A SOUTH AFRICAN DEVELOPMENTAL PERSPECTIVE ON E-GOVERNMENT

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ABSTRACT

Historically, governments have utilised technologies associated with information and communication to improve interaction with their constituents. Currently, the extent of possibilities that information and communications technology pose to governments in exercising their governance function, are innumerable. The South African Government has launched a number of e-government initiatives since its inception in 1994. Some of these initiatives involve state-of-the-art technology and places the Country amidst the prominent developed countries as far as e-government practices are concerned. However, it should be noted that South Africa is an emerging democracy with extensive development challenges. For e-government to be successfully implemented, a number of pitfalls should be avoided. In addition, extensive capital investment, both human and otherwise should be incurred. In this regard, therefore, it is appropriate to scrutinise international best practices in this regard. This paper serves to identify South Africa's level of development in this regard and highlights some of the issues for consideration in this regard.

INTRODUCTION

Information and communications technology (ICT) has changed the way government in all spheres interact and communicate with each other and with its citizens. Traditionally, governments primarily communicated with their citizens through means of public meetings or the printed media. During the first half of the 20th century, with improvements in technology, it became fashionable for leaders to utilise radio communications for this purpose. Franklin D. Roosevelt and Winston Churchill, for instance made extensive use of radio communications to inform their citizenship of state affairs. Later-on J. F. Kennedy utilised new television technologies for this purpose. However, in recent times the information and communications technology revolution yielded immense opportunities for public institutions and public functionaries to communicate with their communities.

Modern day electronic government-models employ the most modern information and communication technologies, for example to use the Internet and satellites to deliver efficient and cost effective services, information and knowledge. Across the world, public organizations are embarking onto e-government initiatives by publishing substantial volumes of salient information on the Internet. E-government initiatives enable citizens to access government documents, order publications, file taxes, reserve records and renew licenses and permits from any location with an Internet connection (http://www.aspanet.org).

GOVERNANCE THROUGH THE INTERNET

As an example, in the United States of America, the FirstGov website provides citizens with free access to online information, recourses and services. With FirstGov it is possible to access more then 51 million pages of government information.

On the opposite side of the globe, the Australian government's Fed.gov.au-system of e-government is heralded as leading the Asian-Pacific region in the transition to e-government. It provides access to, and provides information on the Australian parliament, the Australian public service gazette and various public services.

The use of information technology to provide services in the United States of America and Australia can be seen as two examples of what the developed world are capable of doing with regard to e-government. It is however also important to look at how developing countries are making use of new technologies to deliver services to citizens. One of the examples of how a developing country is making use of technology is the online delivery of municipal services in Vijaywada, India.

Vijaywada is a city with approximately one million residents. The city is a major agricultural centre. The residents face various difficulties including making various trips to the municipality to obtain services. With funding from the Federal Ministry of IT, citizens can now go to any one of five kiosks that were set up in different parts of the city. These kiosks can provide citizens with information about the municipal budget, status of tax payments, grievance registration, birth and death certificates and it is also possible to advertise space available for lease. The online system has resulted in services being rendered more quickly to citizens (http://www.worldbank.org).

This is just one example of how technology can benefit the developing world. South Africa has both characteristics of a developed and a developing country.

South Africa has the largest information technology infrastructure on the African continent. Of the estimated 1 300 000 Internet users on the African continent, 750 000 are from South Africa. Accompanying information and communications dissemination services such as interactive video conferencing and real-time satellite conferencing facilities are also available in a limited number of African countries of which South Africa is one (Jensen,2001:4). In the southern African region, e-government and related Internet activities are subject to the availability of dedicated access to telecommunications infrastructure.

THE CURRENT SATE OF E-GOVERNANCE IN SOUTH AFRICA

The South African government's commitment towards improving information dissemination across the population was illustrated in 1995 when Mr Thabo Mbeki (then Deputy President of SA) stated at the G7 meeting of the information society in Brussels, "we must strive to ensure that each individual whatsoever his or her station in life play a meaningful role in decision making and in governance. One of the ways this can be done is to ensure that citizens has access to information". The South African Minister of Communication stated in 2001 "government believes that every region, province, community and citizen whether urban or rural has to benefit from access to the information economy".

In the Budget vote speech for 2002, the Minister for Public Service and Administration announced that South Africa On-line is a single electronic Gateway that will facilitate access to all information about, and services provided by the government. The overall vision that will be provided by the Gateway as it is known, is to provide access to government services, anytime, any place, within a clearly defined and executed e-government strategy. Access to services is the most important aspect of the Gateway. This initiative implies an end to cumbersome processes and travelling long distances to visit a multitude of government departments to conduct business. Citizens will be able to access all the government services from a single point, for example multipurpose walk-in community centres or kiosks that will be established across the country.

As part of effecting e-government, the South African government has embarked on a number of initiatives. Some of these initiatives include the following:

- **E-Filing – Tax.** The South African Revenue Service's (SARS) e-filing of tax is a co-ordinated effort between SARS and private business. The private businesses identified as service providers, have been appointed by SARS to provide Internet based electronic tax filing and payment services.

  The main aim of an e-filing system is to facilitate the electronic submission of tax returns and payments by taxpayers and tax practitioners. Income tax payers may still submit their returns in the traditional way. However, E-filing is aimed at improving operational efficiencies in order to deliver a better and quicker service. Those who wish to make use of the e-filing system are required to register at the particular service provider, conclude an agreement and receive a private access code and password to access the available services that are offered by SARS (e-Gov News, Oct/Nov: 2001).

- **E-Justice** Advances in cyberspace, business pressures, developments in information technology and globalisation, requires that the justice system of a country be re-evaluated. E-justice aims at improving the effectiveness and efficiency of prosecutors in the process of jurisprudence.

  The e-justice system seeks to transform the justice administration system from a manual to an automated system. A current analysis revealed that the justice system is running out of capacity. Currently courts have huge backlogs and prisons in general are overcrowded with a large number of trial-awaiting prisoners. E-justice is one of the ways in which the Department of Justice hope to alleviate some of their problems (e-Gov News, Oct/Nov 2001).

- **The National Automated Archival Information Retrieval System (NAAIRS)** NAAIRS assist members of the public to identify and locate public records in archival position, containing information that they may require. The NAAIRS interface was located in the newly designed website of the national archives. The national archive website is an important vehicle for electronic service delivery, providing extensive information and documentation about the national archives services to the public and to government bodies (e-Gov News, Oct/Nov 2001).

- **The Department of Home Affairs National Identification System project (HANIS)** The Department of Home Affairs has launched the Home Affairs Identification System to combat crime. The Department of Home Affairs is building an automated identification database in which massive amounts of fingerprint data will be recorded. The new system will be used in conjunction with the population register to provide life profiles of all citizens; this system will be used for identification and verification purposes. Immense potential exists as far as applying this system as far as for instance, policing, elections, population registering or immigrations and emigrations are concerned (e-Gov News, April/May 2001).

- **Cape Online; An E-Government Strategy for the province of the Western Cape** Cape Online is a service-driven and citizen-focused e-government initiative. The vision of Cape Online is to deliver access to public services online anytime, anywhere. The goal of Cape Online is to improve the internal efficiency and a more effective service by the Provincial Administration to the community. Cape Online focuses on the following three delivery areas:

- **Digital delivery** Digital delivery allows government to provide information and deliver services more efficiently and effectively. The goal of digital delivery is to make it easier for businesses and individuals to deal with government.

- **Digital democracy** Digital democracy is a government strategy that attempts to make the functioning of local government more transparent and improve both accountability and legitimacy. Digital democracy envisages the posting of government tenders, reports and meeting transcripts on the Internet.

- **Digital development** Digital development is a development strategy to improve public access, develop information technology skills and development regional information and communication technology (e-Gov News, Oct/Nov 2001).

Cape Online presents a simple interface that will remove the complexities that citizens and businesses currently face in order to obtain services in the Western Cape area. It is acknowledged that e-government requires new skills on the part of workers and agencies to take advantage of the web site. Naturally, any queries posted by citizens should be responded to timeously and in an appropriate way.

Cape Online is an example of a global trend towards greater levels of interactivity between government and citizens. The Cape Online project can be used as an example of what can be done in government and other provinces. Another objective with the Cape Online initiative is to promote economic democracy. All provincial and local government tenders will be published online, citizens will subsequently have the opportunity to respond to tenders online as well. This project can be seen as a very important empowerment initiative of the Western Cape (e-Gov News, Oct/Nov 2001).

A DEVELOPMENTAL PERSPECTIVE

The industrial revolution heralded a new age in economic activity throughout the then developing world. These events led to the so-called first wave of upliftment of human capital and sustained progress. The second wave occurred when countries like the United States of America, Germany and Japan extended their development curve to become significant economic powers alongside England. The third wave is currently in progress as China, India and South Africa are emerging as newly industrialised countries. However, the uniqueness of the third wave of industrial development is located in the fact that it coincides and is supported by revolutionary advances in information and communications technology and the successful embrace of ICT by these countries. From a developmental perspective, it is imperative for these countries to participate in the third wave in order to improve the social and economic standard of living of their citizens. The South African developmental dilemma is located in the debate as to whether the country is to be classified as developed or developing. In some respects

South Africa portrays the characteristics of a "first world" culture with a comprehensive system of ICTs. In other respects the country suffers from high levels of underdevelopment as a result of past policies and systems.

It is noted by Gokhale (2001) that the degree of readiness of participation in the third wave for a country could be measured as a weighted index of a number of critical factors such as: internet infrastructure, literacy level and per capita income. In other words, the successful implementation of e-government in South Africa will to a large extend depend on citizens' ability to make use of the Internet and Information and Communication Technology. Also, the issue of comprehension of the intricacies involved in applying the functions of such facilities is in question. In the last instance, the aspect of affordability as reflected in per capita income should be borne in mind, as well.

In terms of Internet infrastructure, Internet subscription statistics in South Africa is estimated at approximately 750 000. According to the United Nations report "Benchmarking E-government: A Global Perspective" that was published in May 2002, it was found that South Africa is internationally ranked 65th in the world as far as e-government capacity is concerned. On the African continent South Africa is ranked first. According to the report South Africa's e-government capacity is the strongest in Africa allowing the government to successfully emulate the programs of industrialized countries. South Africa far exceeds the rest of the continent in e-government capacity and capability (www.un.org). Even though the country rates best in Africa, these statistics do not reflect the fact that in infrastructurally disadvantaged areas, especially rural areas of South Africa, access to dedicated electricity and telephone lines are still limited. This state of affairs therefore, would impact on the level of Internet connectivity and consequently utilisation of e-governance facilities.

In terms of literacy, which may indirectly be reflective of levels of computer literacy, it is estimated that the adult literacy rate is 15.1%. Vast differences in literacy rate occur between rural and metropolitan areas. An aspect that needs to be taken into account in this regard is also the diverse language groupings within South Africa. Many people may be able to speak different languages but appropriate reading and comprehension proficiency, especially relating to e-government facility utilisation may be limited. Accessing e-governance facilities is important, especially for communities living in remote rural areas - the very communities that, according to demographic data, are less likely to be able to make use thereof.

Finally, the aspect of per capita income impacts on ICT utilisation in that affordability, standard of living and education is related. According to 2000 figures, the per capita income came to R11 755. If taken into account that more than half of the total spending in the average household in 2000 was directed to food (22%), housing (14%), income tax (9%) and transport (10%), not much is left for ICT-related expenditure.

If, therefore, the South African government wishes to make e-governance a practical reality, it should address the above socio-economic aspects simultaneously. A well co-ordinated effort and a holistic approach to development to ensure sustainability is needed in this regard.

Even so, additional barriers and problems that need to be addressed by the South African government before e-government initiatives could be implemented effectively and efficiently are for instance:

- **Lack of leadership and management:** Political leadership that lacks the drive to bring change in the public sector may be the biggest obstacle for development. If e-government is not a priority for the government little attention is given to ensure that policies and programmes meet the needs of the citizens or are implemented at all.

  An example in this regard is where in an African country, recently, researchers, policy analysts and practitioners conducted an extensive investigation into information and communications technology and e-government aspects relating to government's role and policy. A submission was made to the relevant ministry but due to the fact that the minister concerned wasn't supportive of the propositions, the recommendations languished and were not implemented (Roadmap for E-government in the Developing World, April 2002: 12).

- **Bureaucratic government organisation:** In many cases the flow of information between government departments and agencies are developed and operated in such a way that it meets only the needs of the government departments and agencies and not the citizen. In many cases government is slow in making and implementing choices with regard to e-government, this can lead to many delays in developing e-government.

- **Resistance to change:** Government structures are slow to change; public officials resist change because they are scared of the unknown. Many public officials and politicians are comfortable with their environment and don't want change to upset what is familiar to them.

- **The digital divide:** Access to online technology is a requirement for citizens to participate in e-government. In South Africa, communities in low-income and especially rural areas, without any tertiary education are less likely to have access to the Internet.

- **Skills and knowledge:** Citizens need appropriate skills and knowledge to make proper use of e-government facilities. It is important for citizens to obtain computer literacy and Internet skills. Without the proper skills and knowledge e-government cannot be used.

In addition, from a service rendering point of view, public servants should also have the skills to properly utilise the information and communication technologies in their work environment. According to the South African Department of Public Service and Administration (Budget Vote Speech, 2002) the ICT literacy levels of public officials and current patterns of access to computers indicate that less than 20% of the public sector functionaries are computer literate or computer users. The South African Minister of Public Service and Administration (Budget Vote Speech, 2002) remarked that with the increased introduction of ICTs in government functioning, instead of being an equaliser and a tool for development, it results in increasing the divisions between different segments within society. One effective way of improving information and communications technology skills could be to transform curricular tertiary education and training programmes by, for instance, making use of the Internet to teach Public Administration. The question, however, remains: What can be done concomitant to the introduction of ICTs to contribute to increasing the effectiveness of government functioning?

One example of an intervention to address the above question is the Golaganang Association-project. With this project it is envisioned that public officials receive increased opportunities to have access to ICT hardware and software. This project involves a partnership between the South African Department of Public Service and Administration and the Hewlett Packard Company. Walk-in training centres are to be established where ICT skills training will take place as part of rendering support. The Golaganang Association-project specifically involves the following:

- a computer system with 15inch monitor and built-in modem
- a colour printer
- two free-standing speakers
- Microsoft Office software applications and Microsoft Windows Step-by-step interactive training software
- Internet connectivity
- free installation and extended service warranty
- basic computer training for the buyer as well as three family members
- skills enhancing computer based programmes on computer literacy and
- Internet banking access from a large South African banking group.

Part of the Golaganang Association-project involves learner development in schools as well. Two thousand five hundred computer packages will be made available to needy schools. As far as installation support and training for the Walk-in Centres are concerned, historically disadvantaged institutions and small- medium-micro enterprises will be awarded the opportunity to act as preferred service providers. These types of initiatives should eventually yield an increase in ICT literacy and skills. It should however, be noted that many more similar initiatives are necessary to redress the ICT literacy backlog.

As could be seen form the above information, Golaganang could go a long way in making information technology and e-government available to citizens in South Africa. However, less than a year after announcing the Golaganang project, the South African Government has indicated that the project was put on hold. The Minister of Public Service and Administration stated that the Government had encountered problems implementing the project. The apparent reason is that the hardware suppliers required credit references from the beneficiaries of the project prior to receiving the package. Those listed with credit bureaux would automatically be disqualified from benefiting from the project. The Ministry, however, is of the opinion that stringent credit requirements would place the programme out of reach of those whom the package was intended for. Negotiations, however, are underway to attempt to find a solution to this impasse.

The above impediment is reflective of the practical implementation concerns associated with information technology related and e-government initiatives in developing countries such as South Africa. As the application of information and communication technologies improve and e-government possibilities increase, researchers and policy analysts should address such concerns pro-actively. In the following section the important roles of researchers, policy analysts and practitioners in an e-government context are explored.

THE ROLE OF RESEARCHERS, POLICY ANALYSTS AND PRACTITIONERS

As the Internet becomes a primary access point for millions of citizens throughout the world to access government functioning, researchers, policy analysts and e-government practitioners need to consider the following:

- How will e-government influence the performance of public organizations?

- What will the organizational effect be on e-government and information and communications technology?

- What are successful implementation strategies for e-government initiatives?

- What skills do public employees need to maximize their performance in an information age?

More research needs to be conducted on the advantages of technology, and the management skills that are needed to improve performance, and the increase citizen participation in government (http://www.aspanet.org).

The South African government's e-government initiatives create an opportunity to establish agendas for debate and to allow stakeholders to discuss government's policy and le-

gislation. For instance, some suggested issues for further research and debate could be cited as:

- How to ensure that information and communication technology through e-government initiatives satisfy the basic needs of all the population?

- Which measures should be taken by the South African government to ensure that access to information and communication technology, and e-government initiatives specifically, is provided to the public, citizens and communities?

- Information and communication technology should increasingly be used to ensure interaction between government, local authorities and citizens.

- How to improve co-operative governance and intergovernmental relations through means of ICTs ?

- How to implement measures, and which measures to implement, in order to improve the management of change that is taking place as a result of advances in ICTs ?

- How ICT should be customised for effective use, especially for citizens in rural areas and others with special needs that must be met by government ?

- Science, technology and innovation policies should be formulated with regard to new information and communication technology.

These aspects draw the attention to the realities associated with e-governance programme and project planning, implementation and evaluation. In this regard, researchers, policy analysts and practitioners alike, are called upon to theorise on the whole of e-government applications with a developmental context.

SUGGESTED STRATEGIES AND FRAMEWORKS FOR THE DEVELOPMENT OF E-GOVERNMENT

The Pacific Council on International Policy has, during 2002, released a research document concerning e-government in the developing world with the aim of affording governments some guidance as far as issues and problems are concerned (Roadmap for E-government in the Developing World, April 2002: 1). In the research document 10 critical questions are posed with a view to successfully planning, implementing and evaluating e-government initiatives. The document has primarily two audiences: Firstly, governments and their implementing partners seeking guidance in preparing e-government initiatives and secondly, governments and their partners currently

engaged in e-government project implementation. Following is a summary of the 10 critical questions and relevant comments presented in tabular format (Table 1).

Table 1: Roadmap for E-government in the Developing World

Questions and comments

1. Why are we pursuing e-government?
- Realise it won't be simple
- E-government by itself does not equal reform

2. Do we have a clear vision and priorities for e-government?
- Define a vision and priority areas
- All stakeholders should share in the vision
- Saving money should not form the premise that motivates e-government
- Make the vision citizen centred
- The vision should be communicated to all stakeholders

3. What kind of e-government are we ready for?
- Readiness for e-government is not only a governmental issue but also a societal one
- Readiness includes (starts) with establishing whether a political will exists in this regard
- Readiness depends on the existence of a well constructed information policy – i.e. government's willingness to share information
- Other key factors for readiness assessment include: the existence of concomitant telecommunications infrastructure to support e-government and human capital within government (capacity to plan, implement and evaluate e-government initiatives)
- The extent of existing and expected budgetary resources to ensure that e-government initiatives are effective and sustainable
- The existence of a general e-business climate (legal framework, information security)
- Officials' readiness for changes associated with e-government should be ensured

4. Is there enough political will to lead the e-government effort?
- E-government leaders (champions) should be identified
- Opposition and setbacks are to be expected
- Political leaders should be motivated to support e-government initiatives
- E-Government leadership should be sustained (momentum in effectively concluding programmes and projects should be maintained)
- Ensure that e-governance initiatives are promoted through various media channels

5. Are we selecting e-government projects in the best way?
- Do a diagnosis about all the available e-government information.
- Shop around for new and successful e-government initiatives.
- Make sure the e-government project is in line with the needs of the society.
- Ensure that the chosen technology will be able to reach the intended audience.
- Build capacity, enthusiasm and excellence within government.
- Develop a long term plan for implementing e-government, but remain ambitious.
- Clarify the existing procedures that will be followed in implementing a e-government programme.
- Consult citizens on their most pressing needs with regard to the use of e-government.

6. How should we plan and manage e-government projects?
- Establish e-government teams within government to supervise the e-government process.
- Ensure that the project management team has sufficient authority to oversee the e-government implementation process.
- A detailed work plan is required to implement the e-government project.
- Establish proper mechanisms for continuing involvement of important stakeholders to provide adequate feedback on the project.
- Plan for capacity building of employees at all levels.

7. How will we overcome resistance from within the government?
- Get an understanding of why employees resist and fear the new project.
- Involve employees in the project and explain how the new project will effect their work.
- Adequate training for employees can create an acceptance for the new project.
- Rigorously evaluate the progress of the e-government project.
- Solicit feedback from all employees involved in the e-government project.
- Reward and praise employees that excel in the use of the new e-government project.

8. How will we measure and communicate progress (How will we know if we are failing)?
- Measure performance to test the progress of the e-government project.
- Set adequate benchmarks to measure continues progress of the e-government project.
- Publicize and communicate the success of e-government performance to the public.

9. What should our relationship be with the private sector?
- Treat the private sector as a partner in e-government.
- Understand the needs of Government and business, especially the need for return on investment.
- Minimize the "brain drain" – the loss of trained personnel to the private sector can be very damaging to e-government projects.
- Create a solid, well designed but realistic business model for e-government projects.

> - Establish the strengths of both business and Government with regard to the e-government project.
> - Develop formal policies on outsourcing certain services to the private sector if required.
> - Identify counterparts that will work with the private sector on an ongoing basis.
> - Decide between local or multinational organisations to the needed ICT expertise and resources.
>
> **10. How can e-government promote citizen participation in Public Affairs?**
> - Learn how to encourage public participation.
> - Collaborate with the private sector and civil society to obtain much needed expertise.
> - Citizens are the e-government experts, encourage their input.
> - Make public feedback and input as easy as possible.

Source: Adapted from descriptions and variables from: Roadmap for E-government in the Developing World (2002: 8-25)

Some suggestions for ICT-utilisation and e-governance implementation that the South African Government should consider are as follows: The first step that government has to take when developing e-government capacity is to change the mindset of public servants working in government. People are very often scared of the unknown or new technology. Training programs and information sessions can help to inform public servants, this will also create a positive attitude by them about the new developments in government. The second step would be to find ways to properly informing and creating an interest among communities about ICT and e-governance possibilities. Other important strategies that may be considered include the following:

• Knowledge of new technology and electronics

Public servants must be computer literate as well as have knowledge in the different technologies that are available. Public servants should be able to use the Internet and should know how to deliver services by making use of the Internet. Government employees need to change their attitudes to become employees of change it is important that government employees understand what e-government is and that employees become willing to implement e-government (Information Management 361,2002: 41).

• Up-date government information

It is important for government to develop a centralized strategy to improve the countries ICT infrastructure while upgrading information management. This strategy will help government to decide how new policies will be implemented and how to create better administration in government.

The upgrading of the government's information management infrastructure and an integrated and coherent ICT strategy for government is very important. Various government departments have developed ICT systems separately instead of developing an inter-connected system (Information Management 361, 2002:42).

• Electronic service delivery

It is important that service delivery is audited in order to identify those services that would be economically viable to be delivered electronically. Health services for example can be provided by tele-health, e-commerce has for some time been delivered online. A good starting point for government would be to do an audit of the existing services that are currently being offered by the various government departments and to evaluate the savings that can occur when the same service is to be offered on-line (Information Management 361, 2002:42).

• Access points

Services that are electronically available from government should be accessible to the public by making use of call centres, mobile phones, digital TV, telecentres, kiosks, smart cards and personal computers. Citizens should be able to access government services from any where in the country (Information Management 361, 2002:42).

A suggested phased framework for the implementation of e-governance facilities may be elucidated upon as follows: Six phases of e-government have emerged from both success and failures of countries that have or are undertaking e-government initiatives. Therefore, the South African public service intends to phase e-government in according to these world-wide trends, these six phases will be explained in table 2.

Table 2: Phases for implementing e-government

Phase	Explanation
Information provision	Information provision is an electronic guide that helps citizens to quickly find the nearest and correct contact information for services.
Two-way transactions	Two-way transactions allow citizens to transfer secure and sensitive information and to make payments via the Internet.
Multipurpose portals	Multipurpose portals provide cross-border services to citizens. This is a stage where One-Stop and seamless public services are provided to citizens.
Personalized portals	Personalized portals provide increased possibilities for users. Value is added to citizens using this service. Citizens can request to stay informed and to be notified of changes in information.
Clustering of services	This is the first step real transformation of the public service. Clustering of services provide a combination of services and workflow.
Comprehensive public service transformation	This is a full service centre. Services that are offered to the public are available when needed by the citizen and personalised to the users needs.

Source: Adapted from descriptions and variables from: E-government Policy, 2001.

Generally services offered at each of these six phases ease interactions and transactions through the delivery of e-government in the following areas:

- **Government-to-Government (G2G)** Government-to-Government enables the public service to work together, eliminating duplication and helping with the exchange of information between government departments to provide speedy services between public servants and public institutions.

- **Government-to-Citizen (G2C)** Government-to-Citizen allows citizens efficient and effective service and allow for interaction with government. Citizens can participate in the government and will be informed of what is happening in government.

- **Government-to-Business (G2B)** Government-to-Business deals with the services that business obtain from the public sector in order to enable business development by providing quick access to information and documentation that is needed by business to succeed.

- **Government-to-External (G2E)** Government-to-External provides for broader interaction with external entities to encourage and facilitate foreign investment by being transparent, providing up to date information and a high degree of accessibility (E-government policy, 2001).

CONCLUSION

E-government forms a very important part of future governance not only in South Africa but also in the rest of the world. For e-government to be successful in developing countries such as South Africa, it is important that public servants and citizens acquire the apposite skills and knowledge. Without the training it will be impossible for public servants and citizens to optimise the use and usage of e-government and its associated benefits. By availing Public Administration programmes online to public servants and equipping them with information technology commodities, the required skills and knowledge that will be needed for future e-government applications, could be inculcated. However, extensive research both normative and empirical, is needed to cement the fusion between the realities associated with developing countries' capacities and the possibilities presented by advances in information technologies.

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