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e-GOVERNMENT LESSONS FROM SOUTH AFRICA 2001 – 2011: INSTITUTIONS, STATE OF PROGRESS AND MEASUREMENT

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ABSTRACT: Electronic governance is the future of public governance globally. Governments that do not make the transition from paper-based systems of public administration to electronic platforms of public governance may swiftly undermine their chances of developing their societies as 21st century information societies. At the turn of the century, South Africa started out as a leader in e-government among developing countries. A decade later, it has been surpassed by states that were much less developed. Why did this happen? Can the competitive edge that South Africa had 10 years ago be regained, and if so, how? This article summarises the strategic importance of the shift from paper-based public administration to electronic governance. It uses the Rorissa, Demissie and Pardo (2011) model of e-government assessment to analyse progress in South Africa's migration to a digital state. It presents a perspective on institutional arrangements, the state of e-government and the e-barometer measurement approach. It discusses the reasons behind the decade-long stagnation in the South African migration to electronic platforms of governance and concludes by identifying the main policy and implementation lessons that can be learned. These lessons may have relevance to many developing countries, including those on the African continent.

KEYWORDS:
electronic governance, South Africa, stagnation, migration

THE INTERNATIONAL e-GOVERNANCE PARADIGM SHIFT

The 21st century has witnessed a noticeable shift away from the public administration paradigm that developed in the 19th and 20th centuries as a demand-side paper-based system of governmental recordkeeping and request-driven services to the public. The shift to an experimental supply-side system of digital or electronic government encompasses an increasing number of functions and services made available online via fixed or mobile electronic networks and devices. This shift is a direct consequence of the information revolution. In theory, electronic government has the potential to increase the effectiveness of government, as well as to transform the nature of public management and governance through electronic governance. In practice, though, this potential for better government and governance has not materialised to the extent that advocates of the new paradigm predicted, particularly in respect of developing countries.

In order to put the elements of e-governance in perspective, the following conceptual clarifications are made. Government is referred to here as the organs of state, as well as the governing functions, activities and operations. e-Government comprises the operations of government through the use of electronic technologies including computers, the Internet and mobile

and broadcasting technologies (UN–DPADM, 2003.) Governance is defined here as the style and outcomes of interaction between government and society (Kooiman, 1993; Cloete, 2000). Good governance is understood as:

> the achievement by a democratic government of the most appropriate developmental policy objectives to sustainably develop its society, by mobilising, applying and coordinating all available resources in the public, private and voluntary sectors, domestically and internationally, in the most effective, efficient and democratic way (Cloete, 2003, p. 15).

Different models of e-government share the following components and consecutive developmental stages, although the terminology used to identify these stages sometimes differs from author to author (Rorissa, Demissie & Pardo, 2011). All models identify a transition from traditional paper-based services to fully digital services, ranging from elementary information provision through digitally enhanced and supported offerings to full conclusion of a public service. Four separate stages are normally identified:

(1) Online information provision about the regulatory and policy frameworks that govern the country and availability of governmental services. Online provision of services runs parallel with walk-in service delivery centres and provides alternative electronic access to information.

(2) The second stage of e-government is a more dynamic, interactive and responsive digital communication capability between government and citizen, where interaction can take place via phone or Internet to obtain clarity about an issue, to submit documentation, or to schedule a service. At this stage of evolution, e-participation and e-democracy are approaches that advance the interaction between citizens and their elected political representatives (Missingham, 2011).

(3) The more advanced stage of e-government is the transaction completion stage, where payments can be made electronically and documents received via electronic means.

(4) The last stage is the transformation stage where e-government outputs are transformed into e-governance outcomes in that public services and governance interactions are exclusively electronically mediated. Government thus fully restructures both its back office management systems and its front office service delivery systems to reduce the number of physical interactions with the public and to conclude the business of government digitally (Weerakkody, Janssen & Dwivedi, 2011; Cloete, 2005). At this stage, government could become virtual in certain sectors.

Evidence of the benefits of electronic technologies in government has emerged over the last decade (EJISDC, 2011; Cloete, 2005; egov4dev, 2003; UN-DPADM, 2003; UNPAN, 2003). Indications exist that electronic services delivery is more cost-effective than traditional

delivery systems (Netherlands, 2004; Heeks, 1999). The Third Global Forum on Reinventing Government concluded as early as 2001 that e-government can consistently improve quality of life, reduce cost and time for service delivery and improve governance:

> e-Government must be given serious consideration also in the developing countries not only for its potential for stronger institutional capacity-building, for better service delivery for citizens and business (thus increasing local social and economic development), for reducing corruption by increasing transparency and social control, but also for "showing the way" to the civil society and business community … transforms governance like no previous reform or reinvention initiative. e-Government potentially empowers individual citizens by providing them with an alternative channel for accessing information and services and interacting with government (UN–DPEPA, 2001, pp. 5 and 6).

From this perspective, information technology (IT) is an important agent to induce citizens to become more literate in order to benefit from the advantages presented by technology (UN–HDR, 2001; Bhatnagar, 2000). This view is expressed with respect to lesser and more developed countries, for example, illustrations of successful knowledge management projects in developing countries (Wagner, Cheung & Fion Lee 2003) and the successful application of small-scale decision support technologies in Tanzania, which has an agriculture-based economy (Splettstoesser & Kimaro, 2000). However, in a recent article, Unwin (2011) casts doubt on the promotion of ICTs in developing countries, because of the potential for abuse of these technologies by governments, inter alia, to reduce citizens' rights to privacy and to strengthen government controls over the citizenry. This argument is also applicable to more developed states and would appear to be paternalistic, "Luddite-type" resistance to the use of innovative approaches in developing societies. Despite the few successes of IT projects in developing countries (EJISDC, 2011), many cases of failure have been recorded (EJISDC, 2011; Dada, 2006; egov4dev, 2003; UN–DPADM, 2003). In most cases, the reasons for failure can be attributed to one or more constraints.

International agencies like the UN and its sub-agencies, as well as other international agencies involved in development, have generally accepted electronic interaction as the standard international approach (Cloete, 2005; Heeks, 2002; Heeks, 2001), such that e-development has become common terminology in the development context. Digital exclusion (Cloete, 2005) has serious implications for poor countries with inadequate digital resources, as they may struggle to improve key aspects of good governance and survival of poor communities, given the absence of increasing sophistication in back office management and front office interaction with citizens. Yet the mass development impact of electronic technologies is evident in the increasing reliance on these tools in influencing democratic outcomes, such as in the successful Obama election campaign in the USA in 2008, and in the use of social networking technologies in the social uprisings and democratising transformations in North Africa, where they have been used effectively against authoritarian governments. These experiences further negate Unwin's (2011) argument.

READINESS FOR E-GOVERNMENT IN DEVELOPING COUNTRIES

In contrast to the successes of e-government and e-governance across the world, the results in developing countries are generally weak, with some small-scale successes. The reason for this state of affairs is that there are a number of favourable political, cultural, social, economic and technological conditions that need to exist for the e-government and later the e-governance paradigm shift to take hold (Cloete, 2005). These conditions include:

(a) the political insight of decision-makers that e-government is a necessity for progress, not a luxury;

(b) cultural and individual acceptance of e-government as necessary for progress (Harris & Harris, 2011; Khalil, 2011; Lin, Fofanah & Liang, 2011);

(c) the prioritisation of scarce resources to develop digital literacy among citizens and reliable electronic networks (Narayan, 2007); as well as

(d) effective programme and project management practices to ensure that measurable progress is made with development of the e-government system and appropriate electronic content (Reddick, 2011).

These conditions are difficult to establish in the short term in countries where electronic government is competing with other priorities, such as housing and health services, where unemployment is high, or where undemocratic governments syphon off scarce social resources.

INSTITUTIONAL ENVIRONMENT FOR E-GOVERNANCE IN SOUTH AFRICA 2001 – -2011

South African government accepted the imperative of e-government as a platform for public service delivery early on. e-Government in South Africa can be traced back to the recommendations by the Presidential Commission on the Transformation of the Public Service (PRC, 1998, Section 6.9), which required that the role of IT in government should be strengthened through the formulation of a national information management strategy, a Chief Information Officer (CIO) based in the Presidency, a policy committee and a technology forum comprising managers and users of the system. The PRC recommended that "… government gives serious consideration to migrating to completely electronic communication within the next five years" (PRC, 1998, section 6.9.9). The recommendations influenced establishment of the State Information Technology Agency (SITA), whose role is to rationalise information technology (IT) procurement, provide IT-related services and support effective use of IT in government. Since inception, however, SITA has suffered management problems and by 2011 has not played its role as envisaged by the PRC and its constituting legislation.

The Minister of Public Service and Administration (MPSA) is responsible for overall policymaking on electronic government and published a formal e-Government Policy in 2001 (DPSA, 2001). The e-government programme had commenced in 1999, after publication of the PRC report (1998), with the goal of transforming the interaction between government and society from the

paper-based modes to electronic interaction, in line with international practice. The aim was the improvement of public services, the improvement of the internal management of public services, focusing on improved productivity and cost-effectiveness, inter-operability, information technology security, economies of scale, and the elimination of duplication in the delivery cycle (DPSA, 2001). An integrated life-cycle approach to public services, to be completed by 2014, was adopted in principle in 2002.

Progress with e-government implementation beyond this policy statement has, however, been negligible (Abrahams, 2009). This crucial early lead was soon lost through weak political leadership and ineffective management of the e-government ministerial portfolio. e-Government was a small part of the responsible minister's mandate and a number of other political and administrative crises soon diverted attention to a seemingly more urgent need for the establishment of a system of contractual appointments for senior managers in the public service, the management of labour negotiations to reduce the detrimental impact of public sector wage strikes, and interventions in a number of provincial governments to address mismanagement of provincial resources and service delivery. This lack of committed leadership has continued under subsequent ministers. The leadership vacuum was aggravated by a policy framework that was vague and inadequate to deal with the emerging importance of ICTs in government. The 2001 policy was intended as an interim policy framework until a more comprehensive one could be adopted. The policy has been under revision since publication, but no update is available after 10 years. Weak leadership and a policy hiatus present a serious obstacle to the implementation of e-government, alongside other structural and operational constraints which have paralysed the advance of e-government.

Simultaneously with the adoption of the e-government policy in 2001, the Government Information Technology Council (GITOC), consisting of government information officers (GIOs) from all departments, was established as a third agency to monitor and coordinate government IT initiatives and give direction to SITA (GITOC, 2011a). GITOC reports to the MPSA, and the Government Chief Information Officer (GCIO) in the Department of Public Service and Administration acts as the Secretariat of GITOC. A decade after the establishment of GITOC, the forum has not fulfilled the expectations generated by its establishment. The relationship between the GCIO and the Council has been under continuous strain, partly because the Council elected one of the departmental GITOs as chairperson, while GITOs are seen as subordinate to the GCIO in terms of the GITOC structure. This structural–political defect in the operation of the Council has had a paralysing effect on the activities of the Council.

In June 2011, GITOC published a new draft framework for a government-wide ICT strategy, containing proposals to rationalise the approach of government to the use of ICTs (GITOC, 2011b). This framework updates the outdated 2001 policy and factors in a number of new priorities that have been identified by government since the publication of the policy. It is merely a revised general statement of commitment towards e-government, but does not contain concrete steps to take this initiative further. It may be incorporated into a revised policy which is sorely needed to focus attention on e-government in South Africa. A recent media report, however, concluded that the DPSA has so far failed to deliver on the promise

of an effective national ICT policy framework (Mawson & Rasool, 2012).

Another important player in this field is the Ministry of Communications, which is politically responsible for electronic communications policy, strategy and legislation. This political mandate overlaps with that of the MPSA, which is politically responsible for government information systems and electronic government, with both GITOC and SITA reporting to it. In 2002, the Presidential International Advisory Council on the Information Society and Development (PIAC on ISAD) and the Presidential National Council on Information Society and Development (PNC–ISAD) were created in the Presidency (PNC–ISAD, 2005). The PIAC was constituted of global industry leaders and the PNC of high profile national stakeholders and industry leaders in the IT and development sectors. The Secretariat of the PNC reports to the Department of Communications (DoC). This has exacerbated the lack of dedicated leadership with respect to e-government and has institutionalised competing power bases in this arena.

In a 2006 policy guideline, the PNC identified five priority focus areas for ICT applications. These focus areas are education; health; small, medium and micro enterprise (SMME) development; e-government and associated local content production (PNC–ISAD, 2006; PNC–ISAD, 2010). Government's stated principles on the information society are inclusivity and a developmental approach (PNC–ISAD, 2006). Specific strategies were to be devised to address public awareness and motivation, digital empowerment, accessibility, affordability and disability (PNC–ISAD, 2006; PNC–ISAD, 2009). However, little has come of these good intentions in the five years since publication of the document, as a result of weak management in the PNC Secretariat. The PNC operates in a vacuum, with little regular contact with the other main players in the sector. Given its theoretically pivotal position, it is ironic that the website of the PNC–ISAD is probably one of the less useful websites in the South African government's portal.

The Department of Science and Technology (DST), responsible for fostering research and innovation, is yet another department with overlapping functions that adds complexity to efficient and effective policy and operations in this sector. The diverse, wide-ranging regulatory frameworks operating in government divide control over e-government and e-development among different departments and agencies without specifying the power relationships among them clearly. The ICT-governance structures leave too much space for individual interpretations of who is responsible for what, leading to infighting, power struggles and paralysis within the decision-making and governance system. This problem partly explains the failure to capitalise on the country's early-adopter lead over the decade 2001-2011.

STATE OF E-GOVERNANCE IN SOUTH AFRICA 2001 – -2011

In 2011, 10 years after the adoption of the e-Government Policy, the e-government programme was still largely stuck at the stage of static information provision, although limited progress has been made in the various spheres of government towards the interactive and transactional stages. An example of the interactive phase is that of enabling land-owners who have submitted building plans to Johannesburg municipality to monitor progress on the approval of plans online and to interact with the responsible unit to address any obstacles in this process. Naidoo (2007) provides a useful summary and assessment of the major e-government programmes in the South

African public sector during the last decade. These include the e-Natis online vehicle and transport management system, which initially suffered from serious technical problems. These were resolved and the system is now operational. Other potentially beneficial e-governance programmes summarised by Naidoo (2007), which are currently in various stages of implementation, include the e-Justice programme to improve judicial processes, the e-Hanis programme to streamline and integrate personal identification data across government departments through the use of unique identifiers, and the National Automated Archival Information Retrieval System (NAAIRS) to facilitate access to public archived records. Probably the most successful example of a transactional e-government service is the electronic filing of tax returns which the South African Revenue Service (SARS) has implemented with great success over at least five years.

Other individual instances of successful e-government implementation include the national governmental gateway portal, South Africa Government Online available at www.gov.za which enables access to information on government and public services. However, a recent media report titled "Government IT fails SA", summarises the conclusion of the Auditor General that 92% of the 38 national departments did not fully comply with user–access management controls, while 81% did not have full security management systems in place and 79% did not have a complete IT governance framework (Mawson, 2012).

The provincial governments have their own portals, the best functioning of which are the Gauteng Provincial Government and the Western Cape Provincial Government. The Cape Gateway portal probably led the way (Cape Gateway, 2004; PGWC; 2005), although in a 2006 review, De Tolly, Maumbe and Alexander argued that more content was needed, there was a need for centralised content management, a stronger technology base, more specialist skills, the development of a more dedicated e-culture, better access and a systematic monitoring and evaluation programme. The authors also stressed the strategic importance of mobile government strategies to optimise the functionality of the system. However, in this author's personal discussions with the managers of the system, it became clear that they are finding it increasingly difficult to maintain and upgrade the portal to meet continuously emerging needs. Basic information like contact details and addresses are not updated on the portal, while important new documentation is not made available immediately after publication, or not added at all. The initial undertaking to increasingly provide content on the portal in English, Afrikaans and isiXhosa has also not materialised.

The Gauteng provincial portal has elicited explicit reports in the media of a failure of the system (Rasool, 2011), although it started off well with an attempt to create a one-stop-shop access channel to services provided by the Gauteng Provincial Government (Abrahams & Newton-Reid, 2008). The Gauteng Shared Services Centre (GSSC), responsible for providing IT services and introducing provincial broadband infrastructure (G-Link) to support educational and healthcare applications in schools and provincial hospitals, created high expectations, but it collapsed and the most viable of its core functions have been incorporated into the Gauteng Provincial Finance Department (Mahlong & Jones, 2010).

The South African e-government programme also extends to local government level, the best examples of which are programmes of the metropolitan municipalities of Cape Town, Johannesburg, Ekurhuleni, Tshwane and eThekwini. Cape Town has an integrated GIS-based application that has improved the efficiency and effectiveness of a number of its technical and financial operations significantly (Cloete & Needham, 2004). The Smart Cape Access project and the Digital Business Centres project were supplemented by the Khulisa Youth Development Programme focusing on equipping young people from previously disadvantaged communities with ICT technical skills to operate in the new economy. This programme is one of the largest learnership programmes in the country. Community empowerment was addressed through community computer literacy programmes and the establishment of computer workstations linked through electronic networks to the municipality and the provincial library and school systems.

Van den Berg, Van der Meer, Van Winden & Woets (2006) compare Cape Town and Johannesburg relatively favourably with what they regard as other good international practices of local e-government like Barcelona, Manchester, Tampere, The Hague and Venice, but concluded that it was still not possible for them to state unequivocally that e-government improved the total performance of municipalities, because of citizen dissatisfaction with many of these local governments. Abrahams & Newton-Reid (2008) concluded that the websites of Gauteng municipalities provided a mixed bag of effective and ineffective services across a number of sectors at that time, and that these services were mostly in the information provision and in a few cases in the interactive or transactional stages of the generic e-government transition model. They report a number of e-local government good practices for social and local economic development in the Gauteng metropolitan municipalities of Johannesburg, Ekurhuleni and Tshwane, in particular call centres for emergency and police services. The authors developed a useful strategic e-governance framework to achieve better results in these sectors, but it is not clear whether this model has been adopted by the provincial or municipal governments.

MONITORING, EVALUATION AND BENCHMARKING SOUTH AFRICA'S E-GOVERNANCE STATUS

In an era of evidence-based decision-making, systematic monitoring and evaluation of public sector interventions in society is becoming increasingly imperative. Rorissa, Demissie and Pardo (2011) report on their recent comparative international assessment of different e-government measuring scales. They summarise a number of indices developed by various United Nations (UN) agencies and the International Telecommunications Union (ITU), and point out the similarities and differences as well as the strong and weak points among them (Rorissa et al, 2011). They find all the existing indices defective and crude. Based on this assessment, they construct a composite e-government index, consisting of six dimensions, that measures the different levels of e-government progress among societies, to accommodate both well developed and lesser developed e-government systems. The composite index uses West's Global Survey (2007), based on the number of websites in a country sponsored by the government, as a departure point. Its weakness is that it ignores the quality and functionality of the sites it analysed (Rorissa et al, 2011; Kaisara & Pather, 2009; Visser & Twinomurinzi, 2009).

Rorissa, Demissie and Pardo (2011) developed the composite evaluation model by supplementing the West model in the following ways:

- weighting websites with greater levels of development higher than websites at lower developmental levels;
- weighting websites with executable services higher than websites without such services;
- weighting countries with a greater average e-government presence higher than countries with a lower average e-government presence;
- weighting websites with executable services higher by multiplying the number of executable services with the number of features per website instead of just adding the two; and lastly
- combining the last two calculations to remove the bias against websites that have no executable services.

The Rorissa et al (2011) evaluation index is an innovative and useful way of trying to measure the results of the transition to higher order e-governance outcomes, because it provides a more nuanced result than other existing indices. It is more complicated to populate and apply, especially in developing country contexts, but herein lies its value. The authors applied their measurement framework to African states and concluded that the best progress in e-government in Africa appears to be, in order of progress, Egypt, Tunisia, Morocco, Mauritius and South Africa (Rorissa et al, 2011). The weaknesses they find in the South African e-government system correlate with the qualitative assessments summarised above.

The South African Department of Communications recently introduced a measuring instrument, styled the e-barometer (DoC, 2011), which aims to measure:

a) electronic development progress in South Africa in the three dimensions of access, uptake and usage;

b) electronic development in nine segments (individuals, households, communities, business, government, health, education, digital local content and the ICT sector);

c) progress against government's policy objectives;

d) comparative progress of South Africa against the BRICS peer countries of Brazil, Russia, India and China; and

e) comparative progress against the broad international community.

The 2011 e-barometer report measured the changes in the South African e-government status between 2000 to 2010. It reported that in comparison with its peers in the BRICS, South Africa's ranking in 15 international indices has typically been in the second or third quartile, but its ranking over the last few years "… is stagnant or slipping", while its BRICS peers have generally improved their respective rankings (DoC, 2011, p. 17). The report states that South Africa

> … is currently advancing slower than it should be and instead of progressing towards the top quartile of countries it is slipping back towards the third quartile … tends to do better on indices that contain a number of non-ICT infrastructure indicators covering areas such as the business, legal or social environment … and does less well on the more infrastructure focused indices (DoC, 2011, p. 17).

The report identified the following bottlenecks that are pertinent to e-government (DoC, 2011, pp. 28-43):

- individual and household sector: limited access to and high cost of broadband Internet, high cost of mobile devices and services;
- community sector: low levels of public access to Internet and appropriate content;
- ICT sector: lack of specialised ICT skills;
- e-government sector: need for revised policy and implementation strategy, stakeholder role clarification, appropriate targets, outcomes and budgets;
- e-education sector: lack of clear strategy and goals;
- e-health sector: lacking monitoring and evaluation capacity aligned to ICT strategy;
- e-business and SMME sector: measurement indicators lacking; and
- digital local content sector: appropriate strategy and indicators lacking.

The report concludes that:

> Most economies of the world are making deliberate and sustained investments into transforming their societies into Information Societies. Belonging to the global Information Society is not a "nice to have" but an imperative for the future. South Africa's e-readiness has nearly ground to a halt. In many ways it is retrogressing – especially when evaluated against both big and small nations … the country's leadership has to continue to commit itself and the country to the ideal, and put effort and resources towards achievement of that mountain top (DoC, 2011, pp. 44-46).

The overall conclusion that can be drawn from the 2011 DoC e-barometer results is that although South Africa has built up a reasonably strong ICT backbone and local e-government content in a few sectors, initiatives to integrate e-government into mainstream public management processes have so far not been successful. Such integration is necessary to progress towards higher order transactional and transformational status.

ANALYTICAL COMMENTS

This discussion of e-government progress in South Africa has focused on three dimensions: the institutional environment of e-government, the current state of transition and the monitoring and evaluation of e-government progress. The e-government transition model of Rorissa, Demissie & Pardo (2011), summarised above, is a generic e-government maturity model that is globally applicable in different contexts. It explains how electronic technologies can be coherently and progressively integrated into public sector management processes to such an extent that public services can become more easily accessible to the public, and can potentially be provided more effectively, efficiently and affordably. It also predicts that the optimal use of these technologies has the potential to lead to a fundamental transformation in the nature of public management itself (see also Cloete, 2003).

The evidence presented here indicates that e-government in South Africa has made little progress beyond the information provision stage. A few pockets of excellence do exist, where electronic interaction between government and citizen, and transaction completion, is possible, but these cases are exceptions to the more dismal prevailing practice of static information provision.

The decade 2001-2011 has witnessed governments in many developing countries failing to meet the needs, expectations and demands of citizens through their service delivery programmes, as a result of traditional delivery weaknesses, including deficits in human knowledge and skills, financial resource constraints, lack of effective public management and good governance practices (Cloete, 2003). As is clear from the case of South Africa, the most significant obstacle to the optimal use of ICT in government is not necessarily resource-related. Rather, there are many design obstacles, including an inability or unwillingness to draw on the potential contained in the global technological revolution to support good governance, and the domino effect of inadequate resource prioritisation towards e-government (Cloete, 2005). Aggravating factors that have come to light since 2005 include inadequate levels of management diligence and productivity, and the absence or late introduction of monitoring and evaluation approaches.

The most important constraints on progress towards more mature e-governnance in South Africa are to be found in the institutional environment of e-government. These constraints include a lack of political will and support; a lack of strong and consistent leadership; a weak and contradictory IT governance framework; and continuous political and bureaucratic infighting. This is a recipe for impending disaster, the nature and scope of which are becoming increasingly obvious in the lack of results and management paralysis that prevails in the public sector, as highlighted in public reports and the media. The institutional problems have a negative impact on attempts to migrate to more mature levels of e-governance, as the constraints combine to cause a general stagnation in the governmental IT system.

There are a few sectors where strong leadership, based on an awareness of the strategic importance of electronic platforms of services delivery, have led to the prioritisation of investment in ICT infrastructure and the creation of user-friendly content that has seen a take-up by the intended recipients. The success of the SARS e-filing system and the exponential growth of the mobile phone market, especially in rural areas, provide evidence that the digital divide is less serious where the product is appropriate to the existing demand. Consistent attention to priorities, strong leadership and management can make a significant difference in the outcomes of public programmes, and the transition to mature e-governance can be fast-tracked.

The introduction of the South African e-barometer is a major step forward for the country. It is an ambitious project and the barometer framework has not yet been populated with all the necessary data to be able to draw coherent conclusions about the overall state of e-government and e-governance in the country. Much of the data must still be compiled and analysed. However, the preliminary findings, summarised in the first report, reinforce the Rorrissa et al (2011) findings on the current state of e-government. The rating of South Africa below Egypt, Tunisia, Morocco and Mauritius confirms the slippage that has occurred in e-government over the last decade.

LESSONS FROM THE SOUTH AFRICAN -E GOVERNMENT EXPERIENCE

A number of lessons can be drawn from the overview of a decade of e-government in South Africa. These lessons are also relevant for other countries in the developing world, especially in Africa. The most important lesson is that leadership, coordination and integration, the presence of a coherent e-government policy, as well as sectoral strategies for, among others, education, community libraries and other local government services, are essential.

The obstacles to governmental and societal transformation can be overcome by a transformation in value systems that lead to an organisational climate more conducive to successful implementation and sustainability of an e-governance paradigm. Technological development aid will not enable developing countries to advance to the level of better-endowed states. Progress can only be achieved if policy shifts are made and e-government programmes are placed under strong and competent leadership. For that to happen, a crucial paradigm shift is required in the minds of the ruling elite to enable acceptance of the strategic importance of public services delivery transformation towards an increasing digital platform of delivery. If such a commitment is accompanied by a dedicated focus on establishing the IT infrastructure, local content and higher levels of digital literacy for this purpose, conditions more conducive to better social access, uptake and usage will be created. The mixed results of national departmental and decentralised e-government programmes in provinces and municipalities illustrate the importance of appropriate IT strategies and good IT governance at those levels of government directly responsible for services delivery. The acceptance and implementation of the general principles of strategic IT management and good e-governance are imperative for success. If they are not adhered to, an early adopter of cutting edge technology can easily stagnate or even suffer a reversal, as has been seen in the case of South Africa.

The mega-project of the Department of Home Affairs smart card identification system is poised for launch in 2012. The success or failure of the smart card will hinge on precisely those capacities identifed here: leadership, cross-governmental cooperation and services integration, and coherent national policy and sectoral e-government strategies.

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