



E-Government & Online Auctions – Prof. Enrico Ferro

Luis Germán Benavides – info@luisbenavides.com

Fernando Taliberti – taliberti@e-creare.com.br

Juan Jose Domene - juanchodomene@hotmail.com

E-Government as a Way to Reduce Corruption

1 Introduction

Corruption is as old as power. Government as an institution that concentrates the power carries corruption with it. Culture is a factor that may influence corruption positively or negatively. In some countries, such as in the Scandinavian ones, the culture of transparency associated to government is a strong factor of influence that allows them to have a low level of corruption. In others, the lack of interest of the average citizen in political matters helps fostering corruption.

Corruption diminishes the efficiency of governments and reduces the benefits it brings to the people. It disturbs the accomplishment of the government's main goal of collection money from the people to give it back to them in form of benefits.

ICT has been surging as an important tool to increase efficiency inside companies and more recently also inside government institutions. E-Government, as has the application of ICT to government been named, is helping to increase efficiency, add value and in some cases reduce costs. Mainly as a collateral effect, E-Government is also reducing corruption in many cases.

Bhatnagar (2003) suggests, however, that to have E-Government as an effective tool on reducing corruption ICT tools must be built with that orientation as part of its objectives. Automating activities and blocking irregular ones is one of the ways to accomplish such an objective. Other requisites as accountability, traceability and assessment feasibility may also be critical for that matter.

This study will focus on understanding how E-Government may be used to reduce corruption, how it is managing to do so in some cases, what are the requisites of ICT solutions to accomplish it and what are the main issues and opportunities provided by this type of solution. Concluding with some guidelines of how to use E-Government to combat corruption.

2 Types of Corruption that May be Reduced through e-Government



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The World Bank in its didactic material from the Youth for Good Governance – distance learning program, defines the main types of corruption as:

“Bribery: An offer of money or favors to influence a public official.

Nepotism: Favoritism shown by public officials to relatives or close friends.

Fraud: Cheating the government through deceit.

Embezzlement: Stealing money or other government property.”

It also divides the corruption in two categories:

“Administrative Corruption: Corruption that alters the implementation of policies, such as getting a license even if you don’t qualify for it

Political Corruption: Corruption that influences the formulation of laws, regulations, and policies, such as revoking all licenses, and gaining the sole right to operate the beer or gas monopoly.”

In addition, a classification by magnitude is proposed:

“Grand Corruption: Corruption involving substantial amounts of money and usually high-level officials.

Petty Corruption: Corruption involving smaller sums and typically more junior officials.”

ICT may be helpful in reducing some kinds of corruption more than others. A brief analysis of the types against which ICT may be more effective and how, is presented below:

	Detection	Avoidance	Tools	Comments
Bribery	Low	Low	Data Mining, Reporting	Usually involve privates, what makes detecting against privacy and avoidance almost impossible through e-Government. What may be detected or avoided are the actions for which bribery is paid.
Nepotism	Low	Low	Reporting, Data Mining, e-Procurement	May be of various kinds. For procurement, ICT may be helpful even to avoid, for the others mainly through detection by data analysis.
Fraud	Medium	Medium	Electronic transactions, Data Mining, Reporting, Digital Signature	Systemizing government transactions, document issuing etc. may help on avoiding as well as defining parameters for detection.



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Embezzlement	High	Low	Data Mining, Reporting	Accountability mechanisms and Data Mining may help detection, Authorization may help avoidance, but publication of data may repress such actions.
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Regarding Administrative x Political corruption, Administrative is the field where e-Government may help reducing most of the corruption. For political corruption, accountability principles may help on the repression, but in most cases it may be difficult to prove, even if data is made public.

With respect to the magnitude, naturally Grand Corruption may be easier to detect systematically. However, data mining and even system restrictions may be helpful also against petty corruption. The key here is not so much the magnitude, but if the activities in which corruption is happening are passive of control or restriction by an information system.



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3 Cases

Country	Problematic / Frame	Systems	Comments	Results
Nicaragua	A number of G8 countries are prepared to work to find ways to support the efforts of Nicaragua to enhance transparency, use public resources wisely and fight corruption	Public budgets and financial management, including revenues and expenditures; Government procurement; and Letting of public concessions.	This system is accompanied with many legislative reforms in order to create a complete atmosphere of change with the corriepondent legal support	Significant progress has been achieved in public procurement, as evidenced by the first phase of e-disclosure contained in the web page www.consultaciudadana.mhcp.gob.ni
Pakistan	It has been noticed that the public sectors have complaints that, the existing system is cumbersome and outdated. This result in widespread malpractice and inefficiency thereby causing public dissatisfaction and frustration. Government can improve the system as well as economic conditions of the country, by focusing on e-governance.	<p>First phase:</p> <ul style="list-style-type: none"> Reduction in the cost of service to citizen by providing government information to the public through a government portal Online availability and submission of all forms of the Government of Pakistan Online availability of information on jobs, tenders, official gazette notifications etc. for the convenience of the public Facilitation of payment of utility bills and taxes Ensure transparency in government-public interactions 	It's part of an integral and medium-long term plan which includes different phases and with multiple purposes.	Many observers, say the only real beneficiaries of the plan will be the local computer and software companies that have mushroomed as a result of lucrative government incentives over the past two years.



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Country	Problematic / Frame	Systems	Comments	Results
Brazil	Challenge of bridging the digital divide & integrate: Infrastructure Systems Services Intra & Inter Government	1st STAGE: creation of sites to disseminate information. 2nd STAGE: sites receive information, suggestions and complaints from citizens, companies and other non-governmental organs. 3rd STAGE: sites provide on-line services and receive payment for bills and taxes. 4th STAGE: single portal - users access a single government site using a special password and registry; standardization of data and metadatas allows the exchange of information among various departments.	E-government is the result of a radical structural change in the relationship between government and citizens and business, brought about by the introduction of new information and communication technologies in public administration.	- e-Elections: a world leader (key is top-down leadership from the Supreme Electoral Court – TSE)- Structuring the e-gov project as a state policy (rather than the policy of a single government, thus entering into the national political agenda, including states and municípios) - Government financial administration and tax declarations (SERPRO's experience, continuity of leadership, IADB and BNDES financing)- e-Procurement at the Federal and state levels (savings of 20% or more, faster processes, better quality, social control – supported by IADB and BNDES funding) - Despite these advances, the government's diagnosis is that there is a need for wide-ranging, integrated policy to consolidate the achievements to date and move towards universal access to information technologies



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Romania	<p>Transparency of Romanian Public Procurement Through ICTs. Some of the main objectives of E-licitatie were to provide:- Information about how public money is spent (finalised bids, as well as basic information on those in progress).- Equal chances and a transparent environment for all players.- Easy access to critical business information in the public acquisition area.</p>	<p>E-licitatie is a nation-wide governmental Web portal for procurement in Romania where government clients and private sector vendors can interact after being authenticated into the system. E-licitatie system have greatly reduced the opportunities for human discretion within the system.</p>	<p>The auction engine used by E-licitatie was developed using Microsoft ASP technology. The main role of ICT within the procurement system is the automation of the notification and bidding processes.</p>	<p>No information, the system has recently been implemented.</p>
Karnataka, India	<p>The Department of Revenue in Karnataka has computerized 20 million records of land ownership of 6.7 million farmers in the state. Previously, farmers had to seek out the Village Accountant to get a copy of the Record of Rights, Tenancy and Crops (RTC) -- a document needed for many tasks such as obtaining bank loans. There were delays and harassment. Bribes had to be paid.</p>	<p>Today, a computerized land record kiosk (Bhoomi centre) is operational in 140 of the 177 taluks in Karnataka. At these taluk offices a farmer can obtain a copy of an RTC online by paying a Rs.15 fee. A second computer screen faces the clients to enable them to see the transaction being performed. Copies can be obtained for any land parcel in the taluk by providing the name of the owner or the plot number. A Village Accountant is available full-time at these kiosks</p>		<p>The poor appears to be struggling most with the new system in regions like Bijapur in Karnataka, which has the highest demand for RTCs. They have to spend money on bus fare to reach the town from their villages. The queue can be so long that they have to wait up to 2 days.</p>



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India	An effort to propagate the idea of zero tolerance for corruption, the Central Vigilance Commission (CVC) in India has begun to share with citizens a large amount of information related to corruption.	The CVC website has published the names of officers from the elite administrative and revenue services against whom investigations have been ordered or penalties imposed for corruption.	From the government opinion, was highly usefull
Argentina	Perceptions of government corruption were a major political issue in the Argentine electoral campaign of 1999. The ALIANZA candidate for president, promised that, if elected, he would head a Gobierno de Cristal, eliminating the corrupt practices that periodically came to light during the previous administration, and thereby restore citizens' confidence in government	The mission of the Cristal Government initiative is to disseminate online, and in an easily understood format, all information concerning the use of public funds in Argentina. This includes information not only about the amounts of money devoted to different programs, but also how these funds are administered.	Actually the website exists but only contains some information e basic services, all the initial plan dissapeared with the new incocmming government. The project with the 2001 crisis, disapeared.



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Philippines	Reduce the opportunities of fraud and maximize revenues	Philippines Customs Bureau has developed an on-line system to process clearance of imports, payment of duty, and delivery of release orders for shipments to leave the docks. The new on-line system has lessened the cost of trade for businesses, reduced opportunities for fraud, and helped the Bureau to maximize revenue collection.	The Bureau implemented a standard software package ASYCUDA, developed by UNCTAD and used by more than 60 countries.	No information
Indonesia	In Indonesia, E-government is needed for the following reasons: 1) to support the government change towards a democratic governance practices; 2) to support the application of authority balances between central and local government; 3) to facilitate communication between central and local governments; 4) to gain openness; and 5) transformation towards information society era.	The new information system provides information about all aspects of the procurement process:- Details of projects to be tendered, including their content, duration and budget allocation.- Tendering process details including dates, value, details of the pre-qualification process and information regarding the tender winner.- Contact details for the relevant procurement officer that enable queries or inputs into the process.	In Indonesia, e-government was officially introduced to public administration by Presidential Directive No 6/2001 on Telematics, which states that the government of Indonesia has to use telematics technology to support good governance.	Development and implementation of e-Government in Indonesia are facing challenges on financial constraint, inability to attract and retain good IT staff, low computer and internet penetration, insufficient telecom connection, regulatory environment and organization culture.



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Mexico	Mexican President Vincente Fox started the reform process towards greater transparency and government openness by submitting a public declaration of his assets using the e-government site Declaranet and urging all public functionaries to do the same.	Public officials disclose assets to increase trust in government.	e-aprendizaje, e-salud, e-economia, e-gobierno	The inicial project has been fragmented in steps, and the implementation is gradually.
Seul, South Korea	the Seoul government initiated a comprehensive campaign to battle corruption. As part of a concerted effort to bring transparency to government functions such as licensing and permit approval, reformers not only streamlined the burdensome regulatory rules (the complexity of which provided ample opportunities for extorting bribes) but they also created an online monitoring system to track the progress of government applications	Now, citizens will know at all times where precisely their applications stand in the evaluation process, thwarting corrupt bureaucrats who in the past demanded bribes to expedite applications or even tell a citizen the status of his application.		The citizens accepted the OPEN system instantly and the users of the service and visitors to the site have grown rapidly. More importantly, both the citizens who used the system and the city officials who were involved in managing the system tended to have favorable opinions on its corruption control effect as attested by the survey findings.



4 Components of a Good ICT Solution to Reduce Corruption

Bhatnagar (2003) indicates some important factors for eGovernment systems that should reduce corruption: data centralization, accountability and publication of governmental information. Other factors however may be important as well.

Data Centralization: The centralization of data is important to allow auditing and analysis. Data Mining, for example, may be more effective working on centralized data to discover patterns. More manual kinds of analysis may be also easier in centralized data as well as auditing.

Accountability: The need for identification (authentication and authorization) and the traceability (accounting) of all actions made by a user in the system grants accountability and that helps in avoiding corruption.

Publication of Data: The publication of data is a way of providing transparency. E-Government projects may have as sole objective the publication of data. Depending on the nature of the data, its publication may be helpful in reducing corruption or not. The publication of information that is a result of activities in which there is usually corruption is a case in which it does. In the Karnataka case, the corruption was in the process of publication of a document. Putting the process in a system practically eliminated this corruption process.

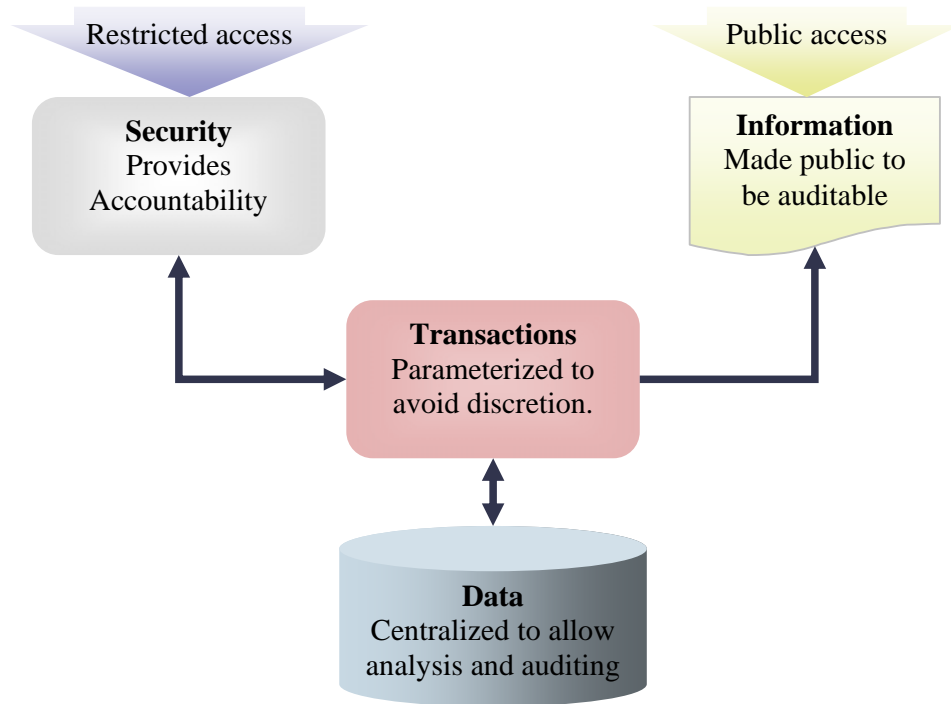
Bhatnagar highlights also that e-Government systems should be built consciously to provide transparency and reduce corruption. Otherwise the results are not so expressive. In some of the cases mentioned, the e-Government solutions were built with the main objective of solving some corruption problem, but in many of them it was a side effect.

Finally, such solutions are more successful in reducing corruption, the more they avoid discretion. That means that ICT plays the role of parameterizing rules in a way that they are not flexible. Of course, implementing inflexible systems is something that must be done carefully not to diminish efficiency and enhancements in the processes.

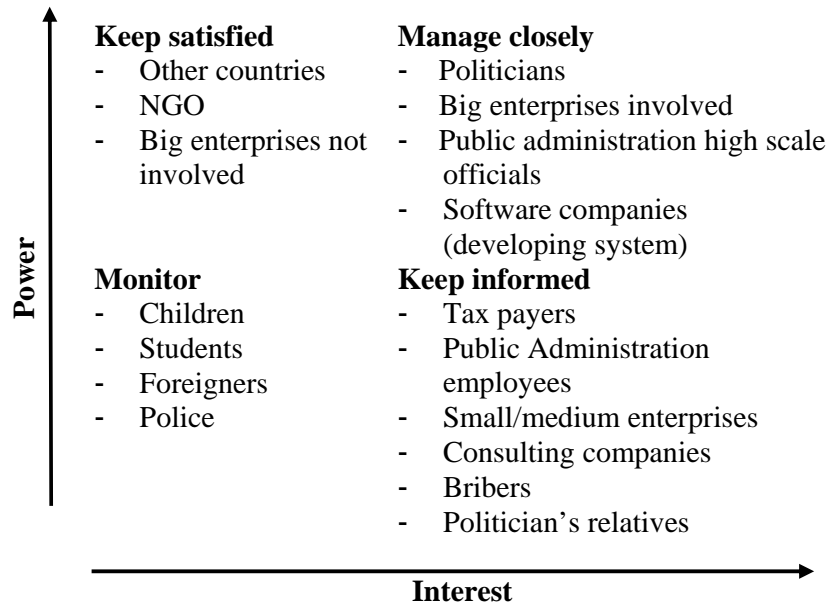
The schema bellow represents graphically the main components of good ICT solutions to reduce corruption.



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5 Stakeholder analysis



A project of this kind involve the whole population of a country, and the different crossed interests that this involves generate lots of conflicts between stakeholders. Issues are analyzed in the following point.



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6 Analysis of the Solutions

This table identifies the main issues between the stakeholders mentioned before, noticeably the most of the work belongs to the state who's the one that must play a neutral role looking forward to benefit the majority as it is intended to be in democracy.

	Technology	Management	Policy
Issues	<ul style="list-style-type: none"> - Digital divide - Reach - Security/trust - Standards not yet set 	<ul style="list-style-type: none"> - Digital divide - No trust in the system - Learning, acquiring new skills - Software auditing - Interest conflicts 	<ul style="list-style-type: none"> - Interest conflicts - Cost/effectiveness of some projects difficult to measure - Define level of participation - Big organizational changes - As more efficiency translates to less people, what would be the role of these people who are no longer needed?
Solutions	<ul style="list-style-type: none"> - Develop easy interfaces - Set standards - Open source software to allow transparency - Foster development of tools to handicapped 	<ul style="list-style-type: none"> - Donation of deprecated computers - Foster participation of employees - Software companies create procedures to agree standards - Create transitional and incremental deployment of systems 	<ul style="list-style-type: none"> - Sponsor and favor increase of internet coverage - Make available training for citizens - Create campaigns for adoption - Establish concrete policies for the system - Create programs for training employees that are no longer needed in order to involve them - Foster different internet access methods - Create policies for SW/HW developers in favor of handicapped
Opportunities	<ul style="list-style-type: none"> - Development of new technologies/standards 	<ul style="list-style-type: none"> - New software auditing companies - New value of transactions 	<ul style="list-style-type: none"> - Reduce Corruption - Gain credibility by increasing efficiency



7 Conclusion

Different experiences from different cultures and types of government have shown us that for a project to be successful must involve all the 3 areas (people, management, policy). Systems should be structured as a state policy (rather than the policy of a single government) with a consolidated e-government program in the priority agenda of the government together with a strong penetration in the organizational structure of ministries and secretariats making changes carefully planned and analyzing impact in all stakeholders as well as delivering training programs. Also budgetary resources should be assured involving legal and constitutional barriers to the vertical integration of government, especially in countries where the states have strong autonomy guaranteed by the constitution.

An eGovernment information system if done with all the precautions and auditing that open source software gives, will certainly add transparency as well as reduce intermediaries in the information and cash flow. This way reducing the number of possible fraud points.

Cohesion between government entities and country organizations such as the European Union could foster the standards setting in eGovernment matters as they assign high budgets for R&D in this area, as well as helping third world countries with their experiences and giving general guidelines in this type of projects.

A final problem is the lack of a consolidated legal framework to ensure the authenticity of electronic documents, particularly electronic payments to the government that could be treated by becoming the government itself a certification authority guarantying the validity of digital documents but the impacts and risks that could generate this are beyond the scope of this document and should be topic of further investigation.