

# E-GOVERNANCE PROGRAMS' IMPLEMENTATION IN DEVELOPING COUNTRIES: BENEFITS, CHALLENGES AND EXAMPLES (LITERATURE REVIEW)



Stephen Beaumont

Centro de Tecnología para el Desarrollo (CENTED)  
Buenos Aires, Argentina  
e-mail: info@cented.org

*E-Governance is modifying the way that State affects individuals and is implementing on a daily basis. Even the potential for E-Governance improvement is not questioned, the practical implementations are still quite challenging. So why deeper understanding of these issues can help to transcend the current limitations. The mainstream conclusion about the purpose of e-governance procedures implementing is good governance enhancing. This good governance is generally characterised by participation, transparency and accountability. This has proven to be a major problem in many developing countries. In this paper we analyze the benefits than can be achieved by E-Governance programs' implementing, the challenges these innovations can face and also some practical cases of implementation of e-governance programs were considered.*

**Key Words:** E-Government, Governance, Transparency, developing country, digitalization.

## What do we mean by “E-Governance”?

*"Good governance is perhaps the single most important factor in eradicating poverty and promoting development."*

Kofi A. Annan,  
Former Secretary General of the United Nations

First of all we must agree on the meaning and scope of the term “E-Governance”, because it is often used in different senses and different contexts. There are many definitions of E-Governance, but we will mention just a few:

“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” (UNESCO, 2011).

“E-governance involves the use of information and communication technologies (ICT) to transact the business of government. At the level of service, e-governance promises a full service available 24 hours a day and seven days a week” (Panda & Swain, 2009).

“E-government commonly refers to the processes and structures pertinent to the electronic delivery of government services to the public” (Saxena, 2005).

Additionally, Bannister and Connolly (2011) summarize some characteristics that are present in e-governance implementations:

Technology mediated services;

- A commitment to technology;
- Functions that empower citizens;
- Internally focused use of ICT by government;
- Use of ICT to improve the quality services and governance;
- Something that enhances e-democracy;

Although there are countless other definitions of e-governance, but the idea is basically the same.

Having agreed upon what we mean by E-Governance, we must ask ourselves, why would it be important or useful to introduce e-governance procedures? The mainstream conclusion about the purpose of implementing e-governance procedures is good governance enhancing. This is a major problem in Latin American Democracies. But, the recent advances in information and communication technologies provide opportunities to transform the relationship between governments and citizens so as to enhance the achievement of good governance goals. The use of ICTs can increase the involvement of citizens in all levels of the process of governance. Advantages for the government involve that they may provide a better service, making governance more efficient and more effective. In addition, the transaction costs can be lowered and government services can become more accessible for the general population.

As far as the goals of e-governance, according to UNESCO, they include:

- Improve the internal organisational processes of governments.
- Provide better information and service delivery.
- Increase government transparency in order to reduce corruption.
- Reinforce political credibility and accountability.
- Promote democratic practices through public participation and consultation”

(UNESCO, 2005).

Also according to UNESCO, the fields of e-governance implementation are:

- E-administration- refers to improving of government processes and of the internal workings of the public sector with new ICT-executed information processes.

- E-services- refers to improved delivery of public services to citizens. Some examples of interactive services are: requests for public documents, requests for legal documents and certificates, issuing permits and licenses.

- E-democracy- implies greater and more active citizen participation and involvement enabled by ICTs in the decision-making process” (UNESCO, 2005 (2)).

For example, in Bangladesh, the “implementation of ‘Digital Bangladesh’ was an election promise means appropriate use of technology to materialize all the commitments of the government including the ones regarding education, health, employment and poverty mitigation. The key intention behind this idea is to improve the standards of livelihood of the citizens by empowering them, ensuring transparency and accountability in every sector of life, and setting up effective-governance and, above all, deliver public services to their thresholds through the most effective use of latest technologies” (Kashem, 2014).

This tendency is occurring world-wide. For example, “the Government of India is transcending from traditional modus operandi of governance towards technological involvement in the process of governance. Currently, the Government of India is in the transition phase and seamlessly unleashing the power of ICT in governance” (Kumar, 2014).

### **Benefits and goals than can be achieved by implementing E-Governance programs: some practical cases**

Beyond the theoretical benefits stated when defining the implementation of e-governance programs, it is interesting to analyze some practical cases.

When e-governance programs began being implemented by governments (first in developed countries but then extending to the whole world), interaction was basically that of citizens searching information in government websites. For example a paper dated 2007, argues that “Canada has been the world’s leader in e-Government maturity for the last five years. The global average for government website usage by citizens is about 30%. In Canada, this statistic is over 51%. The vast majority of Canadians visit government websites to obtain information, rather than interacting or transacting with the government. It seems that the rate of adoption of e-Government has globally fallen below expectations although some countries are doing better than others” (Kumar et al, 2007).

Although citizens searching information in government websites is perceived as the minimum level of e-government implementations, this should be disregarded because in developing countries this can be quite an issue as explained in the following example. “A study in Iran estimates that over 70 % of intra- and inter-city trips made by the people are for the purpose of obtaining information, not services. Therefore, developing an e-government and distance delivery of services will assuredly cut many kinds of expenses and save time and energy to an unbelievable extent” (Behrooz, 2007).

In “E-Government Initiatives of Four Philippine Cities” Iglesias (2010) describes various benefits respondents noted “associated with the computerization of their real property

taxation.” The benefits mentioned were faster service, systematic processing, accurate taxation, and transparent taxation.

In another continent, particularly in Nigeria, Ojo argues that “the use of information technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of on-line discussion groups...” He also states that he benefits for government include that they “may provide better service in terms of time, making governance more efficient and more effective” (Ojo, 2014).

Also in Africa, Waiswa and Okello-Obura explain that “the strong ingredient of Uganda’s eGovernance environment so far is the relatively good legal and regulatory environment which exhibits a potential of fostering seamless adoption of ICTs in service delivery (Waiswa & Okello-Obura, 2014).

An interesting study, conducted by Subhash Bhatnagar, regarding the implementation of a concrete e-government system in rural India, is the “Bhoomi Computerization of Land Records”. The situation, as explained by the author, was that “prior to implementation of Bhoomi in Karnataka state in India, land records (ownership of each parcel of land, its area and cropping pattern, and village maps that reflected the boundaries of each parcel) were maintained by 9,000 Village Accountants, each serving a cluster of 3-4 villages.

Requests to alter land records (upon sale or inheritance of a land parcel) had to be filed with the Village Accountant. An update to the land records (in case of sale or inheritance) was a lengthy process of enquiry carried out by a Revenue Inspector.

The changes were to be made in a 30-day period if the request was not disputed but in practice, it could take 1-2 years for the records to be updated”. The situation after the implementation of this system, also according to the author seems very different. “Bhoomi has been able to improve service delivery and reduce corruption. In the last one year nearly 90,000 mutation requests have been made and the monthly collection of fee has varied from Rs 7.9 million to Rs 14.4 million. Bhoomi demonstrates the benefits of making government records more open so that citizens are empowered to challenge arbitrary action. It also illustrates how automation can be used to take discretion away from civil servants at operating levels. An independent evaluation studies based on a survey of 180 users from 12 kiosks and 60 non users has shown that Bhoomi has significantly reduced corruption and improved service delivery” (Bhatnagar, 2003).

### **Challenges in E-Governance programs implementing**

Having highlighted the benefits and goals than can be achieved by implementing E-Governance programs, it is also important to note that there are many challenges associated with these innovations.

Signore et al. (2005) refer to these challenges by grouping them into three categories: Technical, Economic and Social issues.

Some of the most relevant Technical issues include security of the system. Privacy is a great concern on behalf of the citizens as it regards confidentiality of their personal data

Economic issues include aspects such as costs, maintainability, reusability and portability.

The Social issues regard aspects like accessibility, usability and what is most important, acceptance by the general public (Signore et al., 2005).

Mittal & Kaur, in the paper "E-Governance - A challenge for India" (2013) refer to the challenges of E-Governance programs implementing in segmented format. Some of the most interesting obstacles singled out, include:

- Different Language of potential users: People belonging to different states speak different languages. The diversity of people in context of language is a huge challenge for e-Governance projects implementing because of the most of e-Governance applications are written in English.

- Low Literacy and Low IT Literacy: Much of the Indian people are not literate and those who are literate do not have much knowledge about Information Technology (IT).

- Lack of confidence on technologies provided by government

- Technical issues such as user friendliness of government websites.

- Cost: In developing countries like India, cost is one of the most important obstacles in the path of e-Governance implementation where major part of the population is living below poverty line. Economic poverty is closely related to the limited information technology resources. (Mittal & Kaur, 2013)

Another issue that has arisen is the quality and exactitude of the information that is provided by e-Governance systems. "City governments will also have to assure the public of the high quality of its data. It will have to recognize that incomplete, inaccurate and late data and information are potentially dangerous. Poor data and information can have costly outcomes for the city's clients" (Iglesias, 2010).

### **Conclusions on E-Governance programs implementation**

It is quite clear that E-Governance programs are being implemented worldwide. From the leading nations to developing countries, these initiatives are taken at different levels of government and this is not a new occurrence, as this 2002 paper affirms: "Governments worldwide are faced with the challenge of transformation and the need to reinvent government systems in order to deliver efficient and cost effective services, information and knowledge through information and communication technologies." (Fang, 2002)

As for some cases in India, Mittal & Kaur considers that for E-Governance programs to be successful, some factors may have to be taken into consideration. "Although Indian government is spending a lot of money on e-Governance projects but still these projects are not successful in all parts of India. Unawareness in people, local language of the people of a

particular area, privacy for the personal data of the people etc. are main challenges which are responsible for the unsuccessful implementation of e-Governance in India.” (Mittal & Kaur, 2013)

In the case implementation of E-Governance programs in Australia, Freeman argues that “governments often equate improved information access and service delivery with online civic engagement, overlooking the importance of two-way participatory practices.” She also concludes that “to facilitate participatory e-government practices and online civic engagement, governments will require policies that guide the development of ICT infrastructure, enhance citizens’ ICT adoption and use, support online content and spaces to which citizens can contribute, and ensure that citizen involvement influences decision-making.”(Freeman, 2012)

All over the world, governments are investing more and more on information and communication technologies as a means to communicate and interact with their citizens. E-Governance programs will reach more individuals and involve more government agencies in years to come. But the challenges of effectiveness and efficiency still remain open to debate.

## References

- Bannister, F. & Connolly, R. (2011). New Problems for OLD? Defining e-Governance. *Proceedings of the 44th Hawaii International Conference on System Sciences*.
- Behrooz, S. (2007). *The progress of e-Government in Iran*. Blekinge Institute of Technology.
- Bhatnagar, S. (2003). *The Economic and Social Impact of E-government*. Indian Institute of Management, Ahmedabad.
- Fang, Z. (2002). E-Government in Digital Era: Concept, Practice, and Development. *International Journal of the Computer, The Internet and Management*, Vol. 10, No.2, p. 1-22.
- Freeman, J. (2012). E-Government Engagement and the Digital Divide. *Conference Paper. CeDEM Asia 2012*. Conference for E-Democracy & Open Government: Social & Mobile Media for Governance. Singapore.
- Iglesias, G. (2010). *E-Government Initiatives of Four Philippine Cities*. National College of Public Administration and Governance. University of the Philippines.
- Kashem, M. A., Nasim, A. & Anisur, R. (2014). An Information System Model for e-Government of Digital Bangladesh. *IJCSNS International Journal of Computer Science and Network Security*, VOL.14 No.11, November 2014.
- Kumar, V., Bhasker, M., Irfan, B., & Persaud, A. (2007). Factors for Successful e-Government Adoption: a Conceptual Framework. *Electronic Journal of e-Government*. Volume 5 Issue 1 (63 - 76).
- Kumar, P., Kumar, D. & Kumar, N. (2014). E-Governance in India: Definitions, Challenges and Solutions. *International Journal of Computer Applications* (0975 – 8887). Volume 101– No.16, September 2014.
- Ojo, J. (2014). *E-governance: An imperative for sustainable grass root development in Nigeria*. School of Politics and International Studies, University of Leeds, United Kingdom.

- Panda, B. P., & Swain, D. K. (2009). *Effective communications through e-governance and e-learning*. Chinese Librarianship: an International Electronic Journal, 27. URL: <http://www.iclc.us/cliej/cl27PS.pdf>
- Pardeep, M. & Amandeep, K. (2013). E-Governance - A challenge for India. *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)*. Volume 2, Issue 3, March.
- Saxena, K. (2005). Towards excellence in e-governance. *International Journal of Public Sector Management*, 18(6).
- Signore, Oreste; Chesi, Franco and Pallotti, Maurizio. 2005. E-Government: Challenges and Opportunities. *CMG Italy – XIX Annual Conference*. Florence, Italy.
- UNESCO. 2005. [http://portal.unesco.org/ci/en/ev.php-url\\_id=2179&url\\_do=do\\_topic&url\\_section=201.html](http://portal.unesco.org/ci/en/ev.php-url_id=2179&url_do=do_topic&url_section=201.html)
- UNESCO. 2005 (2). [http://portal.unesco.org/ci/en/ev.php-url\\_id=4404&url\\_do=do\\_topic&url\\_section=201.html](http://portal.unesco.org/ci/en/ev.php-url_id=4404&url_do=do_topic&url_section=201.html)
- UNESCO. 2011. E-Governance. [http://portal.unesco.org/ci/en/ev.php-url\\_id=3038&url\\_do=do\\_topic&url\\_section=201.html](http://portal.unesco.org/ci/en/ev.php-url_id=3038&url_do=do_topic&url_section=201.html)
- Waiswa, R. & Okello-Obura, C. (2014). To what extent have ICTs contributed to e-Governance in Uganda? (2014). *Library Philosophy and Practice (e-journal)*. Paper 1125.

*Paper submitted on 19 November 2016*