

Main challenges of the Governments' digitalization process

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Abstract

With the advent of online technologies and tools, people often focus on what these tools can achieve for them with little or no inputs. The private sector, always in the forefront of new technologies have been adopting these tools from ages now and the public sector, initially refractive to adoption, has understood that so many tools can help in its activity and the strengthening of democracy. These tools also have their shortcomings and risks which need to be managed carefully. For example, with the using and misusing the social media fake news, government need to be aware and protect and warn its people from the limitations of such tools. This research paper tries to analyze and address some of the main challenges that governments are facing in the digitalization process, especially in transition countries such as ours.

Keyword: *e-government, ICT, ICT projects, risk factors, trust, satisfaction*

1. The connection between government and its people. Government 2.0

The upheaval in information and communication technologies (ICT) has been everchanging not only the daily lives of individuals but also the connections between governments and people. The digital government or electronic government (e-government) has started as a new form of communal association that cares and redefines the existing and new information, communication and transaction-related contacts with participants (e.g., people and industries) through ICT, especially through the Internet and Web technologies, with the drive of improving government performance and procedures [Bek05].

So far, to a fluctuating degree the outline of interaction government-public has been one way. Different researchers have identified three main stages of the progression of e-government till now. These stages have been:

Presenting government digital data to the general public: during this first stage, government agencies started to build Web sites with the purpose of diffusion of government information. This approach was of purely passive nature, lacking of digital interaction between the government and the public.

Rudimentary digital interaction between government agencies and the public: with the rapid developments of the technology and people having more access to it, the need to have direct interaction between the government and the people became an obligation. The basic digital communication was established through emails, following the expansions of interactive web forms that can dynamically provide the material needed.

Online public services: The third stage started once the public sector not only started to collect, store and process digital information, but also redefined and computerized its business processes and was able to provide its services online. An important development in offering and perfecting public services was the enactment of interoperability platforms between government agencies.

These three developments stages involve only government efforts to transform to an organizational process computerization model, resulting in fast and fitting 7/24 contact to government information and amenities, and achieving more effectual government with efficient and computerized services within and crosswise government agencies. Whereas the public has been passive, collecting and using government information and services, as they were served.

This type of e-government is mainly called Web 1.0-based e-government or Government 1.0. Its distinctive characteristic is the one-way flowing of the data: from the government to the public.

Inevitably, a new e-government stage is in process. Data should stream not only from the government to the people but also from people to the government and between them. In order to complete this stage, the government attitude and approach needs to change and people' voices to be heard.

1.1 Government 2.0

Government 2.0 provides a more open, social and collaborative type of e-government that can allow an

exhaustive cooperation between government and its people to design public services, policy formulation and control and monitor government activities. The anticipated results are the enrichment of effectiveness and legitimacy of the government.

The people's voices should be heard and echoed back to transform the existing government strategies. People role should not be just users, but active contributors to e-government. The use of new technologies is supposed to strengthen government legitimacy as well as to boost the efficiency and effectiveness of government policies [Egg05]. Web 2.0 is one major change that is being altering work practices and more widely the organization at whole [Ore05]. Web 2.0 refers to characteristics like the delivery of software over the internet, the generation of content by users, consuming and remixing data from multiple sources, big data collation and network effects gained through more participating users [Ore07]. Web 2.0 is a combination of applications (Blog, Wiki, Podcast, RSS feeds, Tagging, Social networks, etc.); new values related to the use of these applications (user as producer, collective intelligence, perpetual beta, extreme ease of use) and standardized technology behind these applications (Ajax, XML, Open API, Microformats, Flash/Flex) [Ore2005] [And07].

Web 2.0 applications, also called social media, are regarded as more intuitive, user-friendly, user- (social) centered, flexible and less formal than traditional information systems [Kap10].

Social media can be well-thought-out as a wearisome technology for government, generating "disruptive modernization" in the digital government as well as growing digital government with better amenities and organization. To create "innovative modernization", the government needs to mature strategies and reproductions for how to use these empowering technologies to attain an alteration of every aspect of government, such as service delivery, decision and policy making, management, governance and democracy.

These social network systems permit big scale dispersed partnership, information sharing and creation of communal intel government areas at all stages from local to central. Governments are in front of unprecedented transparency necessities and openness, further stimulated through automated grassroots mobilization via social media.

1.2 Challenges and how to overcome them in Government 2.0.

Digital government 2.0 presents in theory a revolutionary way of governance, but faces many realistic challenges.

- Social medias play a crucial role in e-government 2.0 and governments still need to figure out how to use these means as advanced solutions.
- Massive amorphous data are collected through mass involvement. In order to make these data suitably used for policy creations, governments need to implement and apply recent techniques that can process and analyze them accordingly, detect and share useful data, discover activities and patterns of social media users and what type of principles government can draw from them, extract the high-quality information from the mass participation.
- Aiming at increasing government-people collaboration, governments should find ways to inspire and simplify people engagement in online discussions for e-democracy and whether Web 2.0 signature, knowledge of the masses can be simulated to streamline the collaborative service distribution.
- Web usage poses another challenge to governments related to security and privacy of its people.
- What are the interoperability problems in Government 2.0 and how to plan the interoperability aptitudes in Government 2.0?
All of the above are valid objections and obstacles to overcome, but even scholars [Chu2017] have their differentiated opinions on how best to deal with these. Some of the best researchers in the field have proposed some actions as below;
- It attains that the public domain should deliver role taking functionalities such as that the users have obligations to an ongoing dialog, and that users could show respect to comprehend other participants. It also should deliver equivalent prospects for all contributors and a place for exchanging notions and critiques. Though, it still remains to be demonstrated whether the product of the discussions and participations in such a public domain will result the informed political decision.
- This social web structure permits the lawmakers and specialists to examine the policy impact declarations over community-based editing and polling. It delivers scrutiny competences to equate alternate policies and to quantify the policy effects

to choose the most appropriate alternative policy. The impact statements are crossed with policy topic categories and associations to other statements or purposes. The specification of a topic category and the relationships are used to identify and query whether a statement is linked to support a policy or measure or it is in conflict with the objectives.

- The subject of how to encourage public contribution and involvement in the deliberation processes for democratic decision making. They present a Government-People collaborative archetype, which is a virtual community model with an unusual debate structure and social opportunities for people to participate as individuals accountable for community decisions. The virtual community archetype structures people involvement in different steps.

2. Risk factors in e-government projects.

Occasionally the “design-reality” gap amongst e-government projects and their application is too widespread to be successful. Such enterprises either fail for lack of users or fails after very costly inputs from content providers and power users. According to Heeks [Hee03], after the high appeal and government self-publicity has wearied out, the majority of ICT e-government projects tend to fail. He divides these initiatives as follows:

- Total failure: the enterprise was never executed or was executed but instantly abandoned.
- Partial failure: main goals for the enterprise were not achieved and/or there were substantial unwanted outcomes.
- Success: most stakeholder groups achieved their main goals and did not experience remarkable unwanted outcomes.

These fiascos come at a high price for the world's poorer countries as ours, therefore further analysis to identify the reasons of the project failures in government are essential to reduce the failed number of projects and increase the successful ones. Based on the work of Willcocks and Margetts [Wil93], who developed an interesting framework for risk analysis of Information System projects, there are four main category risks that should be addressed in order to avoid project failures:

- *Country's environment*: features such as the economy, political environment and policies,

market potential and capacities, fair competition etc., impact the project success and need to be taken into consideration when planning and executing an ICT project. Each country has its own unique “human background” and solution proved successful in some jurisdictions, without tweaks or right on changes won't be as successful in other jurisdiction. The widespread practice in Albania and developing countries is to hire, for high level ICT systems, international or national consultants, who more often than not, proceed with proposing a system architecture which has worked well in other countries. Rarely “soft factors” (as trainings, public sector HR capacities etc.) are taken into consideration. Consultants often direct toward a product with little to no adaptation to the current shifting environment.

- *Institutional environment and organization*: public institutions have organizational structures set up for operational purposes and in many cases, these types of organizations are not appropriate for project management purposes. Furthermore, public institutions are inflexible to changes, management level is not usually focused on project management, dedicated human resources are usually not available, and in general there is not suitable culture on such projects. Also, in developing countries, “preferential” treatment is also an issue. More often than not the procurement is not won by the best ideas or implementation but either by the lowest bidder (who can offer a subpar product) or to the bidder with the closest “connection” to the procurement entity.
- *Information system project content*: the risks in this category include, project description, technical and functional specifications, technology etc. Generally, there is a shift of mentality from who evaluated the project and the procurement process who lack the acumen to identify the best proposal and get lost in the technical details which honestly can be quite challenging to assess in ICT projects.
- *Project management process*: in general, public institutions do not apply a commonly used project management standard and methodology, therefore, a variety of project management tools, techniques and standards such as, project objectives, activities, milestones, implementation plan, deliveries etc. are missing. This is different from the first point above, as ready-made tools always need to be tweaked or changed, the methodology on the other hand is quite established and effective.

Heeks also identifies six types of probable costs of e-government fiascos:

- *Direct Financial Costs.* The cash invested in equipment, advisors, new amenities, training curricula, etc.
- *Indirect Financial Costs.* The cash invested in the time and energy of public servants involved.
- *Opportunity Costs.* The better ways in which hard gained money could have been expended, if it was not spent on the e-government fiasco.
- *Political Costs.* The loss of reputation and loss of image for entities, organizations and nations involved in the fiasco.
- *Beneficiary Costs.* The loss of benefits that a successful e-government development would have contributed to.
- *Future Costs.* An e-government fiasco rises the barriers for future e-government ventures. It does this in two focal ways. First, over loss of morale of sponsors, particularly e-government champions, who may swap to the private sector or out of the country. Second, over the loss of trustworthiness and loss of credibility.
- *In e-government as a method to innovate.* This rises risk aversion in some sponsors; and offers backing for others with vested interests in the status quo.

A key issue among e-government backers is an absence of awareness of these costs. Most shortcomings are immaterial; rarely are ever measured in the case of e-government fiasco; e-government fiascos are often quiet. This may elucidate why, notwithstanding the high costs of fiasco and the high occurrence of fiasco, many administrators and politicians are still very keen on e-government.

2.1. Minimizing the risks.

Although each country has its specific characteristics, ICT project risks fall within the four main groupings described above, but given the differences, each country should take fitting measures in regard to its specific conditions, nature, capacities etc. To be more specific on how to reduce to an acceptable option the risks of failure we will narrow down our research on the ICT projects that are specific to Albania and have so far been the main cause of project failures. We will also try to propose how to intervene to mitigate these risks:

a. Country risk factors (outer factors).

There are different country specific risk factors, such as economy, culture, political environment etc. In this research we will focus on the impact of the political environment to ICT projects. Albania has a fragile political environment that in reality affects ICT projects. Changes in the political level are usually followed also by changes in the approach that the government has to the digitalization process, sometimes affecting the ongoing ICT projects as well. In many cases, policy makers “use” these projects for political purposes, making them subject to non-technical and inexperienced interferences, which impact their success. Whereas too much interference may be a risk, lack of political attention also represents a potential risk to the ICT project success. ICT projects tend to last longer than projected and successful outcomes of the digitalization are not always achieved within one political mandate. This known fact sometimes shifts the attention of the policy makers to other projects and operations, leaving ICT projects in the shadow. The lack of political commitment increases the risks of failure. In order to avoid political environment as a risk factor to ICT projects, their implementations should be independent by the political environment, but should be in the focus of the highest administrative management level of the government agencies.

b. Internal government agencies capacities (inner factors).

During the initial stage of the digitalization process, government agencies in Albania started building custom made information systems from scratch, to fulfill only internal needs, focused usually on storing electronic data and without any changes in their business processes. The rapid developments of the technologies have unavoidably affected the leadership mentality, as well as of the public servants and citizens. The existing already built systems became soon outdated and merely used. In order to improve government efficiency, effectivity, increase transparency, fight corruption and perfect internal operational processes and public services to the general public, a new approach was followed. Government entities started to adopt ready-made digital solutions that have been intended for private sector companies and/or for establishments in other countries. Although these information systems have many advantages and reduce the chances of system failures, they are usually

very complex in terms of technology and functionalities to be implemented. Capacity building within the ICT departments are of crucial importance for the success of such projects. Although the good will Albanian government agencies have shown so far, the mentality that ICT projects need only ICT professionals still exist, putting ICT teams in the lead of the whole project. In the major part of the cases, ICT projects imply changes of the internal business processes, as well as procedures, legal framework etc. Design-reality gaps often stand up in e-government for the reason that of a 'two tribes' approach that troubles most developing/transitional economy governments. IT engineers understand technology but not the inherent realities of government. Public officials and politicians recognize the realities of government but not the technology. To close these gaps, 'hybrid' professionals, who comprehend both viewpoints needs to be used. During the years, such a workforce has been established but generally is not put in decision making positions. The hemorrhage from public to private sector is always an issue, as the offer gap is always big. But also, an ongoing and essential issue is the inherent changes in structure and dismissal of the already specialized employees. Tougher measures and a complete change in mentality is needed to retain all the specialist for whose training and competences the state has contributed a whole lot financially, and should use these specialists to spearhead ICT projects in decision making position.

c. The contractor factor:

Government agencies in Albania are more and more subcontracting the private sector for developing and implementing information systems as well as outsourcing ICT services. The success of the ICT projects depends also on the capacity, availability and professionalism of these contractors, pushing government agencies to strengthen good relationships between the parties. Even though Albanian government faces the same risks from the contractors as other developed or transitional countries, its case should be treated differently, because of the circumstances of the ICT market. The majority of the ICT companies in Albania, do not have the required experience, competence and capacity to develop and implement complex and large-scale information systems. No matter these limitations, some of the contractors have managed to have a number of contracts (sometime even

simultaneously) with government agencies to implement ICT solutions that not always are able to deliver as expected. Engagement of the same contractor in different projects at the same time, the limited human resources they dedicate to each project, mainly with pure technical background and sometime establishment of "unhealthy" personal relations with some of the public officials involved in the projects, lead to project failure or partial success. Not rarely the situation may aggravate and result in conflicts between parties. To decrease these risks, a more rigorous selection of the contractor should be imposed. Qualifications criteria should be strengthened and adjusted accordingly in regard to the specific ICT project. Much more consideration needs to be paid to dynamic management of the client—contractor rapport. Effective e-government projects should adopt advanced methods to strengthen common understanding and shared aims. Some gap reduction methods consist of contractor scrutiny of key client staff, combined teambuilding events, combined profit sharing and open book accounting [Hee03].

d. Implementing complex ICT projects all at once:

Referring to various research paper that analyze risk factors in ICT projects, complex and large-scale ICT project have higher probability to fail. Government approach to digitalization does not always consider the risks associated with the scale and complexity of the projects they try to implement. Albanian government is not an exception. Since the government started the digitalization process, in many cases, the approach followed was system implementation all at once. Managing an ICT project supposed to digitalize the whole business processes and operations within an entity, is quite a complex task and needs highly qualified personnel, dedicated and competent teams, political commitment and leadership. In the case of Albania, these preconditions to a successful project are not properly met. Extending project time horizons is one method to avoid total or partial project failures. There is also a mounting accord behind modularity (supporting one business function at a time) and incrementalism (providing stepped levels of support for business functions) within e-government developments. A step by step approach would not only decrease these risks, but also help identify and mitigate other risk factors in due time.

3. People Satisfaction with E-Government.

Government trust is normally mutable. Generally, the trust is influenced by big political scandals and very unpopular policies. Relating to this, no matter the efforts of the government toward e-government 2.0, the platform will be as trustworthy as the government entity creating it. Other aspects that impact and decrease the public trust to government can be easily acknowledged, such as government performance in economy, the role and truthful coverage of the media, policy and reforms failures, political scandals and social situation of the people. In specific, the perceptual disinterest and information gap amongst the public and government give the impression to be one of the main elements that have led to the weakening of public trust in the government. To many, appropriate utilization of information and communication technologies, particularly the internet, by government is probable to increase people satisfaction with government. Likewise, better-quality, more appropriate services, more accessible and comprehensive information, and new and better-quality channels of communication may decrease the information gap and improve people self-confidence in the government.

Providing of more information about government is necessary but does not satisfactorily cover the resources by which internet technology can affect people trust in government. For example, Nelson (1997) [Nel97] has recognized 5 issues for building trust in cyberspace: reliability and security, identity and authentication, confidentiality, verification, and jurisdiction. Even though these hesitations continue to be at the vanguard of government thinking on deployment of information technology and distribution of information, the problem stresses myopically on the technical systems that permit a customer-oriented government. Other features may be just as important, that have more to do with corresponding known capabilities of the technology with people expectations of democratic government, such as fulfilling expectations of accountability, equity, and interactive e-governance.

Shapiro [Sha99] shares that the internet evolution has shaped an information culture in which individuals have contact with and, hence, expect access to a great deal of data and information. He as well finds that the network of networks and the code structures of the internet that allow many-to many interfaces are

“greeted as one of the most potentially democratic aspects of the Net because it allows individuals to be creators of content rather than just passive recipients, and active participants in dialogue instead of just bystanders”. To what amount are governments using the bulk of the technology to involve people in deliberation, discussion, and decision making? To what amount are people expecting more than an affirmation toward functional online interaction from their governments?

In a survey of the works on electronic democracy, Weber and Murray (2002) [Web02] discover that two main queries are presently being posed by research in electronic democracy: Who partakes online, and what do (or can) people do online? The first query has to do with equity of access and use—the digital divide. The second query has further to do with what is presented to people online. A central finding of Weber and Murray's survey is that although government is doing plentiful to deliver information and services to people, and in several cases doing a very good job, it is far from grasping the full potential of the internet as an interaction and communication tool.

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