Abstract: This paper started out with the assumption that a citizenry well-informed about the policy problems identified by government and about the government’s strategies for dealing with those problems would potentially have more trust in a government if those strategies are perceived by the citizens to be the best to protect and promote their interests under the circumstances. The interaction between government and citizens on the basis of this information and the responsiveness of government to optimise its public services delivery outputs and outcomes within the constraints it faces, has the potential to improve trust in government. The level of detail that is needed in these processes differs from situations where literacy levels are high to others where low literacy levels exist.

Knowledge management through e-government is institutionalised in South Africa across all three governmental spheres in the country, and is progressing well according to various assessments so far. The constraints identified are technical and implementation-related. Clear lessons can be learnt about what has worked so far and what not. The results of these experiments have significant positive implications for the successful application of e-government strategies in developing countries, if these strategies are implemented in appropriate ways.

Effective electronic knowledge management requires the availability of accurate, reliable and timeous quality information about such operations, in order to maximise transparency which is a core ingredient of social trust in government. Although it seems that strategies and legislation adopted to set up an efficient and transparent public administration and to eliminate corruption and promote ethical standards in South Africa are indicators that measures might exist to ensure transparency, these measures are still flawed and need to be improved.

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Knowledge management and trust in government: Lessons from South Africa

‘...the creation of an inclusive and development-oriented Information Society is in the best interests of the majority of humanity, because most of the peoples of the world, especially from the developing countries, are confronted by the challenge of exclusion in the context of the global economy, in whose development modern information and communications technologies (ICTs) play a vital role’


Introduction

In this paper I intend to assess selected recent developments in electronic knowledge management through e-government in South Africa that might have a positive impact on building trust in government through improved knowledge management in this country.

I start by operationalising the relationship between knowledge management and trust in government. That is followed by an assessment of the lessons one can learn from the South African experience so far by looking at two important variables influencing this relationship, namely the implementation of knowledge management through various strategies of e-government and access to and transparency of information.

The relationship between knowledge management and ‘trust in government’

The background aide memoire for this workshop states that ‘..(b)uilding trust is the foundation of good governance....Throughout the world today, however, including both in developed and developing countries, there has been a significant decline in public trust in government... It is therefore critical to find ways of alleviating this declining public trust in government. There are several governance and institutional components that promote trust. The effective management of knowledge is one such component.’

Trust refers to a specific attitude. It refers to full acceptance of another person or institution’s decisions or actions. Trust in government causes individual citizens to acquiesce in the decisions and actions of the government in that society. It therefore promotes democratic stability and facilitates the interaction between government and society. Trust in government is one of the attributes of good democratic governance.

Trust can be based on the following different driving forces:

- **Psychological instinct**: This refers to the trust of small children in parents or of followers in a charismatic leader for guidance, protection or assistance based on
instinctive, emotional judgments. Trust driven by these forces is based on emotional instinct, largely irrespective of facts and figures.

- **Value-based faith:** This refers to the trust of religious believers in a Diety for assistance, absolution or salvation based on strong religious beliefs, or trust in the truth of ideologies like capitalism or Marxism, also largely irrespective of facts and figures, and

- **rational knowledge:** This refers to trust in someone or something because you know it will work from knowledge or experience, therefore mainly based on subjective perceptions of facts and figures. It includes the trust of citizens in their government for protection, regulation, growth and welfare services to enable them to develop themselves and live their lives as they choose to do, based on their subjective ideas and perceptions of what is possible as well as on their own judgements of what is the best for them. Rational knowledge-based trust therefore also has its share of affective and normative drivers, but it is an attempt to establish a more objective and empirical basis for judgment.

I interpret the objective of this workshop to be mainly about rational, knowledge-based trust in democratic government. The main underlying assumption behind knowledge-based trust, is that accurate knowledge, reflection, understanding and insight about different variables that have a bearing on a government’s procedures, policies and actions, could lead to more trust in government and therefore acceptance of what that government does. Trust therefore implies agreement with and acceptance of democratic governmental decisions and actions.

Conflicts and low voter turnouts in democratic elections, dissatisfaction with service delivery levels as well as potential political instability in democracies across the globe have lead to various questions about trust in government (eg Bouckaert & Van de Walle 2003, Kampen, Maddens & Vermunt 2003). These phenomena frequently occur in societies where allegations of corruption, mismanagement and dissatisfaction with the outputs of governmental activities are prevalent. Bouckaert, Van de Walle, Maddens & Kampen (2002) dealt with various explanations of trust in government. Kampen, Maddens & Vermunt (2003) could not prove that objective increases in the quality of public services have a direct positive impact on trust in government. Despite this verification problem, it can be hypothesised that improved knowledge in society about governmental processes, decisions, policies and actions should be able to improve trust in government if those policies, processes, decisions and actions are subjectively judged as acceptable by the populace in general, despite the fact that from an objective point of view such processes, decisions, policies and actions might not in fact be of better quality. This statement factors in the contributing emotional and normative elements of rational knowledge-based trust.

The advent of the information society has for the first time in history made it possible that comprehensive and free flows of information might be created between governments and their populations. Knowledge is increasingly digitised and the United Nations and other international development agencies have all accepted and migrated already to electronic platforms for development. If the theory of knowledge-based trust is correct, distrust in government should in fact be increasingly declining as more information becomes available and transparent about governmental activities and governments. The logic of the argument is that these governments would be trying harder to please their respective citizenries because they can be increasingly held accountable to the public for what they do or don’t do.
This conclusion, however, assumes that the outputs of government are optimal and that citizens would be satisfied with these outputs. This is a dangerous assumption that does not take full cognisance of basic driving forces of human nature that might lead to errors of judgement in government, group think, personal greed, fears, ambitions, etc, resulting potentially in rent-seeking behaviour by government institutions and continued perceptions of corruption, mismanagement and bad governance in general in the eyes of the populace or specific segments of a society. It also does not factor in the ability of society to make use of the increased user-friendly flows of information that become available to it. The so-called digital divide within a country between computer literate and computer illiterate classes in that society might in fact increase distrust in government rather than decrease it, because of the perceived benefits that digital haves may have to the detriment of digital have-nots. There is therefore no direct and inevitable correlation between better knowledge management and increased trust in government. Subjective perceptions of citizens that might not necessarily have a basis in fact are intervening variables in this regard. Higher trust in government occurs as a result of changes in the collective perceptions and opinions of the populace about the role of government in that society. These changes can be facilitated by the provision of higher quality information to citizens about governmental problems and strategies and more successful persuasion efforts by government on the basis of this knowledge and insight.

Various conditions for success must exist before one can expect that improved knowledge management might lead to more trust in government. These conditions include the following issues:

- The processes as well as the content of governmental interventions must be appropriate to fulfil the government’s responsibilities to protect, regulate, develop and care for its society in such a way that its citizens are satisfied.
- If a democratic government cannot fully satisfy the procedural or substantive demands or needs from its society, (which is frequently the case in the face of resource constraints), it should be able to explain to its citizens why this is the case, and suggest a process how to make progress towards achieving policy goals over time. This implies a rational process of education and negotiation, leading to an agreement on the way forward.
- Such an agreement should then result in a knowledge-based relationship of trust between government and citizen if the citizens perceive such agreement to be in their collective interest and abide by the government’s decisions and actions.
- Knowledge-based interactions between government and citizen in the 21st century knowledge society are best achieved through electronic means. The creation of electronic capacity, knowledge repositories, interaction and transactional channels are therefore prerequisites for trust-building in contemporary society.

The provision of information to the citizenry about policy problems, policy objectives, resources, time scales, risks, costs and benefits, constitute the foundations of good governance. The interaction between government and citizens on the basis of this information and the responsiveness of government to optimise its public services delivery outputs and outcomes against the background of the constraints it faces, has the potential to improve trust in government. The level of detail that is needed in these processes differs from context to context. In a situation where literacy levels are high, optimal knowledge management systems designed to promote and facilitate the building of trust relationships with citizens can be extremely effective if they are implemented appropriately. In other words, where sufficient information can be made available and where opportunities exist for the government to
interact with its citizens where necessary, community support can be sought by government. If government can persuade its citizenry in this situation that it is pursuing the best possible options, and if general consensus about this develops, democratic stability and trust should be high. The use of mass media like newspapers, radio, TV and these days also increasingly the internet, for purposes of effective knowledge dissemination and management, can be extremely useful in order to communicate with citizens to attempt to consolidate community support for government actions.

Where social and electronic literacy levels are, however, low, it is much more difficult for a government to explain coherently to a relatively unsophisticated populace what the constraints are that it faces and how it intends to respond in that situation, especially if modes of mass communication are also weak or in some cases non-existent. These conditions exist in many developing countries, where illiteracy is high and the exposure of citizens to other mass media normally low. This means that general communication between government and society is fragmentary and weak, and that dissatisfaction that might develop in segments of society and that might result in lower trust levels in government, might not be addressed effectively.

The advent of the information society has made it theoretically possible for governments even in developing societies to make use of the internet for purposes of maximising trust in government through effective knowledge management, if citizens could access such information, internalise it, reflect on it and then decide whether they accept their government’s proposed strategies to deal with its perceived policy problems. In order to do this, however, government has to empower citizens for this purposes by creating a critical degree of electronic literacy in society for this purpose, establish reliable electronic network channels to the community for purposes of knowledge dissemination and interaction, as well as within its own back offices in order to manage these processes effectively, and to be responsive to views in society that might threaten to destabilise trust levels in government (eg Alexander, Maumbe & De Tolly 2006). This in fact implies a successful migration to an electronic standard of public services delivery (see UNPAN 2005).

**Electronic knowledge management**

The first step to improve trust should therefore be a dedicated attempt by government to improve not only conventional literacy levels in government as well as in society, but especially electronic literacy skills. This necessitates the electronic empowerment of citizens and officials by overcoming the negative impact of the digital divide. This implies the creation of appropriate electronic communication systems accessible to all at the various levels required, as well as educating the public and government officials how to use these systems. This is a tall order, because it necessitates a paradigm shift in government thinking and practice about public services delivery and government spending priorities.

The **digital divide** is conceptualised here as a skills and resource access gap between digitally literate and digitally illiterate classes in society and among societies (see also Warschauer 2002, Chen & Wellman 2003:2, bridges.org 2004:4 and Fink & Kenny 2004:1). The digital divide not a new phenomenon. Just the digital element of the various divides is new. It further does not only exist between fully developed and developing states, but exists even within highly developed countries (bridges.org 2004). “There is not one digital divide: there
are many divides” (Chen & Wellman 2003:2). It has created a new class of illiterate citizens in every society. Many elderly people in all societies are electronically functionally illiterate while younger people (even in developing countries) are becoming increasingly electronically literate. This phenomenon has significant implications for government and development.

Technology as the basis of the digital divide can, however, also facilitate the achievement of functional literacy if it is used optimally (for example the uncontested role of technology in self education and distance education in developing countries, eg OECD 2003, Ingle 2003, Digital Opportunities Initiative 2004). Technology is therefore both a strength and a weakness for purposes of development (eg Scia das 2003). Contrary to general wisdom and certain findings (eg Chen & Wellman 2003:24-25), the digital divide is according to a growing number of experts, not expanding but in fact slowly closing:

“...in relative terms developing countries show faster rates of growth in network development than developed countries. This suggests that at present ICT growth rates, the developing world would eventually catch up to the developed world, in absolute levels. Moreover, when employing a per-income measure of access to a variety of ICTs, we find that developing countries already ‘digitally leapfrog’ the developed world.” (Fink & Kenny 2004:1, bridges.org2004. See also Sciadas 2003).

The main reason for this gradual decline in the digital divide, is the inevitable exposure of young children even in developing societies, to technology. As they grow up, become increasingly e-literate and get accustomed to the use of technological tools to facilitate life for them, they accept the digital society as a given and expand their use of such tools. This lack of built-in resistance to technological change that many adults face, even transforms into a demand by younger people for more technological improvements and functionalities, as they realise the benefits inherent in these tools to facilitate life for them further. The result is that even in lesser developed societies where technology is increasingly establishing a foothold due to the impacts of the global networked society, younger people in those societies are becoming increasingly digitally literate (in many cases this result is self-taught – Ingle 2003). This probably happens at a faster rate than the rise of digital literacy among older people in established industrial countries in Europe and North America. The digital divide is therefore in many respects the great equaliser between developing and developed nations.

Technology can, however, also be a serious impediment to development. Costs can sometimes be prohibitive, while low levels of general literacy and a lack of appropriate levels of technological infrastructure, expertise, commitment and resources, have also proved to be significant obstacles to technological development, especially in the developing world (UNPAN 2003, bridges.org 2004:7-8, Cloete 2005). The combined effect of still-developing technologies, a lack of a critical mass of technological infrastructure and the insufficient appreciation of the utility of such instruments, referred to above, resulted in a situation that is not at the moment fully conducive to widespread adoption of electronic management assessment support tools in governments across the worlds, even in countries regarded as leading e-government advocates (Cloete & Needham 2002). The situation in developing countries is even worse. The inappropriate use of technology has caused many developmental and e-government projects to fail in the past (egov4dev 2003). UN- DPADM (2003) details the view from the UN in this regard, while Heeks (2002) assesses the promise and practice of e-government in Africa, and Bhatnagar (2000) the experiences in Asian countries.
Despite these implementation problems, international standards of management, service delivery and even democratic engagement with citizens are increasingly based on a seamless integration of electronic technologies into mainstream traditional governance processes (Bellamy & Taylor 1998, Heeks 1999, Splettstoesser & Kimaro 2000, UK 2002, OECD 2003). In many cases technology-based services like distance education, electronic personal identification systems, internet-based services, etc, may prove to be the only way in which those governments will be able to meet their own service delivery targets. These policy innovations are fast becoming delivery standards across the world (eg Wagner, Cheung & Fion Lee 2003). Developing nations cannot do without them if they want to provide sustainable good governance. The UN Social & Economic Council’s Committee of Experts on Public Administration stated explicitly in its first report that public sector organisations should become learning organisations with the objective of exploring “…how to create a dynamic culture that could be conducive for the developing countries to 'leap-frog' over stages of development and to leap more rapidly the benefits of a nascent knowledge economy” (UN-CEPA 2002:6. See also UN-HDR 2001).

E-government in South Africa

The South African government has also accepted the imperative of e-government as a platform for future public services delivery. The Minister of Public Service and Administration is responsible for the implementation of electronic government in South Africa, and the government has published a formal electronic government policy (SA-DPSA 2001). This policy is currently under revision and an updated version will be published soon. The e-government programme already started in 1999 with the goal to improve development by transforming the nature of the interaction between government and society from the current personal and paper-based modes of interaction into an increasingly electronic interaction. This is in line with international best practices. The focus is on the improvement of external public services to the public and to business and also on the improvement of the internal management of those services within government by focusing on improving productivity and cost-effectiveness through better inter-operability of government services, information technology security, economies of scale and the elimination of duplication in the production and delivery of public services (SA_DPSA 2001). A comprehensive integrated life cycle approach to public services to be completed by 2014 has been adopted, which is also in line with other good international practices in this regard (see CPSI 2003).

The e-government transformation programme will be undertaken in the following traditional consecutive stages:

- Firstly, a gradually increasing electronic information provision online while traditional service delivery approaches continue, followed by
- a more dynamic interactive and responsive communication capability between government and citizen,
- a third transactional completion stage, and finally
- an envisaged transformation consolidation stage where the emphasis will have shifted to a fully online availability of all facets of public services delivery that can feasibly be offered in that way.

Currently, the programme is still largely stuck in the first stage, although recent progress has been made at lower governmental levels towards the second interactive stage (eg allowing
land owners who have submitted building plans to Johannesburg municipality to monitor progress with the approval of the plans online and to interact with the responsible unit to sort out obstacles in this process).

A high-level Presidential National Council on Information Society and Development (PNC-ISAD, http://www.pnc.gov.za/) drawn from top global and national industry leaders in the IT and development sectors, has also been established to advise government about the best way forward. In its latest draft report, the Council identified five priority focus areas for ICT applications. These focus areas are education, health, small, medium and micro enterprise (SMME) development, e-government in general and local content production for this purpose (PNC-ISAD 2006:30). In line with Pres Thabo Mbeki’s quote at the top of this written manuscript, the two most important principles underlying the South African government’s approach to the information society is the inclusive and developmental nature of government policy for the future (PNC-ISAD 2006:19). Specific strategies will be devised to address public awareness and motivation, digital empowerment, accessibility, affordability and disability (PNC-ISAD 2006:23).

The Pacific Council on International Policy’s E-govt Roadmap for developing countries has suggested ten criteria against which one can measure progress with such programmes (PCIP 2002). Farelo & Morris (2006) applied this roadmap to South Africa and came to the following conclusions:

- **Why e-govt?**: The envisaged migration to e-government in South Africa is for all the right reasons: social inclusion and development rather than only internal back office productivity and efficiency improvements.

- **The vision**: Vision 2014 of the PNC-ISAD comprises a comprehensive cradle to grave approach. Unfortunately an explicit focus on anti-corruption strategies is lacking.

- **The kind of e-govt**: A comprehensive G2G, G2C, and G2B focus exists, but an explicit internal back office G2E (govt to employee) focus is lacking. An increasing awareness of the importance of mobile-government is also in line with global trends.

- **The political will**: The existence of a dedicated Ministry responsible for e-govt, in the form of the Minister for the Public Service and Administration (MPSA), the prestigious advisory PNC-ISAD, the State Information Technology Agency (SITA) who is responsible for all planning, procurement and management of electronic needs in the South African public sector, and the coordinating Government Information Technology Officers Council (GITOC) are all indications of the political will to achieve the government’s stated goals in this regard. Unfortunately it seems as if the portfolio of the Minister concerned is so substantial that her time to attend to e-govt activities is rather limited. The e-govt unit in that department is also a minor one compared to the other units in the department. The effectiveness of SITA and GITOC in implementing their responsibilities are also increasingly being questioned, as a result of less than satisfactory results over the last few years.

- **E-govt planning & management**: Various regulatory frameworks exist, controlled by the MPSA, SITA, GITOC, the PNC-ISAD, 9 autonomous provincial and 384 local governments. Central coordination among these initiatives can and should, however, be improved.

- **E-govt projects**: The main e-government-related projects include the national and provincial government gateway portals, the ambitious Home Affairs National Information System (HANIS), which is supposed to digitise the current paper-based National Population Register, and a number of multi-purpose community centres (MPCCs) and
public information terminals (PITs). There is also a dedicated effort to introduce computer literacy curricula in all schools and communities (http://www.khanya.co.za/, http://www.capetown.gov.za/smartcape/). Progress with these initiatives is very slow as a result of current high levels of illiteracy in especially rural areas and serious band-width problems.

- **Private sector involvement:** South Africa has a very strong business IT sector, but PPPs can be improved and the government has taken an explicit decision to migrate as soon as possible to open source platforms and to encourage a similar migration in the private sector (despite the fact that one William H Gates is a prominent member of the PNC-ISAD).

- **Citizen participation:** As a result of the high electronic illiteracy levels in the country, this is still a weak area that needs to be strengthened significantly. The strong penetration of mobile phone technology in both urban and rural areas, is, however, an encouraging positive development in this regard that can lay the foundation for faster progress in this sector. Experiments with simple and user-friendly public kiosks that provide access to the internet in deep rural areas have proved to be very successful (http://www.meraka.org.za/digitalDoorway.htm).

- **Resistance to e-govt:** Low levels of electronic literacy also complicate general community buy-in for e-government programmes. More attention should be given to improving access to, and the effectiveness of MPCCs. No open resistance to e-govt programmes, however, exist in South Africa.

- **Measuring progress & failure:** No systematic monitoring and evaluation system exists at the moment to determine progress with e-government programmes, but a general government-wide monitoring and evaluation system (GWM&ES) is in an advanced implementation stage (SA-PCAS 2005). This will enable systematic measurement of progress in future.

The main instrument of the SA government’s e-government policy is the national governmental gateway portal South Africa Government Online (www.gov.za). This portal enables access to all governmental services. In addition to the national governmental portal, all nine provincial governments have their own integrated portals. The PNC-ISAD has recommended (2006:122-124) that provincial governments should focus on:

- Broad and equitable **access** to the infrastructure (telecommunications networks) and tools (computer hardware and software).
- A significant and growing level of **skills** in the form of basic literacy, computer literacy, information literacy and business literacy.
- A significant and growing amount of digital **content** (information and the applications – like databases – that deliver it) that is locally relevant.
- The use of ICTs for the **internal administration** of government, and the **delivery of services**. This is essentially a more traditional IT strategy, though its major focus will be on improving the efficiency of government processes, and enabling government departments to co-ordinate and harmonise their activities.
- The use of ICTs to **communicate with citizens and business**; for example, giving information about and access to services; improving the reach and effectiveness of service delivery; enabling information and financial transactions; and fostering democracy through citizen participation. In doing so, government will also need to promote access to ICTs, so that everyone can benefit from the opportunities within the information society, thereby reducing the digital divide. Another aspect of this drive for better communication is the need for provincial government departments to better
communicate with each other, and for different spheres of government to better communicate and exchange information with each other.

- The role of ICTs in bringing about social and economic development. Government must face up to its leadership role as a consequence of it being a major user of ICTs. Most of all this is about skills, but it must address the policy and regulatory environment, and ensure that the Province has the infrastructure to allow its people to compete effectively in the knowledge economy.

The best functioning provincial portals are those of the provinces of Gauteng (http://www.gautengonline.gov.za) and the Western Cape (http://www.capegateway.gov.za). The Cape Gateway portal is probably the most comprehensive and advanced of all of these provincial portals (see bridges.org 2003, Cape Gateway 2004, the assessments of the Provincial Government of the Western Cape 2005 and De Tolly, Maumbe & Alexander 2006). It links the Cape Gateway Walk-in Centre, the Cape Gateway Call Centre, local government and other special projects to the internet. It is available in English, Afrikaans and Xhosa, which are the three official languages of the province. In their assessment of the facility, De Tolly, Maumbe & Alexander (2006) found that it is still insufficiently developed to deal with the needs in that province. Other lessons that they have learnt from it include that the requirement to present it in 3 languages complicate the process tremendously, that more content is needed, that there is a need for centralised content management, a more solid technology base, more specialist skills, the development of a more dedicated e-culture, hard work, more financial resources, better access and a systematic monitoring and evaluation programme for it. They also stressed the strategic importance of m-govt strategies to optimise the functionality of the system.

The e-govt programme in South Africa also extends to the local community level, where it is probably even more advanced in some municipalities than at any other higher level of government. The best examples of this level of application are the big metropolitan governments in the country: Cape Town (http://www.capetown.gov.za/default.asp), Johannesburg (http://www.joburg.org.za/), Pretoria/Tshwane (http://www.tshwane.gov.za/) and Durban/eThekwini (http://www.durban.gov.za/durban). Cape Town is especially advanced, with integrated GIS based management applications that are comparable with the best in the world and are widely regarded as best on the African continent (Samuels 2005, Cloete & Needham 2002).

By September 2003 Cape Town City had established the largest local government-sector SAP installation in the world. It was the first local government in Africa to implement a fully-fledged ERP (Enterprise Resource Planning) programme (Samuels 2005). In 2004 the city was awarded the Smithsonian Institute/ Computerworld Honours Prize for its SAP-ERP project for being the most significant IT project in government and non-profit organisations in the world. Cape Town City also won the African ICT Achievers E-Government Award in 2003 & 2004, and the Bill and Melinda Gates Foundation Prize for technology projects (Samuels 2005).

The ERP System entailed a major upgrade of the City's computer and IT systems in a drive to improve overall efficiency and achieve long-term cost savings. It transformed the administration from an old-fashioned, over-the-counter-run system into a user-friendly, effective on-line operation. This ERP System enabled an integrated solution to managing financial, revenue, operations, human resources and other services on a single completely
integrated IT system. The goals with the new system were a combination of cost-savings and efficiency improvements in order to generate funds for better longer-term service delivery to the public and personal and community empowerment in order to bridge the digital divide (Samuels 2005).

Other objectives were to facilitate activities in the informal business sector in order to contribute to job creation and social well-being. This was also highlighted at the 2003 World Summit on Information Society. The City therefore implemented its Smart Cape Access Project and a Digital Business Centres project, which clearly show that access to ICT, equals access to opportunities for all our communities, especially the less privileged. That was supplemented by the Kulisa Youth Development Programme, focused on equipping 130 youth from previously disadvantaged communities with an ICT technical skill 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 work stations linked through electronic networks to the City and provincial library and school systems (http://www.khanya.co.za/, http://www.capetown.gov.za/smartcape/).

Two last illustrations of innovative electronic knowledge management practices that have worked well so far in South Africa to promote public awareness of services available as well as provide information, education, improved management and development, are the following:

The first is the so-called Hole-in-the-wall experiment in New Delhi (http://www.niitholeinthewall.com) that was translated into a replication of it in the guise of the Digital Door experiment in Cwili, Kei Mouth, in South Africa (http://www.meraka.org.za/digitalDoorway.htm). The experiment consisted of the placement of a multi-purpose, touch screen internet kiosk in a public area in a deep rural village without any instructions for or training of potential users. The kiosk provided internet access and had specific screen icons to game, music, educational and job-related sites. Within an amazing short time-span, youths and adults who are functionally illiterate in many cases taught themselves and each other how to use the system.

The second case refers to a totally illiterate but expert hunter-gatherer tracker of Khoi-San descent in a semi-desert area of the Kalahari Desert in South Africa, capturing crucial botanical and zoological information digitally on a GPS instrument and sending the information in real-time via satellite to a computer network for purposes of environmental management in a game park (Peacock, Douman & de Voux, undated). The GPS device has a touch screen with icons depicting animal spoor, plants and other relevant information on it (CyberTracker undated).

These two cases provide conclusive proof that sophisticated technologies can be used effectively for developmental purposes in extremely backwards conditions if they are implemented appropriately.
Access to and transparency of information

The second prerequisite to improve trust in government is free and transparent access to the information content needed by citizens (see Cloete 2006). Transparency has been defined by some of the most authoritative experts on the topic as ‘the increased flow of timely and reliable economic, social, and political information’ (Vishwanath & Kaufman 1999: 1). Defined in this way, transparency is the same as openness. The main supplementary conditions that create or stifle transparency are conceived by the same authors from the World Bank as access, comprehensiveness, relevance, quality and reliability (Vishwanath & Kaufman 1999:1).

• **Access** to information is defined as ‘the ability of the citizen to obtain information in the possession of the state’ (Martin & Feldman 1998: 1). Transparency is therefore closely linked to the ability of all citizens to access the information relatively easily. This presupposes the existence of mass media that can freely operate and disseminate information to all and also appropriate literacy levels in all communities that make access to those media instruments possible. It also presupposes opportunities for interaction between citizen and government to follow up any query about an issue, and responsiveness of government to these queries (eg Nealer 2005:476). Democratic participation is therefore part and parcel of effective and transparent governance. Different strategies are followed by different governments in this regard: ‘…some states provide for access in their constitutions and laws; many do not. Even where access is recognised, it is invariably subject to limitations. In addition, states may impose fees, and require the payment of administrative costs before citizens actually obtain the information they are seeking’ (Martin & Feldman 1998:1). These restrictions that governments place on the flow of information restrict the level of transparency.

• **Comprehensiveness**: Transparency can only be effective if all core aspects of a case are transparent. Any opaque activity can create a risk of collusion and bias towards special interests.

• **Relevance**: Similarly, information is only useful it is relevant to the situation that exists. Volumes of irrelevant information can hide important issues in many cases, and is frequently used to divert attention away from crucial issues.

• **Quality**: Information must be authoritative and accurate. If not, it can only give an approximation of a condition, which leaves a too big margin of error to base important judgments upon.

• **Reliability**: Reliability refers to the consistency and replicability of quality information. The scientific rigour of the methodologies used to compile the information is crucial in this regard.

To conclude, transparency refers to the availability of information to the public on the transactions of the government and the transparency of decision-making processes. It involves ready access to reliable, comprehensive, timely, understandable and internationally comparable information on government activities and is necessary for sound government and good governance. Good governance implicitly guarantees the civil and human rights needed for effective ethical government by honest officials and the information flows that enable
members of society to be informed on government activities. Two interrelated issues are inherent in this phenomenon. One is the nature of information and the other is the use of such information; the latter is largely dependent on the former. The general experience with regard to the nature of information is that information is provided to the public and the legislature. However, even when information is accessible and clear, members of the public may not voice their grievances and may “exit” because of their uncertainty about alternatives (Mbatha 2005:2).

Increased public confidence in government, minimizing financial risks and corruption and enabling sustained growth and development, empowering citizens and enhancing democracy are some of the positive consequences of transparent government (Kaufman 2005). Government secrecy is increasingly questioned throughout the world. Effective governance cannot take place when unnecessary secrecy surrounds decision-making processes and outcomes. Where suspicions of secrecy exist, these have a corrosive influence on public confidence in government. Vishwanath & Kaufman state that a ‘lack of transparency in public administration is a crucial constraint on policy implementation and its economic and social outcomes. Addressing this constraint remains a crucial means of promulgating a consistently successful public policy. A sine qua non for doing so is to improve transparency in public institutions and policy-making processes’ (1999:17). However, different systems have developed in different democracies to find a balance between full transparency and the protection of national security, competitive advantages and personal information. Vishwanath & Kaufman caution that the costs of full information disclosure might sometimes be too high for a government (eg unnecessarily panicking residents with ill-considered, untimely or premature disclosures of natural threats with a low probability of occurrence, or fully disclosing the bacterial contents of potable drinking water or the existence of hairline cracks in aeroplane wings that are within safety limits but might scare lay persons). The converse obviously also apply: In these and other cases the benefits of non-disclosure might be too high (1999:5). Both these situations may then lead to different degrees of non-transparency that might in certain cases even be beneficial to good governance rather than detrimental to it. The conclusion must therefore be that democratic transparency also has limits, and that beyond those limits more transparency may be contra-productive.

It is very difficult to devise a generic model of transparency that could be applicable in all contexts, because of different conditions, operating cultures and styles of governance in different countries. This can be illustrated by a brief comparison between the differences in governance processes between lesser and more developed societies. The high correlation between democracy and developmental levels results in governance being more transparent in more developed countries, although not in all cases. Transparency is directly correlated with the democratic nature of government. Consequently, lesser developed countries that are generally less democratic, experience much more extreme constraints on the transparency of governance processes than is the case in more developed countries.

One of the most promising new strategies to promote transparency is information technology in the form of integrated electronic and mobile government. E-government refers to the use of these technologies to promote better and more responsive relationships between government and its citizens (e-democracy) and improved development instruments (e-development) in the form of external front office public service delivery systems (e-delivery) and internal back office management systems (e-management) (eg Cloete 2003; McIvor, McHugh & Cadden 2002, EU 2005). E-government is increasingly used as the backbone of public management.
systems in more developed countries, and can contribute in a significant way to more effective implementation of transparency measures. The structural constraints of lesser developed countries, make this instrument more difficult to implement, but numerous experiments in and studies on Korea, Singapore, Malaysia, Chile, Brazil, South Africa, Mexico and other emerging regional powers have indicated that it can and should be applied if governments in those countries are serious with improvements in developmental and e-service delivery levels in their respective countries (eg Davison et al 2000, Bhatnagar 2000 & 2001; Heeks 2001; bridges 2002; PCIP 2002; CPSI 2003, Cloete 2003).

Access to and transparency of information in South Africa

The interaction between the government and the public, the private sector and political and administrative institutions in the South African democracy takes a multiplicity of forms and is, in principle, complicated. After all, the heterogeneous public, government, parliament, provincial and municipal authorities and administrations, business sector, unions, political parties and community organisations, each has its own function and its own professional tendencies that sometimes become the source of controversy. They also often derive their power and authority form different statutory and other sources. Transparency, openness, access to information and justice and the disclosure of malpractice through legislation offer channel through which the public can have input into government activities in the provision of services to the public. The public will not support democratic institutions that appear unethical, corrupt and incomprehensible to them. This is all the more essential in South Africa’s case, as the country emerges from apartheid rule where the majority of South Africans were actively denied the right to have access to information on the process of governing. No reminder is needed of the inherent danger this poses for a healthy system of democratic governance. However, popular support for democracy and its institutions on the long term is not, as is commonly assumed, expressed solely through the ballot box during elections. It also depends upon open and transparent practices and policies, as well as legislation to protect employees who disclose malpractice or misconduct in the work environment.

In their 1998 study, Martin & Feldman found that the South African case has a number of lessons that might be useful in other contexts. Many changes have occurred since 1994, aimed at the institutionalisation of formal structures for openness, the disclosure of malpractice and transparency. South African legislation enacted since 1994 has attempted to enlarge the scope of transparency in the affairs of the public sector and to strike a balance between the provision of access to official information and the preservation of confidentiality where disclosures would not be in the public interest. Section 16 of the 1996 Constitution for example guarantees freedom of expression, including freedom of the press and other media, freedom to receive or impart information or ideas, freedom of artistic creativity, academic freedom and freedom of scientific research. Section 32 also provides an explicit right of access to any information held by the state and any information that is held by another person and that is required for the exercise or protection of any rights. This section also provides explicitly that national legislation must be enacted to give effect to this right, and may provide for reasonable measures to alleviate the administrative and financial burden on the state. Thus, there is not only a constitutional guarantee of access, but an obligation that the state gives practical assistance to persons seeking access (Martin & Feldman 1998). Three additional laws supplement these constitutional provisions. They are the Promotion of Access to
The most important document is the **Promotion of Access to Information Act (PAIA)**. It is intended to promote open and accountable administration at all levels of government. PAIA gives effect to section 32 of the new Constitution subject to justifiable limitations, including but not limited to, limitations aimed at the reasonable protection of privacy, commercial confidentiality and effective, efficient and good governance and in a manner which balances the right of access to information with any other rights including the rights in the Bill of Rights in Chapter 2 of the Constitution. PAIA establishes voluntary and mandatory mechanisms or procedures to give effect to that right in a manner which enables persons to obtain access to records of public and private bodies as swiftly, inexpensively and effortlessly as reasonable possible. It also promotes transparency, accountability and effective governance of all public and private bodies by empowering and educating everyone to understand their rights in terms of the Act, to understand the functions and operation of public bodies and to effectively scrutinise, and participate in, decision-making by public bodies that affects their rights (ODAC 2006, DoJ 2006a-c).

The act provides for the appointment of Information Officers in each public agency and the creation of a ‘road map’ manual containing important information about the role of that agency, including a description of the body, its contact details, how to obtain information from it and what records it has (SAHR 2006:18, ODAC 2006:6). Certain pieces of information should be available automatically, while other bits of information may be divulged on request. Requests must be made in a specified format and at specified fees. Information officers must assist requesters with their requests. The reasons for a request for publicly held information are irrelevant, because access to information is a constitutional right. Privately held information can, however, only be accessed for the protection or exercise of a constitutional right. An objectively determined ‘need to know’ must therefore be proved (Currie & Klaaren 2002:64).

Records of members of parliament, of Cabinet, the judiciary and legal proceedings that are in progress, are exempt from the Act (Currie & Klaaren 2002:52-58). Requests for access must be processed within 30 days. Access to information may be refused in the following cases, with adequate reasons for the refusal in writing:

- Privacy, confidential, research & commercial information of third parties (except when consent has been given, the information is already publicly available, if it pertains to information needed for medical care of a dependant or patient or to someone deceased for longer than 20 years, or relates to the position or function someone occupies or fulfils, or is needed for risk testing).
- South African Revenue Service records
- Safety and property of individuals
- Law enforcement and legal proceedings
- Defence, security and international relations of the Republic
- Economic, commercial & financial interests of the Republic
- Internal operations of public bodies
- Frivolous or vexatious requests, or substantial and unreasonable diversion of resources

Access is, however, approved if the harm that might be done in terms of the above list of exclusions is outweighed by a substantial contravention the law, an imminent and serious
public safety or environmental risk, and the public interest. Refusal to grant access may further be appealed, first to an internal appeal authority and later to a law court.

Provisions that were considered in the first Bill but were eventually not taken up in the current Act, include:

- Individuals’ right to correct their own records, and compensation to be paid when injury results from inaccuracy in personal information held by the state and for other contraventions of the legislation
- The requirement that meetings of governing bodies of departments of state be open to the public.
- An Open Democracy Commission and Information Courts initially charged with implementing and overseeing the Act. These bodies were replaced by the SA Human Rights Commission (Currie & Klaaren 2002:8, Martin & Feldman 1998).

Martin & Feldman’s comparative 1998 study concluded that ‘(t)here is an established infrastructure for disseminating information. The official government printing service, responsible to the Minister of Home Affairs, publishes in English and Afrikaans. All legislation is published. Government publications, including attractive and simple to understand public information pamphlets, are freely available in public libraries and are also for sale from the government printer. Various government data are published on a monthly basis. Law reports are published regularly in the South African Law Reports series. There is an established library service including a mobile section. The government provides subsidies for this service and for radio and television services. Public affairs programmes and current affairs discussions are broadcast’.

Despite these detailed arrangements to promote transparency and access to information, the system is extremely rigid, cumbersome and difficult to implement as a result of the many formal procedures prescribed in PAIA and its interaction with other existing laws. The Act does not cover information that is not already contained in a record. The act also does not reverse other government secrecy and confidentiality legislation, and even though information might be accessed in terms of PAIA, applicants might be thwarted by other laws protecting the confidentiality of a specific request (Klaaren 2002). Many analysts are therefore of the opinion that transparency in the South African public sector runs the risk of being stifled rather than promoted as a result of this legislation.

The second important policy instrument to promote transparency in South Africa is the Protected Disclosures Act (PDA) that provides for procedures in terms of which employees in both the public and private sector may disclose information regarding unlawful or irregular conduct by their employers or other employees (eg corruption, maladministration, or the contravention of a law). The Act provides for the protection of employees from being subjected to an occupational detriment on account of having made a disclosure which is protected in terms of PDA (eg suspicion of criminal offences, failure to comply with legal obligations and a reasonable belief that the health or safety of an individual has been, is being or is likely to be endangered).

Camerer (2001) explains that ‘(e)mployees making such a disclosure are protected from occupational detriment like being subjected to disciplinary action, dismissed, suspended, demoted, harassed, intimidated, transferred against his or her will, refused transfer or promotion, or otherwise adversely affected in respect of his or her employment, profession or
office, including employment opportunities and work security. The Act thus prohibits an employer from subjecting an employee to an occupational detriment on account of having made a protected disclosure. Should occupational detriment occur and is found to have been linked to the making of a protected disclosure, the bona fide whistle blower would be protected and the employer would not be allowed to dismiss or prejudice the employee for having raised legitimate concerns."

To be protected, a disclosure must either be made to a legal representative, an employer, a minister or provincial member of the Executive Council, a specified person or body (eg the Public Protector, the Auditor-General), or another body prescribed by the minister of Justice, or as a so-called general protected disclosure. Detailed special requirements are prescribed for each of these disclosures. Disclosures must be in good faith and existing internal mechanisms and procedures must be exhausted before disclosures can be made to outside agencies (Camerer 2001). Confidential hotlines may be used in certain circumstances.

The definition of protected information is narrow. The Act only protects the divulging of seven different categories information. They are (Klaaren 2002):

- a criminal offence,
- a failure to meet a legal obligation,
- a miscarriage of justice,
- danger to the health or safety of an individual,
- danger to the environment,
- unfair discrimination, and
- a deliberate concealment of any of the above cases.

At least three important categories of information fall outside the scope of the Act. They include ethical issues, professional issues that do not necessarily indicate an ethical issue, and matters of public concern (eg the functioning of a policy). The Act only covers disclosures when a legal obligation will not be met. The effect of this is that disclosures relating to potential changes in the law on public policy grounds are not protected by the PDA. Disclosures of information that are not protected by the PDA, might be protected under the PAIA discussed above, for example via the potential public interest override allowed in the PAIA, because that override can be activated by the threat of a substantial contravention of or a failure to comply with a law or by a serious and imminent public safety or environmental risk (Klaaren 2002). It is problematical that one act protects issues that are in the public interest, while the other does not. In contrast to the original intention of the Bill that resulted in this Act, whistleblowers are currently also not protected against civil and criminal liability (Currie & Klaaren 2002:10). This hampers disclosures under the PDA.

The way general ‘whistle blowing’ is dealt with in the PDA is therefore problematical. Whistle blowing in the normal sense of the term is not the same as an authorized disclosure of information in terms of the PDA. Whistle blowing entails the disclosure of information by an employee or ex-employee with regard to general organisational wrongdoing. The disclosure of organisational wrongdoing can be authorised or unauthorised. Authorised disclosure of information means that the disclosure was made in terms of the channels of communication laid down by management systems in place that assists the person who becomes aware of the information in knowing how an to whom the disclosure should be made. Unauthorised disclosure means that the disclosure was made outside the prescribe channels specified in the PDA and through external mechanisms even outside the organisation (eg through the media).
Whistle blowing in this way is an unauthorised form of disclosure and does not fall under the domain of protection of the PDA.

It is clear that despite the progress made with the promulgation of the PDA, serious flaws still exist in its scope and operations that do not contribute optimally to protection for disclosures of sensitive information in the public sector in South Africa in the public interest. This still restricts the promotion of transparency in this country significantly.

The third policy instrument for this purpose is the Promotion of Administrative Justice Act that gives effect to the right to administrative action that is lawful, reasonable and procedurally fair and to the right to written reasons for administrative action as contemplated in section 33 of the new Constitution. It supplements the previous two pieces of legislation and codifies for the first time Administrative Common law in South Africa. It will not be discussed in detail here.

The South African government’s commitment to e-government as a developmental and services delivery instrument will improve transparency (SA-DPSA 2001, CPSI 2003). Initiatives to integrate e-government into mainstream public management processes in the country are also in progress as explained earlier. These outcomes will have major positive implications for the promotion of transparency in the South African public sector.

**Delivering the goods**

The third and last prerequisite to improve trust in government is a willingness by government to interact and negotiate with citizens about a mutually acceptable process of making progress towards achieving agreed-upon policy goals for that society, and then to deliver on their promises and undertakings in order to maintain the trust relationship. This is probably the hardest to achieve, because it implies successful democratic politics and government. In other words, trust in government can really only be consolidated by delivering the goods to the people. If this does not happen, a government risks losing the trust of the people and being replaced in the next round of elections by another government that is more trusted by the people to deliver on its promises.

At the moment many governments in developing countries further cannot meet the needs, expectations and demands of their citizens through their current service delivery programmes, for the range of traditional delivery weaknesses summarised above. As stated above, it is an open question whether any government that does not embrace the new technologies will be able to provide the required levels of services, compete with other service providers in an environment of open, global competition, or even survive as a government in future.

Governments that do not accept the emerging benefits of technology and still cling to their traditional delivery systems, face a very stark range of choices. The first choice is to attempt to improve their current, traditional policy implementation capacities and mechanisms to the extent that they will be able to meet the needs, expectations and demands in their respective societies sufficiently to stave off political instability and loss of power. In most cases this objective of good governance is beyond their capacity, because of current systemic defects that they seem unable to reverse. Another complication is that the effects of globalisation *inter alia* necessitates the closure of the existing digital divide between wealthy and poor
nations – a requirement that is, in the short term at least, beyond the capacity of any government in a developing state to achieve.

The second choice they face is to accept the inevitability of insufficient performance and to try to stave off political instability for as long as possible, through increasing authoritarian actions and internal security operations, accompanied by an increasing lack of access to information and legal procedures and a lack of transparency of governmental operations. The course that the Zimbabwean government has been taking in the recent past is an illustration of this desperation to survive politically. This not sustainable good governance, but a recipe for national disaster.

The only feasible alternative for a government in a developing country to achieve good governance outcomes, is to accept the inevitability of the global technological revolution (which is as inevitable as the mechanisation revolution of the 19th century), and to initiate, as soon as possible, appropriate general literacy and specialised computer literacy programmes to reduce the digital gap between it and the industrial world (See also Grindle & Hildebrand 1995), in order to establish new accessible and transparent electronic knowledge management networks to facilitate public services delivery along the lines of prevailing international practices. This implies a major paradigm shift in public policy and spending priorities to utilise technology optimally as a major policy instrument to facilitate the provision of basic services, and, simultaneously prepare the citizens to utilise these new empowerment opportunities optimally. This challenge does not only exist in the use of technology for development, but is a general requirement for any successful development initiative.

The argument so far is contrary to the conventional wisdom that technological change is not deterministic (eg DPADM 2003:2). Determinism should, however, not be confused with irreversibility. The argument in this paper is that technological development is as deterministic as mechanisation proved to be during the previous centuries, but that it is not necessarily irreversible (eg in situations of major social and political upheavals where regimes are overthrown and social, political and economic instability lead to dramatic reversals in knowledge and experience levels, developmental levels and resource availability).

Conclusions

This paper started out with the assumption that a citizenry well-informed about the policy problems identified by government and about the government’s strategies for dealing with those problems would potentially have more trust in a government if those strategies are perceived by the citizens to be the best to protect and promote their interests under the circumstances. The interaction between government and citizens on the basis of this information and the responsiveness of government to optimise its public services delivery outputs and outcomes within the constraints it faces, has the potential to improve trust in government. The level of detail that is needed in these processes differs from context to context.

In a situation where literacy levels are high, optimal knowledge management systems designed to promote and facilitate the building of trust relationships with citizens can be extremely effective if they are implemented appropriately and if they are freely accessible to
citizens. Transparency of governmental operations is increased through the availability of accurate, reliable and timeous quality information about such operations.

Where social literacy levels are, however, low, it is difficult to transfer detailed knowledge and interact on the basis of that knowledge. Transparency levels about governmental activities are in such cases also frequently very low. In the current information society, the most effective strategy to build knowledge-based trust by society in government, is to migrate to an electronic standard of knowledge management and public services delivery. This will provide higher levels of information and make government much more transparent to the citizenry. The requirements to do this include creating an electronically literate populace with effective and accessible electronic networks and information content as well as an effective response by government to complaints from society that satisfies its citizens about the bona fides of government. It also implies open access to the information required by citizens for this purpose.

The most significant obstacle to the optimal use of technology in government, is not necessarily resource-related. It is a mental obstacle, namely an unwillingness to accept the inevitable impact of the global technological revolution on governance (Cloete 2005). Despite massive technological development aid that may be provided in future to developing countries that lag behind the technologically better endowed states, the digital divide will not be reduced if accompanying mental paradigm shifts are not made in such countries.

Knowledge management through e-government is institutionalised in South Africa across all three governmental spheres in the country, and is progressing well according to various assessments so far. The constraints identified are technical and implementation-related. Clear lessons can be learnt about what has worked so far and what not. These lessons are also relevant for other countries, especially in the developing world. The South African experiences and good practices summarised in this paper indicate that hi-tech solutions can be applied successfully in cases of extreme underdevelopment, in order to facilitate, and maybe even fast-track positive developmental outcomes. It also illustrates that a lack of general literacy is not necessarily an impediment to e-literacy & e-learning. The results of these experiments have significant positive implications for the successful application of e-government strategies in developing countries, if these strategies are implemented in appropriate ways. It is, however, too early to determine whether trust in the South African government has been increased as a result of the e-government strategies in the country.

Effective electronic knowledge management requires the availability of accurate, reliable and timeous quality information about such operations, in order to maximise transparency which is a core ingredient of social trust in government. Although it seems that strategies and legislation adopted to set up an efficient and transparent public administration and to eliminate corruption and promote ethical standards in South Africa are indicators that measures might exist to ensure transparency, these measures are still flawed and need to be improved.
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