Chapter XIII
The Role of Knowledge Management Security Requirements for E-Government

Pauline Ratnasingam
University of Central Missouri, USA

ABSTRACT

E-government has gained a lot of attention and public interests of government, technology providers, and researchers. Despite the growing awareness among policy makers about the prospects of the new technology for the government, past research suggests that the quality, security, and the timeliness of the services provided by e-government could be described as poor, and in many ways is still in its infancy. Further, IT security has gained tremendous importance in recent years with tragic events such as 9/11 and natural disasters caused by hurricane Katrina. The purpose of this chapter is to examine the role of knowledge management security requirements for e-government. Drawing upon the theory of knowledge management, and security requirements we develop an integrated framework of knowledge management, and security requirements for e-government. This study contributes to theory of e-government as it introduces knowledge management, and the importance of security requirements for e-government. Further, it contributes to practitioners as it increases their awareness on the importance of the security requirements in the context of e-government.

INTRODUCTION

At present e-government has gained a lot of attention and public interests of government, technology providers and researchers. The use of IT and the Internet in the public sector is growing rapidly with innovations including government web sites, e-transactions such as; e-tax filing accessing e-forms and electronic kiosks. In the USA, 23% of the federal, state and local government agencies currently offer at least some services online and this figure is growing rapidly each year. E-government is defined as the use of information and communication technology in public administration to change structures and processes of government organizations (Lofsredt, 2005). It is the ability for government to provide access to services and information round the clock (i.e., twenty four hours a day, seven days a week). The definition include the interactions between government to citizens (G2C), between government and public (G2P), government to business (G2B), government to other government departments (G2G), and between government and its own employees (G2E). G2C or G2P implies that citizens are allowed to retrieve government information and complete government transactions via online forms such as; license renewal and e-filing of their taxes. G2E implies that government agencies are allowed to interact with their employees online. G2G supports online communication and interaction between government agencies and G2B allows businesses to retrieve timely information for government agencies online (Carter & Belanger, 2004). The benefits of e-government include; increasing efficiency, effectiveness, accountability and collaboration with government agencies so that government employees can spend more time on value added services.

Despite the growing awareness among policy makers about the prospects of the new technology for the government, past research suggests that the quality, security and the timeliness of the services provided by e-government could be described as poor and in many ways is still in its infancy (Grounlund, 2004; Lofsredt, 2005). Public services traditionally are slower to embrace innovative management practice and are beginning to recognize the importance of knowledge management (Taylor & Wright, 2004). For example, Metaxiotis and Psarras (2005) suggest that e-government and knowledge management based public administration are still in a state of evolution.

Protecting e-government's I.T. security infrastructure from hackers, viruses, theft of data, denial-of-service attacks and intruders has assumed an extremely important role. Further, since e-government offers a remarkable set of opportunities to increase transparency of government operations, improving access to information and access to government services and giving public sector employees a greater role in their own governance and increasing their awareness of security requirements in knowledge management is critical.

Alternatively, IT security has gained tremendous importance in recent years with tragic events such as; the 9/11 incident and natural disasters caused by hurricane Katrina. Further, with the proliferation of electronic information systems that facilitate the exchange and storage of sensitive information it is critical for public sector employees to be aware of the security requirements involved in knowledge management. We first discuss the stages of e-government growth followed by the components of knowledge management, and security requirements that impact knowledge management in e-government. Drawing upon the theory of knowledge management, and security requirements we develop an integrated framework of knowledge management, and security requirements for each stage of the e-government growth.

Related Content

Strategic Positioning and Resource-Based Thinking: Cutting Through the Haze of Punditry to Understand Factors Behind Sustainable, Successful Internet Businesses
John Gallaugher (2009). *Emergent Strategies for E-Business Processes, Services and Implications: Advancing Corporate Frameworks (pp. 92-103).*
www.irma-international.org/chapter/strategic-positioning-resource-based-thinking/10052

Co-ordination and Specialisation of Semantics in a B2B Relation
Fred van Blommestein (2012). *Handbook of Research on E-Business Standards and Protocols: Documents, Data and Advanced Web Technologies (pp. 365-386).*
www.irma-international.org/chapter/ordination-specialisation-semantics-b2b-relation/63479

Online Engagement and Impact: The Case of Greek Politicians during the Financial Crisis
Savvas Papagiannidis, Teta Stamatiand Hartmut Behr (2013). *International Journal of E-Business Research (pp. 47-66).*
www.irma-international.org/article/online-engagement-and-impact/101737

Requirements Metadata Driven Dynamic Configuration of Business Processes
Marcus Spiesand Azzelarabe Taleb-Bendiab (2011). *Electronic Business Interoperability: Concepts, Opportunities and Challenges (pp. 185-209).*
www.irma-international.org/chapter/requirements-metadata-driven-dynamic-configuration/52154

The Vitality of Price Comparison and Product Display for Assortment Satisfaction: Online Footwear Purchase
Pranay Verma (2019). *International Journal of E-Business Research (pp. 51-68).*
www.irma-international.org/article/the-vitality-of-price-comparison-and-product-display-for-assortment-satisfaction/234707