E-Government and E-Governance: Definitions/Domain Framework and Status around the World

Shailendra C. Jain Palvia[1]* and Sushil S. Sharma[2]

ABSTRACT

E-government refers to the delivery of national or local government information and services via the Internet or other digital means to citizens or businesses or other governmental agencies. E-government is a one-stop Internet gateway to major government services. E-government facilitates provision of relevant government information in electronic form to the citizens in a timely manner; better service delivery to citizens; empowerment of the people through access to information without the bureaucracy; improved productivity and cost savings in doing business with suppliers and customers of government; and participation in public policy decision-making. E-Governance refers to how managers and supervisors utilize IT and Internet to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively.

Keywords: E-Government, e-Governance, Domain Framework, Inter-Organizational Systems, Manager Functions

1. E-Government Definitions

E-government is a generic term for web-based services from agencies of local, state and federal governments. In e-government, the government uses information technology and particularly the Internet to support government operations, engage citizens, and provide government services. The interaction may be in the form of obtaining information, filings, or making payments and a host of other activities via the World Wide Web (Sharma & Gupta, 2003, Sharma, 2004, Sharma 2006). E-government is defined by other sources as follows:

World Bank (www.worldbank.org) definition (AOEMA report): "*E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.*"

United Nations (www.unpan.org) definition (AOEMA report): "*E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens.*"

---

[1] Long Island University, Brookville, New York 11548, USA
[2] Ball State University, Muncie, Indiana, USA
* *Corresponding Author:* (Email: spalvia@liu.edu, Telephone: 516-498-7214)

Global Business Dialogue on Electronic Commerce - GBDe (www.gbde.org) definition (AOEMA report):
"Electronic government (hereafter e-Government) refers to a situation in which administrative, legislative and judicial agencies (including both central and local governments) digitize their internal and external operations and utilize networked systems efficiently to realize better quality in the provision of public services."

Gartner Group's definition: *"the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet and new media."*

Definition of the Working Group on E-government in the Developing World (www.pacificcouncil.org):
E-government is the use of information and communication technologies (ICTs) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. E-government might involve delivering services via the Internet, telephone, community centers (self-service or facilitated by others), wireless devices or other communications systems."

While definitions of e-government by various sources may vary widely, there is a common theme. E-government involves using information technology, and especially the Internet, to improve the delivery of government services to citizens, businesses, and other government agencies. E-government enables citizens to interact and receive services from the federal, state or local governments twenty four hours a day, seven days a week.

E-government is in the early stages of development. Most governments have already taken or are taking initiatives offering government services online. However, for the true potential of e-government to be realized, government needs to restructure and transform its long entrenched business processes. According to Gartner, e-government involves the use of ICTs to support government operations and provide government services (Fraga, 2002). However, e-government goes even further and aims to fundamentally transform the production processes in which public services are generated and delivered, thereby transforming the entire range of relationships of public bodies with citizens, businesses and other governments (Leitner, 2003).

In the last few years, there has been much talk of mobile government or m-government. M-government refers to the use of wireless technologies like cellular/mobile phones, laptops and PDAs (Personal Digital Assistants) for offering and delivering government services. M-government is not a substitute for e-government, rather it complements it.

2. E-Governance Definitions
E-governance, meaning 'electronic governance' is using information and communication technologies (ICTs) at various levels of the government and the public sector and beyond, for the purpose of enhancing governance (Bedi, Singh and Srivastava, 2001; Holmes, 2001; Okot-Uma, 2000). According to Keohane and Nye (2000), "G*overnance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments. Private firms, associations of firms, nongovernmental organizations (NGOs), and associations of NGOs all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority.*" Clearly, this definition suggests that e-governance need not be limited to the public sector. It implies managing and administering policies and procedures in the private sector as well.

The UNESCO definition (www.unesco.org) is: *"E-governance is the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other. E-governance can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities. Its objective is to engage, enable and empower the citizen."*

"E-democracy builds on e-governance and focuses on the actions and innovations enabled by ICTs combined with higher levels of democratic motivation and intent**"** (Clift, 2003). The concept of electronic governance chosen by the Council of Europe covers the use of electronic technologies in three areas of public action; relations between the public authorities and civil society; functioning of the public authorities at all stages of the democratic process (electronic democracy); the provision of public services (electronic public services) (Council of Europe, http://www.coe.int/T/E/Com/Files/Themes/e-voting/definition.asp). E-governance is defined as the, "application of electronic means in (1) the interaction between government and citizens and government and businesses, as well as (2) in internal government operations to simplify and improve democratic, government and business aspects of Governance." (Backus, 2001). According to Kettl (2002), "*Governance" is a way of describing the links between government and its broader environment - political, social, and administrative*." The application of electronic links means the interaction between government and citizens and government and businesses, as well as in internal government operations to simplify and improve democratic, government and business aspects of Governance (Kettl, 2002).

3. E-Governance and E-Government

Some authors contend that e-government constitutes only a subset (though a major one) of e-governance. According to these authors, e-governance is a broader concept and includes the use of ICT by government and civil society to promote greater participation of citizens in the governance of political institutions, e.g., use of the Internet by politicians and political parties to elicit views from their constituencies in an efficient manner, or the publicizing of views by civil society organizations which are in conflict with the ruling powers (Howard, 2001 and Bannister and Walsh, 2002). It is clear that considerable confusion exists in explaining e-government and e-governance. In what follows, we attempt to resolve the ambiguities and come up with clear and non-overlapping definitions. Our premise is simple: e-government's focus is on constituencies and stakeholders outside the organization, whether it is the government or public sector at the city, county, state, national, or international levels. On the other hand, e-governance focuses on administration and management within an organization, whether it is public or private, large or small. A 2x2 matrix, shown in Table 1, summarizes the domains of e-government and e-governance.

Table 1: Palvia and Sharma Framework for e-Government versus e-Governance

		FOCUS	
		Outside	Inside
Type of Organization	Public Sector – Government Agency	e-Government (Extranet and Internet)	e-Governance (Intranet)
	Private Sector – MNCs or SMEs	Inter-Organizational Systems – IOS like CRM systems (Extranet and Internet)	e-Governance (Intranet)

Based on this classification, e-governance concerns internally-focused utilization of information and internet technologies to manage organizational resources – capital, human, material, machines – and

administer policies and procedures (both for the public sector or private sector). The telecommunications network that facilitates e-governance is the Intranet. What has been generally termed as G2E (Government to Employee) will be now under the label of e-governance. E-governance deals with the online activities of government employees. The activities might include information to calculate retirement benefits, access to important applications, and content and collaboration with other government employees anytime, anywhere.

Any interaction of a governmental agency (G) with outside constituencies is called e-government. Outside constituencies can be citizens (C), businesses (B), or other governmental agencies (G) themselves. Government agencies should be held responsible and accountable for their actions in collecting taxes from its citizens in various forms and then using these revenues to provide diverse services to its constituents in the areas of defense, security, economic vitality, education, and health care. To perform all these activities efficiently and effectively, if the governmental agencies deploy information & Internet technologies, it is called e-government. The TC network that provides these is the Extranet or the Internet itself. One special type of G2C is when elected representatives and political parties interact with the citizens nationally or in their constituencies. This type of G2C is also called e-democracy. Different categories of e-government services are described in the next section.

In case of private enterprises, any interaction through information systems with external organizational entities – customers, suppliers, partners in the global supply chain management fall within the domain of inter-organizational systems. Such systems generally utilize extranets. Under this category, we will have B2B (e-procurement, e-CRM, e-MarketPlace, e-Learning), B2C (e-tailing, e-banking, e-insurance, e-Grocery, e-ticketing), and even C2C – primary examples being Craig's list and e-Bay.

According to Sheridan and Riley (2006), e-governance is a broader concept that deals with the whole spectrum of the relationship and networks within government regarding the usage and application of ICTs whereas e-government is limited to the development of online services). According to them, e-government is an institutional approach to jurisdictional political operations where as e-governance is a procedural approach to co-operative administrative relations, i.e. the encompassing of basic and standard procedures within the confines of public administration.

Irani, Al-Sebie & Elliman (2006) formulated a four-phase e-governance (we call it e-Government) model. According to this model, governments start with the delivery of online information, but soon public demand and internal efficiency ask for more complex services. In each of the four phases, the delivery of online services and use of ICTs in government operations serve one or more of the aspects of e-governance: democracy, government, business. The e-governance solutions at each phase are shown in Table 2.

4. A Taxanomy of E-Government Services

According to Backus, "the three main target groups that can be distinguished in e-governance (we call it e-Government) concepts are government, citizens and businesses/interest groups. The external strategic objectives focus on citizens and businesses and interest groups, the internal objectives focus on government itself" (Backus, 2001). In the following discussion, we include another one – Government to Constituencies (e-Democracy).

G2C – Government to Citizen
G2C are those activities in which the government provides one-stop, on-line access to information and services to citizens. G2C applications enable citizens to ask questions of government agencies and receive answers; file income taxes (federal, state, and local); pay taxes (income, real estate); renew driver's licenses; pay traffic tickets; change their address; and make appointments for vehicle emission inspections

and driving tests. In addition, government may disseminate information on the web; provide downloadable forms online; conduct training (e.g., in California, drivers' education classes are offered online); help citizens find employment; provide tourism and recreation information; provide advice about health and safety issues; allow transfer of benefits like food coupons, file flood relief compensation (as in the case of Hurricane Katrina in New Orleans, USA) electronically through the use of smart cards; and the list goes on.

Table 2: Overview of E-Government Solutions

Overview e-governance solutions			
	External: G2C	**External: G2B**	**Internal : G2G**
Phase ❶ : Information	Local/Departmental/ National Information (mission statements and organizational structure Addresses, opening hours, employees, telephone numbers Laws, rules and regulations Petitions Government glossary News	Business information Addresses, opening hours, employees, telephone numbers Laws, rules and regulations	Knowledge base (static intranet) Knowledge management (LAN)
Phase ❷ : Interaction	Downloading forms on websites Submitting forms, Online help with filling in forms (permits, birth / death certificates) Intake processes for permits etc. E-mail, Newsletters, Discussing groups (e-demoracy), Polls and questionnaires Personalised web pages Notification	Downloading forms on websites Submitting forms Online help with filling in forms (permits) Intake processes for permits etc. E-mail Notification	E-mail Interactive knowledge databases Complaint handling tools
Phase ❸ : Transformation	Personalised website with integrated personal account for all services	Personalised website with integrated business account for all services	Database integration

Source: (Backus, M. (2001) E-Governance and Developing Countries, Introduction and examples,
Research Report, No. 3, April 2001)

G2B – Government to Business
In G2B, the government deals with businesses such as suppliers using the Internet and other ICTs. G2B includes two two-way interactions and transactions: government-to-business and business-to-government (B2G). B2G refers to businesses selling products and services to government. Two key G2B areas are e-procurement and auctioning of government surpluses. Government buys large amounts of MROs (Maintenance, Repairs, and Operations) and other materials directly from suppliers. In many cases, RFQs are mandated by law.

The tendering system is essentially a reverse auction (buy-side auction). The Hong Kong government provides some good examples of B2G services. The major projects of the Hong Kong government include: Electronic Service Delivery Scheme (ESD), Interactive Government Service Directory (IGSD), the Electronic Tendering System (ETS), the HKSAR Government Information Center (enables people to view news, government notices, information on leisure and cultural activities, and so on), and the HK Post e-Cert (this authority issues digital certificates to individuals and organizations). The ESD project provides 38 different public services through eleven agencies – transport department, immigration, tourist association, labor department, social welfare department, inland revenue department, registration and electoral office, trade and industry department, treasury department, rating and valuation department, innovation and technology commission.

In group purchasing, suppliers post group purchasing offers, and discount the price as more orders are placed. Government hospitals and public schools actively purchase in groups online. Many government agencies auction equipment surpluses ranging from vehicles to foreclosed real estate. The U.S., General Services Administration (GSA) launched a property auction site online www.auctionrp.com, where real-time auctions for surpluses and seized goods are conducted. Furthermore, businesses in the USA and other countries file income taxes and financial reports electronically. Electronic filing of taxes is now done in over 100 countries, from Finland to India to Thailand to United States. Even sales taxes and value added taxes can be paid online.

G2G – Government to Government
G2G deals with those activities that take place between different government organizations/agencies. Many of these activities are aimed at improving the efficiency and effectiveness of overall government operations. Examples in the United States include Intelink (an intranet that carries classified information shared by different U.S. intelligence agencies), procurement at GSA (aggregating demand quantity for different units of the government), federal case registry (locating information about child support), and procurement marketing and access network (a searchable database that contracting officers in various government units use to find products and services sold by small, disadvantaged, or women-owned businesses).

Government to Constituents (E-Democracy)
E-democracy refers to online activities of governments, elected representatives, political parties and citizens for democratic processes. This includes political or current affairs discussion and online consultation between representatives and their constituents. During the 2004 U.S. presidential elections and 2006 midterm elections, both major party candidates had their own information portals and also sent e-mail messages to potential voters. In South Korea, since web surfers seldom read newspapers or watch TV, politicians have to rely on the Internet to recruit voters. Padaq, the Seoul-based over-the-counter stock exchange, offers an Internet game that allows players to buy "stocks" in a politician. This game resulted in over 500,000 members signing up in just one year. Yet another common use is the broadcasting of city council meetings, press conferences and public addresses.

Electronic voting is another important application within the domain of e-democracy. Manual voting processes are subject to error, manipulation, fraud, and rigging leading to losers calling for recounts. Voting faces a broad spectrum of technological and social problems that must be systematically addressed – voter registration to voter authentication to the casting of ballots to the counting and tallying of results. Such voting problems may result in major political crises, as happened in November 2004 in the Ukraine and the Gore-Bush presidential race in 2000 in the U.S. The first country to fully computerize balloting, as of 2000, was Brazil. Electronic voting machines were used successfully in Indian state elections in the 2004 parliamentary election. More than 600,000 electronic voting machines were used. The Election Commission of India used two similar voting machines made by Electronics Corporation of India and Bharat Electronics. These machines are battery-operated machines which are portable, 'easy to operate,' 'reliable,' 'tamper-proof and error free.' The machines were operated by supervised officials at polling stations. The illiterate voters were able to vote based on pictures and logos of the candidates and the party they represented. It not only greatly reduced the counting process time but also saved tons of ballot paper. There were hardly any complaints against the use of this system in India.

E-democracy involves 'electronic engagement' (*e-engagement*): engaging public in the policy process via electronic networks; 'electronic consultation' (*e-consultation*) which refers to interaction between public servants and the citizenry and interest groups; and 'electronic controllership' (*e-controllership*) consisting of the capability to manage the cost, performance, and services of an organization electronically (Riley, 2003).

5. A Taxanomy of E-Governance Services

As described in a previous section, e-Governance means utilizing IT to guide and restrain collective activities of groups that manage formally and informally processes and institutions in private as well as public enterprises. The emphasis here is on IT aiding managers to accomplish their functions effectively. What are the functions of managers? In literature, these have been defined in different ways – the most prominent ones are supervising, planning, organizing, controlling, and staffing. Mintzberg (1971) classified managerial roles into three categories: interpersonal, informational, and decisional. Information systems that help in accomplishing these functions and roles include MIS, DSS, and ESS. DSS and ESS are sometimes collectively called Management Support Systems. IT can reduce internal management (governance) costs. According to agency theory, a firm is viewed as a "nexus of contracts" among self-interested individuals rather than as a unified, profit-maximizing entity (Jensen and Meckling, 1976). A principal (owner) employs "agents" (managers and employees) to perform work on his/her behalf. However, agents need constant supervision and management; otherwise they will pursue their own interests rather than those of the owners.

As firms grow in size and scope, agency costs or coordination costs rise because owners must hire more and more managers to supervise, monitor, and coordinate activities of employees. IT, by reducing the costs of acquiring and analyzing information, permits organizations to reduce agency (and hence governance) costs because it becomes easier for managers to oversee a greater number of employees. IT enables firms to increase revenues while shrinking the number of middle management and clerical workers – also called flattening of organizations.

6. Status of E-Government around the World

To assess e-government status, few indices have been developed. One of them is by the United Nations' Division for Public Economics and Public Administration. This index is an indicator of the progress the UN member countries have made in implementing e-government services. Several parameters and factors are taken into consideration. These include web presence measures (indicating stages of government websites), telecommunication infrastructure measures which define the capacity of a country's ICTs (indicators are Internet hosts per 10,000 people, percentage of a nation's population online, and PCs, telephone lines, mobile phones, and televisions per 1000 people); and human capital measures (using the UNDP Human Development Index, the Information Access Index, and urban/rural population ratio as indicators).

The assessment of e-government readiness index that included 191 countries was undertaken by the United Nations in 2001, 2003 and 2005. The 2001 study used the premise that the state of e-government readiness is a function of the combined level of a country's state of readiness, economic, technological development and human resource development. A final product of their analysis was the construction of a synthetic indicator named the *e-Government Index*. Two years later in 2003, a second survey slightly changed the definition of the e-government index and named it the *e-Government Readiness Index*. The 2005 readiness index is a composite measurement of the *capacity* and *willingness* of countries to use e-government for ICT-led development. It is a composite index comprising the Web Measure Index, the Telecommunication Infrastructure Index and the Human Capital Index (The UN global E-Government Readiness Report 2005). A related index is the E-Participation Index. These are described below.

The Web Measure Index
Web Measure Index 2005 is based upon a five stage model of e-government framework. These five stages are; emerging, enhanced presence, interactive presence, transactional presence and networked presence. These stages are similar to those described in an earlier framework.

Emerging Presence is Stage I representing information which is limited and basic. The e-government

online presence comprises a web page and/or an official website; links to ministries/departments of education, health, social welfare, labor and finance may/may not exist; links to regional/local government may/may not exist; some archived information such as the head of states' message or a document such as the constitution may be available on line; most information remains static with the fewest options for citizens.

Enhanced Presence is Stage II in which the government provides greater public policy and governance sources of current and archived information, such as policies, laws and regulation, reports, newsletters, and downloadable databases. The user can search for a document, there is a help feature and a site map is provided. A larger selection of public policy documents exists, such as an e-government strategy, policy briefs on specific education or health issues. Though more sophisticated, the interaction is still primarily unidirectional with information flowing essentially from government to the citizen.

Interactive Presence is Stage III in which the online services of the government enter the interactive mode with services to enhance convenience for the consumer such as downloadable forms for tax payment, and application for license renewal. Audio and video capability is provided for relevant public information. The government officials can be contacted via email, fax, telephone and mail. The site is updated with greater regularity to keep the information current and up to date for the public.

Transactional Presence is Stage IV that allows two-way interaction between the citizen and his/her government. It includes options for paying taxes; applying for ID cards, birth certificates/passports, license renewals and other similar C2G interactions by allowing him/her to submit these online 24/7. The citizens are able to pay for relevant public services, such as motor vehicle violation, taxes, fees for postal services through their credit, bank or debit card. Providers of goods and services are able to bid online for public contacts via secure links.

Networked Presence is Stage V representing the most sophisticated level in e-government. It is characterized by an integration of G2G, G2C and C2G services. The government encourages participatory deliberative decision-making and is willing and able to involve the society in a two-way open dialogue. Through interactive features such as the web comment form, and innovative online consultation mechanisms, the government actively solicits citizens' views on public policy, law making, and democratic participatory decision making. Implicit is the integration of public sector agencies with full cooperation and understanding of the concept of collective decision-making, participatory democracy and citizen empowerment as a democratic right.

Telecommunications Infrastructure Index
The Telecommunication Infrastructure Index is a composite weighted average index of six primary measures of a country's ICT infrastructure capacity. These are: PCs/1000 persons; Internet users/1000 persons; Telephone Lines/1000 persons; Online population; Mobile phones/1000 persons; and TV's/1000 persons.

Human Capital Index
The data for the Human Capital Index relies on the UNDP 'education index' which is a composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrollment ratio with two third weight given to adult literacy and one third to gross enrollment ratio.

E-Participation Index
The E-Participation Index is used to assess the quality and usefulness of information and services provided by a country's government for the purpose of engaging its citizens in public policy issues. This index is indicative of both the capacity and the willingness of the country's government in encouraging the citizens

in promoting deliberative and participatory decision-making and of the reach of its own socially inclusive governance program.

Current Status of E-government Implementations in Different Regions of the World
Broad findings of the UN global E-Government Readiness Report 2005 are shown in Tables 3, 4 and 5. The index is on a 0-1 scale, with higher values representing higher e-readiness. Some comments are in order.

- Table 3 provides the indices for the top 50 countries with the United States of America (0.9062) being the world leader followed by Denmark (0.9058). Sweden (0.8983) has bypassed the United Kingdom (0.8777) to arrive at the 3rd global position. Among developing countries, the Republic of Korea (0.8727) leads with Singapore (0.8503), Estonia (0.7347), Malta (0.7012) and Chile (0.6963) close behind.

Table 3: E-government Readiness Index 2005: Top 50 Countries

Rank	Country	Index	Rank	Country	Index
1	United States	0.9062	26	Slovenia	0.6762
2	Denmark	0.9058	27	Hungary	0.6536
3	Sweden	0.8983	28	Luxembourg	0.6513
4	United Kingdom	0.8777	29	Czech Republic	0.6396
5	Republic of Korea	0.8727	30	Portugal	0.6084
6	Australia	0.8679	31	Mexico	0.6061
7	Singapore	0.8503	32	Latvia	0.6050
8	Canada	0.8425	33	Brazil	0.5981
9	Finland	0.8231	34	Argentina	0.5971
10	Norway	0.8228	35	Greece	0.5921
11	Germany	0.8050	36	Slovakia	0.5887
12	Netherlands	0.8021	37	Cyprus	0.5872
13	New Zealand	0.7987	38	Poland	0.5872
14	Japan	0.7801	39	Spain	0.5847
15	Iceland	0.7794	40	Lithuania	0.5786
16	Austria	0.7602	41	Philippines	0.5721
17	Switzerland	0.7548	42	United Arab Emirates	0.5718
18	Belgium	0.7381	43	Malaysia	0.5706
19	Estonia	0.7347	44	Romania	0.5704
20	Ireland	0.7251	45	Bulgaria	0.5605
21	Malta	0.7012	46	Thailand	0.5518
22	Chile	0.6963	47	Croatia	0.5480
23	France	0.6925	48	Ukraine	0.5456
24	Israel	0.6903	49	Uruguay	0.5387
25	Italy	0.6794	50	Russian Federation	0.5329

(Source: The UN Global E-Government Readiness Report 2005 "From E-Government to E-inclusion")

- According to Table 4, the regions of North America (0.8744) and Europe (0.6012) are in the leadership position on the e-government readiness index. In the rest of the world category (after North America and Europe), the rankings in descending sequence were: South and Eastern Asia (0.4922); and South and Central America (0.4643), Western Asia (0.4384); the Caribbean (0.4282); South and Central Asia (0.3448); Oceania (0.2888) and finally Africa (0.2642). The World e-government Readiness Index was 0.4267 in 2005.

9

Table 4: Regional E-Government Readiness Rankings

Region Year:	2005	2004	2003
North America	0.8744	0.8751	0.8670
Europe	0.6012	0.5866	0.5580
South and Eastern Asia	0.4922	0.4603	0.4370
South and Central America	0.4643	0.4558	0.4420
Western Asia	0.4384	0.4093	0.4100
Caribbean	0.4282	0.4106	0.4010
South and Central Asia	0.3448	0.3213	0.2920
Oceania	0.2888	0.3006	0.3510
Africa	0.2642	0.2528	0.2460
World Average	0.4267	0.4130	0.4020

(Source: The UN global E-Government Readiness Report 2005 "From E-government to E-inclusion")

- Table 5 depicts the e-government index information for fifteen countries in South and Eastern Asia. It reveals that the Republic of Korea, Singapore, and Japan are the top three with indices of 0.8727, 0.8503, and 0.7801. Myanmar, Timor-Leste, and Lao, P.D.R. are at the bottom of the list with indices of 0.2959, 0.2512, and 0.2421 respectively.

Table 5: E-government Readiness Rankings: South and Eastern Asia

Country	Index 2005	Global rank in 2005	Global rank in 2004	Change
Republic of Korea	0.8727	5	5	0
Singapore	0.8503	7	8	1
Japan	0.7801	14	18	4
Philippines	0.5721	41	47	6
Malaysia	0.5706	43	42	-1
Thailand	0.5518	46	50	4
China	0.5078	57	67	10
Brunei Darussalam	0.4475	73	63	-10
Mongolia	0.3962	93	75	-18
Indonesia	0.3819	96	85	-11
Viet Nam	0.3640	105	112	7
Cambodia	0.2989	128	129	1
Myanmar	0.2959	129	123	-6
Timor-Leste	0.2512	144	174	30
Lao, P.D.R.	0.2421	147	144	-3
Average	0.4922			

(Source: The UN global E-Government Readiness Report 2005 "From E-government to E-inclusion")

7. Concluding remarks

This conference is titled – International Conference on E-Governance. Most researchers and practitioners interpret E-Governance as having something to do with governments. According to our definition and domain framework, that connotation is very misleading. All organizations – public or private, large or small, for profit or non profit – exploit IT and Internet to accomplish efficient and effective governance of

their diverse functions at multiple levels of management. Now the conference organizers can decide – what is their focus – E-Governance or E-Government or both. Our best hope is that researchers and practitioners worldwide will embrace this framework and avoid any more confusion in all kinds of communications – research papers, text books, conferences, speeches, presentations. E-Governance is all over – so we did not attempt to provide its status around the world. However, we have provided status of e-Government around the world.

References

1. Backus, M. (2001) E-Governance and Developing Countries, *Introduction and examples,* Research Report, No. 3, April 2001
2. Bannister, F. and Walsh, N. (2002) The virtual public servant: Ireland's public services broker. Information Polity: The *International Journal of Government & Democracy in the Information Age*, 7 (2/3) pp115.
3. Bedi, K., Singh, P.J. & Srivastava, S. (2001) government net: *new governance opportunities for India.* New Delhi: Sage.
4. Clift, S. (2003) E-Governance to E-Democracy: Progess in Australia and New Zealand toward Information-Age Democracy http://www.publicus.net/articles/edempublicnetwork.html
5. Fraga, E. (2002) "Trends in e-Government: How to Plan, Design, and Measure e-Government". *Government Management Information Sciences (GMIS) Conference*, June 17, Santa Fe, New Mexico, U.S.A.
6. Holmes, D. (2001) *eGov: eBusiness Strategies for Government.* London, U.K.: Nicholas Brealey.
7. Howard, M. (2001) E-Government across the globe: How will "e" change government? *Government Finance Review*, vol. 17, Issue 4, pp. 6-9.
8. Irani, Z.; Al-Sebie, M.; Elliman, T. (2006) Transaction Stage of e-Government Systems: Identification of Its Location and Importance**,** System Sciences, 2006. HICSS *Proceedings of the 39th Annual Hawaii International Conference*, Volume 4, Issue, 04-07 pp. 82c - 82c.
9. Jensen, Michael C., and William H. Mackling, Theory of the Firm: Managing Behavior, Agency Cost, and Ownership Structure, *Journal of Financial Economics*, Volume 3, 1976.
10. Keohane, R. O. and Nye, J. S. Introduction, In Nye, J. S. and Donahue, J.D. (editors), *Governance in a Globalization World.* Washington, D.C.: Brookings Institution Press. 2000.
11. Kettl, D. F. *The Transformation of Governance*, John Hopkins University Press, U.S.A. 2002.
12. Leitner, C. (2003) eGovernment in Europe: The State of Affairs, *European Institute of Public Administration*, Maastricht, the Netherlands.
13. Mintzberg, Henry, Managerial Work: Analysis from Observation, *Management Science, volume 18, October 1971.*
14. Okot-Uma, R.W. (2000) *Electronic Governance: Re-inventing Good Governance.* London, U.K.: Commonwealth Secretariat.
15. Riley, T.B. (2003) *E-government vs. E-governance: Examining the Difference in a Changing Public Sector Climate*, The Commonwealth Secretariat and Government Telecommunications and Information Services, Public Works and Government Services, Canada.
16. Sharma, S.K. (2004) Assessing E-government Implementations, *Electronic Government Journal*, 1(2), 2004, pp. 198-212.
17. Sharma, S. K. (2006) An E-Government Services Framework, Encyclopedia of Commerce, E-Government and Mobile Commerce, Mehdi Khosrow-Pour, Information Resources Management Association, Idea Group Reference, USA, pp. 373-378. 2006.
18. Sharma, S. K. and Gupta, J. N. D. (2003) Building Blocks of an E-government – A Framework*, Journal of Electronic Commerce in Organizations*, (1:4), 2003, pp. 34-48.
19. Sheridan, W., and Riley, T.B. (2006) Commonwealth Centre for e-Governance, e-Gov Monitor, Monday, 3 July, 2006.
20. *UN Global E-government Readiness Report.* From E-government to E-inclusion, UNPAN/2005/14, United Nations publication, United Nations, 2005.

About the Authors

Shailendra C. Palvia is a Professor of MIS at the C.W. Post campus of Long Island University. During 1999-2004, he was the director of MIS at Long Island University. He has published over 125 refereed articles in journals, conference proceedings, and books. His research interests and publications are in the areas of -- Management of the Systems

Development Process, Human Side of Information Technology, Social Issues of Information Technology, Global Issues of Information Technology, IT Applications and Architecture, Telecommuting, Computer Software Training Methods, Global Electronic Commerce, Global Outsourcing of IT and IT Enabled Services, and e-Government. His publications are in journals like the Communications of the ACM, MIS Quarterly, Journal of Information Systems, Information & Management, Journal of Systems Management, International Journal of Information Management, Electronic Markets, Information Resource Management Journal, Journal of Industrial Management and Data Systems, Journal of Global Information Management, and Journal of Information Systems Education. Since 1999, he has been editing the Journal of IT Case and Application Research (JITCAR). Since 2002, he has been chairing the annual international smart-sourcing conferences (www.outsourceglobal.org). Over the years, he has been invited speaker to Germany, India, Italy, Singapore, and Thailand.

Sushil K. Sharma is an Associate Professor of Information Systems and Operations Management at Ball State University, Muncie, Indiana, USA. Co-author of two textbooks and co-editor of four books, Dr. Sharma has authored over 100 refereed research papers in many peer-reviewed national and international MIS and management journals, conferences proceedings and books. He serves on editorial boards of national and international journals and has also edited special issues. His primary teaching and research interests are in e-commerce, computer-mediated communications, community and social informatics, information systems security, e-government, ERP systems, human computer interaction (HCI), database management systems, cluster computing, web services and knowledge management.