Managing the E-Government Adoption Process in Kenya's Local Authorities

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Abstract

Technologies of E-Government have increasingly become one of the alternatives to enable governance at the local levels. The situation is especially poignant in developing countries where there are increasing calls to improve governance to achieve a better life for their citizens. This study sought to investigate managerial processes involved in the adoption of E-Government within Local Authorities in Kenya. The research relied on secondary data as well as interviews of various stakeholders involved in the adoption process. The analysis revealed that to a large extent, the projects are somewhat disaggregated, with weak mobilization of actors.

Keywords: E-Government, actor-network, hospitality, drifting.

1. Introduction

E-Government is still novel in many countries and a number of those in developing countries are still building the basic information infrastructure for its use. The purpose of this paper is to report the assessment of the adoption process of E-Government in Kenya.

Ciborra proposed a possible Heideggerian agenda, with a minimalist Actor Network Theory (ANT) perspective for understanding the information infrastructure alignment (Ciborra, 1998; 2002; 2004; Hanseth, 1998). He recognized that development of information infrastructures rarely go according to plan and eventually acquires a life of its own during development as a result of the complexity of the environment.

Two themes that aided in this assessment were the notions of Hospitality and Drifting, which have been proposed as critical in the current information infrastructure development process (Ciborra, 2004). The dynamic interaction between technologies and the human beings in their various roles influences the encounter between the artifact and the human being (as user, designer, sponsor, etc). A dynamic encounter between the technology and the human host, if *hospitable*, results in *drifting*.

The dynamism inherent in complex information infrastructures therefore abhors situations where strategy takes a static 'moral high ground', characterized by stability in systems implementation from plans (Ciborra, 2004). Therefore, plans, procedures, methodologies and strategies, developed from a rationalistic perspective, rarely captures the 'here and now' of E-Government implementation. The aspect of complexity captured by Ciborra as characteristic of inter-organizational and intra-organizational information systems aptly captures E-Government as a system of heterogeneous applications. Thus development of an E-Government infrastructure needs to recognize the complexity in the environment and adopt a 'new' management agenda during development.

This paper therefore relied on a minimalist version (Hanseth, 1998) of Actor Network Theory (ANT) as a meta-theory for following the actants during the adoption process; while the concepts of Hospitality and Drifting were used to assess alignment as a measure of irreversibility (Bijker and Law, 1992; Ciborra, 2004). Theoretical thematic analysis (Braun and Clarke, 2006) was employed to assess the alignment of current local implementations of an E-Government infrastructure project in Kenya under the Ministry of Local Government (MoLG) dubbed LAIFOMS (Local Authorities Information and Financial Operations Management). The LAIFOMS project has been underway since early 2000 and is still ongoing.

The contribution of the paper is to call for a re-orientation of management approaches of E-Government infrastructure implementation projects in developing countries. This is timely given that many developing countries are currently implementing E-Government projects at various stages.

The paper is arranged as follows: the next section summarizes the actors and their roles which are then used to identify the interests that gets inscribed in the LAIFOMS infrastructure project. The following section assesses how the infrastructure project is aligned with current thinking. This is then followed by an analysis of the strength of irreversibility of the projects. The last section presents conclusions based on insights from prior analyses.

2. Translation of Actors' Interests

Table 1 below captures the various actors involved in the implementation of the LAIFOMS E-Government infrastructure for Local Authorities in Kenya. The identification of the actors was based on interviews

with staff of the Kenya Local Government Reform Program (KLGRP) spearheading the reform agenda in the Local Authorities (LAs). KLGRP was setup in 1996 as a secretariat within MoLG to consolidate and spearhead all reform efforts targeting local authorities. The operationalization of KLGRP arose from the need to have an institution within the Ministry of Local Government mandated to spearhead a decentralization initiative started in 1996 (Mitullah and Waema, 2007). This initiative was aimed at strengthening local authorities (LAs).

Two components of the decentralization effort relevant for this analysis was the need for LAs to put in place Single Business Permits (SBP) as well as implement Integrated Financial Management System (IFMIS) (GOK, 1999). The SBP was aimed at streamlining licensing which would result in an enabling environment for business in the LAs. Adoption of IFMIS (and later LAIFOMS) would strengthen financial management as well as encourage stakeholder participation in governance (DFID, 2006).

Table 1 - Classification by Function of the Key LAIFOMS Stakeholders

Stakeholder	Organization	Department	Designer	User	Interests
Government of Kenya	Office of the President	Directorate of E-Government	+		Service Delivery
	Ministry of Finance		+	+	
	Ministry of Local Government	Kenya National Budget Office	+	+	
			+	+	
		KLGRP IT	+	+	
		Accounts Minister (1999)			
		Inspectorate			
Supra-national / International Institutions	World Bank	KUTIP	+ (until 2001)		Facilitate Good Governance
	EU	DFID	+ (1999-2005)		
	World Bank	Country Office	+ (from 2006)		
	Duke University	DCID	+		
Other Government Arms	Anti-Corruption	KACC		+	
	Auditor General	KNAO		+	
Suppliers	Local Audit Firm	National Practice	+	+	Profit
		International Practice			
	Local ICT Suppliers	Head Office	+		
Public	Citizens	Accounts Clerk		+	Good Service
	Business	Accounts Clerk		+	
Civil Society	ALGAK	Head Office	+	+	Empower Public
	Media			+	

Funding for these the projects under KLGRP were from the World Bank as well as the Government of Kenya prior to 2002. The support was in the form of technical assistance (TA) as well as budget support to the Ministry of Local Government. DFID (2006) reported that due to a problem with a related project, World Bank provided funding up to 2001. DFID then started offering Technical Assistance from 2002.

In support of the KLGRP, the Minister of Local Government issued a directive to all LAs to implement the SBP in line with the Finance Act of 2000. In addition, the Local Authority Transfer Fund (LATF) Act in 1998 was adopted. The act provides 5 percent of national income tax to LAs in line with the population, resource base and financial performance. In order to be given the LATF funds, LAs are required to develop a Local Authority Service Delivery Action Plan (LASDAP) using a participatory approach involving the public. The implementation of IFMIS (Integrated Financial Management Information System), the precursor to LAIFOMS, was on a pilot basis in eight LAs (Mavoko, Nyeri, Kiambu, Wareng, Eldoret, Kirinyaga, Embu and Karatina). A series of workshops and seminars was organized in the early 2000 to sensitize the participants on the need for a computerized approach to LAs management. So far, LAIFOMS has been rolled out in 38 LAs.

From the above table, Figure 1 identifies the actors, the OPP (Obligatory Point of Passage), and the barriers that the OPP need to overcome to realize a functioning infrastructure.

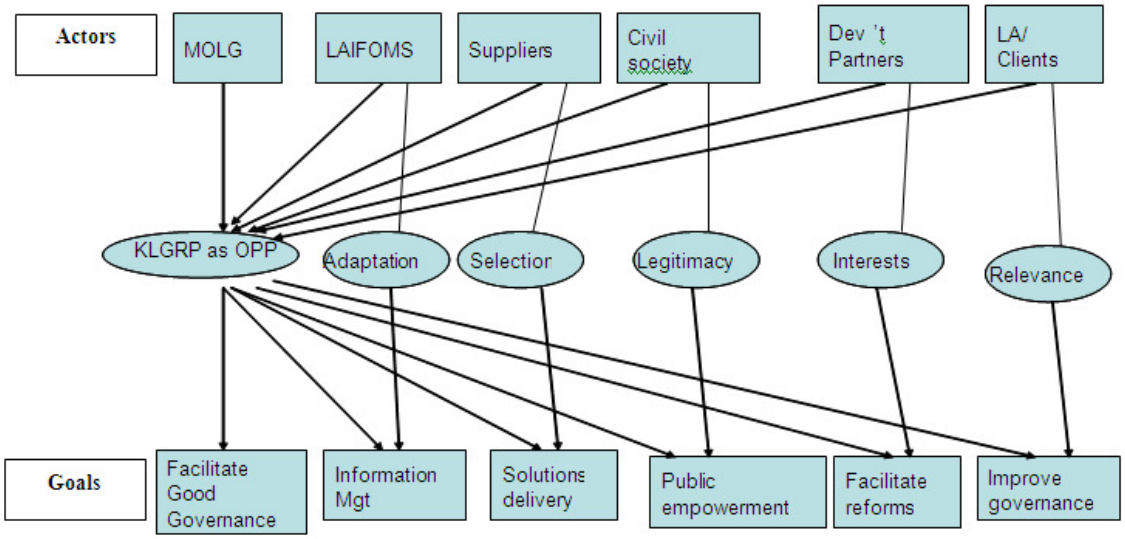


Figure 1: Translation in Action, Adapted from Callon (1986)

KLGRP emerged as the OPP as the inspectorate within MoLG spearheading reforms within LAs. Thus all actors go through KLGRP in order for their goals to be realized. The challenge for KLGRP is how to continue managing the varied interests of the actors. For instance, LAIFOMS has remained adaptable; development partners' interests keep on changing; civil society needs to view LAs as legitimate, etc.

Synthesizing the varied goals of the actors', as the LAIFOMS infrastructure evolves, the expectations are:

- Improving and facilitating good governance
- Improved information management by the LAs
- Empowerment of the public to participate in governance

The next section focuses on whether KLGRP and other actors are achieving the required alignment that can ensure all the interests of the stakeholders are continually met.

3. Alignment to a 'New Management' Agenda

The 'New' management approach used for assessing alignment was adapted from Ciborra (2004). In the first instance, the pervasiveness of the new or the old management themes were 'teased' out. Secondly, specific instances of how actors involved in the implementation of the LAIFOMS infrastructure project are presented to establish what these experiences portend for further implementation of E-Government. Theoretical thematic analysis was used to identify the relevant latent themes relevant to the research interest. Thus the themes revolved around the concepts highlighted earlier (Hospitality and Drifting). The metaphors for theorizing what is emergent from the data were thus these two concepts. These were regarded as the Discursive Practices (DP) used for interpretation purposes. Table 2 below summarizes these discursive practices and the management themes or Discursive Types (DT) (Thompson, 2004):

Table 2 Management Agenda

'New' Management Agenda (DT-N)	**'Old' Management Agenda (DT-O)**	**Discursive Practices (DP)**
Care	Rationality	
Share	Replication	*Hospitality*
Reciprocal Cultivation	Strong Identities	Leads to
Crossing Boundaries	Enforcing Boundaries	
'Negative' Capability	Positive Capability	*Drifting*
Service	Seek Consensus	
Flexible Co-Operation	Strong Control	

Therefore responses whose interpretation points to the latent themes of DT-N point to alignment of the management process to Hospitality, which would results in an infrastructure able to adapt to the dynamism in the environment due to Drifting (Ciborra, 2004).

3.1 Setting the Stage: Control, Boundaries and Rationality

This section analyses the nature of relations of actors in the local contexts of implementation with the goal of explaining what dominant discursive types underlie these relationships.

In Table 3 below, what becomes apparent from the responses is a dichotomy between a community, largely identified as ICT experts within Government and the 'other' people in Government. From R1, 'Upstairs' as a concept is associated with the metaphor of power or those in decision making authority or able to influence decisions in this context. In addition, it has connotations of those in positions of authority who have the power to even subvert processes to show ability to exercise power. There is an implication of *control* by certain segments of actors. There is the need to maintain control of the status quo, undisturbed by the implementation of LAIFOMS.

Table 3: Control, Boundaries and Rationality

Ref	Text: Control	Description (Text Analysis)	Interpretation (Discursive Practice)
R1	There is Wareng and Eldoret. There **was pressure** from ***upstairs*** **because *we* had picked** Kiambu and Mavoko due to their proximity to our central office. However, *someone* questioned why *we* were picking only councils within Central province, not knowing that Mavoko is in Eastern province. We were forced to go to Eldoret and Wareng in the Rift Valley province. **(Officer-in-Charge, M&E, Central Government).**	-Identification of actors who exercise power	Control
R2	***They* were thinking that *we* want to manage their accounts**. **Initially they were resistant, but *they* later realized *we* were friends**, because the system was to aid *them* in their work, especially when *we* convinced them that the computer does not know who is doing it, but would rather make the system better. ***They* were worried and were imagining that the computer will be monitoring them**. **(Officer-in-Charge, M&E, Central Government).**	-IT Capability unclear to some actors -Evidence of fear of unexpected consequences	Positive Capability and Control
R3	**The Mayor is political. The Town Clerk is an employee of the central government**. Thus what is of priority is **what are the interests of the mayor given that he is voted in through the councillors**. So you find councillors do **not value formal systems for churning out information** and would rather have the funds being used for other things. There is a lot of resistance to **IT projects especially at the point of awarding the contracts had** it not been for the insistence of criteria by the accounts department (**ICT Consultant, MOLG**).	-Identification of protagonists with command power -Reasons for resistance	Control
R4	What there is, the **local authorities do not realize that these initiatives are being supported by these external partners**. They actually think **it is the Government** who are handling the issue. So they take it that way. Some of these local authorities you really need to hold their hands to handle these ICT initiatives, and the **government is best placed to marshal resources**, especially given that the government expects certain reports from the local authorities **(Officer-in-Charge, M&E).**	-Protecting Legitimacy before the weak actors -Positioning government as possessing power	Control

In R2, there is an indication that 'they' are unclear about the capability of the new LAIFOMS thereby resulting in resistance. The lack of clarity of its capability results in fear of unexpected consequences. The discursive practices highlighted from these are Control (denoted by reluctance to accept LAIFOMS) and Positive Capability (due to unexpected consequences which may result from the adoption of LAIFOMS). 'They' are the non-ICT group and conversely, 'We', the ICT group.

The identification of the actors is captured in R3, where the political group is depicted as having power over ICT projects. The need for *Control* by this group arises from the ability to influence tendering procedures as well as their disdain for formal systems associated with ICT. The implementers (or the ICT group) express the *mood of frustration* with this state of affairs. Overall, the dominant discursive practice is Control (R2, R2, R3 and R4 below).

The illustrations emerging from R1, R2, and R3 show some levels of resistance to LAIFOMS as well as covert or even overt sabotage. If viewed in context, they illustrate shifting of Government

priorities without clear justifications. The structure of Government places power at the behest of the political class (non-ICT experts), even though the technocrats are responsible and accountable for implementation of sometimes inconsistent decisions made by the political elite.

This may be viewed as *sabotage* because sometimes the technocrats are made to change mid-stream, despite having devoted not only physical resources to the course, but also 'psyched' themselves in an appropriate '*mood*' to undertake the initiative, The resultant '*situation*' is a technocrat, bereft of any autonomy, implementing technology without motivation. Sabotage runs counter to bricolage, which, if lacking, then the result is lack of ingenuity and creativity. Drifting, Improvisation or Bricolage are sometimes used interchangeably despite slight differences (Ciborra, 2002).

Sabotage goes both ways as is evident in the second quote (R2): the technocrats, who largely view themselves as experts, offer *passive resistance* to edicts which emerge from 'upstairs'. The quote captures the issue of resistance in the form of politicians propagating their interests, whilst technocrats respond by *misrepresenting* their 'true' intentions. For instance in R2, the ICT experts claim that the computers do not know who is doing it (refers to dishonest activities), this is misrepresenting the capability of the systems. It is also evident that people instinctively fear computers taking control (R2). This has negative implications in terms of success.

These acts, by the political group and the technocrats implementing LAIFOMS show a quest to maintain control of their 'turf'. Thus the responses above indicate that the implementation of LAIFOMS is taking place in a hostile environment, where certain hosts (politicians and some non-ICT Technocrats) play the role of unwilling hosts to the technology by resorting to power play.

Trust and dishonesty issues also emerge from the quotes. In R4 the MoLG is assuming credit for initiating LAIFOMS before the LAs while it did not have the technical capacity or the political will to initiate it without the development partners. Its representation to the LAs can only be viewed as a way of gaining (or re-gaining) legitimacy through misrepresentation. The end result is the view by the LAs that the government is powerful since it is able to project itself through the resources it is able to marshal. The overriding Discursive Practice in this instance is that of a quest for Control.

The 'cultural mode' that is predominant is revealed as that of two broad 'clans'. The political clan has real power while the ICT experts are the technocrats with no real power, except systems implementation. It is also evident that there is mistrust between the two clans and this raises the risk of misunderstanding amongst the intent of E-Government Technology in Government.

There are two more inferences that may be made from R6, and R7 in Table 4 below. The first concerns the issue of *moods* in the sense that reference is being made to the actors' situation. In this case, an emerging situation is that E-Government is being undertaken in an environment where the actors' condition was not taken into account beforehand. For instance the pointed remark that it may not really be a priority since some folks do not have electricity points to a lack of registering what exists in the environment in order to gauge acceptability of E-Government once implemented

Table 4 Hospitality and the Protagonists

Ref	Text: Hospitality and the Protagonists	Description (Text Analysis)	Interpretation (Discursive Practice)
R6	**Yeah. In the rural areas, it is like a myth. In urban areas they understand.** We already know the setup that is there, like in telecommunications, we are actually fighting for it to be there, so we already know. **So when they say there is E-Government undertaken by the Government we really appreciate it and understand it, but for the rural guy they don't understand it**. But they don't' even have electricity, so for them, they would rather have the electrical bulb first **(ICT Officer, Central Government).**	-Questioning the prioritization yet situation demands other priorities -Evidence that some actors are not valued	Strong Identities
R7	We may want to ask very fundamental question, are these **systems quite appropriate given our environment**. Look at the issue of local context, a local government authority should have the capacity to develop local content that would inform farmers that given that the rains have started, they are getting late, and this should even be in local languages. But [...] if we go full throttle and say take systems that are from out there, maybe content that tells us what the weather will be like in another country, and **may not be very useful in changing our commodities locally** (**ICT Consultant, MOLG**).	-Timing and relevance of systems influence adoption	Strong Identities

In this case, E-Government is revealed as a stranger (as myth), to which the particular actors appear not ready to play host. This may be regarded as a case of strong identities existing that disregard the priorities of various groups. The opposite of strong identities is reciprocal cultivation which embraces the need to value guests. The guest in this guest is E-Government being introduced to the rural folk who view it as a myth. The urban group, as opposed to the rural group, appears to be comfortable in being able to register their needs and capabilities (R6).

The second reference is with regard to further categorization of actors: rural and urban folk. The urban folk are likely to accept E-Government as a guest they can play host to, whilst the rural folk are not ready to play host to E-Government. This is may point to lack of prioritization on the part of the implementers to value what is important to the rural folks. The situation or 'moods' (Ciborra, 2004) of the rural folk has not been adequately valued, thus the perception of E-Government as myth.

The *'E-Government as myth'* perspective is contrasted with acceptability of the Constituency Development Fund Policy (CDF) which was initiated at almost the same time as the E-Government Strategy (R10 below). The interpretation is that ICT likewise need to be made as tangible as CDF projects. This point to a desire by actors to ensure that cultivation of the host-guest relationship should be visible (tangible). The non-acceptance or the invisibility of ICT projects since they are not tangible may be due to bad timing (R8); which may again point to Strong Identities as some actors are not valuing the existential situation of actors.

From the above, the LAIFOMS projects may be occurring in an environment where actors 'moods' are not conducive. Evidently, there is a 'tinge' of *frustration*, a sense of despair in Government processes meant to enable E-Government acceptability. It may be a powerful 'mood' influencing the way technocrats in Government are acting they way they do.

A sense of frustration pervades all interview transcripts in areas such as delays in funding, in tendering, in tender allocations, unjustified political priorities, etc. These frustrations may be influencing the nature of *'trust and friendliness'* exhibited by the actors. From the two groups; the political wing do not seem to be fascinated by E-Government technology as the professionals are, and the professionals do not practice 'full disclosure' for a number of reasons. There is *fear* that the political wing will balk at providing approvals if they understood the full consequences of adopting technologies in governance activities.

Frustration is a form of impatience, especially when unable to control a situation. Impatience gives an inclination of panic, a mood which important in assessing how actors' creativity can emerge. The lack of autonomy or the freedom to act may be hampering creativity. The mood of panic is further illustrated Table 5 below, with the attendant lack of autonomy:

Table 5 Frustration

Ref	Text: Hospitality and the Protagonists	Description (Text Analysis)	Interpretation (Discursive Practice)
R9	Remember that E-Government is very dependent on ICT, so that from the technological front, **we have to contend with ever changing technological trends, yet sometimes our procurement process is not friendly**. The other issue we have to contend with is political, politicians determine Government policy and what direction we are headed, any change in policy may mean a great change in the E-Government Strategy (**Director of E-Government**).	-Bureaucratic 'red tape' of government systems	Rationality Control
R10	In urban areas, **it is the business language people are more conversant with**, since it is the same language used elsewhere when talking about technology, **it is universal**. When it comes **to rural areas, I think it is good to use the local language**. If guys are kikuyu (a local ethnic community) use kikuyu, but that will be another challenge, because translating the terminologies from English to the local language is another problem. **But I think we should work towards that, because the common man out there**, take a farmer, he would be interested in what you are saying in his own language because they would understand it better.. **You see CDF is in their language (ICT Officer, Central Government).**	-English eliticism fostering exclusion -Localization fosters inclusion -Make ICT appear tangible	Rationality Replication

It may also be inferred that given the uncertainty in Government bureaucratic procurement processes, technocrats become frustrated at their inability to act. This arises from their inability to control procurement processes (R9) given that those who control the process do not understand the dynamism of ICTs. R10 also emphasizes the issue of rationality in the form of government 'sticking to the use of the English language, while the realities in the rural areas dictate otherwise. R10 also highlights that adopting local languages may foster inclusion of these groups in the process. Localization also emerges in the form of making ICT projects benefits tangible when the respondent refers to CDF (Constituency Development Fund).

Language is a hospitality issue. Using the English language indiscriminately (Replication), fosters exclusion, while it may be the most pragmatic approach for creating awareness. This came up since the Government was involved in awareness activities not only within Government, but also targeting other stakeholders. What was evident in the awareness campaigns is the predominant use of the English language in brochures, posters, websites, print and electronic media. If there is no communication, then the capability of actors adequately playing host to the technology is in question. Some actors are therefore disadvantaged in this process.

So far, it maybe construed that the mood that pervades the relationship between the protagonists (E-Government Technology on one hand and the human actors) is not conducive to concepts of hospitality. The moods identified run counter. For instance, lack of trust and honesty amongst human actors', frustration (as panic) in Government procedures, lack of autonomy and the inability to take into account the capabilities of human beings (in terms of language as well as resources). The implication of these 'negative' moods which are counter to improvisation is that the actors' become *inhospitable to E-Government*, as a phenomenon. Ciborra (2004) considers hospitality to be a phenomenon where the human host must be able to deal with the intrinsic ambiguity of the Technology. As is evident above, part of the actors' group are not able to play host to technology due to lack of language ability, resources, fear and inability to understand the capability afforded by E-Government Technology. Thus E-Government remains a myth to certain actor groups.

However, despite the above negative characterizations, there were also moments, when attempts were made to improve the actors' hosting capability. This was evident in the attempt by certain categories of actors to 'bridge' boundaries in order to enhance the 'symmetry of human and non-human actors'. This 'bridging' concept is explored next.

3.2 The 'Bridge' to Drift In E-Government: Championing and Piloting

The two perspectives that emerged as bridges were *piloting* and *championing* (Table 6). The inferences that seemed relevant revolved around the theme of Reciprocal Cultivation. Reciprocal Cultivation is counter to strong identities and emphasizes being able to accord technologies their rights in an Actor-Network, fosters trust, recognizes the importance of the existing base of the installed infrastructure and interests and the existing culture and practices. Thus its focus is on valuing the existential guest-technology situation. Therefore, in the implementation of LAIFOMS in the LAs, the practices that emerged as bridges to hospitality are explained using the theme of cultivation was piloting (R11, R12, and R13).

The implementation of LAIFOMS started by selecting 8 LAs at its inception in 2000 as pilot sites based on existing management structures. R11 shows that the basis for selection was on the candidate LAs having some form of information management in place. Using this criterion for piloting has been noticeable in other local councils as well as certain key ministries piloting E-Government innovations. Piloting can be linked to the concept of hospitality as a bridge which can be used in minimizing the risk of misunderstanding that may arise in the host-guest relationship. This recognizes that there is already an existing 'installed base' of management practices which cannot be ignored during implementation of a new information infrastructure. This existing installed base embodies a certain culture and practice which need to be taken into account. Therefore, Piloting can be an important tactic in fostering trust and honesty during the E-Government implementation process.

Piloting has also been used to minimize mistrust, by enhancing acceptability of the initiatives to the clan that wields power. In all situations where piloting was being undertaken, the target of the pilot projects was the need to sensitize the political actor group. Apart from the role of minimizing misunderstanding, piloting also emerges as a way of encouraging actors' to accept the E-Government application.

The issue of encouragements may be coming in because as has been highlighted before, certain segments of actors' regard E-Government as a myth still. This could point to a lack of understanding. When there is misunderstanding as to the role of actors' or technology, then the result is non-engagement or non-use of the technology. This is a

situation of *boredom*. Ciborra (2004) presents *boredom* as the opposite of *panic*. In boredom, time is of no essence and thus actors may fail to register any unexpected consequences stemming from the use or non-use of technology. This is at the root of the hosting process, since if the host becomes disinterested, the result would be hostility towards the guest or a lack of service, thus failure to humanize technology in the process. Piloting can therefore be regarded, as one way of the E-Government technocrats 'rouse' the other actors' to action from their inaction.

In this sense, the twin roles of piloting aiding in minimization of misunderstanding as well as reducing boredom has the effect of enhancing the host-guest or human-technology relationship. The relationship becomes *hospitable* in the process as a result. In another instance, piloting, by helping actors move from inaction to action promotes the ability to *get out of mere calculative and instrumental thought-or a*bility to "jump", or *Gestal*t switch. It thus acts as a bridge towards drift.

Table 6 Bridge to Drift: Piloting

Ref	Text: Reciprocal Cultivation	Description (Text Analysis)	Interpretation (Discursive Practice)
R11	You know when you are **piloting**; you need to get it in an **environment which is conducive** to piloting. And then you look at which councils have been trying to capture adequate data or some form of data, so that as we pilot, then you are starting at some level. You also look at the authorities that already have an improved management [.....]**(Officer-in-Charge, M&E)**	-Choice of pilot sites depend on favorable base	-Reciprocal Cultivation
R12	**The model is that of identifying those who are pro ICT and working with them to push the ICT agenda** has worked in the ministry. This is a big ministry and people only start to associate with an initiative when they 'smell' success. Thus it is important to be able to identify those who are friendly. As a Department, we are regarded as a support department, thus those we support in a way are able to spread the word on what we do. **There's a core of champions for ICT in the Ministry, while resistance mostly comes from the middle ("old guard").** ICT contributes to the willing users after which others become converted. We have noticed that resistance is mostly in middle management, yet the biggest impact is in this section on implementation, in terms of efficiency. In addition, it is also noticeable that in the long term, the impact is in terms of the added services that ICT is able to bring on board **(ICT Director, Central Government)**	-The mandate of ICT is not clear -ICT is recent, thus associated with those without effective power-must demonstrate impact	Reciprocal Cultivation
R13	**It took quite some time to even to communicate the need for an integrated system in the local authorities**. However, some of the local authorities they were starting at the lowest level, even in terms of capacities. Some are also in areas that are not well served by the electricity. So their priorities would be different. We want the local authorities to have data that can enhance their management as well as to ensure we are getting the right information from them (M & E, MOLG).	-Being able to prioritize is difficult for integration projects	Reciprocal Cultivation

The championship process of E-Government was also considered as a 'bridge' to drifting (R14 and R15) in Table 7. R14 shows that championship is difficult and requires commitment; while R15 emphasizes that rational approach characteristic of government projects are not necessarily the basis of success. The two quotes can be explained using the latent theme of *Service* as a new commitment of hospitality which is opposed to traditional approaches that emphasizing consensus building. Service is about 'being the server of' both technology and guest in the relationship. Championship emerges as the form of offering service in order to ensure acceptability. Its intent appears to be geared towards reducing the level of uncertainty, by allowing unwilling actors to view the applications beforehand. The need for viewing these applications before hand is due to the perception that these initiatives mark *radical shifts*

in normal day-to-day operations (Ciborra, 2004). Given their uncertainty, they mark radical shifts in the eyes of human stakeholders.

Table 7: Bridge to Drift: Championing

Ref	Text:	Description (Text Analysis)	Interpretation (Discursive Practice)
R14	I have **gone through hell to ensure that this works**. I was able to initiate contacts with key managers in the ministry who I knew really relied on the information from the local authorities. Remember, the information was coming from the local authorities, but we needed to interpret them or put them in the right format. **It was a headache**. Thus, we were doing donkey work, thus I talked to managers who used this information regularly and this formed the lobby group for this system. This was to ensure that it gets broad support **(Officer-in-Charge, M&E).**	-Commitment by champions -Championship is a difficult task	Service
R15	**The way it was started, it wasn't that deliberate. It was not conceived as a big project.** We realize that in order to provide advisory services to the local councils, we needed to **get some basic information from them**. Whenever we tried to get such information, it took a long time and it proved very difficult to get information, especially on finances. We started as a small thing, to consolidate some of the financial information that we had. And actually we started with the licensing of business. **(M & E, MOLG)**.	-Procedures does not necessarily explain success of public sector projects	Service

A converted human being need to play this role of champion for the technology not to be viewed as a 'stranger'. Radical shifts is a feature of 'drifting', thus if the role of championship is not adequately played, then the status quo of adherence to plans stuck on clock time is the norm. Thus championing provides the *ability to "jump", or a Gestalt switch,* thereby enhancing hospitality.

During this process, the issue of prioritization attached to the projects (R13) arose. This is because not all the LAs offices are in locations where there is electricity. Thus, the 175 LAs are faced with different situations (i.e., the situation of the installed base of infrastructure is different) and calls for assessing the impact of their exclusion. The lack of energy for powering E-Government in some LAs points to lack of care by the government to prioritize need for electricity as a prerequisite. This runs counter to the concept of hospitality as the implementation of LAIFOMS becomes much more expensive to those who have to contend with installing electricity as well as allocating some of their resources to LAIFOMS requirement.

What is emerging is that there is an expectation in the public sector that once a project is structured around concrete plans, prescriptions, models and methodologies (rationalistic, instrumental thinking), then the outcome become obvious. This subtly downplays the role of human beings, yet championship is a human institution not given to the rationalistic approach. It may also be inferred that through the process piloting and championing, human-technology relationship is enhanced. These two concepts thus play a critical role in fostering hospitality in E-Government initiatives as a new way of overcoming failure of E-Government projects.

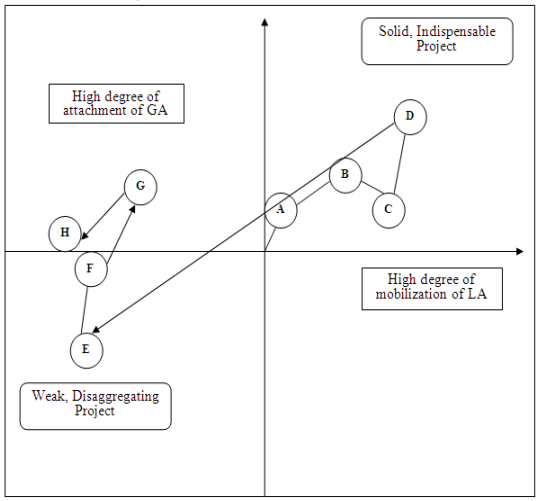
4 Conclusions: Assessing irreversibility of LAIFOMS

From the above analysis, this section summarizes the findings by showing the strength of the inscription process of LAIFOMS over the years. The network diagram (Figure 2 below) shows the progress of the project over the years based on the extent of mobilization of local actors (LA) and the degree of attachment of global actors (GA). In the context of LAIFOMS, LA would refer to the LAs and Public who depend on their services. The GA would be all the other actors involved in the implementation of LAIFOMS. The various episodes that provide a motivation for this state is shown in Table 8.

The strength of an inscription presupposes that the translation process was successful and that the Actor-Network is aligned (Hanseth, 1998). In terms of translation, the implementation process has resulted in a solution largely focused on ensuring financial information management between LAs

and MOLG. This is unlikely to meet the E-Government Strategy vision of a Knowledge-based society in Kenya (GOK-EGS, 2004). Thus the resultant anticipations that are currently being met are represented by the MoLG (and by extension the Development partners) and the LAs interests.

Figure 2: Network Analysis



These two actor groups are continuing the accumulation of the 'strength of their anticipations' by continuing the implementation of LAIFOMS in all the LAs in Kenya, without expressly considering how the LAIFOMS can be an infrastructure of use by the public. This is revealed from the network diagram since there is a very weak local actor mobilization based on the motivations in table 4. The result is a somewhat disaggregated project with very low local actor mobilization but moderate degree of global actor mobilization as evident from the network diagram (node H). A number of insights from this perspective can be drawn why this is the case:

The first one revolves around the core property of the *managerial* capabilities as well as the *operational* practices involved in developing LAIFOMS. Under the managerial dimension, the political commitment of the councilors at the local level as well as their agendas put to question the eventual stability of the system. This is because the political wing control how money is spent in the council and certain projects may be 'shot down' if certain interests are not met.

Table 8: Episodes and Consequences

Node	Description	Consequences
A	• 1970s-1990s-Erosion of Service Delivery Capacity • KLGRP (GA) Set-up under MOLG (GA) with World Bank (GA) Support, no recruitment yet of Local Authorities (LAs) • All LAs are in Debt, thus very weak	• GA goes up slightly
B	• 1999/2000 MOLG circular operationalizing Single Business Permit (SBP), Local Authorities Transfer Fund (LATF) and Local Authorities Service Delivery Action Planning (LASDAP) in LAs (LA) • Piloting process of Integrated Financial Management Information Systems (IFMIS) starts in Ministries • Involvement of Civil Society (GA) in sensitization regarding the LASDAP process	• LAs increase • Slight increase in GA
C	• 2001: World Bank stops TA; DFID takes over with reduced thematic focus reducing capacity of KLGRP • Strengthening of LASDAP, design of IFMIS sensitizes LAs to the benefits	• LA increase • GA reduce
D	• 2001/2002: Piloting of IFMIS (changed to LAIFOMS) starts, with 8 LAs; benefits realized in 6 months. • More government agencies (GA) and LAs (LA) become interested	• GA increase • LA increase
E	• 2003/2004, KLGRP withdraws support for LAIFOMS, hands over completed projects to Inspectorate Department • Internal resistance from parts of MOLG on program design is the cause • Central Government starts negotiating with EU for support, TA is quite limited	• Sharp drop in LA, and to some extent, GA
F	• 2004-2006-Adoption of E-Government Strategy, ICT Policy and Freedom of Information Policy • No concrete pronouncements on how E-Government infrastructure in LAs, however public/businesses continue to get empowered as awareness of LASDAP/LATF requirements	• Increase in GA • Slight increase in LA
G	• From 2006: More LAs are recruited as process of obtaining LATF funds becomes clearer; 38 LAs are using LAIFOMS; • EU extends funding for TA to 2009	• LA increase • GA increase
H	• October: 2007-LAs dissolved affecting involvement of politicians till March 2008	• LA decrease

While the political process of development of IT systems is recognized, the interference by the political wing as these artifacts begin to emerge cannot be wished away. This interference stems partly from their need to benefit from any project in the council in the form of winning tenders. In addition, interference arises because IT projects are viewed as 'stranger' because a majority of councilors and the public do not appreciate the strategic implications of ICT in council management. These were evident from the dominance of 'old' managerial concepts of infrastructure development opposed to the concept of Hospitality.

The *technological capability* does not consider certain segment of stakeholders-public (such as traders, businesses and individual) who may require accessibility to the system for accountability and transparency purposes. This is necessary considering that the clients pay rates to the councils and may require knowing how funds are being used. The client may also require certain services online, such as the ability to know their water rates, properties being sold, etc. Thus the LAIFOMS in its current form did not envisage a service delivery module capable of providing web-based service as a vision of the country's E-Government strategy.

The other core inference explains *consequences of use, the impacts* (direct and indirect, intended and unintended) of the LAIFOMS artifact on the humans who directly (and indirectly) interact with it, structures and contexts within which it is embedded. Overall, the emerging inscribed patterns of use appear to favor certain user segments (MoLG, LAs). Conversely, the resultant solution's ability to empower the public to participate in governance remains unclear. The inability of LAIFOMS to adequately capture local actors context such as the public, makes its role as an information infrastructure questionable. Given the goals of the E-Government Strategy to enhance communication amongst citizens, businesses and within government; the resulting anticipations appear to focus on achieving enhanced communication amongst government agencies (LAs and MoLG).

Apart from the strength of inscriptions as showed in the translation process, the irreversibility of the process should also be evident in how flexible LAIFOMS is to the environmental complexities. The analysis in the previous section showed that the translation process is unfolding in an environment which deifies control, rationality and enforcement of boundaries. These concepts are counter to the theme of hospitality that encourages dynamism and flexibility. It was however noticed that there are individual efforts of service and reciprocal cultivation through activities of championing and piloting have played a role in ensuring the successful implementation of LAIFOMS in LAs. However, considering the power of large governmental bureaucracies, these efforts would be minuscule in changing the translation process from a rationalistic perspective, towards a much more hospitable approach allowing for the enrolment of additional local actors (such as empowerment of the public to access E-Government services). Thus the process, while critical in marshalling resources from the global actors for setting up of the LAIFOMS information infrastructure, would exclude certain actors such as the public. The likelihood of E-Government fostering social exclusion of certain actors as a result of the adoption process is therefore real. Adoption need to take into account the priorities of all the actors involved without seemingly appearing to strengthen only certain relationships.

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