Process-Aware E-Government Services Management: Reconciling Citizen, Business and Technology Dynamics

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EXECUTIVE SUMMARY

E-government is becoming a reality rather than a theoretical ambition; however, achieving the e-government anticipated benefits is still illusive, which is exacerbated by the continuous and ever changing business processes, IT, and user requirements. This article outlines the current state of e-government research and the challenges emerging from the need to integrate citizen, business, and technology into seamless e-government solutions and services. In addition, the article proposes a semiotics-informed framework for process-oriented e-government services, modeling, and management, which is used and tested on laboratory-based case studies.

Keywords: e-government; natural modelling; process management; separation of concerns; self-governance; semiotics

ORGANISATIONAL BACKGROUND

E-government is often seen as an instrument for public sector modernisation, including efficiency improvement and wider-access to national and regional public services via ICT (Liu et al., 2005b). Though, as reported in early studies (Adeshara et al., 2004; Cohen & Eimicke, 2002; Dittrich et al., 2002; Huang et al., 2005; UNEAS, 2003; Wagner et al.,
2006), the level of adoption of e-government varies widely across regional and national boundaries, and is very much affected by economics and sociotechnical factors, with little to no citizen involvement in the design of e-government services. Such a participative approach is already provided in many e-commerce portals, and has been highlighted in the UK 7-point action plan (Prime Minister’s Strategy Unit, 2005), setting a priority to implementation personalisation of eServices, as highlighted by Leadbeater (2004), ‘By putting users at the heart of services, enabling them to become participants in the design and delivery, services will be more effective by mobilising millions of people as co-producers of the public goods they value.’

Much research and development is now underway focusing on many aspects of e-government ranging from e-citizen, e-services, to e-administration, with focus of many research concerns including risk management, data and knowledge management, and interoperation, information interchange standards and design frameworks for e-government systems such as: Yet, numerous recent reports are still reporting on the general ‘software crisis’ (Gibbs, 1994; RAE & BCS, 2004) within e-government; that is, e-government services are failing to deliver promised functionality (The Economist Reportage, 2000; Heeks, 2003), including on cost and on time delivery.

SETTING THE STAGE

Given year-on-year cost saving demands on the public sector to reduce operating costs through more efficient purchasing strategies (Gershon, 2004; Office of the Deputy Minister-ODPM, 2003), e-Reverse Auctions (e-RAs) represent a viable strategy to support objectives. However, in spite of the perceived cost saving benefits, recent studies (e.g., B2B Research Centre, 2003; Beall, Carter, Carter, Germer, & Jap, 2003; Emiliani, 2006; Jap, 2002, 2003) suggest some deficiencies in the e-RAs process. Emiliani (2006), points out that ‘poor sourcing decisions, higher costs, and less cooperative supplier relationships are a common result of e-RAs—the opposite of what buyers hoped to achieve from e-RAs’ (p. 6). Lapiedra, Smithson, Alegre, and Chiva (2004), for instance, found that suppliers who had won an e-RA by bidding below their margins could quickly recover these initial losses in later negotiations, therefore questioning the predictive value of the bidding process. The consequence of this is that buyers may actually pay more in total cost of purchase than they would have done if they had chosen one of the more realistic supplier bids (Lapiedra et al., 2004). Kern and Willcocks (2002) found that most buyers and suppliers realise the importance of adequate communication and information exchange for efficient buyer-supplier interaction, but actually fail to address the criticality of this dimension in their relationships. The authors point out that ‘to ensure good communication was not an easy process. It often needed through planning of an appropriate communication structure, which few [participants] actually had done’ (Kern & Willcocks, 2002, p. 14). This is critical in relation to the generation of equitable buyer-supplier relationships within the Public Sector that has identified e-reverse auctioning as a potential cornerstone of its efficiency pursuits.
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