UNDERSTANDING E-GOVERNANCE: A THEORETICAL APPROACH

MUHAMMAD MUINUL ISLAM
ABU MOMTAZ SAADUDDIN AHMED

Abstract: Another new paradigm shift is in the offing and getting slowly distinct from its amorphous shape in the horizon of public administration. Yes, we are talking about ICT-blessed governance, simply referred to as e-governance. The adoption of ICTs and a new approach to management – roughly speaking, these two as a symbiosis are all about e-governance. It speaks about a new way and style in every beats and pulses of the system of public administration. It brings about changes in the structure and functions of public service, thus usher transformation engaging effectively the government, businesses and citizens – all stakeholders. It not only ensures efficiency in public service delivery but also offers unlimited potentials to combat corruptions and many bureau pathological malpractices in the public administration system. The article briefly offers a theoretical discussion of e-governance with its emergence, types of service delivery, transformation stages and other issues.

Introduction
In 1975, precisely three decades ago from now Nicholas Henry wrote a masterpiece titled Public Administration and Public Affairs. The first chapter of the book is dedicated to discuss briefly and very aptly an evolutionary discussion of the emergence of public administration as an area of study since its birth in 1887 with Woodrow Wilson’s seminal article “The Study of Administration”. Based on the locus and focus as Golembiewski suggests Henry identified five overlapping paradigms of public administration discovered upto mid-‘70s. These paradigms in order of sequence since the genesis of public administration as an academic field are: (a) Paradigm 1: The Politics/Administration Dichotomy, 1900-1926 (b) Paradigm 2: The Principles of Administration, 1927-1937 (c) Paradigm 3: Public Administration as Political Science, 1950-1970 (d) Paradigm 4: Public Administration as Management, 1956-1970 and (e) Paradigm 5: Public Administration as Public Administration, 1970-? Henry did not identify anyway the exact end year of the fifth paradigm as it was still dominant in the intellectual discourse of Public Administration. But I can carefully suggest that the fifth paradigm can have a borderline in the year 2000. Because from 20011 on a new idea slowly permeated in the theories and practice of public administration later turn a conspicuous paradigm shift in the discipline. This sixth paradigm can be called as ‘Public Administration as New Public Management (NPM), 1991-?’ However, I also offer another paradigm shift in public administration already stepped in that is very likely to pop up within the next two decades. This seventh paradigm can be called as “Public Administration as E-governance, 1995-?” The academicians and practitioners I hope will agree that the technological inventions in the ways and means of information and communication has dramatically revolutionized the structure, processes and operations of public administration which are almost ubiquitously adopted or tried to be adopted by the governments of both developed and developing countries.3 Only a letter ‘E’ that means ‘Electronic’ has brought about a glaring transformation in the horizon of public administration.

In fact, over the past three decades, information and communication technology has slowly but consistently permeated government organizations and institutions at all levels in the developed and developing countries alike. This has largely been the result of an inevitable process of converting information from analog to digital forms. The lifeblood of government is information and the digital revolution has allowed government organizations to more effectively and efficiently store, analyze, and retrieve information. This process has also been strongly affected by changes in telecommunications technology and the convergence of computer and communication technologies. The most recent manifestation of this process of technological change is the advent of Internet or World Wide Web (Bretschnieder 2003).
This reform of government administration and the provision of improved services to citizens has long been acknowledged as a major criterion for development and today’s drive towards e-governance in many parts of the world Madon observes can be considered as a part of this wider developmental goal (Madon 2004). Throughout the world governments, businesses and NGOs are working together to adopt e-governance – from Singapore to South Africa, Andhra Pradesh to Washington, Bangladesh to Malaysia, Chile to Estonia. These are not just experiments in new modes of service delivery. E-governance inevitably also embraces – and is driven by – new models of policy formulation, new forms of citizenship, new patterns of relationship and power, new options for economic development, and the search for new ways to connect people with the political process. The rapid adoption of e-governance is facilitated by dynamic technological and telecommunication innovations. In many countries, Information and Communication Technologies (ICTs) are seen as a catalyzing tool for e-governance. “After e-commerce and e-business,” as The Economist (2000) comments, the next Internet revolution will be e-government.” It is expected that e-governance will result in transparency, speedy information dissemination and improved service in public administration. In the era of informed citizens, e-governance is also seen as a vehicle for cost-effective and efficient way of public service delivery (Agarwal et al. 2003).

Governments around the world with a view to transform their governance structure and processes from traditional to electronic form putting critical information online, automating once cumbersome processes and interacting electronically with their citizens. This enthusiasm comes in part from a belief that technology can transform government’s often-negative image. In many places, citizens view their governments as bloated, wasteful, and unresponsive to their most pressing needs. Mistrust of government is rife among the public and businesses. Civil servants are often seen as profiteers. The spread of information and communication technology (ICT) brings hope that government can transform. And, indeed, forward-looking officials everywhere are using technology to improve their governments (PCIP 2002).

Governments are making various decisions about how ICT can be adapted and embedded in public administration to best enhance the wellbeing of citizens. But e-government means more than ICT. Many traditional pathways to better governance and government are being transformed in mutually shaping interactions between innovation in ICTs, innovation in organizational and business practices, and changes in people’s skills and expectations. E-government is often embraced as facilitating changes in citizen involvement, transforming traditional hierarchical approaches to coordination into network approaches, and breaking down barriers – between the government departments, between layers of government (national, regional, etc), and between the public and private sectors – to enhance a citizen/customer-focused approach to service delivery. This can bring about improvements in the accountability, transparency, and openness of public institutions. But e-government also presents new challenges to citizens’ trust in governments. Security of digital transactions and communications needs to be assured; privacy needs to be protected, and citizens need to be able to control personal data and who has access to it (Dugdale 2004).

This article endeavors to shed some lights on some theoretical issues of e-governance. In so doing, the article at the outset presents a brief overview of the entrance of the concept of e-governance in the intellectual discourse, its conceptualization from academician to practitioners to different international agencies, different nature of service delivery in e-governance, and the way e-governance is transformed in the public administration system.

Understanding E-governance: Some Theoretical Issues
Crystallizing the Concepts: From Governance to e-governance

The word ‘e-governance’ can be viewed at the crossroad of two major shifts - governance and information revolution. The issue of ‘governance’ has been around for a few decade. According to concise Oxford Dictionary (9th Edition), the word ‘governance’
has been developed from a Greek word ‘kuberna’ which means to
steer. The first classic political science essays on the subject
talked about the concept of ‘governability’, which made the rule
of law as the core to development (Johnson 1997).

Clearly ‘governance’ gets into development discourse around
the period of late 1980s. Human Development Report 1991 accepts
the fact that freedom and democracy, though not a necessary
condition, are entirely consistent with growth and development.
‘International development’ shifted its focus from ‘economic growth’
of the 50s (UN Development decades) to ‘sustainable human
development’ that includes concerns for people and nature to be
widely accepted by state, market and civil society. The
environmental movement has issued ‘governance’ an urgency to
deal the development agendas in a holistic manner: to include
not only the sector at hand and the obvious stakeholders, but
also others affected by them in other areas. It has forced a
red definition of the public interest with nature itself as a
recognized stakeholder (Carino).

Intense globalization of market and trade, after the collapse
of Soviet Union in 1989, left most countries but to join the World
Trade Organization (WTO), which gave concern about the markets
being opened to cheaper products and labor forces. This resulted
in creation of safety nets and bureaucracies to be involved with
regulatory governance mechanism. But at the same time because
of trade globalization and networked economy, the countries
cannot avoid creating a level playing field with transparent
governance mode (Carino). This openness and predictability of
government functioning is further echoed at e-governance.

Globalization with the emergence of new information and
communication technologies (ICTs), had a profound impact in
the development of e-governance notion. ICT replaced two basic
elements of productions - ‘labor’ and ‘capital’ by ‘information’ and
‘knowledge’ for the first time in the last two centuries. Internet
created the same break through as the printing press did in the
15th century. It shapes the ability to communicate, share,
distribute, exchange, formalize, use and network information at
a speed that is not experienced before. Moore’s law4 pointed out
that, the processing power of microchips is doubling every 18
months with a trend of 20-30% decline in quality adjustment
prices for computers. This means computers are getting cheaper,
powerful and ubiquitous, making the network and automation of
services viable to government. Political activism on the other
hand, is also using the space with increased number of public
interest groups, community or voluntary organizations are
propagating their demands and activities in the electronic
network.

The Weberian5 principles of bureaucratic governance are being
replaced with the trends of horizontal, leaner, dynamic and
networked governance. Administrative reform and development
have experienced TQM6 in 1980s, and ‘re-engineering and re-
inventing of government’ in 1990s. E-governance reflects this
process of re-invention and re-engineering in governance and ‘is
aimed at adapting administration to the further increasing flow of
information; accelerating the process of decision making by optimizing
resources, and making the mechanism for decision making self-
regulating’ (Baev 2003). This led ‘Governance’ be defined
independently from the ‘act of government’ to the practice of
getting the consent and cooperation of the governed. The concrete
objective of e-governance is to support and simplify governance
for all parties - government, citizens and businesses through
online services and other electronic means. In other words,
e-governance uses electronic means to support and stimulate
good governance (Backus 2001).

However, the core ideas and techniques associated with
“putting government online” first emerged in the most
technologically advanced Western countries, especially those
whose populations were pioneers in the adoption of the Internet
in the 1990s. In the United States, President Bill Clinton’s
administration’s aim to “reinvent government” closely followed
the managerial path, and the Bush administration has further
developed this agenda, with an even greater emphasis on cost
reduction through efficiency gains. In the British case, the
managerial use of ICTs emerged as a strong theme in the Labour
administration’s obsession with “joined-up government” - a phrase
that has recently crossed the Atlantic to the U.S. At the level of the European Union, despite greater recognition of the democratic potential of new ICTs, most discussion has centered on issues of efficiency and "service delivery." It was the United States and Britain (along with other countries, notably Canada and Australia) that led the way, both in establishing a basic informational form of Web presence in the mid-1990s and in developing what became known as "e-government" in the late 1990s (Chadwick and May 2003, 272).

As e-governance supports and facilitates good governance for all stakeholders, we need to understand that e-governance is not just about a website or not merely a digitization of service delivery. It certainly stands on a greater definition of engagement and depth of relationship that surrounds both the citizens and the government (Fang 2002). A model of electronic service delivery is illustrated in the following figure (Figure 1).

Figure 1 : Electronic Service Delivery Model (Bhatnagar 1999)

There is a slight difference of meaning in between e-governance and e-government. Governance is the manner or the process to guide a society to best achieve its goals and interests, while government is the institution or the apparatus to perform that job. This means government is one (of many) institutions of governance.

Interestingly, different international bodies define e-governance as per their focus to frame governance in general. For example, World Bank’s concern on governance is exclusively related to the contribution they make to social and economic development by economic and structural liberalization. Therefore to them, e-governance implies the use of ICT channels to change the way citizens and business interact with government to enable, citizen’s involvement in decision making, increased access to information, more transparency and civil society strengthening (Deane, 2003).

Bhatnagar observes that the World Bank refers to e-governance as the use of information technologies (such as Wide Area Networks, the internet, and mobile computing) by the government agencies. In other words, e-governance may be defined as the delivery of government services and information to the public by using electronic means. These technologies enable the government to transform its relations with its other wings, citizens, businesses. Such an exercise leads to better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information and a more efficient government management. The resulting benefits can be lesser corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions (Bhatnagar 2001).

UNDP (2003) relates the concept of governance to that of sustainable human development. It views e-governance as a process of 'creating public value with the use of modern ICT'. Public value is defined as a notion ‘rooted in people’s preferences’. e-government is justified if it enhances the capacity of public
administration to increase the supply of public value - the outcome of a high quality of life. Focusing more on the “governance” possibilities, it thinks e-governance can “equip people for genuine participation in an inclusive political process that can produce well-informed public-consent, the ever more prevalent basis for the legitimacy of governments.” The UN’s Five Guiding Principles on E-government Objectives are: (1) Building services around citizen’s choices (2) Making government and its services more accessible (3) Social inclusion (4) Providing information responsibly (5) Using IT and human resources effectively and efficiently (UN Survey 2002).

The Public Administration (PUMA) Group of the Organization for Economic Cooperation and Development (OECD), focuses on three main components of online and participatory e-governance: ‘information, active participation and consultation’ (Riley 2003).

The Government of India took the basis of SMART for its vision statement on e-governance. This relates to “application of IT to the process of government functioning to bring out Simple, Moral, Accountable, Responsive and Transparent governance (SMART)”. This vision helped India outlining further objectives and strategic initiatives on e-governance.

Rogers W’O Okot-Uma of Commonwealth Secretariat in London thinks that, e-governance seeks to realize processes and structures for harnessing the potentialities of information and communication technologies (ICTs) at various levels of government and the public sector and beyond, for the purpose of enhancing Good Governance.

Thorson and Ragland (2002) of the Maxwell School writes, “The term e-government encompasses a broad spectrum of activities involving improving government operations and services as well as enabling a more cooperative and meaningful relationship with citizens and other non-state actors. E-government initiatives, however, have predominantly focused on changing government operations, structures, and services rather than redefining a new role and set of responsibilities for citizens.”

Heeks observes that e-governance should be seen to encompass all ICTs, but the key innovation is computer networks – from intranets to the Internet – creating a wide range of new digital connections:

- Connections within government – permitting ‘joined-up thinking’.
- Connections between government and NGOs/citizens – strengthening accountability.
- Connections between government and business/citizens – transforming service delivery.
- Connections within and between NGOs – supporting learning and concerted action.
- Connections within and between communities – building social and economic development.

The novelty of using new technologies in governance is that it expands beyond internal government operations to include electronic service delivery to the public and the subsequent interaction between the citizen and the government. This potential for interactivity can be identified as one of the most important elements in the way e-governance will change the nature of government. (Heeks 2001).

Recently, David Brown (2005) proposes a comprehensive definition of e-governance. In his article, he writes: “A broader view of e-government is that it relates to the entire range of government roles and activities, shaped by and making use of information and communications technologies (ICTs). A high-level statement of this view is ‘knowledge-based government in the knowledge-based economy and society’. More concretely, e-government brings together two elements that have not been naturally joined in the past. One is the environment, within government and in the society at large, created by the use of electronic technologies such as computing, e-mail, the World Wide Web, wireless and other ICTs, combined with management models such as client/citizen centricity and single-window convergence. The other is the basic model of the state and of
public administration within that, linking the dynamics of democracy, governance and public management.”

Despite variations in definition, it is true that e-governance has the subversive potential to ensure that citizens are no longer passive consumers of services offered to them as it also allows them to play a more proactive role in deciding the kind of services they want and the structure through which this service can best be provided.

**Types of Service Delivery in e-governance**

The quest to improve service delivery through the use of ICTs in governments typically focuses on four main dimensions. These are:

1. **G2C (Government-to-Citizens):** This focuses primarily on developing user-friendly one-stop centers of service for easy access to high quality government services and information.

2. **G2B (Government-to-Business):** This aims to facilitate and enhance the capability of business transactions between the government and the private sector by improving communications and connectivity between the two parties.

3. **G2G (Government-to-Government):** This is an inter-governmental effort that aims to improve communication and effectiveness of services between federal, state and local governments in the running of day-to-day administration.

4. **Intragovernment:** This aims to leverage ICT to reduce costs and improve the quality of administration and management within government organization (Karim 2003, 192).

**The Stages of E-government Transformation**

Accenture (2002) suggests that e-governance matures according to the four stages. As an addition, I suggest this transformation be in the following five stages with ‘institutionalization’ as the fifth stage (See figure 2):

1. Information → Presence
2. Interaction → Intake processes
3. Transaction → Complete transactions
4. Transformation → Integration & change
5. Institutionalization → Interactive democracy and public outreach

**Figure 2 : Stages of e-governance Transformation**

Increasing value to Citizen / Business

Increasing complexity

Figure : Stages e-Governance Transformation.

**The Five Stages**

1. In the first stage, e-governance means being present on the web, providing the public (G2C & G2B) with relevant
information. The format of the early government websites is similar to that of a brochure or leaflet. The value to the public is that government information is publicly accessible; processes are described and become more transparent, which improves democracy and service. Internally (G2G) the government can also disseminate static information with electronic means, such as the Internet.

2 In the second stage, the interaction between government and the public (G2C & G2B) is stimulated with various applications. People can ask questions via e-mail, use search engines, and download forms and documents. These save time. In fact the complete intake of (simple) applications can be done online 24 hours per day. Normally this would only have been possible at a counter during opening hours. Internally (G2G) government organizations use LANs, intranets and e-mail to communicate and exchange data.

3 With stage three, the complexity of the technology is increasing, but customer (G2C & G2B) value is also higher. Complete transactions can be done without going to an office. Examples of online services are filing income tax, filing property tax, extending/renewal of licenses, visa and passports and online voting. Stage three is made complex because of security and personalization issues. For example, digital (electronic) signatures will be necessary to enable legal transfer of services. On the business side, the government is starting with e-procurement applications. In this stage, internal (G2G) processes have to be redesigned to provide good service. Government needs new laws and legislation to enable paperless transactions.

4 The fourth stage is reaching out a status when all information systems are integrated and the public can get G2C & G2B services at one (virtual) counter. One single point of contact for all services is the ultimate goal. The complex aspect in reaching this goal is mainly on the internal side, e.g. the necessity to drastically change culture, processes and responsibilities within the government institution (G2G). Government employees in different departments have to work together in a smooth and seamless way. In this stage cost savings, efficiency and customer satisfaction are reaching highest possible levels.

5 The fifth stage is interactive democracy with public outreach and a range of accountability measures. Here, government Web sites move beyond a service-delivery model to system wise political transformation. In addition to having integrated and fully executable online services, government sites offer option for Web site personalization. Through these and other kinds of advanced features, visitors can personalize Web sites, provide feedback, make comments, and avail themselves of a host of sophisticated features designed to boost democratic responsiveness and leadership accountability (West 2004).

Conclusion

E-governance as the above discussion suggests offers many benefits to the citizens. It has many potentials to bring many dreams and goals into reality designed by various international organizations and governments of the world. The issues of poverty reduction, economic underdevelopment, illiteracy, pervasive corruption can be arrested by using skillful application of e-governance initiatives. Despite its enormous potentials, it is observed that the benefits of e-governance are not duly reaped by the governments of both developed and developing countries. The main stumbling blocks in this way are basically the political leadership and bureaucratic inertia. Another stumbling block for global equitable access of e-governance is ‘digital divide’ often called as ‘information block holes’. E-governance can very positively turn a paradigm shift as indicated above from traditional bureaucratic administration to a more responsive, accountable and effective administration which many governments of the world are aspiring for a long time.
Notes

1. The concept of ‘New Public Management (NPM)’ is coined by Christopher Hood in 2001 in his famous book “A public management for all seasons?”. Apart from him, some other scholars like Pollitt, Lan and Rosenbloom, Osborne and Gaebler also have worked on the same idea in different names in the early period of 1990s.

2. E-governance as a paradigm shift in the discipline of public administration can be benchmarked in the mid-1990s with the introduction of use of Internet and web-presence by the government.

3. The dramatic changes occurred due to technological revolution are in the domains of politics (Nye 1999), government institutions (Fountain 2001), performance management (Brown 1999), red tape reduction (Moon and Bretschneider 2002), and re-engineering (Anderson 1999) in the administration.

4. A founder of Intel Corporation, Gordon Moore made his famous observation in 1965, just four years after the first planar integrated circuit was discovered. The press called it “Moore’s Law” and the name has stuck. More information can be found at: http://www.intel.com/research/silicon/mooreslaw.htm

5. Max Weber has given the ideal typical model of Bureaucracy. The Weberian model categorically focuses on two dimensions (i) the Structural, relating to the hierarchical arrangement of positions, legal rational basis of authority, with system of compensation, and (ii) the Behavioral, relating to the merit based selections of officials with the emphasis on training.

6. For detail of TQM please visit: http://www.google.com/search?hl=en&lr=&oi=defmore&q=define:TQM

7. Digital divide refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both to their opportunities to access information and communication technologies and to their use of the Internet for a wide variety of activities (OECD).

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