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GRASSROOTS COMMUNITY PARTICIPATION AS A KEY TO e-GOVERNANCE SUSTAINABILITY IN AFRICA

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ABSTRACT

This article explores the theoretical sustainability of e-governance in Africa by assessing the nature of participation of stakeholders. It adopts an explanatory critique, drawing on perspectives debated in scholarly literature and based on reviews of country approaches. The exploration takes into account historical antecedents to participation in e-governance in Africa, revealing that dominant stakeholder interests effectively lock out the majority of citizens from active participation in e-governance, except as consumers of public services delivered through e-government. It considers the nature of attachment of stakeholders to e-governance projects. Global stakeholders increasingly have a low degree of attachment, while there is a relatively high degree of enrolment of local actors. The concept of e-governance remains solid, but is dispensable, since although government agencies have "embraced" the message of e-government, certain local actors are weakly mobilised. The policy process has failed to nurture the heterogeneity of actors, specifically grassroots actors, that is required for effective e-governance.

KEYWORDS:

e-participation, organising vision, e-governance, new public management, e-government project management

INTRODUCTION

This article explores e-participation as an organising metaphor for the development of e-governance visions. The premise for this approach rests on the rationale that visioning forms the foundation for the articulation of e-governance strategies that are linked to specific e-government projects. The process of developing a holistic e-governance vision and strategy(ies) is crucial for successful e-government project planning and implementation. Typically, the global perspective of the e-governance vision is for governments to serve various stakeholders through Internet-based web interfaces, thus reducing or removing the need to visit brick and mortar facilities (Arif, 2008). In contemporary governments, service orientation and e-governance are therefore inextricably intertwined, potentially transforming the way in which citizens participate in governance and public administration reform and the way good governance goals are met.

e-Government projects must therefore be linked to specific goals that e-governance is meant to realise. From an ICT for development (ICT4D) stakeholder perspective, Bhatnagar and Singh (2010) link three generic outcomes that should underpin the development of e-governance

strategies relevant to developing countries. Firstly, client–centric outcomes should focus on impacts that realise economic benefits and improved governance, while reducing corruption, enhancing accountability and transparency and increasing participation. Secondly, at government-as-a-whole level, agency outcomes should generate improved quality of service and agency processes and enhancement of the general image of e-government. Thirdly, as regards societal outcomes, e-government projects should emphasise long-term impacts related to human progress, sustainable development and the digital divide, as envisaged in the millennium development goals (MDGs). These outcomes are related to country policy issues that co-mingle with governance priorities, thereby influencing the prioritisation of e-government projects.

If realising e-government project success is inextricably linked to an organising vision, then such a vision should note that a significant volume of socio-economic activity in African countries is grassroots activity. The purpose of government in serving grassroots communities is therefore of paramount importance to the future of e-governance in Africa, failing which e-governance will address exclusively the needs of the middle class, thus entrenching a digital services, as well as an e-participation divide, excluding millions of people from participation in strengthening democracies and economies.

The traditional approach to participation in governance in the young democracies in Africa has been through public baraza (East African term) or indaba (Southern African term), which means a council or conference for deliberations. Increasingly, government information systems are expected to reflect the core values of some form of participatory democracy, whether online or offline (Jiang, 2009). The need to facilitate, through e-governance, greater online public participation and deliberations with respect to social issues has wide-ranging implications and requires a major shift in the way in which citizens are engaged. However, participation of the citizenry in e-governance is largely muted. To make e-governance more participatory, we must recognise how the Internet, the foundational infrastructure for e-government, is currently reinforcing existing social and political patterns (Margolis & Resnick, 2000), and how the "electronic face" of government is a symbolic architecture of power and legitimation (Chadwick & May, 2003), that results in the social exclusion of large segments of the society.

This article stems from a quest to provide an explanatory critique of the nature of, and challenges associated with, grassroots participation in e-governance unfolding in the African context, since the author's view is that e-government is enabling the evolution of public administration towards a technocracy and increasing managerialisation. The first part of the article investigates how the meaning of e-government has evolved in Africa, while the second part assesses the sustainability of e-government projects by analysing the participation of stakeholders. The soft claim made is that the value of initiating e-government projects is doubtful, unless project planners and implementers adopt an underlying rationale that incorporates e-participation. The e-governance failures in Africa may well arise from the lack of participation of the citizenry in e-governance projects. The analysis seeks to link the e-governance development trajectory to the governance paradox and Internet infrastructure in Africa, and to provide an explanatory critique of the evolving trajectory and sustainability of e-participation on the continent. Finally, conclusions are offered, based on the insights gathered from the critique.

A few definitions of terms are presented. The e-governance artefact is regarded as the public sector application of information and communications technology (ICT) for the transformation of governance in African countries. Governance is understood from the perspective that many developing countries have embraced, willingly or otherwise, the importance of effective governance as a precondition for effective development and poverty alleviation, with e-governance as one of the tools for attaining good governance (Grindle, 2004). When viewed from a project management perspective, the organisational basis of e-governance recognises the struggle by public sector organisations to make sense of the role of ICT in improving government functionality (e-government) and to sustain the guiding vision.

e-Governance therefore denotes reform initiatives involving the use of ICT for attaining effective governance goals. e-Participation is regarded as an attempt to ensure effective participation of various stakeholders in the governance process and in e-government service provision. Therefore, grassroots participation implies that e-governance project objectives should consider the impacts on grassroots stakeholders, as well as involvement of these stakeholders in the project management process. With the emphasis on participation, the article adopts the UNESCO conceptualisation of e-governance to mean the use of ICT by different actors in the society, with the aim of improving their access to information and building their capacities for societal engagement (UNESCO, 2011).

E-GOVERNANCE: THE GOVERNANCE PARADOX

Three literature-synthesis areas are discussed in order to anchor this contribution. The first is a re-statement of the social problem that e-governance attempts to address, located within the broader governance discourse. The second is the focus of e-governance and the third links e-participation to the nature of the Internet infrastructure.

THE SOCIAL PROBLEM OF GOVERNANCE

The social problem that e-governance purports to address in developing countries is that of promoting good governance. Goldsmith (2007) contends that the overriding rationale for good governance reforms has been a belief that such reforms can boost economic growth, as evidenced in the MDGs (UN, 2005). Empirical studies highlight that non-transparent, unaccountable and restricted governance is detrimental to development, while the opposite tendency is advantageous (Acemoglu, Johnson & Robinson, 2001; Rodrik, Subramanian & Trebbi, 2004; Goldsmith, 2007). These findings reinforce the idea that improvements in governance could raise per capita incomes significantly over the long run and have positive effects even over relatively short periods (Kaufmann, Kraay & Mastruzzi, 2006).

In order to manage governance challenges, African countries have evolved a concept of governance anchored in agreed evaluative parameters, such as involvement of citizenry in governance; positive perceptions of citizenry towards governance; security of people and businesses; and poverty eradication. This converged concept of governance is seen as an outcome of evaluation processes, as well as pro-active leadership espousing values of efficiency, fairness and adherence to certain universal values. The attainment of good governance is now touted as critically dependent on e-governance as a reform instrument (Heeks, 2002; Muganda, 2008).

e-GOVERNANCE

Ideas about e-governance for public service reform date back to the 1980s, often associated with the movement of new public management (NPM). The mantra of customer and citizen-centric focus has been specifically linked to NPM, even though other management philosophies have shared this emphasis (UN, 2008). The citizen-centric ideology of e-governance can be explained from both a demand-side and supply-side perspective. The demand-side explanation gravitates around national challenges of governance based on two assertions. The first is that public administrative reforms are closely intertwined with political reform aimed at strengthening the ability and capacity of elected officials to produce results (Cheung, 2005). This demand-side explanation is partly hinged on the politicisation of the reform agenda, which can be driven by bureaucracy, politics and society (Hojnacki, 1996).

A second orientation of the demand-side explanation is related to what may be referred to as the "political nexus triad" (PNT), in which politicians, bureaucrats and citizens negotiate their political interests regarding the function and structure of government (Moon & Ingraham, 1998). The dominant interests in the PNT emerge to shape the structure and function of government, which may be to the exclusion of others' interests. The PNT orientation can be used to explore a number of governance crises that have occurred in Africa. In Kenya, for instance, after having a highly centralised government since independence in 1963, the general elections of 2007 brought to the fore weaknesses in governance which culminated in a shift to a form of parliamentary system. This change was "forced" on the PNT after months of civil unrest, and was followed by years of negotiation, resulting in a political settlement and a new constitutional dispensation in 2010. More recently, Tunisia, Libya, Algeria and Egypt illustrate how the PNT stakeholders are engaged in negotiation of interests. In many parts of Africa, images of civil unrest are all too common as a form of citizens' grievance against the other members of the PNT.

The supply-side perspective rests on the notion that reform practices such as NPM are being exported by reform pioneering countries, institutions or leaders to imitator countries, such as developing countries (Cheung, 2005). However, an increasingly common post-NPM claim is the importance of civil society as a source of push for better governance (Polidano & Hulme, 2001). This may be indicative of two different versions of the supply-side explanation: a managerialist orientation and a socially-rooted good governance orientation (Cheung, 2005). The good governance perspective finds traction in the reality of citizens' needs and expectations and goes beyond public administration to address questions of how to strengthen the relationship between government and other institutions to meet societal challenges. Under the good governance paradigm, public management reform is necessary where the public sector has been tainted by uneven revenue collection, poor expenditure control and a bloated civil service (Cheung, 2005). The good governance banner in developing countries is often a combination of a managerially-oriented NPM, as well as a quest for more citizen involvement. Thus an e-governance project operating under the banner of NPM may consider the managerialist orientation as well as citizens' interests in good governance.

However, the defining logic of the mode of interaction envisaged in e-government visions may be managerialist and therefore in conflict with notions of democratic participation. The citizen locus of e-government emphasises the role of the citizen as a consumer of the products and services supplied by the government. On the other hand, e-governance initiatives aimed at enhancing democratic participation and deliberations with citizens characterise a locus which is socially-oriented. Muganda-Ochara, Van Belle & Brown (2008) and Brown et al (2007) reveal that the way the Internet is diffusing in a number of African countries is increasing the social exclusion of certain groups from participating in governance. Thus there needs to be a shift of e-governance policy priorities towards citizen participation in societal governance, not simply in consumption of services.

PARTICIPATION IN E-GOVERNANCE AND THE INTERNET INFRASTRUCTURE

Particularly pertinent to the concept of e-governance is that of participation of citizens in decisions about service delivery. Enabling citizens to effectively communicate personal values, priorities and expectations for public service delivery and improve their participation in shared decisionmaking are important elements of participation. Such participation should lead to a more comprehensive appreciation of the e-governance problem and the management solutions and outcomes that are agreed between citizens and government agencies. It should also generate greater citizen understanding of the challenges government agencies face in providing services, and greater satisfaction with the state of public service delivery may ensue.

Ineffective participation is exacerbated when Internet diffusion, the dominant infrastructure for an e-governance delivery model (Singh, Das & Joseph, 2007, is weak. e-Governance presumes a widespread adoption of computing technologies by the population, yet studies on Internet diffusion in Africa document low levels of technology adoption, partly due to widespread lack of telecommunications infrastructure and functional illiteracy (Bagchi, Udo & Kirs, 2007; Bernstein & Goodman, 2005; Brown et al, 2007; Foster, Goodman, Osiakwan & Bernstein, 2004; Muganda, 2008; Adeya & Oyelaran-Oyeyinka, 2002; UN, 2012). As a result of the inadequacy of the Internet-type public service infrastructure model in the African context, meanings that policy drafters embrace regarding citizen participation in e-governance may have unexpected consequences.

Of relevance to this article is understanding whether e-governance is an inclusive governance approach, given the wider debate on the duality of inclusion and exclusion. The Internet diffusion trajectory in Africa brings to the fore that telecommunications investments favour higher-income segments of the population, excluding large segments of that population from participating in activities that are reliant on the telecommunications infrastructure. Greater Internet diffusion should therefore be a major policy concern to address digital exclusion (Warschauer, 2003).

ANALYSING SUSTAINABILITY OF PARTICIPATION IN E-GOVERNANCE

The article adopts a minimalist version of Actor-Network Theory (ANT) by Hanseth and Monteiro (1998) and Ciborra (2004) as an organising metaphor for conceptualising the nature of stakeholder (both human and non-human) relations. The minimalist version of ANT adopts a meta-theoretic lens that allows a researcher to "follow" the actors during the adoption process of a technology. If a critical outcome of e-governance is e-participation, then the success of an e-government initiative is founded on the level of participation of the stakeholders. From an ANT perspective, a stabilised network of stakeholders is indicative of a situation in which irreversibility has been attained.

In Africa, e-governance initiatives have been ongoing for at least a decade. Thus, assessing the nature of grassroots participation calls for an evaluation of the roles and interests of the multiple stakeholders, for an analysis of whether the network of stakeholders has stabilised and whether the realised stability is irreversible. Stability is typically achieved through a process of mobilisation, where actors involved in a network find it difficult to withdraw (Papadopoulos & Merali, 2008). The network is then considered a coherent entity in which the actions of the individual actors are no longer discernible, but rather conform to collective interactions. Ciborra (2004) discusses how relations between actor networks become durable and how they can resist assaults from competing networks. In the author's view, stakeholder participation and irreversibility are strongly linked to e-governance sustainability. In order to analyse sustainability of e-governance, it is necessary to understand (a) how dominant actors inscribe their interests in the e-governance artefact and (b) how the shifting focus of stakeholders influences the stability of e-governance projects over time.

ANTECEDENTS OF PARTICIPATION IN E-GOVERNANCE

The global–local network framework of Law and Callon (1992) is deployed to show how the chain of events and episodes influences the stability and hence the possible sustainability of the network of stakeholders. The article traces the trajectory of stakeholder relationships through an evolutionary path of telecommunications, Internet and other activities that have influenced the adoption of e-governance in Africa. Three phases are distinguishable:

PHASE I: AGE OF TELECOMMUNICATIONS NEGOTIATIONS (PRE-2003)

It is argued that the Internet was brought to Africa by technology enthusiasts, and functioned for a while as a hobby for "techies" (Muiruri, 2004). The telecommunications infrastructure was a monopoly of fixed-line incumbents. Experience from developed countries had shown that relying on monopolies could not attract enough investment flows for universal access. This prompted a shift from developing telecommunications infrastructure towards telecommunications sector reform (Muiruri, 2004), as part of broader democratisation and reform initiatives. In relation to the Internet infrastructure, the role of the World Bank, World Trade Organization, International Telecommunications Union, Department for International Development (DFID) and the US Agency for International Development were important. Pressure for sector reform also came from the

United Nations Economic Commission for Africa, regional economic communities like the Economic Community of West African States, the Southern African Development Community, and the Common Market for Eastern and Southern Africa (COMESA), as well as from the African Union, African Telecommunications Union and associated regional regulatory organisations, such as the Telecommunication Regulators Association for Southern Africa (Muiruri, 2004).

Sector reform was negotiated among national governments who desired to retain control of telecoms infrastructure as part of national security infrastructure; civil society organisations that pressed for reform in order to spur Internet development; and international financial institutions and development partners who insisted on reform as a basis for budgetary support. Between 1990 and 2003, proponents for sector reform in Africa provided the impetus for Internet development and by 2000 a majority of countries had permitted private sector investment in cellular services, paging and the Internet (Muiruri, 2004). Milestones that characterised this period and the actors that played a key role are summarised in Table 1.

TABLE 1: "FORCES OF CHANGE" IN INTERNET DEVELOPMENT IN AFRICA

Actors	Milestone	Determinants
International donors; civil society; governments	Telecommunications liberalisation	Wider democratisation of Africa
Private sector	Cellular service takes root	Unresponsive fixed telephony
Private sector; civil society	Commercialisation of the Internet	Public resource constraints

An attempt at understanding the trajectory of development of those activities that rely on the African Internet infrastructure is incomplete without a historical assessment. Especially pertinent for our analysis is the role that various actors played (or did not play) in shaping how the Internet and related activities are evolving. The initial approach may have been too supply-oriented, with countries like Kenya witnessing a proliferation of Internet Service Providers (ISPs), many of which were unsustainable due to limited demand.

PHASE II: E-GOVERNANCE VISIONING (2003-2006)

The growth of the Internet in Africa played a significant role in informing visions of e-governance. The central theme from 2003 to 2006 was the rush by countries, developed and developing, to craft e-governance strategies linked to the Internet infrastructure. In thinking about stakeholders, the crafting of e-governance strategies in Africa was linked to the legitimising and mobilising role played by international institutions and donors. The legitimisation activities sought to link the e-governance artefact to the governance as problematic. Thus, to effectively enrol government players, institutions such as the United Nations (UN) presented e-governance as a partial solution to the crisis of "bad" governance in Africa (Goldsmith, 2007) and e-government visions and strategies came to be regarded as a panacea for "bad" governance (Heeks, 2003; Muganda, 2008). This linkage arose out of the view that public administration systems in Africa are ineffective to the extent that the implementation of "political will is barely possible" (Schuppan, 2009). Thus the legitimisation activity had its ideological basis in the perception of bad governance and achieving good governance through public sector reform (Heeks, 2002; Wang, 2001), while the mobilisation activities were seen as a response to the lack of political will.

However, legitimisation of the e-governance rationale is incomplete if there is no enrolment of key players in government to "activate, motivate, and structure the entrepreneurial and market forces that emerge to support the material realization of the innovation" (Swanson & Ramiller, 1997, p. 461). This is the role played by mobilisation activities. Some of the mobilisation activities that have been used to capture the attention of African governments have been covert; for instance, the frequent e-readiness assessment tests by the UN and other international institutions put normative pressure on countries to improve their rankings. The UN has a dedicated Public Service Day for Africa, where those governments that have excelled in e-government innovation are "rewarded" (UN, 2011).

Other mobilisation activities are more overt, taking the form of conferences, workshops and exhibitions organised by technology vendors, governments, supra-national organisations such as the UN, and academia. These activities include the World Summit on the Information Society (WSIS), the preparatory World Forum on the Information Society and the World IT Forum (WITFOR), sponsored by the UN and UNESCO. Thus we see the "force" of global actors as instrumental in initiating e-governance visions and strategies.

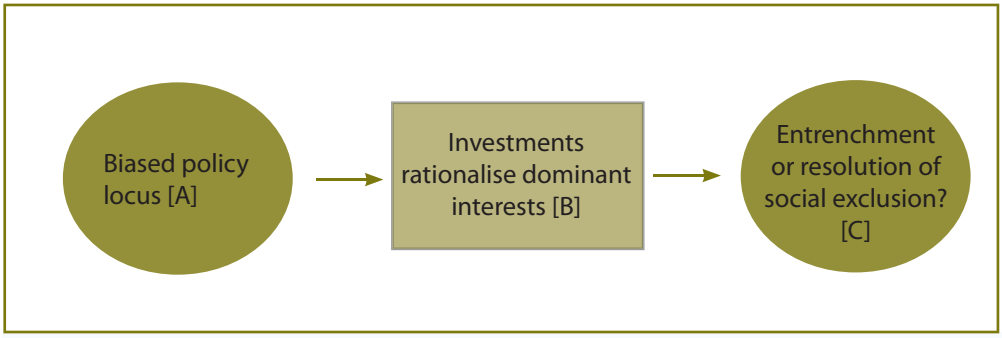
There are tensions evident in the outcomes of some of these covert mobilisation approaches. For instance, some of the countries that did well on the UN or EU e-governance rankings are now struggling to justify their e-government project choices and face systemic socio-economic challenges that should have been the focus of their e-strategies. The documentation of e-governance failures is not new, implying that despite the possible lofty intentions of the legitimisation and mobilisation activities, benefits still remain a mirage to a great extent. For instance, in the Namibian case, despite the growing availability of computers weaknesses in implementation seem to be holding back the effectiveness of e-governance (Tomlinson & Rabina, 2011). Legitimisation and mobilisation activities provided lofty ideals for the realisation of e-government; however, the "design-reality" gap (Heeks, 2003) remains. The e-governance concept found support in Africa; however, the reality of infrastructure dispersion has stifled the participation of the majority of the citizenry.

PHASE III: INFRASTRUCTURE INVESTMENTS (2006–ONGOING)

As the continent realised that more infrastructure investment was needed, policymakers grappled with twin economies[1] (Nassimbeni & Underwood, 2007) as a key feature informing telecommunications infrastructure policies. Interest in the global diffusion of technology is spurred by arguments that it may increase knowledge diffusion through improving communication efficiency (Jovanovic & Rob, 1989), improve political engagement (Norris, 2001), and allow developing countries to leapfrog traditional methods of increasing productivity (Steinmueller, 2001). The leapfrogging phenomenon remains an open question, given that the digital divide is a pressing problem for African countries, what Fuchs and Horak (2008) refer to as "digital apartheid", characterised by unequal distribution of resources through systematic exclusion. Despite realising the need for infrastructure investments for effective participation in e-governance, the investments have in large measure continued to rationalise dominant interests (Figure 1), further entrenching social exclusion and requiring resolution.

1 When referring to South Africa, the authors described it as comprising two economies: the first economy being modern and well-developed, the second economy characterised by masses of people living in dire poverty.

FIGURE 1: RATIONALISATION OF DOMINANT INTERESTS



COUNTRY REVIEWS

Assessing Internet diffusion as the infrastructure for enabling e-participation in three countries (Nigeria, Kenya, South Africa) illustrates that the dominant interests include government, the private sector and international agencies.

NIGERIA

Nigeria is the most populous country in Africa with an estimated population of over 166 million. It has vast mineral wealth and a productive agricultural base, powered by the proceeds of the petroleum sector. With nearly a fifth of sub-Sahara's population, it has limited ICT infrastructure. Possible influences of Internet connectivity stem from a desire by the Federal Government of Nigeria to diversify its sources of revenue away from the traditional oil revenue sources on which former military dictatorships relied (Muganda, Bankole & Brown, 2008). Efforts aimed at liberalising the sector are linked to economic development objectives, characterised by initiatives (Table 2) such as the Universal Service Provision Fund, the Wire Nigeria Initiative and the State Accelerated Initiative (Ndukwe, 2007). The perceived value of the Internet as an enabler of economic growth and governance by the civilian government since 1999 appears to be the overriding determinant for continuous liberalisation of the telecommunications sector.

TABLE 2: E-GOVERNMENT-RELATED INITIATIVES IN NIGERIA

Universal Service Provision Fund (USPF) Projects
The USPF was established by the Federal Government of Nigeria to facilitate the achievement of national policy goals for universal service and universal access to ICT in rural, unserved and underserved areas. Three core projects to be financed through the USPF are Large Scale ICT Infrastructure Projects; Community Communication Centers and ICT for All Nigerians (ICTAN) (Omobola, 2012).
Fibre-Optic Backbone Infrastructure Projects, Wire Nigeria Initiative (WiN) and State Accelerated Broadband Initiative (SABI)
The projects, conceived several years ago, aim at ensuring that all the States of Nigeria are linked to a national optic fibre backbone infrastructure. Implementation started in 2012 (Amafeule, 2012).
ICT in Schools
Reforms initiated by the Nigeria Communications Commission (NCC) have resulted in a number of initiatives intended to boost the inclusion of the education sector in e-governance. The Digital Appreciation Programme (DAP) is aimed at encouraging the use of ICT in schools; the Advanced Digital Appreciation Programme (ADAPT) focuses on computer literacy for teachers; the Digital Bridge Institute (DBI) was established to help overcome the shortage of skilled personnel (ITU, 2010).

Despite the positive changes in establishing a stable regulatory regime, the Internet user base remains low at around 45 million subscribers in 2011 (Internet World Statistics, 2012) or 27% of the population, with connectivity mostly in the urban centres. Computer access is low, Internet points of presence are only moderately dispersed and large segments of the population are affected by an unreliable electricity supply (Ndukwe, 2007). Poverty levels are high, with 67% of the population living below the poverty line (Akinsola, Herselman & Jacobs, 2005). Low penetration levels of these access technologies dampen individual demand; consequently private sector players make only limited investment in telecommunications infrastructure. This contributes to a lack of appreciation by large segments of the population of the value of Internet-based innovations such as e-governance.

KENYA

Kenya has a population of 42 million and an Internet population of 10.2 million (CCK, 2012) or 26% of the population. The Internet is still among the least accessible telecommunications services. According to a 2010/2011 Internet market report by the Communication Commission of Kenya, this state is attributed to low literacy levels, lack of infrastructure and lack of relevant local content (CCK, 2011). According to research by International Data Corporation, the cost of Internet access remains a hindrance, despite the drop in bandwidth and connection costs and government efforts to create an enabling environment for industry competitiveness (Telecompaper, 2012).

TABLE 3: E-GOVERNMENT INITIATIVES IN KENYA

Open Government Data Initiative
Unlike the Freedom of Information and Right to Information programmes where citizens are "pulling data", the Open Government Data Initiative is "pushing data". This is expected to enhance government data usability (Kenya ICT Board, 2011).
Digital Villages Project (DV)
The Ministry of ICT and the Kenya ICT Board have embarked on a connectivity and e-services delivery project to promote digital inclusion. The goal is to boost connectivity, improve service delivery, improve type and quality of information to and from citizens, and promote government's ability to ensure transparency (Kenya ICT Board, 2011).
Rising profile of ICT sector within government
The government has developed a national ICT Policy and Strategy, a Freedom of Information Policy, the Electronic Transactions Act and an e-Government Strategy. Many multinational corporations consider Kenya to be Africa's major ICT-hub outside South Africa (GoK-EGS, 2004; GoK-NICT, 2006; Kenya ICT Board, 2008).
Strengthening of public-private partnerships
Government and the private sector are collaborating on a number of ICT-related initiatives, including collaborations with Kenya ICT Federation, banking institutions and multinational organisations [MoICT, 2011].
National and regional infrastructure projects
Telecommunications infrastructure projects, including the Eastern Africa marine cable system (TEAMS), the EASSY cable and the National Fiber Optic Backbone Infrastructure (NOFBI) are financed by the private sector, the World Bank, the government of Kenya and consortia of local and multi-national organisations [CCK, 2012]. Other projects include the COMESA Telecommunications Project (COMTEL), aimed at improving connectivity across the COMESA region. This will put to an end to the rerouting of regional traffic through countries outside COMESA, thus reducing regional communications costs (MoICT, 2011).
Financing
The government explores financing mechanisms including public private partnerships, a universal access fund, a digital solidarity fund, multilateral and bilateral funding, promotion of investment through liberalisation and licensing of additional operators (MoICT, 2011; Kenya ICT Board, 2011).

While there are many ICT projects, there are factors that are unfavorable to dispersion of the Internet. High computer illiteracy (Håndværksrådet, 2006), low access to electricity (KPLC, 2011), lack of a developed venture capital system for entrepreneurs interested in investing in underserved areas, all hamper deployment of Internet infrastructure by the 78 licensed operators, only 35 of whom are operational (Muganda-Ochara, Van Belle & Brown, 2008). It appears that government is unable, with the regulator CCK, to craft a strategy for removing these bottlenecks.

The bottlenecks have resulted in an Internet diffusion trajectory that favours urban centres, while the rural population and some segments of the urban population remain unconnected. The lack of proper articulation of ICT as a national priority in the early years of Internet commercialisation may have contributed to this skewed development (Mitullah & Waema, 2007). The structural organisation of government is also a barrier to faster diffusion of the Internet (Muganda et al, 2008). The Ministry of ICT is charged with universal access issues and the Directorate of e-Government is tasked with co-coordinating back office integration of ICT projects, yet neither seems intent on fostering Internet diffusion. Citizens appear removed from e-government, except as consumers.

SOUTH AFRICA

In South Africa, government recognises the existence of twin economies (Padayachie, 2004), but has few policies to address the increasing divide. With regard to policy relevant to Internet diffusion, the Department of Communications envisages programmes that support economic growth in the ICT sector and ways of accelerating the advancement of ICT in the second economy (PNC-ISAD, 2006). However, the impact of this vision is not visible in key institutions such as schools or small enterprises, with only limited efforts towards e-skilling the nation (DOC, 2010).

Nassimbeni and Underwood (2007) point to the persistent lack of a national conceptualisation for advancement of ICT in the second economy. One of the policy pillars is to focus on the first economy (13% of the population) as a creator of jobs for the second economy (87% of the population). The policy focus exacerbates the social exclusion problem, since the ability of the first economy to create jobs for the second economy has not worked before (Kirsten, Aliber, Maharaj, Nhlapo-Hlope & Nkoane, 2006). The policy directions introduced since 2000 have not resulted in mass adoption of the Internet in the second economy, thus the ability of the population to participate effectively in e-governance is in question. Abrahams (2011) concurs that progress on the e-governance front is minimal and there are few online public services, while there is slow development of e-society due to high individual investment requirements. While there are laudable efforts by the South African government in starting initiatives aimed at increasing public participation in e-governance (Table 4), the Internet infrastructure is emerging in an environment of increasing exclusion of the rural population and the urban poor from participation in e-governance.

TABLE 4: E-GOVERNMENT INITIATIVES IN SOUTH AFRICA

"Batho Pele" Gateway Project – Towards e-Government
"Batho Pele" (People First) is a public service delivery framework whose e-government gateway was launched in 2004 and is geared towards a citizen-centric service delivery philosophy. However, the e-government gateway remains at the phase of "pushing" information to citizens and has not reached the transactions stage (Kaisara & Pather, 2011).
Digital Doorway Project (DV)
This is a joint project of the Department of Science and Technology and the Council for Scientific and Industrial Research (CSIR) aimed at enhancing computer literacy through the implementation of the concept of minimally invasive education. The emphasis is on awareness-raising for computer literacy with community-driven learning programmes (UN, 2011).
Establishment of the e-Skills Institute
This is an initiative of the Department of Communications to harness the potential of ICT to address socio-economic challenges, including e-skilling the nation for effective e-governance and service delivery (DoC, 2010).
National Infrastructure Initiatives
Initiatives aimed at improving the telecommunications infrastructure have not realised their objectives. There remains a need to establish a national information infrastructure to constitute the backbone for service delivery, extending Internet access points beyond multipurpose community centres to convenient places such as public libraries, shopping malls, government offices, hospitals, clubs and relevant public places for citizens to use free of charge (Mutula & Mostert, 2010).

STAKEHOLDER ROLES IN SELECTED E-PARTICIPATION PROJECTS

The categorisation of stakeholder roles (Table 5) is based on a theoretical thematic analysis of six presentations made by e-government champions from Ethiopia, Kenya, Uganda, Tanzania, Mauritius and South Africa during the 2011 United Nations and Africa Public Service Day in Dar es Salaam, Tanzania; the Commonwealth Telecommunications Organization (CTO) e-government workshop in Cameroon in April 2011; and a content analysis of how these e-government projects have evolved. Table 5 shows a categorisation of actors that have played the roles of e-participation policy designer and/or user.

TABLE 5: E-PARTICIPATION STAKEHOLDER ROLES AND INTERESTS

Actor group	Stakeholders	Role	Interests
Government departments	Ministries of ICT	Designer	Infrastructure projects Social inclusion goals
	Directorate of e-Government	Designer	e-Government implementation
	Ministry of Finance	Designer	Funds management
	Office of the President	Designer	e-Leadership
	Communications Commissions	Designer	Universal service funds/Universal access
Actor group	**Stakeholders**	**Role**	**Interests**
International institutions	World Bank/International Finance Corporation	Designer	Budgetary support
	CTO	Designer	Involving non-state actors
	UN	Designer	MDGs realisation
Actor group	**Stakeholders**	**Role**	**Interests**
Clients	Businesses	User	Commercial interests
	Citizens	User	Access services
	Government agencies	User	Efficiency
Actor group	**Stakeholders**	**Role**	**Interests**
Other non-state actors	Civil society	Designer	Social inclusion

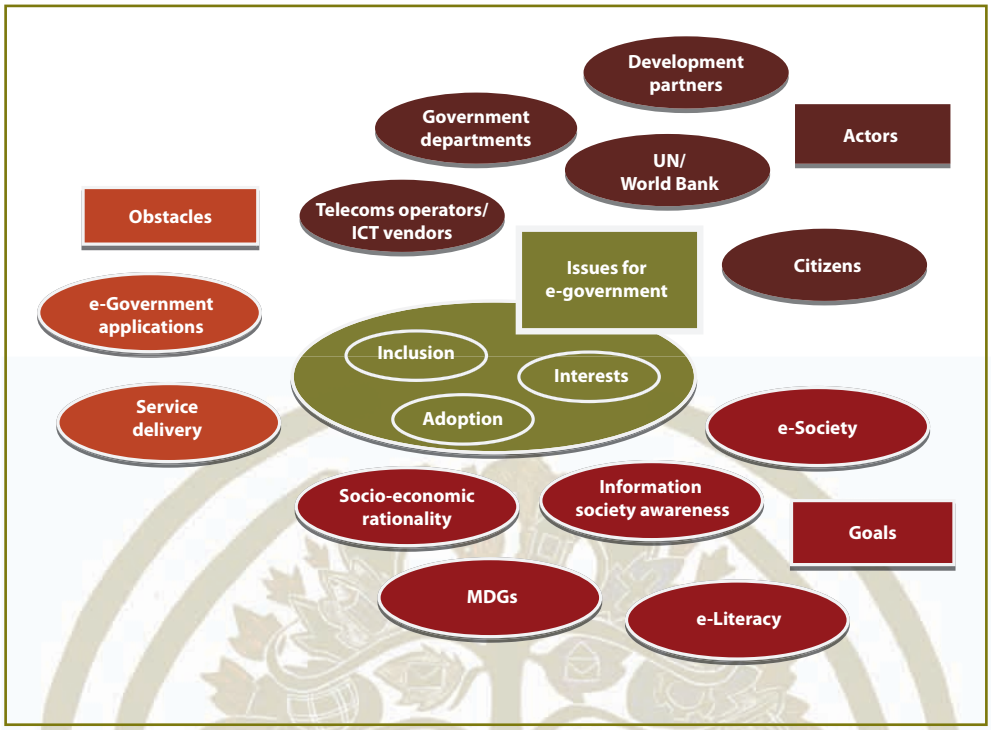
Figure 2 represents the constellation of various actors, their goals and the obstacles they face. The stakeholder expectations that appear to predominate in e-government projects include:

(a) Realising e-society and e-literacy goals (governments, UN, World Bank, citizens).

(b) Improved access to government services (government agencies, citizens).

(c) Attaining socio-economic rationality for e-government projects through various means such as MDGs (UN, World Bank, government agencies; telecoms operators and ICT vendors).

FIGURE 2: CONSTELLATION OF ACTORS, GOALS, OBSTACLES



LINKING E-PARTICIPATION TO NETWORK DEVELOPMENT

The earlier exploration of participation in e-governance argued that the dominant interests in the political-nexus-triad (PNT) effectively locked out the majority of citizens from active participation in policy design and implementation, except where they may be consumers of e-government services. This is likely to alienate those citizens who expect to actively participate in policy formulation and implementation, at both national and local level. However, engagement of citizens in the policy process would create a counter power, as they voice their interests.

In the design of e-government projects investigated in the three African countries reviewed above, there is little in the design interface, either technical or social, that allows for this possibility. Many government websites publish information on e-government policy, without necessarily engaging public input into the process. African governments are providing more policy information on their websites and the onus is on the individual citizen to interpret and "consume" this information. This creates the possibility that the role of traditional forms of organisation in Africa, such as churches, schools, public market places, may diminish as centres of policy interpretation. The result could be a highly entrenched information ideology of e-government, fostering the use of government websites, e-mail, bulletin boards, podcasts, etc as avenues for information "spin". e-Government projects have lacked effective engagement of local actors, limiting the availability of checks and balances through exercise of counter power. An alternative socially-oriented, democratising approach is needed.

A second intended or unintended transformation is occurring, which regards citizens as consumers. Many African governments aim to create "one-stop-shop" online services. Initiatives such as the building of digital villages or "pasha centres" in Cameroon and many parts of Africa are one way of providing access to government services. This raises the problems associated with conceptualising citizens as consumers: consumers having insufficient knowledge for effective usage of e-government or e-participation and seeing the relationship between government and citizens as a passive commercial transaction (Ryan, 2000). For example, while in countries such as South Africa and Kenya education results are released online and via mobile phones, the majority of individuals requiring these services rely on others for getting this information.

Table 6 summarises key events in telecoms network and e-government development and the impact on the enrolment of local and global actors, either positive or negative.

TABLE 6: TELECOMS AND E-GOVERNMENT POLICY DECISIONS AND CONSEQUENCES

Events	Local consequences	Global consequences	Impact on enrolment
A. Democratisation forces in Africa	Civil society involvement	Support from donor agencies and partners	Major (+) GA; Slight (+) LA [2]
B. Telecommunications reform and Internet commercialisation	Proliferation of ISPs/Evolution of infrastructure	Foreign direct investment in local businesses	Major (+) GA and LA
C. Articulation of e-government strategies	Citizen-centric logic of e-government, but inadequate infrastructure	Increased legitimisation and mobilisation by international partners	Major (+) in LA; Moderate (+) in GA
D. Establishment of e-government secretariats/ministries of ICT; e-readiness assessments	Inadequacy of infrastructure model for e-government, drawing board for investments, delays	National government lock-ins implies support wanes	Period of stagnation thus: Moderate (+) in LAs; (-) in GAs
E. LAN/WAN internal government focus	Enhancing internal bureaucracy rather than citizen-centricity	Concern for the digital divide picks up and ICTD4 gains ground	Slight (+) in LAs; Moderate (+) in GAs
F. Building international/national backbone infrastructures;	Vibrancy in mobile telecoms market and services; Increased local access; decrease in fixed telephony	International investment rationalisation; Company mergers the norm	Major (+) in LAs; (-) in (GAs)
G. Establishment of Universal Service Funds (USF); encouragement of local content development through digital villages	Local investment rationalisation; proliferation of SMEs; ISPs decrease due to USF provisions	Conflict with international donors on regulatory models	Slight (+) in LAs; Moderate (-) in GAs
H. Global recession; drought in many parts of Africa	Reductions in budgetary allocations for ICT	Shift in international priorities	Slight (+) in LAs; Major (-) in GAs

Regarding citizens as consumers, without taking into account the associations required for the interpretation of information, incorrectly assumes ICT literacy of the total population. The problem of regarding the relationship between the government and citizens as a passive commercial transaction may negate the necessity for interactive political engagement of citizens with government. Ryan (2000) contends that the objective is to diffuse the extent to which politics might interfere with administration, allowing administrative decisions to be based on rational, objective criteria rather than democratic

2 GA = global actors; LA = local actors

negotiation and bargaining. A consequence of this approach is that government is protected from the political demands of society (Ryan, 2000: p. 105).

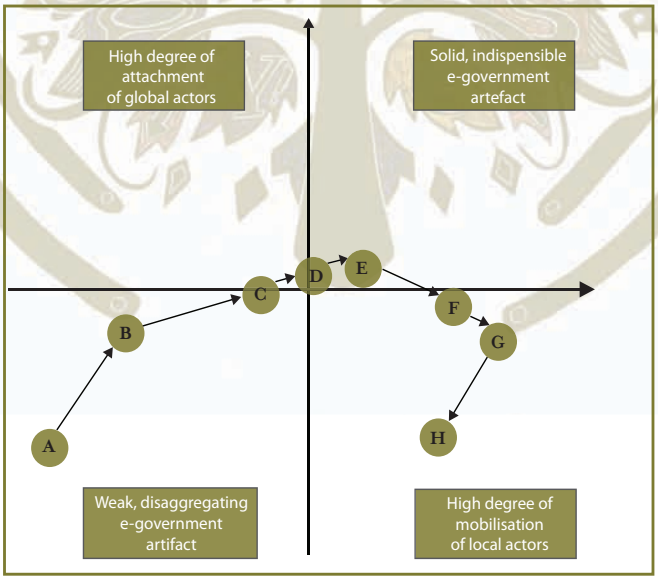
This analysis adds to the arguments of Heeks (2002) and Muganda-Ochara and Van Belle (2008) that in the design of many e-government initiatives in Africa, adoption results in a minimalist e-government participation model, due to the ineffective stake-holding of citizens, even as global actors in the e-government arena continue to dominate.

ASSESSING STAKEHOLDER SUSTAINABILITY

The global-local network framework (Figure 3) of Law and Callon (1992) is deployed to show how the chain of events and episodes in Africa have influenced the stability and hence the possible sustainability of e-government projects that can enhance grassroots participation. The global network in e-government projects is a set of stakeholder interactions that enables the project to take place with the resources provided, including money, expertise and political support. The local network is the "inside" of a project, representing interactions and associations of actors that implement and use the project. The changing strength of the global and local networks over time can be plotted on a two-dimensional graph, with the x-axis showing the degree of the local actors' mobilisation, and the y-axis showing the extent to which global actors are attached. The intention in undertaking a network analysis is to establish the stability of the emergent e-government network, since stability assumes that e-government solutions have effective engagement with citizens.

It is possible to plot the degree of mobilisation of local actors against the extent to which global actors are engaged (Law and Callon, 1992). The argument is based on the milestones, episodes and challenges that affect e-participation, as summarised in Table 6.

FIGURE 3: NETWORK ANALYSIS DIAGRAM



While the network model described above is an oversimplification of the "real world", it affords some inferences with regard to the unfolding scenario of how stakeholders are participating in e-governance in Africa. This environment is being influenced by a number of actors, whose interests influence the nature and sustainability of participation in e-governance. These interests are inscribed in the form of an e-government artefact that is solid but dispensable to the concept of e-governance and e-government projects that are largely weak and disaggregating. Therefore, this article makes the claim that since the direction of local actor mobilisation is decreasing, this may be an indication that e-government projects in Africa, while solid, may be dispensable, since local actor groups such as grassroots communities have not been effectively enrolled.

The analysis suggests a low degree of attachment of global actors, resulting in an e-government initiative that has waning support from the international community. This may be partly attributable to the economic uncertainty in many parts of the world, as well as the notion that e-governance has received some level of legitimisation in Africa that no longer requires a push from the donor community.

Overall, the mobilisation process suggests that participation in e-governance in Africa is solid, but dispensable, due to a relatively low degree of mobilisation of local actors combined with a low attachment of global actors. The e-governance policy perspective is solid because e-government, as an NPM instrument, has attained legitimacy in a majority of national governments in Africa (C). Further, the early involvement of the international community in the initial stages of telecommunications reforms (B) and wider democratisation forces that have continued to shape governance (A) still necessitates that national governments maintain a reform path. However, despite the fact that the logic of e-government is citizen-centric, there is an inadequate underlying computing and infrastructure model that hinders effective local actor participation (C, E). The implication is that local actor mobilisation, and therefore participation, remains muted from a citizen perspective. In addition, recent events, such as the global economic recession (H) may be impacting on the degree of global actors' involvement in e-government projects in Africa.

IMPLICATIONS OF PARTICIPATION IN E-GOVERNANCE SUSTAINABILITY

A number of implications are envisaged considering the nature of local actor mobilisation and the weak degree of global actors' attachment to e-governance in Africa. The first is how to mainstream local organising forms for effective local actor participation. The explorations undertaken have brought to the fore how citizens, as local actors, have been excluded, not only as necessary participants in policy development but also as interactive users of e-government applications. The possible inference is that the institutionalisation of the e-governance concept has ignored Africa's local organising forms such as schools, churches and the grassroots communities. Recognition of the role that local organising forms can play in e-enabling participation requires African governments to embrace local-actor networks as partners in e-governance and rationalising formal government agencies' interactions with these organising forms (Muganda-Ochara, 2012), allowing for the exercise of counter-power.

Mainstreaming local organising forms into formal governance systems is more likely to lead to an e-society than current systems organised around dominant interests.

Efforts geared towards achieving e-society call for re-crafting of the e-governance message in order to resonate with a community's realities. It was highlighted that key hindrances to grassroots participation in e-governance are the low levels of ICT access and the high levels of e-illiteracy, resulting in low usage of e-government applications. Attention would need to be given to fostering real e-literacy, emphasising use rather than connectivity and institutionalising e-literacy in school curricula and adult literacy programmes.

Furthermore, governments and other actors need to link e-government to a socio-economic rationality that is meaningful to local communities. For instance, efforts geared towards development of content should not result in mere accumulation of information on websites that is likely to result in "information spin". Rather, local practices that can enhance participation in e-governance should form the basis of dynamic content; for instance, coalescing content generation from cultural practices such as cultural fetes, initiation rites, worship rites, marriages rites and other community activities, which are rarely documented. These often form the basis for enhancing social cohesion, yet are sometimes ignored, presumably because they are considered backward. Interesting local practices can be captured and can form an economic rationality for developing tourism in an area. Next, the article summarises a few possible actions that can be undertaken to promote effective local participation (Table 7).

TABLE 7: ATTAINING LOCAL ACTOR E-PARTICIPATION

Challenge	Possibilities
e-Society	Identify state and non-state actors who can enable the e-governance mandate. e-Governance secretariat develops policy instruments that rationalise interactions with non-state actors. Incorporate e-participation as a public service performance metric for government.
e-Literacy	e-Literacy to be part of the school and literacy curricula. ICT education formalises e-literacy through computer societies.
Socio-economic rationality	Identify challenges/opportunities for e-applications in communities. Identify local champions. Link to specific socio-economic policy interventions.

CONCLUSIONS

The article considers the sustainability of the e-governance policy perspective prevalent in Africa in the past decade by considering the nature of attachment of stakeholders to e-government projects. The results indicate that despite low levels of local actor enrolment, the concept of e-governance remains solid in Africa, but may be dispensable because grassroots actors are weakly mobilised. The disaggregating nature of the e-governance policy and e-government implementation implies that the process has failed to nurture the heterogeneity of actors that is required for effective e-governance. The exploration showed that the dominant government, private sector and global interests effectively locked out the citizens and grassroots communities from participation in the policy implementation process, except as consumers of public services delivered through e-government.

In order to maximise grassroots participation in e-governance, local organising forms and the formal institutional infrastructure of the government need to be "joined up". The proposal therefore is to link disparate organising forms such as schools, churches or other community organisations and the administrative institutions of governance, such as the local authorities, sections of the public service, constituency offices, judicial offices and others, through electronic governance. Given their heterogeneity, the resource that can be used for joining them up is the optimal use of the institutional capacity of those in charge. Governments need to identify specific socio-economic objectives that are best addressed by linking electronically with other agencies and individuals outside mainstream public administration. The challenge is to craft the message of e-governance to be directly linked to the e-participation requirements of grassroots communities, of partnering organisations and of government. For this to be achieved, a key requirement is to enhance the capacities of people in government, private businesses and community-based institutions to act as change agents for championing e-governance in local contexts.

A further emphasis should be on electronic literacy, packaged in local languages to improve acceptance. How can this be achieved? ICT education should embrace electronic literacy, not only in formal educational setups but also in work practices. For instance, those employed in the institutional structures of government should be evaluated on the role they have played in enhancing electronic service delivery to the public. The onus should be placed on public servants to design how to use ICT to improve service delivery. Informal networks can also be incentivised, either through regulation or through financial rewards.

Attaining electronic literacy can be enhanced by including relevant content for educators and learners in syllabi. Many African countries have implemented adult literacy programmes. The current era dictates that there should be a shift of focus to include information and computer literacy. This will require re-training of educators, because educators play a critical mediating role between the citizenry and various governance structures. Qualifying as an educator should include electronic literacy.

In summary, the relationship between local organising forms and the institutions of government should be reciprocal, incentivising the former while the latter benefits through attaining the social, political and economic goals of governance.

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