Defining E-government: A Citizen-centric Criteria-based Approach

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Abstract

E-government has been in operation for over last decade but it has failed to contribute to improved public service delivery. Administrative reforms, which occupy centre stage in e-government, have gone through three phases of which the e-government is the last. There is a great variety of definition of e-government but such definitions lack clarity of scope and content making the task of e-government practitioners, primarily the e-government policy makers and implementers, difficult.

For defining e-government, four domains of e-government – governance, information and communication technology, business process re-engineering (BPR), and e-citizen –are identified and e-government mapped in three equations. A citizen-centred criteria-based definition of e-government is proposed to assist e-government practitioners by describing the scope and elaborating the e-government content.

To operationalise the definition setting up of e-business teams in ministries/departments at the centre and states and in the districts to prepare e-business plans is suggested. The elements of e-business plans are then elaborated and the need for their regular review stressed. The paper concludes by drawing attention to emerging e-government challenges highlighting the need for a citizen-centric criteria-based definition of e-government operationalised by elaborate e-business plans.

Index Terms - E-government Level-of-perspectives definition Administrative reforms Citizen-centric administration Mapping Domains Benefits Limitations Supersite Citizen-centric criteria-based definition E-business team E-business plan Elements of e-business plan Emerging challenges

1. Introduction

E-government means different things to different people.1 There are as many definitions of e-government as there are individuals, organisations and forums defining it. Individuals at different levels of organizational hierarchy also have different perceptions of e-government. As a result e-government scholars and practitioners alike often lack clarity as to the precise meaning of e-government, which adversely affects its practice and results in unintended consequences for the organizations and citizens. Who is right and whose definition must prevail? And what is the need for proposing yet another definition of e-government?

This author proposes two views in the matter: First, every one is right in defining e-government in her own way and every one's definition could prevail, and secondly, yet another definition of e-government is needed as the current definitions are often generalised and lack content elaboration.

View 1: Existing definition of e-government: A moderately educated office messenger is entitled to perceive e-government merely as "computer" (read computerization). Likewise, up the hierarchy, an office clerk is entitled to perceive e-government as "government services online" (read on the web). Similarly, further up the hierarchy, middle level civil servants can perceive e-government as "improved government services online" (read "reformed" government services online). Finally, at the top level, senior civil servants can perceive e-government as "reformed government services online tuned to the needs of e-citizens." (Table 1).

Table 1 Current level-of-perspectives definition of e-government

S.N.	Level	Civil service classification	Perception of e-government
1	Level-I (Routine)	Group D	Computerisation
2	Level-II (Clerical)	Group C	Computerisation + government online
3	Level-III (Middle management)	Group B	Computerisation + government online + administrative reforms
4	Level-IV (Senior management)	Group A	Computerisation + government online + administrative reforms + e-citizen needs= transformation

1 For a sample of definition of e-government, see [1].

View 2: Yet another definition of e-government

A citizen-centric criteria-based definition of e-government is required to help e-government policy makers and implementers in introducing and following up introduction of e-government for improved public service delivery.

2. Administrative reforms and e-government

At the centre stage of e-government is administrative reforms (AR). Administrative reforms can be perceived to have gone through three distinct phases during last three decades with e-government being its latest phase since mid-1990s (Table 2).

Table 2 Three phases of administrative reforms

S.N.	Nomenclature	Phases	Characteristics
1	Traditional regulatory bureaucracy	Pre-1980s	Authoritativeness, rigidity and rule-orientation
2	New public management (NPM)	1980s	Application of corporate practices and result-orientation
3	E-	Since	Citizen-centric

	government (E-gov)	mid-1990s	interactive and responsive administration.

3. Second Administrative Reforms Commission

Realising the need to revamp the public administration, Government of India, Department of Administrative Reforms and Public Grievances (DARPG) appointed a commission of inquiry, called the second Administrative Reforms Commission (ARC) "to prepare a detailed blueprint for revamping the public administration system" on August 31,2005 [2]. The commission is required "to suggest measures to achieve a proactive, responsive, accountable, sustainable and efficient administration for the country at all levels of the government." The commission will, inter alia, consider (ix) Citizen-centric administration, and (x) Promoting e-governance.

4. Elaborating citizen-centric administration

The DARPG order constituting the second ARC elaborates the concept of "citizen-centric administration" in five major components: (i) Accountable and transparent government, (ii) Result- oriented administration, (iii) Citizen centric decision making, (iv) User groups in decision-making, and (v) Freedom of information. These major components are elaborated as follows:

(i) Accountable and transparent government: This consists of (a) Issues of delegation, accountability and transparency, (b) Move from processes accountability to productivity accountability and from transactional to transformative governance, and (c) Reduce delays and ensure promptness in delivery of services, (ii) Progressive interventions to make administration more result oriented: These interventions, inter-alia, include: (a) Process simplification, (b) Target group consultations, and (c) Flexibility to implementing agencies customised to local needs, (iii) Strengthening citizen centric decision making: This will include further empowering the citizen through citizens' charter, etc., (iv) To facilitate accessibility of user groups to decision-making processes: The operational details, inter alia, may include: (a) Setting up of information facilitation and solution centres, (b) Augmenting facilities for submission and redress of grievances and providing replies thereto, and (c) Setting up consultative mechanism for receiving suggestions, and (v) Freedom of information: This will include: (a) To review the confidentiality classification of government documents specially with reference to the Officials Secrets Act, (b) To encourage transparency and access to non-classified data, and (c) Disclosure of information and transparency as a supplement to the Right to Information of the citizens. [3].

5. Promoting e-governance

E-governance promotion is based on two important planks: (a) To reduce red-tape, delay and inconveniences through technology interventions including the use of modern tools, techniques and instruments of e-governance, and (b) Promote knowledge sharing to realise continuous improvement in the quality of governance [ibid., 3].

6. Mapping E-government

E-government (E-gov) is a function of four variables: governance (G), information and communication technology (ICT), business process re-engineering (BPR) and e-citizen (E-C). It can be stated as an equation, which may be called the first e-government fundamental equation, thus:

$$\text{E-gov} = f\,(G, ICT, BPR, E\text{-}C) \ldots\ldots (1)$$

where E-gov = E-government, f = Function, G = Governance, ICT = Information and Communication Technology, BPR = Business Process Re-engineering, and E-C = Electronic Citizen.

The four independent variables - G, ICT, BPR, E-C, require elaboration. There cannot be any e-government (e-gov) without good governance, sound information and communication technology (ICT) infrastructure support, a critical examination of existing administrative procedures followed by appropriate administrative reforms, here designated as business process re-engineering (BPR) and, finally, meeting the needs of e-citizen, a citizen who seeks public service delivery and interacts with state online, a citizen of the virtual state and a member of emerging e-society.

The e-government function is not any free-floating function in cyber space. It has a definite objective: to transform government. This objective is based on two basic premises: first, current government functioning, as exhibited by its public service delivery, is far from satisfactory. And, secondly, government can perform better, aided by the existing and emerging information and communication technologies (ICTs). In this conceptualization, therefore, e-government is transformation, from giving rise to the second e-government fundamental equation, thus:

E-gov = T-gov…… (2)

This conceptualization of e-government gives rise to four important corollaries, namely, first e-government is an intermediary stage for transforming government. Thus e-government is not an end in itself but a means for reaching an end. Secondly, e-government must aim at government transformation failing which its full potential will continue to remain unrealised. Thirdly, any e-government attempt must be based on administrative reforms, failing which the e-government attempt may not give desired results. And lastly, e-government should strive to reach the ultimate stage, still eluding the developing countries, when e-government becomes synonymous with government [4].

7. The Transformation Process of E-government

The transformed government (t-gov) has two stages: 1. The process of transformation, and 2.The end result of transformation or the stage of transformed government (t-gov). In the second stage e-government becomes synonymous with government giving rise to the third e-government fundamental equation, thus:

E-gov=Gov……..(3)

where E-gov=E-government and Gov=Government. Equations (1), (2) and (3) taken together map e-government space and help us in developing a definition of e-government.

8. Domains of e-government

Four domains of e-government are:(a) governance (G), (b) information and communication technology (ICT), (c) business process Re-engineering (BPR), and (d) e-citizen. Where these four domains intersect is the domain of e-government as shown in Figure 1.

9. Defining e-government: The citizen-centric criteria-based definition

In order that any electronic intervention can qualify to be called e-government, it must meet the following criteria (Table 3).

10. Benefits of E-government

(a) To Citizens: E-government benefits the citizens in a number of ways. We mention only half a dozen benefits: 1. 24x7(24 hours, 7 days a week) round-the-clock service (always

available), 2. Economical (no need for physical visit to an office), 3. Fast and efficient service (electronic), 4. Transparent (no speed money), 5. Equitable (any one can access it), and 6. Convenience (can be accessed while on move or at home).

(b) To Business: Similarly it benefits businesses in a number of ways: 1. Reduced time in setting up new business (reduced red tape), 2. Conducting e-business and e-commerce (online business), 3. Better conformity to government rules and regulations for running business, 4. More convenient and transparent way of doing business with government through e-procurement, 5. Better control over movement of goods through online monitoring of clearances, and 6. Conducting monetary transactions online (e-banking, e-payment).

(c) To Government:The government too benefits in a number of ways: 1. Better policy making and regulatory and development functions as result of better and up-to-date information, 2. Very fast acquisition, storage and retrieval of data leading to better decision-making, 3. Better management of government processes, 4. Better dissemination of government rules, regulations and activities, 5. Better performance in regulatory functions like taxation, 6. Better performance in social sectors like education, health and social security, and last but not the least, 7. Creates the positive image of modern and progressive government.

11. Limitations of e-government

E-government is not a panacea for all the ills confronting the government. It has serious limitations which must be realized for a proper understanding of e-government. First, e-government is costly. It requires investment in information and communication technology (ICT) manpower and infrastructure. Secondly, e-government takes time to design and implement. Any hurried attempt will give unsatisfactory results. Thirdly, e-

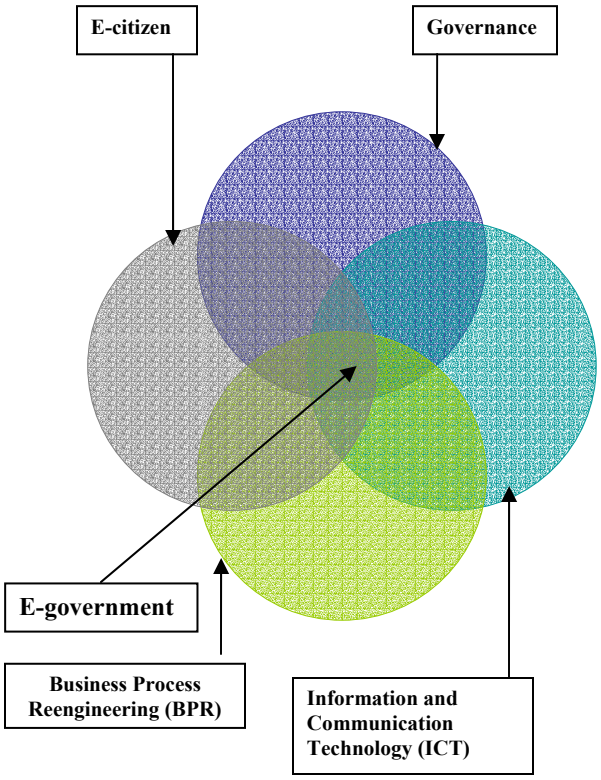

Figure 1 Defining E-government

government is risky. It does not have any fail-safe strategies. Fourthly, though e-government may be
widely subscribed but it has a number of people too who do not have faith in new technology. Fifthly, e-government requires e-inclusion, that is, access to information and communication technologies (ICTs) but this may not be the case in most of developing countries. Sixthly, e-government requires e-literacy, that is, a certain minimum level of knowledge and skills on the part of citizens to access it.

12. Assessment and standard format for official websites

In the most comprehensive study of state and local government websites ever undertaken in the U.S., published as EGovernment Trend Report, over 11,200 government websites were assessed for their e-government presence and

capabilities, against 25 features, grouped into 7 indexes of services: 1. Site usability, 2. Citizen responsiveness, 3. Disability, 4. Information and information tools, 5. Procurement, 6. Payment services/E-permits, and 7. Human resources [15]. Similar such criteria need to be developed for assessment of official Indian websites. More importantly, a standard format needs to be developed for official websites so that citizens are generally aware as to what to expect where.

Table 3 The citizen-centric criteria-based definition of e-government

S.N.	Criteria	Remarks
1	E-democracy	Promote e-voting and public participation in decision-making. Accept e-society.
2	E-citizen	Develop e-citizen's charter. Only Netherlands is taking the initiative [5]
3	E-inclusion	Set up access points. Common services centres scheme is a good example [6].
4	E-literacy	Promote e-literacy by enlisting support of civil service organizations (CSOs).
5	E-empowerment	Promote use Right to Information (RTI) Act 2005 [7] through official websites.
6	Citizen-centric government	Keep citizen at the centre stage of any e-government intervention.
7	Single portal	Cradle to the grave services for citizens. Singapore portal is good example [8]
8	Single sign on (SSO)	Only one user id and password. Singapore's SingPass is a good example [9].
9	All public services online	Joined-up, seamless government without need to go elsewhere.
10	Efficient onsite search	Set up a specialty search engine. Learn from USA's new search enginea [10].
11	Easy site navigation	Set up user-friendly web site so that citizens know where to expect what.
12	E-payment	Citizens must be able to conduct financial transactions online.
13	Participative e-government	Set up uncensored discussion forums on official web sites as a matter of policy.
14	Grievance redress	Every web site must have a time-bound grievance redress mechanism.
15	Anywhere e-government	Provide e–government through multiple channels including cell phones(m-gov).
16	Anytime (24x7) e-government	Provide "always on" e-government including railway reservation.b [11]
17	Privacy and security	Assure citizens that their privacy is protected and transactions financiallysecure.
18	Legal support	Make computer-generated documents legally acceptable by legislation.
19	Customer relationship	Provide for customer-led [12] customer relationship management (CRM).
20	Quality-marked e-government	Assure a minimum standard of quality. Check [13] and UK's Charter Mark [14]

a It searches 40 million pages bThe Indian railways online passenger reservation system [11] is widely claimed as a success story though the website needs further improvement and the service is not available round the clock.

13 Death of the Surfer…Birth of the Supersite

There is a general tendency in India, as elsewhere, for launching more and more official websites, more to show web presence than genuinely serve the customer. New research published by Directgov in U.K. points to a new era in the use of the internet that experts are calling the 'Supersite' phenomenon [16]. Despite 75.8 million websites (and 6 billion pages) in existence, people are no longer 'surfing' widely over the whole net, with over half of internet-using Britons (51%) visiting just six or less sites on a regular basis. When asked what factors were most important in a website they visited regularly, it wasn't necessarily about being entertained or saving money, in fact the majority of respondents said that it needed to be: trusted (60%), tried and tested (56%), familiar (53%) and reliable (51%).75% of respondents said that they would welcome a website that gave them access to public services all in one place [ibid., 15].

14 Operationalising e-government definition: (a) Set up e-business teams at the centre, states and at district levels to prepare e-business plans

Set up a team of CIO (chief information officer, by whatever name called like joint secretary (IT), etc. at the centre and secretary (IT) in the states) (chair) and project manager, National Informatics Centre (NIC) (by whatever name called like Technical Director, etc.)' and Database Administrator (DBA) and the Project Manager of the Ministry/Department as members to draft e-business plans in a definite timeframe (say, 2 months). Similar e-business teams are also required to be set up at the district level under the chairmanship of District Collector with Additional District Magistrate and District Informatics Officer (DIO) of the National Informatics Bureau (NIC) as its members for preparing e-business plans at the district level.

15 Operationalising e-government definition: (b) Prepare an e-business plan: Elements of e-business plan

An e-business plan at the centre, states and districts is comprehensive roadmap to transform public service delivery through e-government. It should consist of four parts: I.Executive Summary, II. Section A: Operative, III. Section B: Planning, and IV. Annex (Table 4). The e-business plan thus has standard format which, inter alia, will help in integrating public service delivery across centre, state and district levels. It is a time-bound document with a shelf life of 3 years for transforming government and serving citizens. Every three years the e-business plan should be reviewed in its entirety by the e-business team. It is thus a continuous process and not a one-shot affair, aimed at increasing public confidence in government performance.

Table 4 Elements of e-business plan

SN	Element	Content
Part I: Executive Summary (Summary of content of e-business plan)		
Part II: (a) Operative (Operative part of e-business plan)		
1	Introduction	Introduce E-business Plan
2	Mandate	Describe the mandate of Ministry/Department
3	Objectives	1. Vision 2. Mission,3.Values 4. Strategy 5. Goals 6. Deliverables 7. Time Frame and 8. Tasks
4 (a)	Services currently	Enumerate (1,2,3…)

	online	
(b)	Services proposed to be online	Enumerate (1,2,3…)
5	Time Frame	Prescribe realistic time frame for implementation of the e-business plan
6	Deliverables	Specify physical, logical , planning, and activity deliverables in a given timeframe
7	Preparation	State whether prepared (i) in-house, or (ii) outsourced giving full justification
8	E-business team	Set up e-business team of Chief Information Officer, Database Administrator and Project Manager in the Ministry/Department
9	Financial implications	Specify easy-to-understand consolidated requirements of funds.
10	Approval	Specify the level of management approval of the e-business plan.
Part III. (a) Planning (Planning part of e-business plan)		
1	E-governance master plan	Develop Ministry/Department-specific e-business plan as a building block of government-wide e-governance master plan
2	Situation analysis	Undertake fishbone (or Ishikawa diagram) analysis [17] of present situation
3	Best practices	Benchmark against inter-sectoral and sectoral best practices worldwide [18, 19, 20]
4	Business process reengineering (BPR)	Re-design business processes (administrative procedures) by undertaking critical review of existing business processes
5	Free and open source software	Encourage use of free and open source software (FOSS), wherever possible, as a policy consistent with the requirement of security
6	Architecture and standards	Set up appropriate architecture and standards consistent with government-wide architecture and standards [21]
7	Technology for internal processes	Check best available and emerging cost-effective technologies which may not be state-of-art but meet requirements adequately, that is, good enough technology
8	Technology for access	Enumerate technologies by which customers access e-government
9	Change manageme	Prepare a change management sub-plan using RASCI chart (which specifies who is to do what for adopting to proposed change)

	nt	
10	Knowledge management	Prepare a knowledge management sub-plan setting up a decision-making-oriented information and communication-technology-based management information system (MIS).a
11	Customer relationship management	Prepare a customer relationship management (CRM) sub-plan for serving the citizens by anticipating and responding to her needs keeping in mind that government exists for her and not for civil servants and set up helpline (in case of small organizations) and call centres (in case of large organizations) [23] without fail.b
12	Cyber laws	Specify steps for new legislation and amendment of existing legislation for providing legal support to e-government.
13	Security	Prepare a security sub-plan incorporating, inter alia, public education in security. Adopt ISO 17799 [25]
14	Training management	Prepare a training sub-plan for all categories of employees emphasizing that money spent on training is an investment and not an expenditure
15	Stakeholder consultation	Specify various stakeholders consulted and whether their views incorporated while preparing e-business plan.
16	Access	Specify various channels through which a citizen can access e-services including access by differently-abled.c
17	E-government Marketing	Merely setting up e-government is only half of the journey. The other half of the journey is to sell successfully e-government to citizens, non-citizens (say, tourists), civil servants and decision-makers [27]. Prepare an e-government marketing sub-plan.
18	Monitoring and evaluation (M&E)	[Prepare a monitoring and evaluation (M&E). Among the two, have a larger component o f monitoring (M) and a relatively smaller component of evaluation (e) [28].
19	E-citizen charter	Recognise her as a unique entity specifying her rights and duties in the virtual state and promote e-society.
20	Conclusion - Selling e-business plan	Having prepared the e-business plan, “sell” it to various stakeholders to make it a commonly owned roadmap for e-government
IV: Annex		
Place all the annexes in this part		

aFor guiding principles for knowledge management in e-government, see [22] b Even in developed countries like the U.K. and the U.S., the most universal "e" channel is the telephone, to which 94 percent of the population has access, and not the world wide web[24] c The report of the first ever global website accessibility survey conducted by Nomensa Ltd, London, commissioned by the United Nations (UN), released on December 5, 2006, revealed that 97% of websites tested fail to achieve the minimum web accessibility level [26].

16 Timeframe for implementation

E-business plan should have a fixed life span, say, of three years. Work out implementation in 3 annual phases: (i) 2007-2008 (ii) 2008-2009 and (iii) 2009-2010. Break down each annual phase into quarterly and monthly milestones. Then work out physical as well as financial milestones

17 Concluding Remarks

A number of e-government challenges are emerging today which show that the future of e-government may be sober and not hype [29]. E-government hype is not e-government reality [30]. The central lesson which emerges out of e-government practice for last more than a decade is that public service delivery continues to be unsatisfactory and the vast, almost revolutionary potential, of e-government continues to be unrealized. To redress the situation it is necessary to define e-government afresh and propose a citizen-centric criteria-based definition of e-government as a lodestar to guide the efforts of e-government policy makers and implementers. This definition of e-government needs to be operationalised by carefully prepared e-business plans at the central, state and district levels so that the basic objective of e-government of serving the citizens is not lost sight of in the quagmire of implementation where rubber meets the road.

References

[1] AOEMA (Asia Oceania E-business Marketplace Alliance), (Victoria, Australia), E-Government: Definitions and Objectives, http://www.aoema.org/E-Government/Definitions_and_Objectives.htm (last accessed: December 25, 2006)

[2] DARPG (Department of Administrative Reforms and Public Grievances) (2005): Administrative Reforms Commission, New Delhi, Ministry of Personnel, Public Grievances and Pensions, http://arc.gov.in/index.htm (last accessed: December 25, 2006)

[3] Administrative Reforms Commission (2005), Ministry of Personnel, Public Grievances & Pensions, Schedule, http://arc.gov.in/tor.htm#9 (last accessed: December 25, 2006)

[4] Himmelsbach, Vawn (2006): E-government has become plain old government for most countries, it business.ca, December 14, http://www.itbusiness.ca/it/client/en/home/News.asp?id=41557&cid=10 (last accessed: December 25, 2006).

[5] NPRC (National Policy Research Council) (2006): Egovernment Trend Methodology Report, Washington, D.C., the author, http://www.nprcouncil.com/e-government/Methodology.pdf (last accessed: December 23,2006).

[5] Misra, D.C. (2006): e-Citizen's Charter, Development Gateway, August 8, http://topics.developmentgateway.org/egovernment/rc/ItemDetail.do?itemId=1069158. Also check Dutch e-Citizen Programme, http://www.burger.overheid.nl/service_menu/english (last accessed: December 24, 2006)

[6] DIT (Department of Information Technology), Government of India (2006): Guidelines for Implementation of the Common Services Centres (CSC) Scheme in States, October 9, http://www.mit.gov.in/cscguidelines.asp

[7] Ministry of Personnel, Public Grievances and Pensions, Government of India, Right to Information Act (India), http://persmin.nic.in/RTI/WelcomeRTI.htm. Also check Central Information Commission

(CIC)'s website at http://cic.gov.in/ (last accessed: December 25, 2006).

[8] Singapore Government, eCitizen: Singapore, http://www.ecitizen.gov.sg/about_us.html (last accessed: December 24, 2006)

[9] Singapore Government, eCitizen: Singapore Citizen's Personal Access: SingPass, http://www.ecitizen.gov.sg/singpass/index.htm (last accessed: December 24, 2006).

[10] Pulliam, Daniel (2006): GSA launches upgraded FirstGov search engine, Govexec.com, January 24, http://www.govexec.com/story_page.cfm?articleid=33224&ref=rellink (last accessed: December 24, 2006)

[11] Indian Railways Online Passenger Reservation, http://www.indianrail.gov.in/ (last accessed: December 26, 2006)

[12] Bollettino, Jeffrey O. (2002): The Customer-Centric Digital Department: e-Service in Government, in Rust, Roland T. and P.K.Kannan (eds.) (2002): e-Service: New Directions in Theory and Practice, New Delhi, Prentice-Hall of India, Chapter 12, p-276

[13] DARPG (Department of Administrative Reforms and Public Grievances), Ministry of Personnel, Public Grievances and Pensions, Government of India, Citizens' Charters in Government of India, http://goicharters.nic.in/faq.htm (last accessed: December 25, 2006).

[14] Cabinet Office, United Kingdom, Charter Mark, National standard of customer service excellence, http://www.cabinetoffice.gov.uk/chartermark/index.asp. See also its review proposing new standard, December 14, at http://www.cabinetoffice.gov.uk/newsroom/news_releases/2006/061214_gov_response.asp (last accessed:December 24, 2006).

[15] NPRC (National Policy Research Council) (2006): Egovernment Trend Methodology Report, Washington, D.C., the author, http://www.nprcouncil.com/e-government/Methodology.pdf (last accessed: December 23,2006).

[16] Cabinet Office, e-Government Unit, United Kingdom (2006): Tickbox.net Survey, DirectGov-Internet Thinking, http://www.cabinetoffice.gov.uk/e-government/docs/direct_gov/final_tickbox_report.pdf (last accessed: December 24, 2006).
Also check Misra, D.C. (2006): STUDY: Death of the Surfer… Birth of the Supersite, Development Gateway: E-government, http://topics.developmentgateway.org/egovernment/rc/ItemDetail.do~1059613 (last accessed: December 24, 2006)

[17] Pepoli, Bethann, Michelle Rathke, Joe DiBella, Ravi Kumbam, Toby Stapleton (2002): MBA 740EX Winter 2002 Group # 1,Boston, MA, Suffock University, Sawyer Business School, http://www.suffolkcis.org/wbriggs/Project%20samples/ProjPaper%20EX1%20MassGov.doc (last accessed: December 26, 2006)

[18] DESA (Department of Economic and Social Affairs), United Nations (2006): Compendium-E-government Innovative Practices, New York, the Author. December. Edition I, ST/ESK/PAD/SER.E/78, available: http://unpan1.un.org/intradoc/groups/public/documents/un/unpan022196.pdf. Also see Misra, D.C. (2006): UN Compendium of Innovative E-government Practices, Volume I, Development Gateway: E-government, July 14, http://topics.developmentgateway.org/egovernment/rc/ItemDetail.do~1067100 (last accessed: December 25, 2006).

[19] DESA (Department of Economic and Social Affairs), United Nations (2006): Compendium-E-government Innovative Practices, New York, the Author, August, Edition II, ST/ESA/PAD/SER.E/96, available: http://unpan1.un.org/intradoc/groups/public/documents/un/unpan023997.pdf. Also see Misra, D.C. (2006): UN Compendium of Innovative E-government Practices, Volume II, Development Gateway: E-government, October 10, http://topics.developmentgateway.org/egovernment/rc/ItemDetail.do?itemId=1074989 (last accessed: December 25, 2006).

[20] BAH (Booz Allen Hamilton) (2005): Beyond e-Government: The world's most successful technology-enabled transformations, Report of a study commissioned by UK Cabinet Office, November, available: http://www.boozallen.com/media/file/151607.pdf (last accessed: December 25, 2006).

[21] NIC (National Informatics Centre), Department of Information Technology, Ministry of Communications and Information Technology, eGovernance Solutions & Standards, http://egovstandards.gov.in/index_html (last accessed: December 25, 2006).

[22] Misra, D.C. (2007): Ten Guiding Principles for Knowledge Management in E-government, in Proceedings of the First International Conference on Knowledge Management for Productivity and Competitiveness, January 11-12, 2007, New Delhi. National Productivity Council (forthcoming).

[23] CTG (Center for Digital Government)(2005): HELLO, The First Word in Reinvigorating the Relationship between Citizens and their Government: An Introduction to Citizen Service Technologies and 3-1-1, Folsom, CA, available: (registration required) http://www.centerdigitalgov.com/fileReg.php (last accessed: December 26, 2006)

[24] Newcombe, Tod (2005): Want E-Gov? Pick up the Phone, Government Technology's Public CIO, May, http://www.public-cio.com/story.php?id=2005.04.29-93838

[25] International Organisation for Standardisation (ISO), http://www.iso.org/iso/en/prods-services/popstds/informationsecurity.html (accessed: December 25, 2006).Check also Ernst & Young's 2006 Global Information Security Survey (n= 48 countries) at http://www.ey.com/Global/download.nsf/International/TSRS_-_GISS_2006/$file/EY_GISS2006.pdf (accessed: December 25, 2006)

[26] Nomensa Ltd., London, http://www.nomensa.com/nomensa/live/news/at-nomensa/2006/12/nomensa-publishes-global-audit-with-united-nations.html. Check also Web Content Accessibility Guidelines 1.0 at http://www.w3.org/TR/WCAG10/#priorities (last accessed; December 24, 2006)

[27] AGIMO (Australian Government Information Management Office) (2004): Marketing E-government, Canberra ACT, Best Practice Checklist 20, Version 1, http://www.agimo.gov.au/__data/assets/file/33943/BPC20.pdf (last accessed: December 26, 2006).

[28] Petricek, Vaclav, Tobias Escher, Ingemar J. Cox and Helen Margetts (2006): The Web Structure of E-Government - Developing a Methodology for Quantitative Evaluation, http://www.governmentontheweb.org/downloads/papers/WWW2006-Web_Structure_of_E_Government.pdf (last accessed: December 26, 2006).

[29] Misra, D.C. (2006): Ten Emerging E-government Challenges Today: The Future May be Sober and not Hype, in Sahu, G.P. (ed.)

(2006): Delivering E-government , New Delhi, GIFT Publishing, Global Institute of Flexible Systems Management Chapter 2, pp 6-14, Paper presented at the keynote session in the 4th International Conference on E-governance (ICEG), December 15-17, 2006, New Delhi, Indian Institute of Technology (IIT)

[30] Heeks, Richard (2006): Implementing and Managing eGovernment: An International Text, New Delhi, Vistaar Publications, p-1

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