

Chapter 97

Toward a Theory of E–Government Interorganizational Collaboration: Generic Structures for Cross– Boundary Requirements Analysis

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ABSTRACT

In this chapter, the authors present a series of causal maps that constitute an initial effort in the creation of a generic theory of interorganizational cross-boundary electronic government (e-Government) projects. Such causal structures are the result of a simulation-based study in which they explored the interactions and social processes associated with the development of trust and knowledge sharing in the development of an interorganizational e-Government application in New York State: the Homeless Information Management System (HIMS). The chapter includes the main theoretical and practical implications of the modeling and simulation work, as well as discussion of some paths to continue the exploration of collaboration in this specific context. The causal maps are organized around three themes that emerged during the modeling process. The first theme is related to trust development, and its recursive interactions with knowledge sharing and learning. The second theme is related to the importance of achieving stakeholder engagement by establishing a trusting environment as opposed to the use of authority or coercive mechanisms. The last theme is associated with the understanding of requirement definition as a social process of learning and knowledge transfer. The authors believe that these recursive structures constitute an alternative to the factor approach to understanding success and failure in digital government.

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INTRODUCTION

Information is one of the most valuable resources in government. Information is not only a major input to policy development and program management, but it is also a primary product of government activity (Andersen & Dawes, 1991). In this sense, implementing information systems and information technologies to support government activity has been a key component of programs to improve government services (Dawes, 1996; Dawes, Cresswell, & Pardo, 2009; Luna-Reyes, Gil-Garcia, & Estrada-Marroquin, 2008), to improve effectiveness and efficiency in managing administrative and business processes (Ojo, Janowski, & Estevez, 2011; Scholl, Kubicek, Cimander, & Klischewski, 2012), to improve the effectiveness in emergency response (Soeparman, van Duivenboden, Wagenaar, & Groenewegen, 2008; Williams et al., 2009), or, more generally, to promote public reform (Luna-Reyes, Gil-Garcia, & Cruz, 2007). In the last 15 years, all these efforts to use Information Systems (IS) and Information Technologies (IT) to support government activities have been called electronic government or digital government (e-Government).

In many cases, e-Government applications require the collaboration of different actors in the public and private sector (Chun, Sandoval, & Arens, 2011; Luna-Reyes et al., 2007; Williams et al., 2009). Collaborative approaches to government are not new. In fact, collaborative approaches to solve complex public problems have been appealing to public managers for many years because of cost savings, resource sharing or improved efficiencies (Bardach, 1998). Moreover, during the last few years, a trend in creating networks of organizations to tackle such problems has emerged (Ansell & Gash, 2008; Chen, 2010; Dawes et al., 2009; Fedorowicz, Gelinis Jr., Gogan, & Williams, 2009; Luna-Reyes et al., 2007; Williams et al., 2009). Sharing information, and using information technologies to promote collaboration in such networks, are considered important

components for the success of these partnerships (Dawes et al., 2009; Hale, 2011). In fact, many of these collaborations involve the development and implementation of interorganizational e-Government systems to facilitate information flows and ultimate network success in solving the problem that brought all organizations together. In a way, information technologies and interorganizational information systems can be seen as promoters of the creation of organizational networks (Bensaou & Venkatraman, 1996; Dawes et al., 2009; Goldsmith & Eggers, 2004). In spite of the advantages of collaboration and current trends in network creation, we still have a limited understanding of how to manage the collaboration process (Dawes & Pardo, 2003; McCaffrey, Faerman, & Hart, 1995). Moreover, although government spending worldwide was about 428.38 billion US dollars in 2009, failure rates for these kinds of projects are a major concern (Ojo et al., 2011). In general, IT projects imply high levels of risk (Abdel-Hamid & Madnick, 1991; Fedorowicz et al., 2009). Projects crossing organizational boundaries only increase such risk of failure (Yang, Zheng, & Pardo, 2012). Most of these failures can be traced back to the early stages of requirement definition of projects (Byrd, Cossick, & Zmud, 1992; Gottesdiener, 2003). For some authors, collaboration is still an elusive concept that requires more research to understand key success factors in well-functioning networks (Chen, 2010). We require better theories for both explaining and managing collaborations.

In this chapter, we present a series of causal maps that constitute an initial effort in the creation of a generic theory of interorganizational collaboration. Such causal structures are the result of a simulation-based study in which we explored network collaboration in the development of an interorganizational information system in New York State. Although an examination of success factors is common in trying to understand success (Gil-Garcia & Pardo, 2005; Larsen, 2003; Yang & Maxwell, 2011), we follow an alternative approach focusing on process dynamics, including

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