

Role of ICT in creating e-Government for the disadvantaged communities

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Abstract

Information and Communications Technologies (ICTs) are playing an increasingly vital role in the daily lives of people by revolutionizing their working procedures and rules of business. In the realm of government, ICT applications are promising to enhance the delivery of public goods and services to common people not only by improving the process and management of government, but also by redefining the age-old traditional concepts.

The world is witnessing dynamic changes in all spheres of life, business and governments. The ICT which is the catalytic agent of this millennium offers magnitude of opportunities for a better world of tomorrow. Many countries have adhered to the wonders of the Internet technologies and have embraced diversified approaches for the advancement of their economies and betterment of their peoples' lives.

The realizations of ICTs on societies are over ambitious, far-reaching and uneven. In one aspect, ICT is influencing the transition from industrial-based economies to knowledge-based societies, in the aspect, ICT still has little or no impact of ICT around the world today underscores the uneven progress of economic development. It also portrays constricted and critical role of government within the information society.

To achieve the real success of e-governance within the information society, there need to clarify the major issues surrounding e-Government, as well as adopt best practices in e-governance in the developing world. Glimpse of hopes are there that global leaders committed to e-Government are demonstrating far reaching achievements by combining technology with new ways of management with which government can be made much more effective, efficient, transparent and responsive for the betterment of the society.

Ideally the ICT tools offer an unprecedented opportunity for community to access information over any geographical distances and across any sovereign state borders. Opportunities for networking and knowledge sharing are also unlimited, regardless of its perseverance. Furthermore, ICTs position in governance systems and practices have becoming widely participatory and inclusive, with endless economic opportunities.

At the milestone of the World Summit of Information Society (WSIS), time has come to look backward, take a good view, breath a while, and re-think on strategies, policies and planning on the developing countries acting locally, regionally and globally along this hopeful road to success and prosperity.

Keywords: knowledge-based society, e-governance, e-Government, governance system, WSIS.

1. Introduction

ICTs offer a unique opportunity for governing elites to overcome the crisis of representative democracy, as ICT and the Internet empower civil society to play its role more effectively and facilitate the performance of governments' main function- serving the people who elect them [Misnikov, Y., 2003].

Information society is based on the effective use and easy access of information and knowledge, while ICT for Development (or ICTD) is not restricted to technology itself but focusing on manifold development and diverse manifestations for the people to improve their well-being. ICTD has deep roots in governance, is part of governance and has effects on governance patters and practices at both central and local level.

Community Networking groups and Local Government authorities are well placed to campaign for greater inclusion for all members of the community in the 'Information Society'. Possible areas to target include the provision of technology at low or no cost to groups through community technology centres or out of hours school access. There are many possibilities and local government must take a significant role in these activities [Young, K., 2000].

By recognizing these facts, UNDP focuses on technologies to end poverty at Cyber Summit. UNDP will focus on ways that new technologies can help lift more than one billion people out of extreme poverty [UNDP, 2003]. Apart from the four Asian IT giants (Korea, Rep.; Hong Kong, China; Taiwan, China; and Japan), most of the Asian countries have fallen under the "low access" category of the Digital Access Index. This has also

been referred in the WSIS Cyber Summit 2003, "Until now, limited infrastructure has often been regarded as the main barrier to bridging the Digital Divide [ITU, 2003].

Definitions of e-Government range from "the use of IT to free movement of information to overcome the physical bounds of traditional and physical based systems" to "use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees" The common theme behind these definitions is that e-g involves the automation or computerization of existing paper-based procedures that will prompt new styles of leadership, new ways of debating and deciding strategies, new ways of transacting business, new ways of listening to citizens and communities, and new ways of organizing and delivering information [Pascual, P. J., 2003].

In ways, governance systems are not always neutral to ICTs; they may sometime support or sometime obstruct the application of ICTs for development. The era of the global information society, as brought about by the technological advancement and globalization in trade and economy may create challenges to the society, restrict the development of grass-roots communities; contests the business accomplishment and create barrier to the professional development if congenial policies have not been adopted by the government.

Through governance, participation and inclusion, the system takes benefit from the networking opportunities and access to relevant knowledge across distances. ICT can finally bridge local, regional and central governments, although it is difficult to separate the work of central government from overall governance practices. If a common platform of e-governance may be initiated, it does not matter much whether the central government provides nation-wide services or a grass-roots telecenter in a remote area services local villagers. However, the central government need to review regularly its citizen services, retaining only those that are a clear public good, while outsourcing (whether fully or partially) to the civil society and private sector those that are too expensive or difficult for the government to administer or that would simply be better and faster delivered by non-governmental organizations. From that view point, e-Government may ultimately mean local government.

The e-Government aims to enhance access to and delivery of government services to benefit people, help strengthen government's drive toward effective governance and increased transparency, and better management of the country's social and

economic resources for development. The key to e-Government is the establishment of a long-term dynamic strategy to fulfill the citizen needs by transforming internal operations. e-Government should result in the efficiency and swift delivery and services to citizens, business, government employees and agencies. For citizens and businesses, e-Government seems the simplification of procedures and streamlining of different approval processes, while for government employees and agencies, it means the facilitation of cross-agency coordination and collaboration to ensure appropriate and timely decision-making.

Thus, e-Government demands transformation of government procedures and redefining the process of working with people and activities relating to people. The outcome would be a societal, organizational and technological change for the government and to its people, with IT as an enabling factor. e-Government should concentrate on more efficient delivery of public services, better management of financial, human and public resources and goods at all levels of government, in particular at local level, under conditions of sustainability, participation, interoperability, increased effectiveness and transparency [EU, 2002].

e-Government is a sub-set of the broader phenomenon of e-governance, and can be understand as the application of information technology's tools and techniques to the workings of government for the workings of government for the benefit of its "customers"- citizens and businesses- as well as for itself [Scacco, A., 2003].

2. Aims of e-Government:

The aim of the e-Government policy is to set the enabling framework for the government administration to effectively and efficiently utilize ICT opportunities and to guide the forward move in the right ICT direction along an accelerated path in contributing towards the economic and social upliftment of the nation. It will enable the citizen to be a beneficiary in the global information economy and would create the framework for an e-society to support their economic, learning and personal needs [e-Sri Lanka 2003].

e-Government may be set to accomplish the following goals that move beyond mere efficiency of government processes to that of overall reform and development:

- Better business environment
 - Technology is a proven catalyst in increasing productivity and economic growth, especially in rural and

underserved communities [Konrad, R., 2002] (remote and disadvantaged). The use of ICT in government and the establishment of e-Government infrastructure assist to create a business-friendly environment at the grass root level. These can be achieved by streamlining the interactions and improving the interfaces between government and business focusing SMEs. By eliminating redundancies in procedures and emphasizing immediate and efficient delivery of services, e-Government creates the atmosphere to attract the investors/investment.

- Strengthened governance
 - Promoting transparency and accountability in government through the proliferation of ICT in management and operations opens opportunities for better mobilization of resources, efficient decision making and good governance.
 - Strengthening the civic relationship between Government and citizens is always an important duty. Rightly or wrongly, citizens at times perceive Government as being distant, irrelevant, or just not delivering services relevant to them. By encouraging the delivery of more citizen-centric services through intermediation, Government can reconnect with citizens and even be perceived as improving its responsiveness [UK Online, 2003]
- Enhanced public participation
 - e-Government facilitates swift delivery of information. Mass dissemination of information assists empowerment of citizens and facilitate informed decision-making. Eventually, citizens are made to be more actively involved in the policy and decision making processes of the government.
- Improved productivity and efficiency of government agencies
 - Re-engineered management processes and procedures, efficient delivery of services, increased productivity of the bureaucracy, and increased savings are the inherent benefits of e-Government system.

With its emphasis on the use of information technology in the delivery of services, e-Government presents a government agency with the opportunity to re-think how it delivers services. Specifically, e-Government offers the agency the opportunity to: examine its current operations and

procedures, identify business processes and practices that can be streamlined, implement those streamlined business processes, and implement new technologies that enhance those improvements. In the processes of streamlining business operations, a properly implemented e-Government solution provides the agency with the opportunity to focus its resources on service delivery efforts that are most efficiently provided through direct contact versus other means [Pascual, P. J., 2003].

The success of efforts in achieving e-Government lies in the way that technology is utilized and managed by the public sector. ICT as the enabling tool and with effective deployment it could facilitate the desired results in the long run. Systems, processes and procedures constitute the framework for the usage of ICT. However, the critical factor for the delivery of the desired results is the willingness of the public sector and the citizen to use and adapt to new technology based environments [e-Sri Lanka 2003]. The government agencies should find innovative ways of working in fulfilling the needs of the people within the information society.

3. Methodology

ICT brings pertinent sides more closer by prioritizing partnerships between the state, business and civil society. A few East European countries have become economically liberal with the high level of foreign direct investment per capita and at the same time became ICT-advanced regional leaders in terms of economic reform. These countries also present the region's most vivid examples of partnerships and collaboration. They have clearly manifested the importance of the public-private partnerships, transparent bottom-up strategies, involvement of all stakeholders, total governmental support, capturing economic opportunities and enabling electronic mediated businesses, responding to the challenges of globalization.

A country needs to focus on the following areas from the unified perspective of national governments, the telecom industry, and economic perspectives by:

- making a connectivity breakthrough by expanding networks outside the urban areas;
- developing web-based online services for the general public;
- providing large-scale Internet and capacity development training for the general public;
- identifying information and content needs and generating local content for social groups, entrepreneurs, farmers and communities;

- encouraging the development of need-based and bottom-up ICT strategies within a defined framework;
- making telecom sector a national priority;
- reforming telecommunications' legal and regulatory frameworks to facilitate nationwide network expansion, lower tariffs, affordable Internet access, higher teledensity, faster application of advanced technologies (broadband and wireless), increased openness and competitiveness in the markets; and
- creating a regulatory environment in the telecom industry.

The government should have clear concept on the formation of an information society with positive impact on the national economy. The transitional information society need to include the following strategies:

- modernization of public administration and services;
- improvement in quality of life through the implementation of information technologies in the areas of education, health, environment and communication;
- development of an information technology sector and form a National Task Force to intensify congenial atmosphere for establishment of an information society; and
- modify the educational system by including digital content [E-Government Strategy, 2002].

e-Government services focus on four aspects: citizens, the business community, government employees, and government agencies. e-Government aims to make interaction with citizens, businesses, government employees, government agencies in more convenient, user friendly, transparent, inexpensive and effective way.

In e-Government system individuals can request for a particular government service and then receive that service through the Internet or some computerized mechanism. The government service can be delivered through one government office, instead of many (as one-stop-service), a government transaction can be completed without direct in-person contact with the government employee.

The four citizen-centered e-Government services are Government-to-Citizen (G2C), Government-to-Business (G2B), Government-to-Government (G2G), and Government-to-Employee (G2E) providing opportunities to transform delivery of services:

- Individuals/Citizens- Government-to-Citizens (G2C); build easy to find, easy to access and use, one stop point-of-service

that make it easy for citizens to avail high-quality government services;

- Businesses- Government-to-Business (G2B); reduce government's burden on businesses by eliminating redundant collection of data and better leveraging e-business (e-commerce) technologies for communication;
- Intergovernmental- Government-to-Government (G2G); make it easier for central and local government to meet reporting requirements and participate as full partner with the citizen services enabling better performance measurement, significant administrative savings and improved program delivery;
- Intra-governmental- Government-to-Employee (G2E); make better use of modern technology to reduce costs, improved quality of government agency administration, better financial management and knowledge management, improved effectiveness and efficiency, elimination of unnecessary delays in processing and improvement in employee satisfaction and retention.

3.1 Collaboration

Governments will have to explore new relationships among government agencies as well as partnerships with the private sector and NGOs to ensure quality and accessibility of e-Government. Agencies may have to overcome traditional reluctance to work with each other to maximize benefits of scale in e-Government projects. Collaboration among government entities, private enterprises and NGOs can assist policy-makers in crafting meaningful reforms and can expedite the implementation of e-Government. Private sector experts, who deeply understand topics such as e-commerce, information technology, marketing and management, can advise government policy makers [Sakowicz, M., 2003].

In this context four dimensions of e-Government may be broadly categorized:

e-services- electronic form of delivery for government information, programs, strategies and services;

e-management- information systems supporting the management and administrative functions of public institutions, including data and information management, electronic records maintenance and intra departmental information flow;

e-democracy- assist to set agendas, establish priorities, make important policies and participate in their implementation in more

deliberate ways (such as e-consultation or e-voting); and

e-commerce- this concept is linked to the business side of government interaction (e-procurement- exchange of money for governmental goods and services conducted over the Internet/Intranet).

3.2 Extensive participation of common people

e-Government is the use of information and communication technologies (ICT) to transform government by making it more accessible, more effective and more accountable to the common people. By this definition e-Government does not mean putting more computers on the desks of government officials. Rather, it concerns the relationship between government officials and people. The reformation may include:

providing greater access to government information by making laws, regulations, forms, data collected by the government to be made accessible online; promoting civic engagement by enabling the public to interact more conveniently and interactively with government officials; and

increasing government accountability by making its operations more transparent, thereby reducing the delay in decision making and also reducing opportunities for corruption infiltration; supporting development goals by lessening the time and expense of small business entrepreneurs in their dealings with government, and by providing rural and disadvantaged communities with information and communications capabilities.

e-Government is not any more a phenomenon limited only to the richer countries. Some of the most innovative uses of the Internet in governance are emerging from the developing world, as ICTs are increasingly being used to streamline government and connect it more closely with the people en masse it is intended to serve.

3.3 Increased economic and societal participation at the grass root level

Introducing e-Government is a necessity in the contemporary economy. Its advantages are known, recognized and incontestable. For this reason, the question is not if, but how, to implement and promote e-Government in transitional economies by taking into account the significant discrepancies between the capacities of developing countries and those of more developed countries. These include both economic and social factors, not least of which is the relative absence of necessary specific habits and skills for the successful advance of technology.

Bangladesh, being one of the developing country has integrated the societal participation at the grass root level. Relevant article from Bangladesh ICT Policy is added below for reference [ICT Policy, 2002]:

Article 3.10 of ICT Policy: Social Welfare

3.10.1 Nation-wide ICT systems will be implemented for rural development activities, agricultural, horticulture, fisheries and livestock extension for youth, technology guidance for rural enterprise, micro level planning etc. Communicates and user groups or beneficiaries would be actively encouraged to participate in all such activities.

3.10.3 Non –government organizations will be encouraged to establish centers at the village level for providing hardware/software or other support services. At the sometime the Government will use both the formal and nonformula channels to disseminate information about the application, advantages to communities of the use of ICT.

The effectiveness of e-Government solutions differs according to the stakeholders they address, whether common people of the community, business entrepreneurs or legal entities. The distinct challenge applies to reaching people in general. There are common thoughts of favoring business-oriented e-Government applications over people-oriented ones. However, implementation of an integrated e-Government requires resolution of a few important practical issues, like, breaking of monopoly on the fixed telephone market; the capacity development for the Internet Service Providers; raising of computer literacy rate for the government staffs; easy availability of modern payment instruments in electronic form; and the adaptation of electronic signature law.

In developing countries, access to information infrastructure remains always inadequate, and progress on telecommunications policy reforms are lagging behind. Yet there is an opportunity for leapfrogging the new technology can provide better, cheaper links to the grass root level stakeholders, while competing global operators can provide low-cost long distance communications. Adopting new technologies, developing countries can deploy telecommunications for lower costs per capita than the industrial world and rapidify poverty alleviation processes [Rahman, H., 2003]

3.4 Transformation of the government system

e-Government is about transforming the way government interacts with the governed

(government, business, people). The process can neither be easily accelerated nor simply can be manifested. It requires a coherent strategy, beginning with a thorough review of the nation's current regulatory environment and the ability of the population to make use of the planned technologies.

The primary motivation for e-Government reforms should not be targeted to merely save money or reduce staff. While this can be a valuable output, the savings incurred from e-Government initiatives should be the benefit the businesses and people utilizing the improved system are enjoying, rather than the government agencies have invested initially. In order to realize the long-term benefits of the transformation, governments should develop a citizen-centric model involving key stakeholders outside of government- businesses, trade associations, researchers, professionals, academics and NGOs.

The success of e-Government transformation is not just about the automation of existing processes and inefficiencies. It is the creation of new processes and new relationships between governed and governor. The use of ICT should not be treated as just a cost-or labor saving tool and simply allotting government officials with computers or automating manual records. e-Government is a solution that can revolutionize the process of government within itself. Therefore, government leaders planning e-Government projects should first examine the function or operations which they want to apply through ICT.

e-Government requires strong political leadership within the government. In order to achieve successful e-Government transformation, there must be officials at all levels of government who understand the technology and the associated policy goals with proper motivation to carry out reforms. Strong leadership can ensure the long-term commitment of resources and expertise as well as the cooperation of discrete factions within the system.

4. Case Studies

A study on introduction of ICT in local government systems in Victoria by Young, K., (2000) indicates that, "all levels of Government in Australia have places a very high reliance on ICTs to achieve productivity gains in the delivery of government services. The redevelopment of government business systems to provide staff with desk top access to departmental databases and management tools such as Lotus Notes, combined with high speed voice and data 'Intranets' (an internal organizational network that uses Internet

technology) have transformed bureaucratic processes in State and Commonwealth government."

The Indian experience in e-Government can be seen to be evolved in three phases. The first from the late 60s, or early 70s to the late 90s; second from late 90s to 2000; and the third 2000 onwards. The very recent trend of e-Government systems in India achieved tremendous success in forming a homogeneous community across the country.

In the first phase, efforts to develop e-Government were concentrated on the use of IT for in-house government applications with a principal focus on central government requirements as defense, economic monitoring and planning, and certain data intensive related to elections, conducting of national census, and tax administration (GOI, 1985). In the second phase, the implementation of the national IT Task Force and State Government IT policies symbolized a paradigm shift in e-governance policies towards using IT for a wider range of sectoral applications reaching out to a large number of people in rural as well as urban areas [Madon, S., 2003]. The third phase has seen the ultimate development of e-Government systems in India, reflecting visionary implementation of India Vision 2020 and e-India. Another example for India can be the Government of Kerala's recent policy focus on establishing front-end computerization to trigger the administrative reform, even before the automation of departmental records.

A statement made by Abraham Sotelo, the Coordinator General of the e-Government programme of Mexico has been quoted here, "E-Government is intended to strengthen the framework of professionalism in public service as well as lower government costs. It will help create a more deregulated government and eliminate a lot of paperwork and bureaucracy. The main objective is to create a high quality government service that is also honest and transparent" [World Report, undated].

As for the UK, the Tories in 1996 published the green paper, 'Government Direct', in which it outlined the ideas for using information technology to empower people in their dealings with government. This is a prospectus for the electronic delivery of government service. After the Labour government came into power in 1997, 'electronic service delivery' was at the centre of its programme for 'Modernising Government' in 1998, with the claim that all public service would be online by the year 2005. The vision has been adopted into the 'UK online' initiative to enable everyone in the UK

to make the most of the Internet [Lee., M. Y., 2003].

Among many other successful e-Government approaches implemented, or adopted globally, IT2000 of Singapore, Digital 21 of Hong Kong, Malaysia Vision 2020 of Malaysia and Mauritius Vision 2020 of Mauritius are to name a few.

5. Conclusions

The integration of ICT into development processes and delivery mechanisms of public and private services necessitates social mobility learning, vigorous planning, dedicated local level initiation and the sharing of local and international experience on best practice as pre-requisites. Effective monitoring and evaluation is also a must. It is a proven truth that no blueprint plan will sustain for long to cope up with the dynamic changes in ICTs and the degree of adaptations and innovations needed to exploit these technologies.

e-Government may seem to be an expensive tool and require strong political will. Without the active commitment of government leaders, countries are not assured for the allocation of financial resources, the adoption of an appropriate legislative framework or even in the most basic human development investment for planning and implementing e-Government. One strong indicator of political will is the degree of involvement of high level decision-makers in the e-Government implementation processes.

While myth prevails that all e-Government/e-governance initiatives are always costly, this is not true. The implementation cost of e-governance projects may seem expensive, but the cumulative social and economic outcome is much extended. However, there must be efforts and investment plan on the government side to create an effective e-Government for providing direct value-added e-services for citizens.

Utilizing ICT to develop e-Government will ultimately need to re-engineer government processes and transform governance. It is not enough to deliver services efficiently and effectively by following steps to accomplish certain procedural requirements. It has to simplify government processes altogether, change the concept of governance, and thereby transform the overall relationship between government and people. Increased information access and transparency in government processes leads to greater accountability and credibility, as online or computerized processes remove discretion from government officials and provide monitoring facilities.

The strategies, standards and guidelines on e-Government schemes should form part and parcel of the policy and serve as the detailed blue print for the strategy development. The updated policy together with the set strategy is expected to increase productivity, competitiveness, cooperation, and foster innovation in the public sector to leapfrog in the knowledge economy. Successful implementation of the policy would assist the government to be more responsive and accountable to the citizen and achieve greater transparency by providing benefits of increased efficiency and fostering the trust of the citizen for greater cooperation towards the development efforts.

Good governance (including fighting against corruption and to achieve greater transparency) has been identified as a "missing link" both in poverty alleviation efforts and equitable and sustainable economic growth. Its basis lies in good governance: strengthening the capacity and diminishing the growing disparities among its members.

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