension professionals in the agricultural sector can develop a service for end users such as farmers and give them an array of customization options to develop the context-specific solutions. It is argued that
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