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Emergence of the E-Government Artifact in an Environment of Social Exclusion in Kenya

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ABSTRACT

Purpose

E-Government, introduced in African countries under the banner of New Public Management (NPM), is envisaged to fundamentally aid in improving governance in developing countries. The imported model of E-Government is therefore transferred to African countries as a panacea to bad governance by carriers such as international donor agencies, consultants, Information Technology vendors and Western-trained civil servants. Improved governance is expected to impact on the socio-economic development of these countries implementing E-Government, as an NPM instrument. This article recognizes that E-Government success, which is critically dependent on the World Wide Web, requires socially inclusive national information infrastructure.

The purpose of this paper is to offer a critical analysis into the emerging E-Government artifact in the context of a developing country. By combining three independent research streams related to governance, social exclusion, and national information infrastructure, the emerging E-Government artifact was explored from a supply-side perspective.

Design/methodology/approach

The research approach was critical in its philosophical orientation. The case study research strategy was adopted, which relied on various sources of data on E-Government policy and its related strategies in Kenya. Theoretical discourse analysis was employed as the predominant mode of analysis.

Findings

The findings reveal that the emergent meanings of E-Government have strong managerialist intentions pointing to a thinly veiled control agenda couched in the language of a desire for efficiency in governance. An unexpected consequence of this conceptualization of E-Government is to help in solidifying and possibly exacerbating the social exclusion problem.

Keywords

E-Government Artifact, E-Government, governance, Africa, Kenya

INTRODUCTION AND PURPOSE

The increasing use of information and communications technologies (ICTs) by governments has primarily been spurred by a trend where many governments have been reforming their public sector in order to meet the aspirations of their citizens. From a synthesis of various literature sources, E-Government has emerged as one of the alternatives and is generally regarded as a way of providing government services electronically, usually by relying on the Internet infrastructure to reduce the physical character of customer transactions (Calista, 2007; Esteves et al, 2008), or reliance on Internet-based applications to enhance government functionality (Ladner, Petry, and McGreedy, 2008). The provision of services electronically by the government calls for an appropriate use of information and communications technology (ICT) for advancing the goals of the public sector, and creation of an enabling environment for social and economic growth (UN, 2008). However, while E-Government has been and still continues to be touted as an initiative critical for the transformation of government, its vagueness as a concept has been noted, partly due to lack of an indepth recognition of its complex political and institutional environments (Yildiz, 2007).

The assertion in this article is that the vagueness and foreignness of the concept implies that a majority of developing countries are still in the process of exploring the meaning of the E-Government artifact as an object of human conception. It is still a nascent concept considering that dedicated E-Government journals started appearing in 2005, even though there were already written works on E-Government (Gronlund, 2005). However, as a concept, its origins, in terms of formal recognition, was in the late 1990s, primarily since the advent of the Internet on a commercial scale (Grondlund, 2005). Tying its recent origins to concepts of technology transfer means that it is still taking form in developing countries. The interest of this paper is therefore to explore the meaning and implications of E-Government in Kenya and to explore possibilities of making it relevant in developing country countries in Africa.

Given the interwoven nature of governance, meanings of E-Government are assumed to emerge at different levels of government. A study of telehealth by Dabrowska (2001) discovered that meanings of telehealth also take place at different levels of sense making. The processes used in establishing the concepts of telehealth result in meanings that are not always obvious or that may be contradictory. In like-fashion, there is strong evidence to suggest from its emergence that the meaning of E-Government takes place at various levels. At the international level, there may be best practices being propagated by countries, technology vendors, and even supra-national organizations such as United Nations (UN). At the national level, there are those involved in policy making, implementation, and at local levels of policy interventions whose emergent meanings may be contradictory. The article reflects on meanings that become articulated in policy documents as a result of interactions by various international, national, and local players during the formation of the organizing vision of E-Government.

This research has two key motivations. First, Kenya, a developing country in Eastern Africa, has been attempting to implement a broad-based public reform program partly founded on an E-Government vision, which was officially articulated in 2004 (GOK-EGS, 2004); 2006 (GOK-NICT, 2006), and 2007 (GOK-FIP, 2007). The policy documents detailed a number of initiatives aimed at improving communication within government agencies, between government and business, and between government and citizens. The national ICT policy suggests that the focus should be on *redefining the relationship between Government and citizens with the objective of empowering them through increased and better access to government services*. This will have the effect of making the Government more result oriented, efficient, and citizen centered. The other policy document, the 2007 *Draft Freedom of*

Information Policy's explicit vision is to make Kenya a knowledge-based society. This is to be partly achieved by ensuring maximum access by *all Kenyans* to information held by public authorities to enable the country to transition to a knowledge-based society (GOK-FIP, 2007). This research intends to contribute to the clarity of the emerging vision of E-Government by seeking the possible meanings that the policy makers attach to the vision as articulated in the various policy documents.

The second motivation arises from the need to contribute to the accumulation of knowledge on experiences related to ICT projects based in Africa. As a new phenomenon in Africa, evident from when governments in the world have been articulating their E-Government strategies, there is currently a dearth of studies that have given in-depth analyses of experiences based in Africa. A systematic and holistic analysis of these experiences can help guide an appropriate conceptualization of the E-Government phenomenon relevant for developing countries, and this research seeks to contribute to this body of knowledge. This study therefore reinforces the efforts of the International Federation for Information Processing (IFIP) Working Group 9.4 on ICT in developing countries that specifically calls for articulating the social implications of computers in developing countries by collecting, exchanging, and disseminating experiences of ICT implementation in developing countries.

The article has five main sections. The first section presents a summary of the literature reviewed; the second section discusses the concept of social inclusion and its relevance to the E-Government artifact; the third section presents the methodology and the theoretical framework for understanding the E-Government artifact; the fourth section is a discussion of the findings, and the fifth and last section reflects on the conclusions arising.

Literature Review
The research problem is perceived as being shaped from the perspective of the 'foreignness' of the E-Government concept as an export from Western nations (Heeks, 2002). This section reflects on a review of literature on governance, national information infrastructure (NII), and social exclusion to provide traction to the research focus.

Supply-Side Perspective of E-Government
The Public Administrative perspective is approached from the concern by governments undertaking administrative reforms. This may be viewed from either a supply-side or a demand-side perspective. The *demand-side* explanation gravitates around national challenges of governance. The recognition is that administrative reforms are closely intertwined with political reform, aimed at strengthening the ability and capacity of elected officials to produce results (Cheung, 2005). The success of the elected officials, as leaders is increasingly being measured by the benefits they are creating for their constituents, who demand top performance and efficiency, proper accountability and public trust, and a renewed focus on delivering better services and results (UN, 2008). Thus the demand-side explanation has to do with the politicization of the reform agenda which can be driven internally (bureaucracy), and politician-driven as well as society-driven (Hojnacki, 1996). Another orientation of the demand-side explanation is the 'political nexus triad' (PNT) in which actors (politicians, bureaucrats, and citizens) negotiate their political interests regarding the function and structure of government (Moon, Myung-jae, Ingraham, 1998). The dominant interests therefore emerge to shape the structure and function of government. For instance, in the Kenyan situation, after having a highly centralized government since gaining independence from Britain in 1963, the general elections of December, 2007, brought to the fore serious issues of governance, which has culminated into a shift of governance structure to a parliamentary

system. This change of governance was 'forced' on the PNT after a break out of civil unrest (citizens' demands as part of the PNT) for close to three months.

The *supply-side* perspective rests on the claim that reform practices such as New Public Management (NPM) are being spread or exported by reform-pioneering countries, institutions, or leaders to imitator countries, such as those in developing countries (Cheung, 2005). An increasingly post-NPM claim is the emphasis on the importance of the civil society as a source of push for better governance (Polidano and Hulme, 2001). This may be indicative of two different versions of the supply-side explanation, that is, one which is highly managerial oriented under the banner of NPM, while another is more socially rooted under the 'good governance' notion (Cheung, 2005). Given that the good governance paradigm also includes intra governmental reforms, it therefore appears to be a combination of a push from pioneering countries to implement NPM-related reforms as well as that from the civil society in order for government to meet citizen expectations. The good governance banner in developing countries is therefore a combination of a managerially-oriented NPM as well as a quest for more citizen involvement.

From a developing country's perspective, the supply-side notion of the origins of public sector reforms is regarded as more plausible, even though situations in which change of governance systems, such as occurred in Kenya in 2008, can be partly claimed from a demand-side explanation. However, over the years, the supply-side origins of public sector reforms have been predominant, since citizen interests have largely been propagated by civil society organizations in developing countries. This emanates from a widespread sentiment that systems of governance in Africa are in a crisis and therefore in need of solutions which lie outside the continent (Heeks, 2002). The export of NPM, with its origins in Western countries and Western neo-liberalism, has therefore been pushed as a dominant reform paradigm for African countries. As a reform program, with multiple strategies, practices, and benchmarks to choose from, NPM has come in various guises, with E-Government emerging lately either as an extension or a component of NPM (Heeks, 2002; Navarra, 2007). Therefore, from a Public Administration view, the *good governance* as an imperative for reforms in developing countries is predominantly explained from a supply-side perspective, in which E-Government is transferred to African countries from four main groups: international donor agencies, consultants, IT vendors, and Western-trained civil servants (Heeks, 2002).

The Public Administration perspective above recognizes that E-Government, under various guises, has had a home in public administration under the banner of good governance in NPM (Cheung, 2005). Therefore, from a Public Administration perspective, E-Government reveals itself as a reform agenda under the NPM initiative, or is in itself an extension of the NPM imitative (Chadwick and May, 2003; Heeks, 2002; Navarra, 2007). This perspective is based on what may be regarded as a supply-side explanation, in which, E-Government as a concept, is 'supplied' or 'exported' to developing countries, yet it is based *on a computing and technological infrastructure perspective* to which most African governments still fall short.

According to Chadwick and May (2003), there are three predominant governance models that characterize the adoption of E-Government. These are adequately captured as forms of interactions that are used to reconfigure citizen interactions. The models comprise managerial, consultative, and participatory approaches as captured in Table 1 below. The motivation for their relevance to this paper follows.

Elements	Managerial	Consultative	Participatory
Role for Government	Regulatory; responding to the needs of the "new economy;" efficient and faster delivery of government information to citizens and "users"	Regulatory; responding to needs of social interests as expressed electronically; better policy provision to citizens and "users"	Protector of free speech and rights of expression, regulator of infrastructure; civil society exists away from the state and mediated electronically
Principal actors and interests	Government and its "customers"; business; the mass media	Government; "customers"; business; interest groups	Voluntary associations and interest groups spontaneously interacting within "cyberspace", groups use information gleaned through deliberation to influence government.
Flow of information	Unlinear from government to "customers" or customers to government, but the main emphasis on improving flow of information within government	Unilinear from government to citizens or citizens to government	Discursive and complex-citizens to citizens, citizens to government, government to citizens
Principal mechanisms for interaction	Online tax returns; benefit claims; "one-stop shops," updating of personal information held by public bureaucracies; government gathering and aggregation of "market research" data; government provision of information about its activities to media and public	"E-Voting" at elections; instant opinion poling; electronic input from voters and interest groups to government; "advisory" referendums; "electronic town meetings' and so on.	Autonomous pluralist mechanisms such as discussion lists, Usenet, peer-to-peer technologies; time and distance become compressed, facilitating increased political participation and a "cyber civil society."
Usage issues	Market-based access and usage patterns; minimal state regulation and public education programs to equip consumers	Market-based access and usage patterns; minimal state regulation and public education programs to equip citizens	Universal access and widespread usage are prerequisites
Defining logic	"Service delivery" and policy presentation	"Technical accuracy" and improved policy success rate	"Deliberation," participation, and enhanced democracy.

Table 1. Three Models of Interaction in E-Governance (Source: Chadwick and May, 2003)

The central theme of the managerial model is that change in governments is incremental and that:

> While ICTs represent both challenges and opportunities for the practice of governments (their interactions with the domestic economy and, more widely, civil society), their basic operational logic remains unaltered (Chadwick and May, 2003, p. 278).

As per this model, adoption of E-Government is viewed as an improvement of any extant technology, while the logic of public service remains unaltered. Chadwick and May (2003, p. 278) characterize this as a push model of information dissemination in which:

> The state will place information in accessible forums and the onus is on the user to access it. The audience members are seen as passive recipients, rather than interlocutors. State produced information is a passive resource to be transferred between nodes in the information network. And while citizens are inescapably part of the E-Government networks, their role is not as important as that of the state, which manages the activity.

Thus in time, E-Government becomes embedded in the routines of administration in what Margolis and Resnick (2000) characterize as 'politics as usual.'

Chadwick and May (2003, p. 278) portray the consultative model as a 'pull' model where governments use the new ICTs to facilitate the communication of citizen opinion to government meant to inform policy and administration by incorporating input from other users. This input is, however, selective, with the state only allowing those opinions that are supportive of a certain policy agenda. They also liken it to a transitionary model towards full participation of citizens thus only allowing quasi-deliberation between the citizens and the state. Chadwick and May (2003) compare it to "group-based approach to politics" broached by Wayne Rash (1997), but only allowing interaction with interest groups that provide input that fit within parameters already set by policy-makers.

The participatory model is contrasted from the other models of interaction by focusing not only on the vertical flows of information, but also horizontal flows of information (Chadwick and May, 2003). The argument is that governments are increasingly recognizing that the civil society and other interest groups' influence have increased tremendously over the years. Thus, citizens have alternative sources of information, in which case the government's point of view is not necessarily predominant. Thus, interactivity is more complex, horizontal, and multi-directional because there are now other "sites of political discourse" (Chadwick and May, 2003, Pp 279).

The importance of the above model for this research effort was to highlight their key themes and how these inform the emerging E-Government vision. These themes aided in separating the 'rhetoric' of E-Government theorizing to the 'reality' of E-Government practice. It is in concretizing this vagueness or the gap between rhetoric and reality that makes emerging visions illuminating. In this context, the model above helped in capturing how the concept of E-Government is operationalized within the local Kenyan context at both national and local levels.

E-Government's lofty vision is thus premised on enhancing greater participation of citizens in governance affairs of the state. Most Western nations have developed information infrastructures that most African nations are yet to build. The exploration of meanings that emerge on the concept of E-Government takes this into account: by considering the information infrastructure inadequacy of African countries. This shall provide the critical lens so as to expose the conflictual meanings that emerge, given its basis on a Western computing model that at the very least can only be considered as lacking in Africa.

Scaling up the concern for infrastructure to government level therefore requires a further scrutiny of the concept of infrastructure. Infrastructures are considered as *large, shared, open, standardized,* and *heterogeneous* networks of socio-technical actors (McGarty 1992; Star and Ruhleder 1996; Hanseth, 1998). The information infrastructure (II) notion was first coined by Al Gore in the Clinton administration as a political plan aimed at building a nation-wide network and information resource premised on the Internet and WWW (Branscomb and Kahin, 1996; Kahin and Abbate, 1995; McGarty 1992). The European Union later followed with the Bangemann report for the establishment of a European information infrastructure as the basis of the information society (Bangemann Report, 1994). Subsequently, the concept of II has gradually gained prominence by being developed on different theoretical approaches in Information Systems theory. The concept of Information Infrastructure has for been applied as a theoretical tool for studying the nature of the evolution of communication platforms (Jansen and Nielsen, 2005).

An II view from an Information Systems perspective supports the Public Administration perspective. For instance, Western E-Government models are based on computing and telecommunications infrastructure which is still inadequate in the context of most African governments (Heeks, 2002). Adoption of these E-Government models should therefore recognize the practices of E-Government from which they emanate. Information Systems recognize that E-Government technologies are exported to African governments in order to realize the government NPM reform initiatives. Conceptualizing E-Government based on the various technological clusters is not wholly based on a Western conceptualization when they arrive, but are of necessity re-conceptualized to realize E-Government in the local contexts of African governments.

Integrating the IS and the Public Administration perspective in developing countries teases out the importance of focusing on the *supply-side* of E-Government implementation in developing countries. From a Public Administration view, this is evident from the view that E-Government is part of the NPM reform package exported to African countries to improve governance. Therefore, what is received is of necessity a *supply-side* view that can not be ignored, especially from a developing country's perspective. The IS perspective, on the other hand, also captures the supply-side view by recognizing not only the nascent nature of E-Government in African countries, but also the reality that technologies of E-Government have their origins outside the continent. Overall, the supply-side perspective from both a Public Administration and Information Systems perspective rests on the foreignness of the concept of E-Government to African economies. This is supported by technology transfer literature, which recognizes that most technologies (Internet, extranet, intranet, software, computers, and storage technology) are imported into Africa (Kumar et al, 2007).

Considering the large-scale nature of E-Government projects, the next section explores from a social exclusion perspective the nature of the nation information infrastructure (II) of Kenya within which the emerging E-Government is taking form.

E-Government and Social Exclusion
The definition of social exclusion adopted in this article is that of Burchardt, Le Grand, and Piachaud (1999), who believe that an individual is socially excluded if he or she is geographically resident in a society and does not participate in the normal activities of citizens in that society. Normal participation of individuals is pegged on being involved in consumption activity, savings activity, production activity, political activity, and social activity (Selwyn, 2002). Concern in recent years is on how social exclusion

will be augmented in the governance arena due to the unavoidable challenges of E-Government adoption in African economies faced with information infrastructure inadequacies.

Of relevance to ICT is the notion of 'digital exclusion' which first emerged with regard to inequalities in access to technology *between* countries, and in particular the technological disparity between developed and developing nations (Holderness, 1998). Towards the end of the 1990s, the discourse gravitated more towards the issue of technological inequalities *within* individual countries (Selwyn, 2002). This was largely a discourse taking place in Western nations with the prevailing view being the need to address the perceived dichotomous divide between those citizens who are 'connected' and those citizens who remain 'disconnected'(Selwyn, 2002). Crucial for developing countries implementing E-Government which is based on a computing platform of the Western nations, digital exclusion is can be seen as a dual threat, with access to ICT and the ability to use it potentially creating a *new* form of exclusion as well as reinforcing *existing* patterns of exclusion from society. The review in this section reflects on the notion of social exclusion, and more specifically, to use its concepts to delineate the environment of E-Government adoption in Kenya.

Since the explicit intent of the E-Government effort is to provide information electronically to the stakeholders, issues of accessibility of this information become paramount. Citizens and other stakeholders need to have the ability to access this information when they need it. Policy design issues for E-Government need to consider measures or modes available for accessing information from E-Government systems, especially through the national information infrastructure.

The adoption of the emerging E-Government artifact should consider the adequacy of the ICT resources from a national information infrastructure perspective as the backbone for providing access. Warschauer (2004) identified four resources contributing to ICT access which are critical for addressing concerns of social exclusion of certain groups. These resources include physical resources, digital resources, human resources, and social resources. The effective use of ICTs to access, adapt, and create knowledge depend on these four broad categories. These are further discussed below with snapshots of their state in Kenya.

Physical Access: Computers and Connectivity

Physical resources include accessibility to computers and telecommunications by the users. It concerns affordability of computers, provision of public access options, and extension and affordability of telecommunications (Warschauer, 2004). Kenya is experimenting with what has been named the madaraka computer, developed to be sold for about U.S. $450 in both the Kenyan and African markets. Many have lauded the effort of Kenya developing its own PC which it can sell to its population and to other markets as noble. Some statistical indicators of the ICT industry are shown in the table 2 below:

Key Indicators	2004	2005	2006	2007	2008
Mobile Phone Subscribers	3.4 M	5.5M	7.2M	8.7M	11.5M
Mobile Phone Users	8.5M	10M	12M	14M	16M
No. of PCs	0.75M	0.9M	1.1M	1.4M	1.7M
Internet Users	1M	1.4M	1.8M	2.5M	3.5M

Table 2. Kenya-Industry Statistics (Adapted from: Håndværksrådet, 2006)

An aspect of physical resources relevant for the realization of E-Government concerns the extension and affordability of telecommunications. This is linked to the extension and affordability of electricity used by ICTs. The total number of electricity connections in Kenya currently stands at 920,000 (KPLC, 2007). The current electricity penetration in the rural areas (in which 80 percent of Kenyans are based) stands at 4 percent, which the utility operator wants to increase to about 40 percent by 2020 (KPLC, 2007). The projected population size of Kenya stands at 38.6 million in mid 2008 (UN-WPP, 2008). The emerging electricity infrastructure situation is biased against the rural population, where more than 30 million people are living and with an electricity penetration of about only 4 percent. This is expected to be a critical challenge for the realization of the E-Government goal of improving physical access to information. Electricity is a critical component of theaccess technologies of E-Government such as computers, modems, telephones, etc.

Telecommunications extension and affordability is also a nightmare for developing countries like Kenya. In terms of land line capacity, there has been a decline in the number of connections instead of an increase. This is according to an Internet market report of the Communication Commission of Kenya (CCK, 2008). According to the report; the number of fixed subscribers has declined by 6.8 percent to stand at 278,867. As a result, the fixed-line tele-density has declined from 0.9 percent to 0.84 percent since 2005. Given that the E-Government strategy envisages provision of services through websites, the small number of fixed-line connections severely limits the reach of these services given the reliance of E-Government on the Internet infrastructure. In addition, a majority of these connections are only in the major urban centers of Nairobi, Mombasa, Nakuru, and Kisumu.

The other interfacing option is using the cellular telephone network. Kenya currently has two operational mobile phone service providers: Celtel and Safaricom. The two providers have a user base of 11.5 million subscribers (CCK, 2008). The two cellular providers have continued to increase value added services to their service offerings. Users with appropriate handsets (which sometimes are more expensive than locally assembled computer desktops) are able to access the Internet at higher rates than those using fixed telephony (CCK, 2008). Therefore, the current pricing structure still excludes those who do not have access to the fixed lines, even though they may have mobile phones. However, the Government has started exploring possibilities of providing government services through mobile telephony. For instance, the Ministry of Education was able to provide examination results for 2006 by allowing querying of results of more than 400,000 primary and secondary school candidates through short messaging services (sms).

The diffusion of telecommunications links, as well as electricity and other necessary ICTs, when linked together, indicates that social exclusiveness of the process can be stark. For instance, from the CCK (2008) report, the total estimate of Internet users is 3.5 million. From this total, Nairobi (the capital city) has 80 percent of Internet users. If this is contrasted by 80 percent of the total number of people living in the rural areas, then the exclusiveness of technology for governance in Kenya becomes even starker. This may point to the lack of the overall vision of E-Government to take into consideration realities that will enable participation of a key constituency for its success.

The other issue concerning physical resources concerns provision of public access to E-Government services. Provision of Internet access through public access centers such as cyber cafes, telecenters, or community technology centers is an initiative most Governments in developing countries take to enhance universal access. The Government of Kenya has a special focus on using digital villages to

attempt to bridge this gap. The Digital Village Project (DVP) proposal is being spearheaded by the Ministry of Information and Communications (MOICT), under the Kenya ICT Board. Envisaged facilities that hope to improve public access include the following (MOICT, 2007):

- *Digital Schools:* Educational ICT facilities to be established in every location (the fifth level administrative unit) with 5 PCs each
- *Digital Kiosks:* Commenced ICT facility to be established in every constituency with 1 to 5 PCs each
- *Digital Centers:* Development of ICT facility to be established in every district with 10 to 20 PCs each.

An analysis of the geographic dispersion of the Internet, as a cluster of various technologies (Wolcott et al, 2001) reveals the following picture captured in Table 3.

Licensee Category	Districts	Provinces	Percentage of districts
ISP (Internet Service Providers)	20	8	28.57
LLO (Local Loop Operators)	2	2	2.86
PDNO (Public Data Network Operator)	33	7	47.14
VSAT	57	8	81.43

Table 3. Presence of the Internet in Provinces & Districts (Source: CCK, 2007)

In particular, geographic dispersion looks at the number of points of presence (POPs) in the first-tier political subdivisions. An Internet point of presence is taken to mean the physical presence of an ISP or a public data network operator (PDNO) in the first-tier political unit. The presence of these operators allows Internet users to make local calls to the telephone exchanges sos they may access ISP services. Kenya has 6 administrative levels. The national level is represented by a number of institutions such as the central government's civil service, parliament, judiciary, etc.

The first-tier political subdivision relevant for the provision of services to citizens is the district. Kenya has 72 administrative districts, serving an average of 550,000 people. The telephone exchanges for dial-up access are district-based, not based per province. There are 8 provinces serving an average of 4.8 million citizens. Thus, an Internet user has to dial a district exchange for access. Despite Internet presence in all the 8 provinces, only 29 percent of the districts have ISPs for Internet access. One of the barriers to the spread of the Internet has been the lack of connectivity in the rural areas with more than 80 percent of the fixed lines in the four major towns (CCK, 2008). However, out of the slightly more than 300,000 fixed-line subscribers, 94 percent are in the urban areas while only 6 percent are in the rural areas. Eighty-one percent of the total is in Nairobi (the capital city).

From above, the total estimates to buy the madaraka PC at U.S. $450 each to take care of the Digital schools, Digital kiosks, and Digital center comes to around U.S. $1.4 billion. This is on equipment purchases alone, before considering other aspects of access such as human resources and digital resources. This budget is big considering the time frame for its completion, which was to be by the end

of 2007; yet the process is still yet to begin. The expectation is that once the 'Digital Villages' are complete, then the number of people having access to the Internet would increase from 2.8 million to 6 million. It is also expected that telephone subscribers would increase from 8.5 million to 15 million before the end of 2007 (*Daily Nation*, 30 April, 2007). However, the ambitious scope of these projects reveals 'short-termism,' especially given the resource base and commitments required. Design for public access is falling behind schedule, calling into question the ability to execute these projects given the resource limitations.

Digital Access: Content and Language

These are digital materials that are made available online (Warschauer, 2004) through a variety of media. Digital resources are assessed in terms of the content and their relevance to specific communities as well as the language used in creating the content.

It has been recognized that despite there being massive amounts of digital content on the Internet, the creation does not meet the needs of certain communities around the world. This has been attributed partly due the geographical imbalance of the sources of this digital content as well as the predominant language used in these websites (Warschauer, 2004). An analysis of all Government websites in Kenya showed that the official language of the website is English, this, despite the fact that a majority of the rural populace communicate either in local ethnic languages or in Swahili.

Warschauer (2004) comments that physical access "mean little without sufficient digital content that is relevant to people and in the language of their communities" (p. 108). In the Kenyan case, this is evidently a concern given that 35 of government ministry websites are all in English. The argument is that this excludes a big segment of the population. This segment (80 percent in the rural areas) and the urban poor need to be reached by localizing content as well as using a language they can understand.

Social Resources: Building Social Capital

Social resources refer to the community, institutional, and social structures that support access to ICTs necessary for E-Government use. These social resources enable a community to increase their social capital, which is argued to have a positive influence on both human development (Serageldin and Grootaert, 2000) and physical capital (Putnam, 1993). Warschauer (2004, Pp. 154) define Social Capital as:

> The capacity of individuals to accrue benefits by dint of their personal relationships and memberships in particular social networks and structures.

Individuals and communities improve their social capital due to the social relations and trust in various networks.

The connection of the concept to E-Government is that social capital is an important factor in gaining access to the Internet as the dominant infrastructure for E-Government. This is because entering the world of the Internet is complex and it involves making many decisions such as what computer to buy, how to set it up, how to install it, where to get the Internet connection, etc. For an individual, these may be daunting decisions, especially given the level of computer illiteracy alluded to earlier. Therefore, for E-Government success, there is need to assess the social resources available to communities or if not, what interventions are envisaged in the E-Government policies. The issue of concern is to assess the nature of or lack thereof of Government's intervention to ensure these community (micro level), institutional (meso level), and social structures (macro) are strengthened or put in place.

The micro-level interventions at the community level require consideration of the virtual communities and community informatics for access to Government information available online. These two micro-level interventions are viewed as top-down approaches to social networking. Virtual communities or e-communities normally rely on online rather than face-to-face interactions. The emphasis on online interactions precludes face-to-face interactions, which in reality has been established to be far superior to online interaction (Warschauer, 2004). The virtual community concept has largely been described to be ill-advised as an approach to promoting social inclusion, especially in developing countries where illiteracy levels are high. In the Kenyan context, these virtual communities have largely sprung up amongst Kenyans in diaspora or those in the upper middle class living in urban areas. Examples include mashada.com, kumekucha.com, mshale.com, mambogani.com, jaluo.com, kikuyu.com, etc. However, a number of these straddle both the micro and meso levels in their attempts to promote social capital.

The concept of community informatics appears to provide a better frame of reference in thinking about technology for social inclusion. Community informatics goal is to achieve social, economic, political and cultural goals of communities (Warschauer, 2004). The strategy of community informatics is promotion of social capital but not principally through online communication. It achieves this feat by building the strongest possible coalitions and networks in support of a particular community's goals, using technology projects as a focal point and as an organizing tool.

A case in point is the www.jaluo.com site, started by a group of Kenyans. This is a website setup in 1999 ostensibly to provide a medium for free expression of views of the ethnic tribe called luo everywhere. The ethnic community is largely in Kenya, but also has a large presence in Uganda, Tanzania, and Southern Sudan. They may also be found in Congo and Ethiopia. However, the majority of the contributors are largely of Kenyan origin. Most of the contributors on this site use the luo language called dholuo, even though some contributors use English or even Swahili (largely spoken in Eastern Africa). The luo community in Kenya is about 5 million and mostly resides in the western part of the country (Nyanza and Western Provinces).

The Meso-level social capital concern the emergence of the power of the civil society, which are forms of networks, groups, and organizations that exist between the private sphere and the state (Warschauer, 2004). The goal is normally to empower those who are marginalized due to the state's excesses. They are normally either non-political or political institutions. It is therefore expected that a number of civil society institutions need to be available to provide an interface for the E-Government goal of improving communication to enhance governance.

Under the macro-level, the social capital strategies are expected to target issues of governance and democracy. Macro-level social capital thus comes from the top down. The concern is how social structures of government provide and facilitate resources and support to individuals and society. In this respect, it may be noted that the Government has embarked on a country-wide campaign of setting up digital villages which will rely on a fiber optic backbone as well as cellular technology as mentioned earlier.

Human Resources: Literacy and Education

Human resources focus on literacy and education and they are touted to affect online access at both the macro level as well as the micro level. Mass literacy and education impact economic development and therefore create conditions for better technologization of society (Warschauer, 2004). For instance in the

Kenyan situation, one of the campaign promises of the Government elected in 2002 was to provide universal primary education. This was implemented in January 2003 and is ongoing.

The interest in micro-level literacy, on the other hand, is based on the individuals' skills in reading, writing, and thinking. This has a bearing on how individuals use the Internet as required for access to E-Government related services. The focus on reading, writing, and thinking skills may reveal the extent of literacy requirements for E- Governance interfaces. Warschauer (2004) points out that there should be more emphasis on electronic literacy, which is:

> An umbrella term that encompasses several other generic literacies of the information era, including computer literacy, information literacy, multimedia literacy, and computer-mediated communication literacy (p. 111).

The E-Government programs are being implemented in an environment in which there is no comprehensive public access to ICT education to enhance their preparedness for utilizing governance resources. Kenya is faced with two divides, the international digital divide as well as the local divide between the rural and the urban areas. Where the urban areas have access to some form of ICT education in the form of various programs offered by commercial colleges and NGOs whereas, there is little or no access to ICT education in the rural areas. This divide is further exacerbated by the fact that in most rural areas, there is no electricity or telecommunications as was highlighted earlier. Further, attempts by the Government to introduce computer education in schools targets those schools that already have electricity, which would further enhance the divide between those who have the ability to access and those who do not.

Overall, social inclusiveness of the E-Government is highlighted to depend on the adequacy of physical, digital, social, and human resources. The physical resource limitation of the NII has been noted, which impacts on the expected wider participation of the population in governance. Further, there is no comprehensive public electronic literacy program in place which straddles the micro-, meso-, and macro-levels. This calls to question the acceptability of E-Government as an artifact, especially among large segments of the population in the rural areas. The digital resource capability is also biased towards English, yet it is a foreign language in Kenya, and is sometimes a second, third or even fourth language for large segments of the population. The social resources to enable ICT access is not government coordinated and appears to be the result of efforts by a community of individuals, thus the effects of its reach may be minimal.

THEORETICAL FRAMEWORK FOR UNDERSTANDING THE E-GOVERNMENT ARTIFACT

The research framework depicted in Diagram 1 below seeks to encourage a deeper understanding of the meaning of E-Government. From analytical Diagram 1, actors are always in a constant state of sense making, forming interpretations of their reality and acting in tandem. The repetitive, continuous, and recursive behavior of the actors (of various categories) thus involves 'rituals' of communication and action (A). The process of sense making involves a continuous enlistment of actors, wrought with diverse frames of reference. Due to the enlistment of different actors, a negotiated or consensus on appropriate technological deployment is objectified in the form of an E-Government Strategy or ICT Policy or references made in various documents such as the ICT Policy framework, Freedom of Information Policy, and the Freedom of Information Act. Thus, sense making takes place in a context of actors engaging in communicative action.
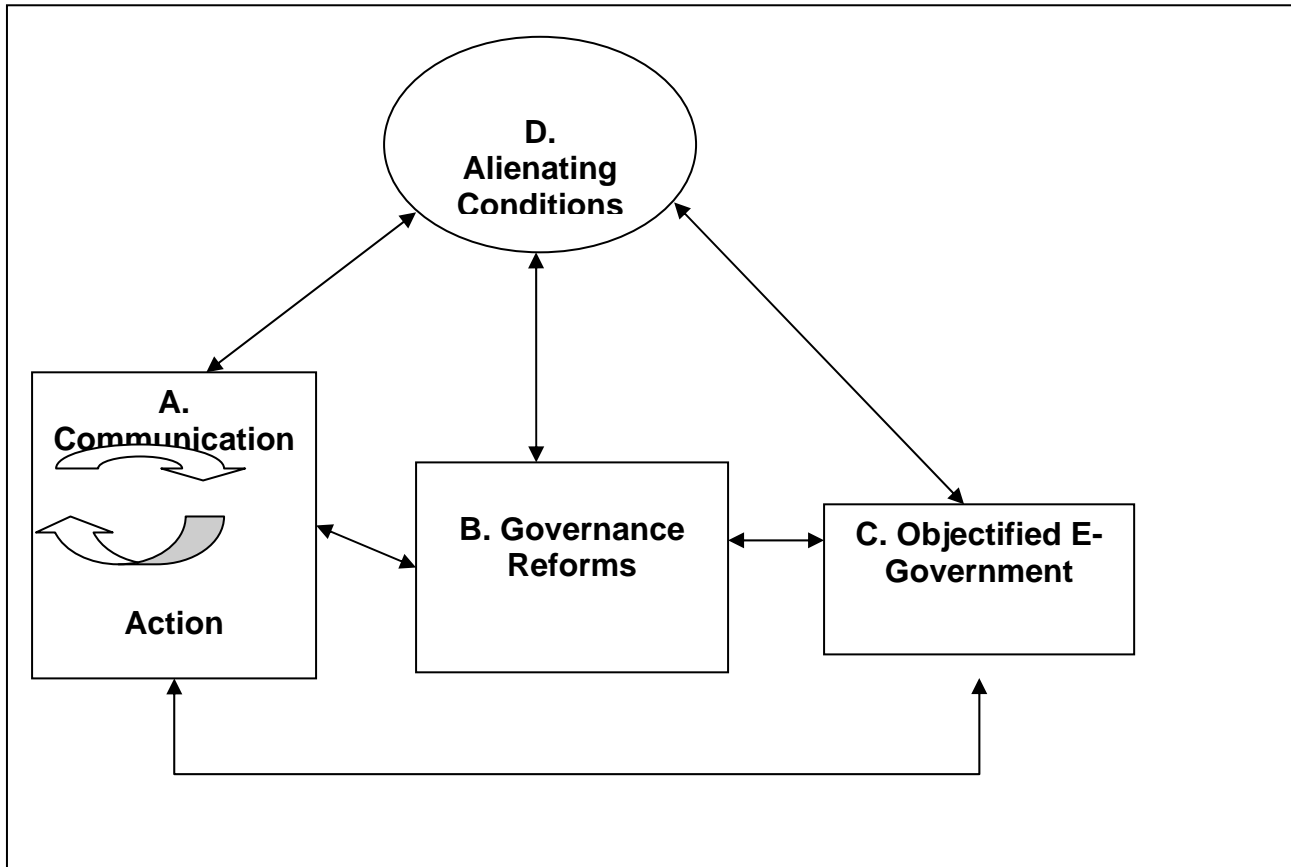
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│                          ╭───────────────╮                            │
│                          │      D.       │                            │
│                          │  Alienating   │                            │
│                          │  Conditions   │                            │
│                          ╰───────────────╯                            │
│                                                                       │
│     ┌──────────────────┐     ┌──────────────┐     ┌──────────────┐    │
│     │        A.        │     │ B. Governance│     │ C. Objectified E-│ │
│     │  Communication   │◄───►│   Reforms    │◄───►│   Government  │    │
│     │                  │     │              │     │              │    │
│     │     Action       │     └──────────────┘     └──────────────┘    │
│     └──────────────────┘                                              │
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Diagram 1. Overall Research Framework

The rationale and the motivation for engaging in the process of E-Government adoption seem to find justification in the quest for better governance (B). Therefore, in looking at the problem domain revealed in the diagram, focus is on the emergent Governance model evident in the adoption of E-Government. The enactment of the objectified E-Government within the context of the predominant governance form and the recommended institutional structures provide a 'snap shot' identify of the E-Government Artifact (C).

The emergent artifact is continuously in flux and changes form based on changing constraining conditions (D). These are evident when the context is assessed in terms of social exclusion since the NII provides the interface required for E-Government access. The argument from a critical perspective is that policy choices expressed in the policy documents may lead to some alienating conditions (D), as some actors' interests become more dominant compared to others. For instance, the design of the E-Government programs may not take into consideration existing realities, which may eventually affect the use of E-Government services. This 'design-reality' inconsistency (Heeks, 2002) may lead to the alienating conditions.

The formation of meanings emerges within particular problem domains. In this study, the meanings of E-Government are being considered from a governance perspective, especially as advocated for in the literature by NPM pundits [B]. Both [A] and [B] influence and are influenced by the context in which E-Government is taking form [D]. From a critical research agenda, the research considered which

alienating conditions would critically aid in a critique of the lofty goals of E-Government. [D] could have been referred to as context, however, the political agenda of the research was to point out the unfavorable context in developing countries into which E-Government is being imported. The alienating conditions of the emerging E-Government form were therefore illustrated through recourse to the metaphor of social exclusion. This was considered relevant to a critical research agenda so as to expose the taken for granted transformative impacts from the context of a developing country.

The theoretical framework shall be used as a guide in:

- An analysis of what promises and commitments have been objectified in the E-Government Strategy and other policy documents and 'speech acts,'
- The Objectified E-Government,.The emergent governance frame shall be assessed from the analytical lens of Chadwick and May (2003) and extended by Navarra (2007). The emergent institutional form shall be analyzed in the form of propositions in the E-Government Strategy as well as 'speech acts' in other media such as Government websites, media releases, presidential speeches, speeches by policy makers, etc.
- Finally, the inclusiveness of actors in the process of E-Government sense making in the country is critically analyzed.

RESEARCH METHODOLOGY

Theoretical thematic analysis was employed as the dominant mode of teasing out the E-Government artifact from the documents (E-Government Strategy; National ICT Policy; Freedom of Information Policy) and the interviews. Thematic analysis is largely recognized as a method for identifying, analyzing, and reporting patterns (themes) within data (Braun and Clarke, 2006). Two recognized approaches are inductive thematic analysis and theoretical thematic analysis. Inductive thematic analysis identifies themes by linking them to the data themselves and where the themes identified may bear little to the original research questions themselves and are also not guided by the researcher's theoretical assumptions (Patton, 1990). On the other hand, theoretical thematic analysis tends to be driven by the researcher's theoretical or analytic interest in the area, and is thus more explicitly analyst driven (Braun and Clarke, 2006).

The choice of theoretical thematic analysis was based on the scope of the study, which involved analyzing parts of the documents and interviews that shed light on perceptions regarding the nature of the E-Government artifact. Theoretical thematic analysis enables one to focus on a particular aspect of the research, and therefore only aspects of the data become relevant for analysis. Thus the coding was undertaken for a specific analysis agenda: to establish the underlying logic of the E-Government artifact in Kenya. Thus, theoretical thematic analysis is more of a deductive approach which encourages coding to map on specific research questions, as opposed to inductive thematic analysis, which allows for coding to evolve themes from a detailed description of the data (Braun and Clarke, 2006).

The thematic constructs that were used to 'tease' out the meaning of E-Government were the focus and logic that characterize E-Government. E-Government must have a specific *locus*, that is, the specific governance aspects it is intended to transform or improve. The locus of E-Government revolves around organizational processes being transformed using ICT (organization); government policy processes being undertaken using ICT (policy); how political actors use ICT (politics), and which relationships between citizens and government become digitalized (citizens) (Zouridis and Thaens, 2003). The *focus* of E-Government on the other hand is regarded as the dominant orientation that characterizes the

thinking of the various stakeholders involved in meaning formation. The four rationalities of public institutions that underscore the focus of E-Government are political, legal, economic, and professional rationalities (Snellen, 2002). The locus and the focus of E-Government were therefore regarded as the Discursive Type, or themes used for deductive interpretation purposes to unlock the meaning of E-Government from the policy documents. The table below summarizes these themes or Discursive Types (DT) that were employed in the interpretation process.

E-Government Focus	E-Government Locus
Economic Rationality	Organizational Locus
Political Rationality	Policy Locus
Professional Rationality	Political Locus
Legal Rationality	Citizens' Locus

Table 4. Discursive Type for Thematic Analysis

Findings

This Section is an account of a reading of the relevant policy papers, highlighting the main reforms proposed in the E-Government Strategy as well as other relevant policy documents. An attempt is also made to recast the E-Governance systems in order to expose the underlying logic.

Emerging Themes from E-Government Related Policies

The analyses in Table 5 indicate an E-Government ideology or focus that is underpinned by economic rationality (R1, R4, and R5). The economic rationality underpinning E-Government in Kenya stems from both a macro and micro perspective. At the macro-level, the intent of E-Government apostates with larger globalization concerns of citizen empowerment, gender empowerment, gender equity (R1), achievement of universal access goals, and more participatory governance (R5). The macro-level economic rationality imperative identifies organizational and citizen loci. The organizational dimension is at the strategic top in which the government has set out strategic targets to meet certain universal access goals to enhance access to telecommunications services (GOK-NICT, 2006). This strategic top aspect is noticeable from a proliferation of institutional structures being setup to handle the macro-level targets for the realization of the E-Government mandate. Foremost has been the establishment of a new, independent ministry, the Ministry of Information and Communications, in 2004. Other institutional structures that have emerged since the 2002 elections are E-Government Secretariat (2003); Kenya ICT Board (2007); Kenya ICT Authority (2007), and a top level cabinet office under the Office of the President to spearhead country-level priorities (GOK-EGS, 2004). It is also expected that the Freedom of Information Authority will be set up as outlined in the provisions of the bill (GOK-FIA, 2007). Others that have been in existence prior to 2002 are the National Communications Secretariat; Government Information Technology Services; and the Communications Commission of Kenya.

The micro-level intent of the predominant Economic Rationality ideology is geared towards improvement of the individual experience with government agencies through the enhancement of communication electronically (R1 and R4). It points to enactment of actions by the government aimed at electronic service delivery (e-services), which augment manual service delivery.

Ref	Text	Description (Text Analysis)	Interpretation (Discursive Practice) and Explanation
R1	The E-Government Strategy [...] is designed to achieve [...]: better and efficient delivery of Government information and services to the citizens, promote productivity among public servants, encourage participation of citizens in Government and empower all Kenyans in line with development priorities outlined in the Economic Recovery Strategy for Wealth and Employment Creation (2003-2007) (GOK-EGS, 2004, p. 1). Sustained economic growth and poverty reduction; promote social justice and equity; mainstream gender in national development; empower the youth and disadvantaged groups; stimulate investment and innovation in ICT; and achieve universal access (GOK-NICT, 2006, p. 2).	Potential contribution of E-Government to development priorities. Service delivery is linked to this More areas in which E-Government plays a role in national development given	E-Government is being linked to a broad based government initiative of achieving economic progress *Economic Rationality; Organizational Locus*
R2	Maximum access by all Kenyans to information held by public authorities to enable the country to transition to a knowledge-based (GOK-FIP, 2007, p. 1). Facilitates their communication with the public authorities and increases their participation in the democratic process and nation building. Public sector information is a key resource for economic activity and proper functioning of the economy (GOK-FIP, 2007, p. 20).	Linking E-Government to wider societal trends of knowledge society and focus on universal access	Rationalizes E-Government policy as a way of aiding transition to a knowledge-based economy, thus providing its scientific basis. *Professional Rationality*
R3	A key component of the strategy is the electronic dissemination of information to the public. As a result, all ministries are in the process of enhancing their intranets and extranets to meet this challenge (GOK-FIP, 2007, p. 15).	Legitimization of the information flow format and action steps	Top-Bottom informational flow augmented through E-Government; reinforces an information ideology logic. *Managerial Control; Technostructure; Professional Rationality*
R4	The major challenge facing Government is to provide services in an efficient and effective way. E-Government provides a framework for improved service delivery and enhanced communication and information provision within Government, with the citizenry and the business community. There will be need to develop adequate capacity within Government to implement E-Government and realize the benefits of e-service delivery. (GOK-NICT, 2006; Pp. 6-7) Using E-Government as a tool to improve internal efficiency and quality of public service delivery and help in the fight against corruption (p.10).	Legitimization of E-Government as an alternative to service delivery	Challenge of governance is to provide efficient and effective services *Economic Rationality* Internal efficiency focus, while external quality focus: *Operating Core*
R5	The overall goal of E-Government is to make the Government more results oriented, efficient, and citizen centered. The E-Government strategy will focus on redefining the relationship between Government and citizens with the objective of empowering them through increased and better access to government services. The broad objectives of E-Government will be to: a) Improve collaboration between Government agencies and enhance efficiency and effectiveness of resource utilization; b) Improve Kenya's competitiveness by providing timely information and delivery of Government services; c) Reduce transaction costs for the Government, citizens, and the private sector through the provision of products and services electronically; and	Reinforcing E-Governments mandate of having an internal and external focus. Role of the government to stabilize the nature of interactions using E-Government.	Citizens are recognized as consumers, as well as replication of the logic of augmenting government mandate through E-Government. *Economic Rationality; Political Rationality; Operating Core; Citizen Locus*

	d) Provide a forum for citizens' participation in Government activities (GOK-EGS, 2004; GOK-NICT, 2006).		

Table 5. Extracts of Interview Transcripts and Documents

The specific locus underpinning micro-level Economic Rationality emphasizes the operating core of the organizational locus (to achieve internal efficiency) and citizen locus (service quality improvement).

A second ideology underpinning the 'spirit' of the E-Government vision to a certain extent in Kenya is explained from the Professional Rationality focus captured by R2 and R3. Snellen (2002) proffers that realization of policies by governments needs to be based on appropriate policy theories derived not only from practical experience and scientific knowledge. This is the basis of professional rationality. The organizing vision of E-Government in Kenya is based on information and knowledge society ideas of participating in a knowledge-based society. This is evident from the policy proposals of the E-Government Strategy as well as the National ICT Policy (GOK-EGS, 2004; GOK-NICT, 2006) captured in R2. Therefore, crafting the E-Government Strategy premised on the dominant tenets of greater societal concerns of the knowledge society gives pointers to an ideology with some form of Professional Rationality. The bounds of this focus are characterized by an Organizational locus emphasizing the change of the organizing core of public administration through various initiatives aimed at transforming the business processes, based on a technostructure built around ICT. For instance, e-services are structured around a managerialist model of interactions (analysis below) in which information provision is largely top-down, which requires the redesign of the back office processes such as personnel systems, revenue, and expense systems (GOK-EGS, 2004).

In all the policy papers reviewed, the prominence of ICTs in public service delivery is recognized especially for their contribution to improved quality of services. This makes the Government more result-oriented, efficient ,and citizen-centered by improving collaboration in government agencies and improving collaboration with other stakeholders. At a broad level, these improvements are visible in statements in the policy documents highlighting need for adoption of management techniques which can result in re-design of processes, improvements in quality, and improvements in information/knowledge accessible by stakeholders. Thus, the emerging vision with regard to the role of ICT in Government is its contribution in improving service delivery.

Images of the Dominant Governance Interactions

Recasting of the governance system in Kenya indicates that the dominant model is the managerial model. As was pointed out in the earlier sections, a key objective of the E-Government strategy is achieving a more result-oriented and efficient public service. This resonates well with the managerial focus which is geared towards achieving efficiency and transparency. The E-Government Strategy captures the spirit of the reforms efforts as being geared towards achieving efficiency and effectiveness in governance. It is in this 'spirit' that the managerial model seems to fit the governance model in Kenya.

The mode of information flow can also aid in clearly grounding governance to the managerial model. The flow of information in the managerial mode is unilinear with information mainly flowing from the government to the other stakeholders (citizens and businesses). The E-Government strategy captures that aspect in sections of R3, R4, and R5. Some of the principal mechanisms of interaction and mode of information flow that also point to a managerial focus are captured in Table 4 according to the model by Chadwick and May (2003):

Period	Priority Areas of	Interaction Model	Information Flow/ Interaction mechanism
Short Term (pp 11-12)	Talking to Citizens	Managerial	Provide information on government websites
	Improving Public Services	Managerial	Focus is on revenue for government
	E-Policing	Managerial	Provide security and traffic alerts from the government
	Employment	Managerial	Transfer employment process online
	Education	Managerial	Provide information online
	Family	Managerial	Provide family entertainment information
	Elections	Consultative	Verification of voter information
Medium Term (pp 12)	Listening to citizens	Consultative	Source citizens' opinions on specific issue, but not touching on policy
	Property Search	Managerial	Facilitate transactions (geared towards capturing transactions for government revenue)
	Law	Managerial	Provide legal services
Long term (pp12)	Utilities	Managerial	Linking to payment systems

Table 4. Dominant Interaction Model and Information Flow by E-Government in Kenya

The short-term, medium-term, and long-term priorities lean towards the managerial focus in terms of defining logic, usage, interaction mechanism, actors, and the role of government. From Table 2, all the priorities depicted as managerial are to be provided under a 'one-stop shop' approach. In addition, the mode of information flow is largely from the government to the public, the result of making information available online. There is minimal information flow from the public except in cases where the government is interested in enhancing revenue collection or getting information for its own internal operations.

The emerging tone is that of a Government geared towards providing information to the citizens and other stakeholders with minimal input from the citizens. In addition, evaluations of the websites of ministries show that their intent is on providing information to the public and also a form of 'showcasing' the achievements of the Government. This may be interpreted as an attempt to achieve legitimacy from the eyes of the public. The internal focus of the E-Government initiatives was also evident in the annual event of the government, in which it showcased the achievements of the public service, held 13-17[t] August, 2007. The Directorate of E-Government, in its website, captured the theme of internal focus by stating that:

> This year was especially important for Kenya since the country had won an award for outstanding achievements in service delivery. By introducing modern e-government services within ministries, the Government made it possible for citizens to lodge customs documents on Kenya Revenue Authorities (KRA) website, allow querying of schools results via SMS, and check voter registration status online, among others (www.e-government.go.ke).

Again, part of the emerging view is that the government sees itself as becoming more open to the public by speeding up delivery of information to the citizens. This is because receiving results through short message service (SMS) as well as being able to lodge documents online is viewed as becoming more open. Chadwick and May (2003) summarize the principle features of this Managerialist governance model as having:

> A concern with efficient delivery of government information to citizens and other groups of users; the use of ICTs to improve flows of information within and around government; a recognition of the importance of service delivery to customers; the view that speeding up information provision is, by itself, "opening up" government […] and presentational professionalism (often termed "spin" as the defining logics (pp 272).

The aspect of spin has been evident since the setting up of the Office of Government Spokesman, which was done for the first time in the history of the country in 2003. The Government hired a professional communications expert whose role is provision of information to the public. The office 'churns' out pro-government correspondence through the various media as well as its website (www.communication.go.ke). The website is inundated with archived information from the Government, but very little from the other stakeholders. The theme of a more 'open government' is also linked to the concept of a more empowered citizenry. Dr. Alfred Mutua (Government Spokesman) states this on the website:

> President Mwai Kibaki formed a government of national unity to take care of the different political interests, and to safeguard against the marginalization of any ethnic communities on the basis of their political stand. The government of national unity also incorporated all political party leaders into the government. Today, we can confidently assert that our country's democratic space is open enough for people to exercise and enjoy their freedoms and liberties without fear of victimization. The government embraces the principles of good governance, supported by a citizenry that is increasingly aware of its rights under the law. (www.communication.go.ke)

Therefore, from the various policy papers as well as discourses emerging in other channels, E-Government enactment is strongly influenced by a managerialist governance model of interactions. The findings of the three readings are summarized in Table 3 below.

Main Theme	Finding
Target Social Problem fo E-Government	Quest to improve governance for the prosperity of Kenyans. E-Government as one of the alternatives.
Purpose of the Organizing Vision of E-Government	Geared towards making Kenya a knowledge-based society by enhancing communication between government, citizens, and businesses.
Nature of E-Government Conceptualizations	• The Managerial Model of governance was dominant. • An Economic instrumentalist/tool/rationalistic view of E-Government conceptualization was evident in the policy texts.

Table 3. Summary of Findings

Given the interest of the article, the emergent artifact form of E-Government at the macro-level of policy design is one couched on a dominant Economic Rationality focus, premised on a managerialist mode of governance. This managerialist ideology is defined as a technocratic ideology, which views tools as ends in themselves, with the hope that their solutions will help resolve complex conflictual solutions (Kantz, James, and Gilmore, 1990). The above analyses point to an increasing perception that E-Government

can act as a means (or a tool or instrument) to achieve good governance, largely focused on achieving efficiency, effectiveness, and productivity of the civil service. Hallmark characteristics of the managerialist ideology could be gleaned from the purpose of the Kenya E-Government strategy, which elevates the economic value of efficiency, effectiveness, and productivity of the civil service.

This economic rationality of the ideology of managerialism is reminiscent of a functionalist paradigm which enthusiastically embraces best practices and various approaches for solving problems. The strategy papers are based on various best practices that inform the meaning attached to the E-Government vision in Kenya, as well as the functional basis on which the vision is hinged. Managerialism and its values and assumptions may therefore be characterized as shaping the emergence of the E-Government artifact from an analysis of the policy documents. Its concern is to elevate efficiency, top-down authority structure (as revealed by the centralization of monitoring and control), and enhancing the expertise of the civil service (evidence from the comprehensive training agenda for the implementation of E-Government). These are considered defining characteristic of a highly bureaucratic organization of government, which was again seen from the analysis using Chadwick and May's (2003) framework. The dominant implementation strategy also envisages an improvement-oriented approach, not based on complete transformation, but an evolutionary process to augment service delivery. This evolutionary approach points to an elevation of certain interests, an attempt to maintain the status quo of the public administrative system, underpinned by a bureaucratic tenet.

The discussions above and the review of the literature provide ample material to reflect on alternative approaches that can make the process of E-Government adoption inclusion. An earlier analysis reflected on the various aspects of social exclusion of the NII, and that its inadequacy can critically limit the accessibility of E-Government to large segments of the population, especially the rural folk and the urban poor. In the Kenyan case, the possibility of excluding more than 80 percent of the population is real, even though the E-Government strategy envisions empowerment of the citizens. Recommendations on how to address the social exclusion of groups on the issue of the digital divide have been put forth by various authors (Warschauer, 2004; 2001; Selwyn, 2002). When put in the context of African economies, some of the recommendations when recast to make them relevant for E-Government adoption revolve around: incentivization to spur local ICT manufacturing capability; enrolling influential politicians as champions; extending the scope of virtual communities to community informatics and addressing the 'myth' status of E-Government by making lower administrative levels centers of ICT education and awareness. The next section proposes an exploratory framework that can provoke interest for further research into various ways of making E-Government relevant in the African context.

CONCLUSIONS

The synthesis of the findings revealed that overall defining logic of E-Government adoption is primarily geared towards having *e-services* by *improving service delivery*; *improving managerial control of policy implementation, and* encouraging some form of *democratic supervision*. To achieve this defining logic, the focus or ideology for addressing the social problem is that of economic rationality and some form of political rationality. Thus, it may be concluded that the emerging *E-Government artifact is based on an ideology of improving governance through managerial control*. Under the alienating conditions, characterized as socially exclusive to large segments of the population, the emergent E-Government artifact is codified in the policy papers *with strong' managerialist orientations of augmenting and reinforcing central governments control over its polity.*

From the explorations summarized above, a number of consequences maybe contemplated, albeit in a speculative manner, especially given the nascent nature of the innovation of E-Government in developing countries in Africa. The analyses point to certain conflictual meanings of E-Government. One theme that has emerged was that the basis of transfer of E-Government may likely be in conflict with the reality of African contexts, in which the NII is not adequate for its adoption. This *'design-reality'* gap, as espoused by Heeks (2002), results in national and local re-conceptualization of E-Government, which may be conflictual to the design goals of NPM.

The literature on the ideals of NPM envisages revolutionizing public sector management in African countries. However, the reality as expressed in the policy papers, is that E-Government is primarily being employed to attain greater *internal automation of government processes (old model of computing)*, as opposed to a new model which envisages transforming and supporting the external workings of government. While the policy texts analyzed recognize the latter transformative potential, the dominant meaning is more evolutionary and managerialist in orientation. Conflicts in meanings are therefore arising at two interwoven levels of international vis-à-vis national. While the visions expressed in the policy papers (by national policy makers) as well as international edicts (by NPM pundits) envisage a more transformative consequence of E-Government, the inscribed meanings in the policy papers are more evolutionary (by policy designers) with a greater internal focus. This may enable a claim be made: that E-Government is merely becoming a *voice for galvanizing and rallying more ICT investments* by the African national governments, which will possibly contribute to achieving governance goals. This claim is based on the recognition of the transformative role of E-Government; yet the strategy for its realization is evolutionary.

Despite the emancipatory claims of the E-Government vision, and the probable laudable goals of its adoption within the managerialist discourse of changing governance, there are some counter veiling consequences. The overall managerialist discourse unveiled in this article, seem to reflect a quest for focusing on efficiency and effectiveness in government service delivery. However, this discourse, when coupled with the acute lack of resources in Kenya as a developing country, may also be playing a role in influencing the meanings that E-Government is acquiring. A likely scenario that may emerge is a re-legitimization of central government authority over other stakeholders through the use of ICT. This is possible especially if the African governments are perceived by the NPM pundits and donors to be enthusiastic in embracing E-Government as the governance mantra. The resources that are marshaled are therefore likely to be used to inculcate a *paternalistic relationship* in which various agencies become dependent on the central government. This possible implication is in tandem with the managerialist intentions 'teased out' in E-Government policy. The resulting paternalistic relationship between central government and other stakeholders (such as semi-autonomous local government agencies and citizens) is likely to enhance the trend towards *managerialization* in which ICTs are perceived as means for achieving organizational changes and for enforcing controls (Doolin, 2002).

Another consequence stems from the inadequate NII as an antecedent to E-Government adoption. The outcome of basing provision of government services on an NII model, based on a computing model of the Western nations would lead to excluding those who are currently unable to access these government services. In African countries, the lack of connectivity, as well as the low penetration rate of electricity and poor infrastructures means that the poor cannot adequately access government services *delivered manually*. Thus, basing government service delivery emphasizing E-Government will undermine, rather than diminish, the social exclusion problem, in which the status quo is reinforced. This would further

polarize the service provision model of E-Government, based on NPM, and it is the duty of a critical researcher to illuminate such consequences, while still remaining true to the positive insights of E-Government in developing countries.

At both the local and national levels, lack of resources impairs the quick realization of E-Government objectives, as well as the ambiguity of emerging meanings of E-Government. E-Government still remains a myth amongst a large majority of the rural and urban poor, and rightly so, taking into account the demands on the poor to 'survive.' The current state of the NII based on the physical, digital, social, and human resources dimensions of Warschauer (2004) revealed how this group is disadvantaged. It may be important to prioritize the realization of the E-Government vision as a long term commitment, especially in African countries faced with these constraining and alienating conditions. This long term commitment to realization of E-Government objectives should be linked to a process of developing social, human, digital, and physical resources. How these resources are built up over the years is context-dependent, linked to the need to building *confident local communities* (composed of individuals and their informal networks), strong *nomadic networks* (fluid links between informal and formal networks), and *physical networks* (addressing digital and physical infrastructure needs). There are myriad of options for achieving these potentialities, and thus potential implications of E-Government on the social issue of good governance are still an open question in developing countries.

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