Understanding Phases of E-government Project

Asma Al-Hashmi[1]* and Abdul Basit Darem[1]

ABSTRACT

Electronic Government reflects the ultimate visions for public administrations and governments to make change. However, e-Government is not a simple on-line information provision. It requires an evolutionary and comprehensive architecture to avoid unnecessary duplication of infrastructure and major components and to integrate disparate processes, services and activities located outside administrations. The aims of e-Government are not only the transformation of traditional information into bits and bytes and making it accessible via the Internet and moving existing government functions to an electronic platform. But it also calls for rethinking ways the government functions are carried out today in order to improve processes and integration.

Keyword*: E-government, e-service, ICT*, *E-government Phases*.

1. Introduction

E-government is not simply a matter of giving government officials computers or automating old practices. Neither the use of computers nor the automation of complex procedures can bring about greater effectiveness in government or promote civic participation. Focusing solely on technological solutions will not change the mentality of bureaucrats who view the citizen as neither a customer of government nor a participant in decision-making. Understood correctly, e-government utilizes technology to accomplish reform by fostering transparency, eliminating distance and other divides, and empowering people to participate in the political processes that affect their lives. Governments have different strategies to build e-government. Some have created comprehensive long-term plans. Others have opted to identify just a few key areas as the focus of early projects. In all cases, however, the countries identified as most successful have begun with smaller projects in phases on which to build a structure.

To assist policymakers in devising their own plans and initiatives, some books divides the process of e-government implementation into three phases. These phases are not dependent on each other, nor need one phase be completed before another can begin, but conceptually they offer ways to think about the goals of e-government. This paper presents a different studies include research work done by Gartner Research (2000), United Nations (2001), Layne and Lee (2001) World Bank (2002) and IBM Business Consulting Services(2003).

2. Gartner Study - Four Phases of e-Government

To measure progress for e-Government initiatives and to establish a road map to achieve the desired levels of constituency service Gartner research (2000) study titled “Gartner's Four Phases of e-Government

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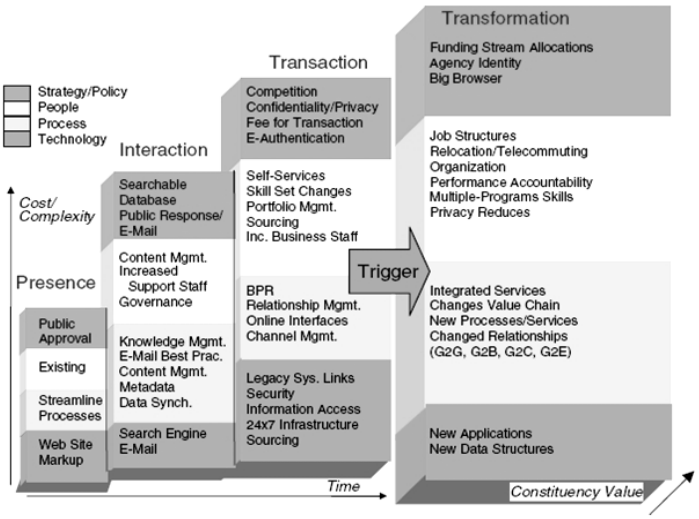
Model" classifies e-Government into four distinct phases. This can serve as a reference to position where a project fits in the overall evolution of an e-Government strategy.

- *Presence:* This stage is classified by a simple information-providing Web site of a passive nature, sometimes described as "brochure ware," indicating the same level of functions as a paper brochure.
- *Interaction***:** The interaction stage offers simple interactions between government and citizen (G2C), government to business (G2B), or government agency to government agency (G2G). Interaction stage Web sites provide e-mail contact and interactive forms that generate informational responses.
- *Transaction***:** The transaction stage enables transactions such as paying for license renewals online, paying taxes or fees, or submitting bids for procurement contracts.
- *Transformation***:** The highest stage, most closely aligned with the concept of governance, involves a reinvention of how government functions are conceived and organized.



Four Phases of E-Government

Figure 1: Gartner Research, 2000

3. UN / ASPA Study – Five Stages of e-Government Development

United Nations Division for Public Economics and Public Administration (2001) study "Benchmarking E-government: A Global Perspective, Assessing the Progress of the UN Member States" identifies the five stages for quantifying progress of e- Government. Study identifies e-Government stages as representative of the Government's level of development based primarily on the content and deliverable services available through official websites.

- *Emerging***:** An official government online presence is established through a few independent official sites. Information is limited, basic and static.
- *Enhanced***:** Government sites increase; information becomes more dynamic. Content and information is updated with greater regularity.
- *Interactive***:** Users can download forms, e-mail officials, interact through the web and make appointments and requests.
- *Transactional***:** Users can actually pay for services or conduct financial transactions online.

- *Seamless*: Full integration of e-services across administrative boundaries. Total integration of e-functions and services across administrative and departmental boundaries.

4. Layne & Lee Study – Four Stage e-Governments Model

To help public administrators think about e-Government and their organizations Layne and Lee (2001) provided a four stage e-Government development and proposes a 'stages of growth' model for fully functional e-Government.

- *Cataloguing*: In stage one of cataloguing, initial efforts of state governments are focused on establishing an on-line presence for the government.
- *Transaction*: In the transaction stage, e-Government initiatives will focus on connecting the internal government system to on-line interfaces and allowing citizens to transact with government electronically.
- *Vertical integration*: Vertical integration refers to local, state and federal governments connected for different functions or services of government.

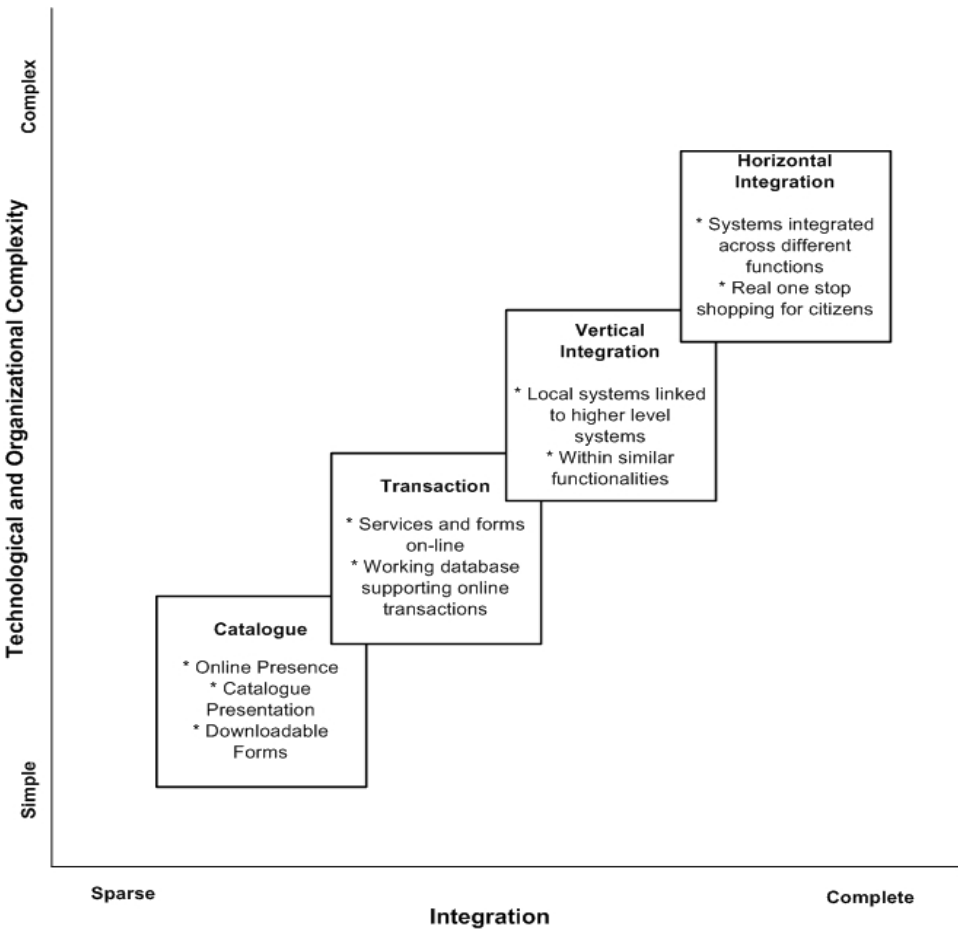


Figure 2: Layne & Lee, 2001 model

- *Horizontal integration*: Horizontal integration is defined as integration across different functions and services. In defining the stages of e-Government development, the vertical integration across

different levels within similar functionality is posited to precede the horizontal integration across different functions.

5. World Bank study – 3 Phases of e-Government

To assist policymakers in devising their own plans and initiatives, Center for Democracy and Technology (2002) divides the process of e-Government implementation into three phases. These phases are not dependent on each other, nor need one phase be completed before another can begin, but conceptually they offer three ways to think about the goals of e-Government.

- *Publish***:** Publish sites seek to disseminate information about government and information compiled by government to as wide an audience as possible. In doing so, publish sites serve as the leading edge of e-Government.
- *Interact***:** Interactive e-Government involves two-way communications, starting with basic functions like email contact information for government officials or feedback forms that allow users to submit comments on legislative or policy proposals.

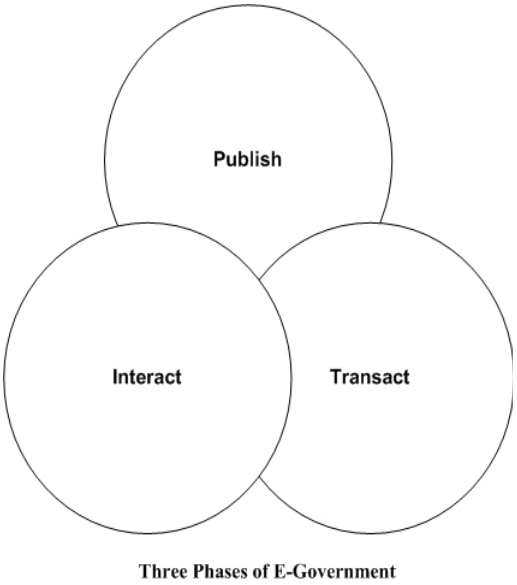


Figure 3: (Center for Democracy and Technology, 2002)

- *Transact***:** Allowing citizens to obtain government services or transact business with the government online. A transact website offers a direct link to government services, available at any time. Transact sites can enhance productivity in both the public and private sector by making processes that require government assistance or approval simpler, faster, and cheaper.

6. IBM Study – 4 Phases of e-Government

For e-Government transformation to flexible, outcome-focused organizations that citizens are learning to expect, governments will need to develop on demand capabilities. On demand environment will require an open and scalable infrastructure, new technologies, and appropriate and targeted implementations of reengineered processes. (IBM Business Consulting Services, 2003, p. 12)

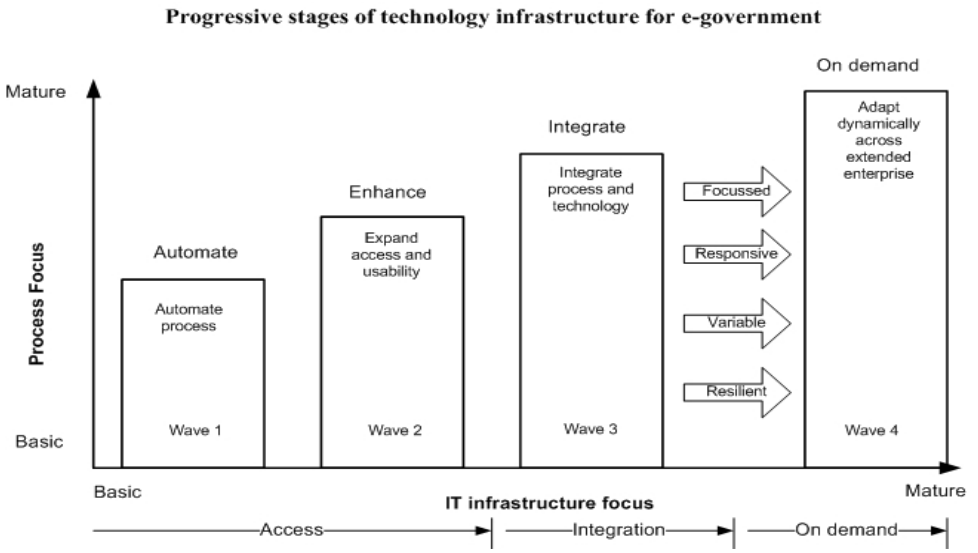


Figure 4: (IBM Business Consulting Services, 2003, p. 12)

The overall e-government evolution can be viewed as having four basic stages or waves of change (Figure 6). These waves of change move from Access (Waves 1 and 2) to Integration (Wave 3) to On demand (Wave 4), which is a dynamic and highly responsive stage. Each wave is characterized by a common set of achievements and objectives driven by similar concerns and challenges.

- *Automate***:** Initial focus on citizens and Web presence is relatively straightforward.
- *Enhance***:** Governments do not have to make many changes to existing applications or policies to reach Wave 2.
- *Integrate***:** To progress toward Wave 3 is more difficult as it requires serious planning in transformation of business processes and integration.
- *On demand***:** To progress to Wave 4, which is a transformation to an On demand model involves three paths: business model transformation, infrastructure transformation and cultural transformation.

7. The Stages of e-Government

The aims of e-Government are not only the transformation of traditional information into bits and bytes and making it accessible via the Internet and moving existing government functions to an electronic platform. But it also calls for rethinking ways the government functions are carried out today in order to improve processes and integration.

As seen in table 1, four levels can be suggested as follows:

- *Access level* to access the government information in static way; we found that all the modules share the first level with one stage and different name except UN/ASPA and, IBM where this level is divided into two stages with same achievements.
- *Interact level* to interact with government through email or download form, this level is common among all the modules, but Layne &Lee has combined it with first level.
- *Transaction level* to allow users to conduct transactions online, this level is common among all the modules.
- *Integration level* the highest level, it is about integrating all services in different e-government organizations, in this level we find only Gartner, UN / ASPA and, Layne & Lee. Moreover

Layne& Lee divided this level into two stages vertical and horizontal integration.

Table 1: The stages in the five modules

Levels	Gartner	UN / ASPA	Layne & Lee	World Bank	IBM
Access	Presence	Emerging Enhanced	Cataloguing	Publish	Automate Enhance
Interact	Interaction	Interactive		Interact	Integrate
Transaction	Transaction	Transactional	Transaction	Transact	On demand
Integration	Transformation	Seamless	Vertical integration Horizontal integration		

8. Concluding Remarks

From these studies, it is clear that e-Government involves multiple stages or phases of development and is not a one-step process. The process of e-government implementation into different phases, these phases are not dependent on each other, nor need one phase to be completed before another can begin, but conceptually they offer four ways to think about the stage of e-government Access, interaction, transaction and integration. Moreover, e-government does not happen just because a government buys more computers and puts up a website. While online service delivery can be more efficient and less costly than other channels, cost savings and service improvements are not automatic.

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