Knowledge Transfer in G2G Endeavors

Luiz Antonio Joia
Rio de Janeiro State University, Brazil

INTRODUCTION

Since the beginning of the 1980s, a movement was fomented by academics and executives to use information and communication technology (ICT) not only as a tool for processing data more rapidly, but also as a powerful strategic weapon. The need to use ICT as an enabler for reformulating old processes, rather than simply automating existing practices, was perceived by these academics and executives (see, for instance, Davenport & Short, 1990; Venkatraman, 1994).

As Internet technology became more readily available, the reformulation of productive processes in the public arena became a reality, leading all levels of government to strive for greater efficiency, efficacy and accountability in their relationship with their stakeholders, in what is named e-government.

Besides, the understanding of knowledge as a strategic weapon for a corporation is all but recent. In 1945, Frederick Hayek presented research about the use of knowledge in society. In 1962, in a seminal work, Fritz Machlup from Princeton University produced an eight-volume work under the general title, *Knowledge: Its Creation, Distribution, and Economic Significance*. In this work, it was concluded using 1958 data that 34.5 percent of the gross national product of the United States could be allocated to the information sector. In 1993, Peter Drucker analyzed a new knowledge economy and its consequences. Therefore, increasingly the importance of the intangible assets of a corporation, and even those of both countries and any other organizations—including non-profit entities—has been highlighted by academics, researchers and practitioners.

This article draws on the juncture of these two former main streams, namely e-government and the strategic role of knowledge for corporations. It was elaborated in order to present the critical success factors that are able to explain the dynamics of knowledge transfer processes in government-to-government endeavors. In doing that, the article aims to explain how public administration can streamline their workflows, create more transparency between their agencies and deliver knowledge to civil servants more effectively and at reduced cost.

BACKGROUND

E-Government: An Idea Lacking a Clear Definition

E-government is still an exploratory knowledge field and it is consequently difficult to define it precisely. Moreover, it encompasses such a broad spectrum that it is difficult to find one expression that encapsulates accurately what e-government really represents.

According to Zweers and Planqué (2001, p. 92), one can say that:

E-government concerns providing or attainment of information, services or products through electronic means, by and from governmental agencies, at any given moment and place, offering an extra value for all participant parties.

On the other hand, Lenk and Traunmüller (2001, p. 64) choose to see e-government as a collection of four perspectives:

- **Citizen perspective:** Striving to offer public services to citizens;
- **Process perspective:** Seeking to rethink and redesign the *modus operandi* of current productive processes within public administration at its various levels, such as the bidding process to purchase products and services, namely e-procurement.
- **Cooperation perspective:** Aiming to integrate the many public agencies among themselves as well as with business and non-business organisations (NGOs), in order to streamline the decision process without prejudicing quality, as well as avoiding fragmentation, redundancies, and so forth, currently established in the relationships among these various players.

Copyright © 2008, IGI Global, distributing in print or electronic forms without written permission of IGI Global is prohibited.

- Knowledge management perspective: Enabling the government, at all levels, to create, manage and make available the knowledge both developed and accumulated by its organisations in adequate databases.

Knowledge Transfer in Government-to-Government Initiatives

In the traditional governmental processes between two or more public agencies, it has recently been observed that efficiency, efficacy and effectiveness are substandard and costs are high (Joia, 2004). Faced with this situation one question arises: if private companies have discovered the enormous benefits that the Internet can generate for them through linkages among themselves, why don't public agencies use this technology and the integration it provides in order to become more responsive and at reduced cost? As public budgets have been challenged in many countries around the globe and society is increasingly calling for more accountable public administration, integrated electronic processes between public agencies via the Internet, known as government-to-government (G2G), can be the answer to this dilemma (Joia, 2004).

Government as a collection of public agencies, each of them having their own information and knowledge, needs to ensure that these agencies are linked such that they can share their knowledge. It can be said that government is (or should be) similar to a metabusiness—a quasi-firm, or virtual firm, created via digital links between several companies—in such a way that it is almost impossible to define its precise boundaries (Keen, 1991).

THE KNOWLEDGE TRANSFER PROCESS IN G2G PROJECTS

In a G2G knowledge transfer process some critical success factors are involved. They are duly listed below.

Technological Infrastructure

In order to deploy a knowledge transfer undertaking, a solid technological infrastructure is needed. This endeavour is based on online linkage of knowledge repositories built on databases through inter-organisational systems (IOS). This linkage is built upon an extranet using either a private leased line or a VPN (virtual private network).

Inter-organisational systems (IOS) are typically defined as automated information systems shared by two or more organisations. The use of IOS thus involves networks that transcend organisation boundaries.

In the knowledge repositories, data, documents, videos, and so forth are all stored together. This poses a great challenge to public agencies, namely that of establishing compatible common technical interfaces to permit interoperability among the agencies. Several e-government interoperability frameworks have been developed, however no *de facto* standard framework has yet been developed. It can be claimed that XML (and its variants) has arisen as a standard for document exchange among public organisations, and the metadata concept has also begun to be applied to link different public agency databases (Augsten et al., 2004). By the same token, where knowledge is stored by the civil servants in their systems, standards like UDDI and SOAP have been used to deploy Web services among public organisations (Klischewski, 2004).

Furthermore, security features need to be adopted in order to grant restricted access to the system by the civil servants. Although risk is not the same as trust (Nissenbaum, 2001), trust building in a digital environment depends heavily on the perception of risk by the users (Jarvenpaa, 1997), in this case the civil servants. Hence, digital certificates in addition to access controlled by password need to be installed by the public agency, in order to reflect the privileged access designated for each user.

Installing an excess of security features usually results in a lack of flexibility in the IOS and user resistance to its use (see, for instance, Joia, 2004). So, there is a trade-off to be negotiated, that is, the inter-organisational system must be perceived as being both safe and flexible by its users.

Organisational Setting

According to Davenport and Prusak (1998), an adequate organisational setting is necessary to enable the transfer of knowledge. In this respect, Pinchot and Pinchot (1993) point out that the Weberian model adopted for use in public administration can hinder the transfer of knowledge. Facets of bureaucratic organisations that hamper the knowledge transfer process include: a hierarchical chain of command, specialisation by

4 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/knowledge-transfer-g2g-endeavors/17689

Related Content

The Importance of Social Competence for 21st Century Citizens: The Use of Mixed Reality for Social Competence Learning in Mainstream Education
Xining Wang, Mary Quirkeand Conor McGuckin (2022). *Methodologies and Use Cases on Extended Reality for Training and Education (pp. 242-268).*
www.irma-international.org/chapter/the-importance-of-social-competence-for-21st-century-citizens/308904

On Being Lost: Evaluating Spatial Recognition in a Virtual Environment
Tomohiro Sasakiand Michael Vallance (2018). *International Journal of Virtual and Augmented Reality (pp. 38-58).*
www.irma-international.org/article/on-being-lost/214988

VR Presentation Training System Using Machine Learning Techniques for Automatic Evaluation
Yuto Yokoyamaand Katashi Nagao (2021). *International Journal of Virtual and Augmented Reality (pp. 20-42).*
www.irma-international.org/article/vr-presentation-training-system-using-machine-learning-techniques-for-automatic-evaluation/290044

The Effect of Augmented and Virtual Reality Interfaces in the Creative Design Process
Tilanka Chandrasekeraand So-Yeon Yoon (2018). *International Journal of Virtual and Augmented Reality (pp. 1-13).*
www.irma-international.org/article/the-effect-of-augmented-and-virtual-reality-interfaces-in-the-creative-design-process/203064

Information and Communication Technology (ICT) and Its Mixed Reality in the Learning Sphere: A South African Perspective
Ntokozo Mthembu (2018). *International Journal of Virtual and Augmented Reality (pp. 26-37).*
www.irma-international.org/article/information-and-communication-technology-ict-and-its-mixed-reality-in-the-learning-sphere/214987