

e-Parliament to e-Democracy

Creating a Model for Effective Management of Public Content

by

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DECLARATION

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ABSTRACT

Information and communication technology (ICT) has facilitated the implementation of e-parliament to ensure representivity, transparency, accessibility, accountability and effectiveness of parliaments. However, the shift from e-parliament to e-democracy may require parliaments to focus not only on efficiencies but also on improving the quality of interaction leading to changes in behaviour that support democracy.

The study explores the current set-up in respect of the implementation of e-parliament globally, the initiatives that are being made and the challenges being experienced. It does this by examining literature regarding the latest developments in e-parliament and recent surveys on emerging utility trends. Consideration is given to particular initiatives in the African context, such as the Bungeni information management system. These are aimed at facilitating the push towards democracy that is assisted by ICT (e-democracy).

A comparative analysis focusing on policies, technology, practices and organisational culture in the implementation of e-parliament, as a transitional stage towards e-democracy, is made with respect to the parliaments or chambers of the Czech Republic, India, Kenya and South Africa. The outcome of this analysis has important lessons for the use of ICT to support democracy, particularly for South Africa. It also generates a number of issues, for example the importance of knowledge management and organisational design for improving the parliament-citizen interface, which require consideration by parliaments in general.

A seamless platform for facilitating engagement between parliament and the majority of citizens is designed through the adaptation of the e-business model. The platform integrates ICT infrastructure, processes and human resource in a knowledge management environment.

OPSOMMING

Inligting en kommunikasie het die implementering van e-parlement gefasiliteer met die doel om verteenwoordigendheid, deursigtigheid, toeganklikheid en doeltreffendheid van die parlement te verseker. Die skuif van e-parlement na e-demokrasie kan parlement noodsaak om te fokus, nie net op doeltreffendheid nie, maar ook om die kwaliteit van interaksie te verbeter, wat weer sal lei tot gedragsverandering wat demokrasie ondersteun.

Die studie verken die huidige toestand met betrekking tot die implementering van e-parlement op 'n internasionale skaal, die inisiatiewe wat onderneem word, en die uitdagings wat ervaar word. Literatuur wat die nuutste verwikkelinge saamvat, word ondersoek, asook onlangse opname aangaande opkomende gebruikstendens. Dit is veral inisiatiewe in Afrika wat ondersoek word, soos byvoorbeeld die Bungeni Inligting bestuurstelsel. Dit word gedoen om die proses van demokrasie te fasiliteer wat weer deur Inligting en Kommunikasie tegnologie ondersteun word.

'n Vergelykende analise wat fokus op beleid, tegnologie, praktyke en organisasie kultuur binne e-parlement, en die oorgangfase van e-demokrasie word gedoen oor die parlemente van die Tjeggiese Republiek, Indië, Kenia en Suid-Afrika. Die uitslag van die analise het belangrike lesse vir die gebruik van Inligting en Kommunikasie tegnologie om demokrasie te ondersteun, veral in Suid-Afrika.

Dit genereer ook ander aspekte byvoorbeeld die belangrikheid van kennisbestuur en organisatoriese ontwerp om die parlement-burger interfasie te verbeter.

'n Platform wat die proses tussen die parlement en die burgers fasiliteer, is ontwerp met die aanpassing van die e-besigheidsmodel. Die platform integreer Inligting en Kommunikasie tegnologie infrastrukture, prosesse en menslike hulpbronne binne 'n kennis bestuur omgewing.

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Chapter 1

Points of Departure

“Democracy is generally agreed to have its conceptual roots in certain of the city-states of ancient Greece. This system, now described as ‘direct democracy’, is based on the notion that every citizen is directly consulted in every decision of government. In ancient Greece, political decisions were taken by a popular assembly of the whole body of citizens, according to the procedures of majority rule. Such a system was possible in ancient Greece because a city-state’s population rarely exceeded 10 000 people. Also, women and slaves were excluded from citizenship and therefore from political participation.”¹

1 Introduction

Parliaments have a great role to play in making laws, overseeing the executive and communicating with citizens. They ensure that citizens participate in the decision-making processes that shape their lives. The emergence of e-parliament has created an opportunity for developing creative ways through which parliaments could improve interaction between citizens and the legislature. e-Parliament, the use of electronic means to facilitate the work of parliaments which can be regarded is the early stage of e-

¹ De Villiers, Susan. 2001. *A People’s Government The People’s Voice*, p 4

democracy, can help parliaments to become more transparent, accessible, accountable and effective in promoting democracy.

e-Parliament enables automation of parliamentary information and the tracking of decisions and documents, for example the stages of the development of legislation, and sharing of information with limitless participants. In turn, this contributes to enhancing the relationship between the governed and those that govern them. As such, e-parliament serves as a prerequisite for e-democracy, a stage where information and communication technology (ICT) forms an integral part of democratic expression.

With this in mind, it is important to examine the extent to which the South African parliament has been able to take advantage of the platform and opportunities provided by ICT for purposes of shifting e-parliament towards e-democracy. Lessons learnt from this exercise may bring insight into the further development or implementation of e-parliament strategies towards e-democracy.

The thesis will provide a critical analysis of e-parliament strategies in some countries' parliaments. Further, through an analysis of some of the countries' parliaments that have e-parliament systems in place, the thesis will explore the extent to which policies, technology, practices and organisational culture assist in the legislative and oversight functions, as well as the public participation function of parliaments. It will also examine the extent to which these parliaments have advanced in the 'e-parliament-e-democracy' continuum.

In the final analysis, the thesis will explore alternative means of managing public content through the effective utilisation of information and knowledge management systems. Focusing on aspects of e-parliament such as e-petition, e-consultation and e-voting, a design will be developed for purposes of promoting effective management of public content by means of e-services, in facilitating transition to e-democracy.

2 Democracy and parliament

The common understanding of democracy is that it is a system where people have a say in how they are governed. It is where the views of the people shape the policies, laws and programmes of government.

The United Nations regards democracy as a universal value that is based on the freely expressed will of the people to determine their own political, economic, social and cultural systems and their full participation in all aspects of their lives.² It is about being heard.

In 1964, William Robson³ remarked that knowledge by the people about their government is indispensable if democracy is to succeed. He said that government cannot operate successfully if its activities are veiled in ignorance, misunderstanding and mystery.

“Public authorities must come into the market place and tell people simply and clearly what they are trying to do and why.”

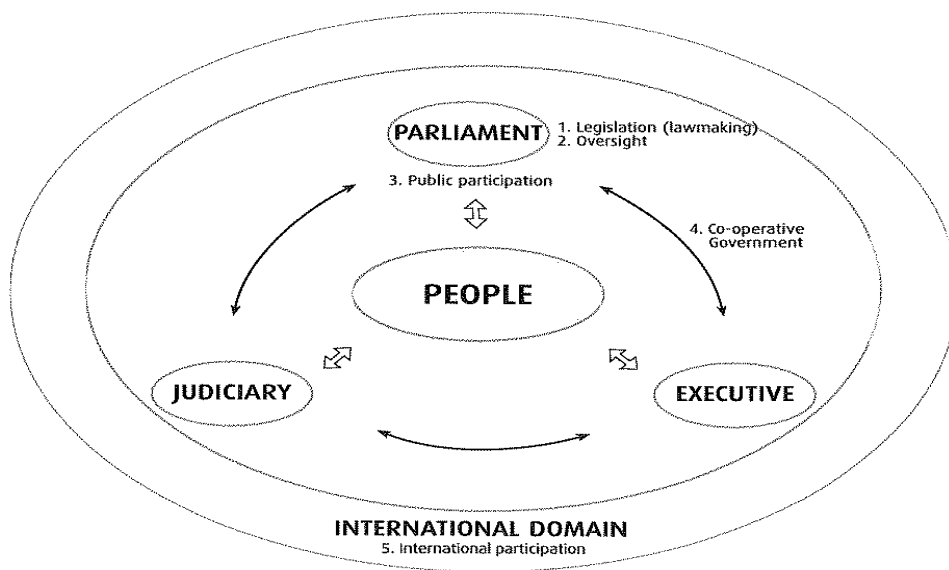
Conceptually, the market place may have changed, but the notion of democracy as a system that provides for openness is still central to modern-day understanding of democracy, irrespective of what constitutes the latter-day market place. Parliament, which is often regarded as the “organ of people’s power”, constitutes the market place for the expression of the views of the people.

² Resolution 62/7, November 2007

³ William A Robson. 1964. *The Governors and the Governed*, p 36

In 2004⁴, South Africa's first democratically elected president, Nelson Mandela, referred to parliament as that "voice of the people". He said that those who preside over parliament, that is its leaders, "bear a heavy responsibility in ensuring that that voice is clearly heard in national affairs and that it is protected and defended". He said that Members of Parliament (MPs) were entrusted with the responsibility of representing the nation, and that theirs "is the almost sacred duty to ensure government by the people under the Constitution".

It is not surprising, therefore, that while the South African Constitution provides for a broadly representative constitutional democracy based on universal adult suffrage, its emphasis on public participation introduces elements that, in the formal sense at least, distinguish it from many of the long-established democracies.⁵ The South African parliament is enjoined by the Constitution to promote public participation by providing a national forum for public consideration of issues.⁶



⁴ Mandela, Nelson. Speech 10 May 2004

⁵ De Villiers, Susan, page – p 4

⁶ *The Constitution of the Republic of South Africa*, chapter 4, p 27

Fig 1. South African parliament's representation⁷ of the relationship between government, which consists of the three arms parliament, executive and the judiciary, and the people. The South African parliament has a special public participation function in decision-making processes.

The theory of the separation of the powers of the state, i.e. the legislature, the executive and the judiciary, was devised by French aristocrat and philosopher, Charles de Montesquieu. He wrote in his masterwork, the Spirit of Laws, in 1748:

*“As, in a free state, every man, considered to have a free soul, should be governed by himself, the people as a body should have legislative power; but, as this is impossible in large states and is subject to many drawbacks in small ones, the people must have their representatives do all that they themselves cannot do”.*⁸

The essence of Montesquieu's assertion is that parliaments, or legislative bodies, are there to represent the people and to act in their best interest.

The Inter-Parliamentary Union (IPU) handbook⁹ on parliament and democracy defines Parliament as the central institution of democracy that embodies the will of the people in government, and that carries their expectations that democracy will be truly responsive to their needs and will help solve the most pressing problems that confront them in their daily lives. The handbook sets out the following key characteristics of a democratic parliament:

- it is representative
- it is transparent
- it is accessible

⁷ *Strategic Plan for Third Parliament of South Africa*, p 12

⁸ Ravitch, Diane and Thernstrom, Abigail (eds). 1992. *The Democracy Reader*, pp 40-43

⁹ IPU. 2006. *Parliament and Democracy in the 21st Century: A Guide to Good Practice*, pp 6-7

- it is accountable
- it is effective.

Information and communication technology (ICT), which represents the means by which institutions achieve their goals, provides potential benefits in supporting these principles. It will be in the interest of democracy for parliaments in general to use ICT to achieve the principles outlined above. Otherwise modernising societies would find it difficult to justify the relevance of parliaments as enablers of meaningful democratic expression and participation. If technology cannot assist in enhancing the process of further democratising societies, its use will be limited to specialists and be of less value to ordinary citizens.

3 What is e-parliament?

The World e-Parliament Report 2008¹⁰, produced by the IPU, defines e-parliament as “a legislature that is empowered to be more transparent, accessible and accountable through ICT, and which empowers people, in all their diversity, to be more engaged in public life by providing greater access to its parliamentary documents and activities”. Further, it is an organisation where connected stakeholders use information and communication technologies to support parliament’s primary functions of representation, law-making and oversight more effectively.

It states further that, through the application of modern technology and standards, and the adoption of supportive policies, e-parliament fosters the development of an equitable and inclusive information society. To understand this in the South African context one would imagine that an inclusive information society would require e-parliament strategies that target both the urban and the rural populations, and which utilise relevant and accessible methods for each of the different groups. The example of the high penetration of cell

¹⁰ IPU. 2006. *World e-Parliament Report 2008*, p vii

phones in rural areas could offer significant clues as to how an inclusive e-parliament strategy could be designed to achieve an inclusive information society.

e-Parliament can be used to promote democratic practice in a manner that promotes interaction between parliament and citizens.

4 The shift towards e-democracy

The South African parliament's ICT strategy¹¹ provides a better appreciation of the concept of e-democracy as the ultimate stage of e-parliament. The strategy is premised on the understanding that having built ICT capacity for administrative efficiency and effectiveness, with rudimentary elements of citizen participation and involvement over the years, the institution is now in a better position to facilitate external focus on increasing public participation and becoming more people-oriented, on deepening democracy and supporting legislation in action. This suggests a clear intention to use technology to promote democracy. We will examine this in more detail in chapter 3.

At this point, let us look at some of the definitions of e-democracy. We should start by acknowledging though that there is no single definition of e-democracy. It can broadly be described as the use of ICT to increase and enhance citizen's engagement in democratic processes. Early attempts involved two-way cable television (1970s) and teletext (1980s). Nonetheless, it was the emergence of the World Wide Web in the 1990s that led to the rise of e-democracy in its current form.¹²

¹¹ *SA Parliament's ICT Strategy: from e-parliament to e-democracy*, pp 8-10

¹² *Postnote* No. 321, 2009

It is, however, by looking in Kingham's further adaptation of Arnstein's "ladder of participation"¹³ that we clearly see the fine distinction between e-democracy and e-parliament. Kingham proposes a new method of assessing the effectiveness of ICT in buttressing representative parliamentary democracy, with the following progression as a basis:

- ICT is used to improve the internal workings of parliament (e-parliaments)
- Governments develop increasingly sophisticated sites that enable people to take advantage of information and the online provision of services (e-government)
- ICT makes a contribution to the development of a new form of participatory democracy (e-democracy).

The UN e-Government Survey 2010 provides another perspective, albeit with reference to e-government, that may help expand on the notion of e-democracy. This is demonstrable in the definition of connected services, one of the e-service stages illustrated below, which is a stage where governments have moved from a government-centric to citizen-centric approach. It is a stage where governments create an environment that empowers citizens to be more involved with government activities and to have a voice in decision-making.

¹³ Kingham, Tess. 2003. *e-Parliaments: The Use of Information and Communication Technologies to Improve Parliamentary Processes*, p 16, the ladder of participation was used to explain citizen involvement in planning processes in *A Ladder of Citizen Participation* by Sherry Arnstein in the Journal of the American Planning Association, Vol.35, No. 4, July 1969, pp 216-224

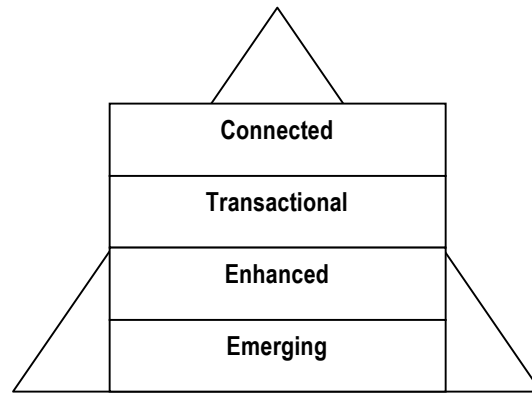


Fig 2: A pyramidal illustration showing the four stages¹⁴ of online service development. Stage one is for emerging information services, stage two is enhanced information services, stage three is transactional services; and stage four is for connected services.

¹⁴ UN *E-Government Survey 2010*, p 95

Emerging – Government websites provide information on public policy, governance, laws, regulations, relevant documentation and types of government services provided. They have links to ministries, departments and other branches of government. Citizens are easily able to obtain information on what is new in the national government and ministries and can follow links to archived information.

Enhanced – Government websites deliver enhanced one-way or simple two-way e-communication between government and citizen, such as downloadable forms for government services and applications. The sites have audio and video capabilities and are multilingual. Some limited e-services enable citizens to submit requests for non-electronic forms or personal information, which are mailed to their addresses.

Transactional – Government websites engage in two-way communication with citizens, including requesting and receiving inputs on government policies, programmes, regulations, etc. Some form of electronic authentication of the citizen's identity is required to successfully complete the exchange. Government websites process non-financial transactions, e.g. e-voting, downloading and uploading forms, filing taxes online or applying for certificates, licences and permits. They also handle financial transactions, i.e. where money is transferred on a secure network to government.

Connected – Government websites have changed the way governments communicate with their citizens. They are proactive in requesting information and opinions from citizens using Web 2.0 and other interactive tools. e-Services and e-solutions cut across the departments and ministries in a seamless manner. Information, data and knowledge is transferred from government agencies through integrated applications. Governments have moved from a government-centric to a citizen-centric approach, where e-services are targeted to citizens through life cycle events and segmented groups to provide tailor-made services. Governments create an environment that empowers citizens to be more involved with government activities and to have a voice in decision-making.

Observers have already begun shifting the e-parliament paradigm to that of e-democracy, with some arguing that in the same manner that communism was viewed as the highest form of socialism, e-democracy is the ultimate goal of e-parliament. For purposes of this thesis, the focus will broadly be on the transition from e-parliament to e-democracy without dealing with e-government as outlined by Kingham, which is a subject of a separate discussion.

For purposes of clarity, however, e-government differs slightly from e-parliament or e-democracy. It refers to the application of the Internet and networking technologies to digitally enable government and public sector agencies to establish relationships with citizens, businesses and other arms of government. In addition to improving delivery of government services, e-government can make government operations more efficient and also empower citizens by giving them easier access to information, as well as the ability to network electronically with other citizens.¹⁵ e-Democracy focuses on what citizens actually do with the access they have and whether they are able to participate and make their voices heard in decision-making processes. The focus in respect of e-democracy, however, is on enhancing participatory democracy using electronic means.

Parliaments have been using e-parliament systems to facilitate efficiency and effectiveness in their work. It is not clear whether these systems have fully transformed the nature of interaction between parliaments and citizens to the point that citizens in general take part in parliament and contribute to the creation of a democratic culture.

5 The impact of Internet on parliament

The Internet has revolutionised interaction between organisations and their clients or customers by offering the freedom of choice and delivering services with speed. Given its

¹⁵ Laudon, Kenneth C et al. 2006. *e-commerce: business. technology. society*, p 67

ever-present nature in the sense that it connects people easily across the globe, it has positive implications for democracy in that it provides a platform for the expression of the people's "voice"¹⁶ without spatial constraints. This is what some experts refer to as "digital democracy".¹⁷

The Internet hasn't changed what customers want; it's just given them more freedom to find it. They'll buy Volvo brake pads from Norway, software code from India and shipbuilding equipment from Poland, because they can, and because it's cheaper or faster or closer to exactly what they're looking for. They want control of the process, instant service, total accessibility, individual solutions to individual problems and 100 percent share of the mind.¹⁸

Research supports the notion that users often do not care how a service is delivered, or who delivers it, as long as it is easy, cheap, quick and provides fulfilment.¹⁹ What is uppermost in the minds of users is the convenience of getting the service or in exercising one's right. Fortunately, the Internet has changed the notions of time and space, rendering the French saying "You cannot be at the oven and the mill at the same time" no longer valid.²⁰

The above could partly explain the point raised earlier as to why people in poor areas in Africa managed to embrace mobile phones as a standard means of communication, outstripping fixed telephones. This occurred much earlier in the evolution process when these were regarded as pricey luxury items. Mobile phones provided convenience and freedom, which the often unreliable fixed line did not always provide.

¹⁶ In a democracy the "voice" represents the wishes of the people as stated by South Africa's first democratically elected President Nelson Mandela in 2004

¹⁷ Hacker, Kenneth L and Van Dijk. 2000, p 1

¹⁸ Rodin, Robert. 2000, p 196

¹⁹ Norris, Donald. 2008, p 265

²⁰ Chorafas, Dimitris N. 2002. *Enterprise Architecture and New Generation Information Systems*, pp 267-268

In her paper on the impact of the Internet on parliaments, Cristina Leston-Bandeira²¹ notes that parliaments all around the world have embraced the Internet, in both developed and developing countries, in established and establishing democracies and even in non-democracies. She argues that the implementation of ICT in parliament is not just about introducing a few electronic mechanisms and using email; it is also about changes in procedures and culture.

There is no gainsaying the fact that the Internet is an important tool for communication and sharing of information for parliament. However, it is important to understand that embracing the Internet is not an end in itself. It must be made a useful tool for providing citizens with on-time, credible and easy-to-understand information. This is often the Achilles' heel of many organisations. To achieve success in this presupposes that an organisation places much emphasis on training. In the case of parliaments, this would mean the training of both the legislators and the staff who support them. Inevitably, the citizen or the 'customer', a term we shall use interchangeably with citizen towards the end of the thesis, needs some level of awareness to become an active participant in ICT.

A number of parliaments are using websites as a means of reaching out to people who have access to the Internet. Through the websites they put out information about the subject of their business, including issues that are currently being considered, and programmes indicating future activities. The websites are also used, among other things, to explain to people how they can participate in parliamentary processes to influence laws and policies by sending submissions electronically or by other means. Although the impact of this is not the subject of this thesis, it is however important to note that ICT intervention will certainly have an impact on how politics is conducted.

6 The state of e-parliament

²¹ *Parliamentary Affairs Journal*. 2007, p 6456

In exploring the processes for the democratisation of politics through the implementation of systems for electronic management of public content, it is important first to reflect on the state of the development of e-parliament across the world so far. The assessment is based on the outcomes of The World e-Parliament Report 2008, which provides an in-depth analysis of the state of e-parliament globally. The report remains more detailed in many respects than the 2010 edition.

The IPU report is regarded as the first assessment, from a global perspective, of how ICT was being employed by parliaments across the spectrum of activities for which they are responsible. It is based on the responses and comments provided by 105 assemblies from around the world to a survey on the use of ICT in parliament. It also draws on experiences shared during the World e-Parliament Conference 2007 and relevant publicly available information.

The report²² addresses nine substantive areas where key issues and related findings from the survey results are analysed:

- Parliament, ICT and the information society
- Vision, innovation and leadership
- Implementing the vision: management, planning and resources
- Infrastructures and services
- Documenting the legislative process
- Parliamentary websites
- Building a knowledge base for parliament
- Parliaments and citizens: enhancing the dialogue, and
- Co-operation and co-ordination.

²² IPU. 2008. *The World e-Parliament Report 2008*, p vii

Not unexpectedly, the report states that the results of the survey confirm that the income level of each country plays a significant role in determining the extent to which ICTs are adopted in parliaments. However, technological legacies in older legislative bodies, organisational flexibilities in younger parliaments and the rapid evolution of technologies are all factors that can help level the playing field among legislatures. This serves to reinforce the argument that technology and democracy are set to remain inextricably linked. A good example here is the manner in which mobile phones, to go back to the point made earlier, have revolutionised life in underdeveloped communities in Africa. In light of this, technology is set to initiate some form of revolution in the manner in which people perceive and engage democracy.

The report raises the point that attaining a high level of performance in the application of ICT is not only dependent on resources; it also requires strong political leadership, active engagement of Members of Parliament, a skilled secretariat, well-trained technical staff and a sustained commitment to the strategic implementation of ICT in the legislative setting. The comparative study later in this thesis will explore some of these factors.

In this regard, it is important to consider the alignment of parliamentary business and ICT strategies in the manner suggested by Turban and Volonino.²³ In their model, *business strategy* sets the overall direction for business; *information systems strategy* defines what information, information systems and IT architecture are required to support the business, and; *information technology strategy* indicates how the infrastructure and services are to be delivered. Or where is the business going and why, what is required and how it can be delivered.²⁴ Support by management at senior level, or in the case of parliaments by even the presiding officers, is needed if the model is to succeed.

²³ Turban and Volonino. 2010. *Information Technology for Management*, p 488

²⁴ Ward, J and Peppard, J. 2002. *Strategic Planning for Information Systems*, p 41

For a considerable period of time ICT solutions were driven by technocrats, or the so-called IT boffins, and were not regarded as mechanisms that had to be infused with political objectives. It is now becoming clearer that that approach will not help, especially if we are to move towards using e-parliament for meaningful democratic expression. A number of sources of literature on the deployment of ICT in public institutions abound with examples of mistakes that are often made by people who otherwise have good intentions. An example is where ICT solutions would be provided following a proper needs analysis, leading to huge expenditure in respect of infrastructure, yet no proper assessment has been done to match the physical and human capacities.

According to the IPU report, approximately 10 percent of the chambers and parliaments that had responded to the survey have acquired extensive ICT capabilities across a wide range of key application areas.²⁵ These include developing systems for managing essential documents, utilising open document standards, creating rich websites that present information through a variety of formats and channels, and providing access to a wide range of online information linked to pending legislation.

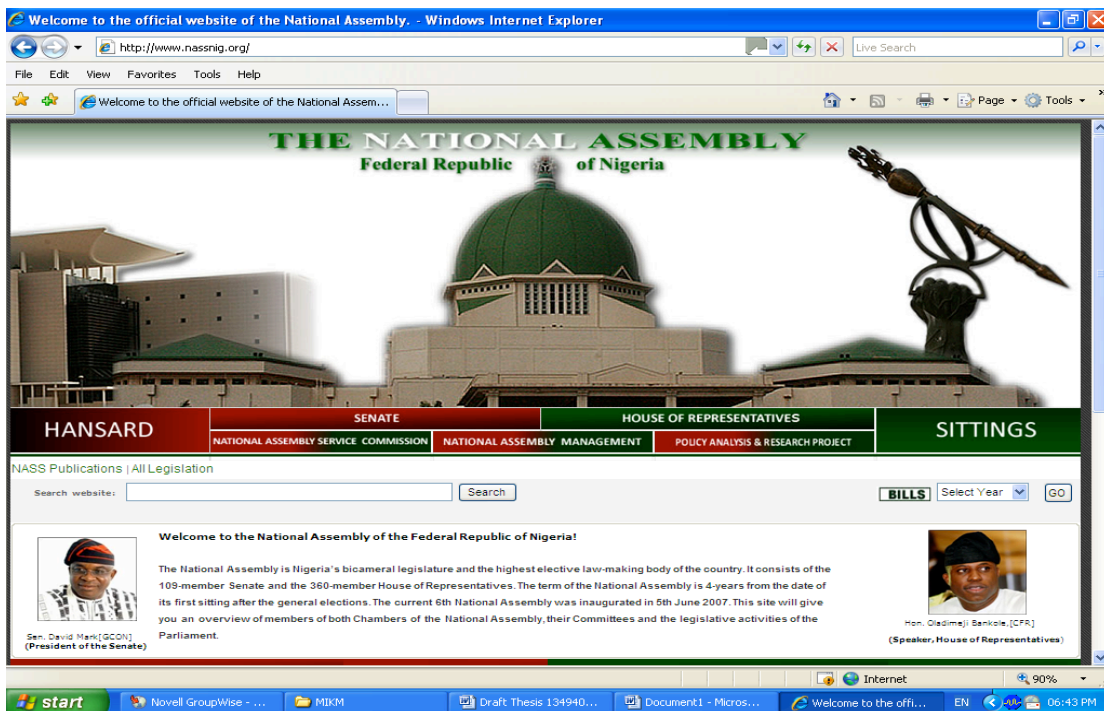
However, on the other end of the spectrum, many parliaments lack a strategic plan, an adequate ICT infrastructure, basic tools for Members of Parliament and staff, systems for managing documents and trained ICT staff. The status of the ICT systems and services of those parliaments that fall between these two categories is uneven. Many of them have implemented ICT applications that serve some of their most important functions. However many of these applications appear to be operating at the lowest level of utility and have not been enhanced to take greater advantage of ICT to improve efficiency and effectiveness, or to offer additional services.

This, again, raises the importance of ensuring that there is a buy-in at senior management level, including up to the level of the political heads or leadership. Investing

²⁵ *The World e-Parliament Report 2008*, p viii

appropriately in technology and ensuring that there is utility value for such an investment does require leadership that will inspire people to see benefits in the usefulness of the investment. This is more urgent now, especially in helping parliaments improve dialogue with citizens. Technology offers some long-lasting solutions in this regard. More than ever, democracy in a global context demands evidence of some improvement in interaction between parliaments and the people. These are indeed important considerations with far-reaching economic implications.

In this respect, the IPU report states that some chambers and parliaments are exploring new approaches using the Web, and others have plans to test new ICT-based systems. However, currently very few legislatures have any systematic capabilities for interactive communication with citizens.²⁶ This is a point that will be revisited in the course of this thesis, especially in regard to feedback in respect of administered questionnaires and some random tests of some parliamentary websites.



²⁶ Ibid

Fig 3: Although presentable and professionally neat, the above website of the National Assembly of the Federal Republic of Nigeria would be suitable for people who are familiar with parliament. Looking at it, there is a sense that ordinary people were not considered when it was created.

In fact, one would argue that very few parliaments design their websites together with, or in consultation with, the representative communities of the public they are serving. In this regard, critical systems theorist, Werner Ulrich, provides a systems approach that regards as a major concern the need to counter possible unfairness in society by ensuring that all those affected by decisions have a role in making them.²⁷ As part of this approach, he proposes 12 boundary questions²⁸ to facilitate some sort of participatory debate involving all relevant stakeholders. One of these is: On what world view of either the involved or the affected ought *parliament's* design to be based? [*emphasis is author's*]

Dudley²⁹ sums this up by suggesting that for a new idea to be adopted it must make sense in terms of the intended user's own rationale. In order to understand what other people will consider reasonable, it is necessary to find ways of learning the criteria, knowledge and priorities of others.

²⁷ Jackson Michael C. 2003, p 213

²⁸ Ibid, p 219

²⁹ Dudley, Eric. 1993, p 17



Fig 4: The official website of the US Social Security Administration is more interactive. According to the American Customer Satisfaction Index for the third quarter of 2009, it is the top government portal in terms of citizen satisfaction.³⁰ Its design suggests that it was created with the ordinary person in mind.

The writers of the IPU report conclude that there is a significant gap between what is possible with ICT and what has actually been accomplished by parliaments thus far. This takes us to the point already made about parliaments having embraced the Internet but not optimised its potential. This is in line with Malhotra's³¹ argument that "most of the technological innovations are far from reaching the forecast productivity target, as people are not taking advantage of all the potentialities to which these innovations can lead".

Nonetheless, the report³² points out that the effectiveness with which parliaments use ICT for connecting with the electorate and the rest of the world will significantly shape their ability to govern responsibly in the context of a rapidly changing and increasingly

³⁰ UN *E-Government Survey 2010*, p 60

The Customer Satisfaction Index looks at functionality, navigation, look and feel, site performance and content to determine the level of customer satisfaction.

³¹ Malhotra, Yodesh. 2001. *Knowledge Management and Business Model Innovation*, p 102

³² *The World e-Parliament Report 2008*, p 14

complex environment. Hence the argument that the definition of e-parliament must therefore take into proper account the inevitable and broader societal impact of applying information and communication technologies in the parliamentary context.

This suggests that when parliaments use ICT in a manner that has the possibility to impact on society broadly, it is at this stage that the full potential of e-parliament could be realised.

A parliamentary organisation capable of connecting stakeholders and processes, both internally and with the external world, would in fact transform itself into a representative institution at the centre of the knowledge society. This point will be revisited, although from a different perspective, when reflecting on the examples of some by the initiatives of the Swedish Parliament to facilitate international co-operation through e-parliament in the next chapter.

While much interest, and in some cases great enthusiasm, exists within parliaments and in civil society in using ICT to enhance communication with citizens, challenges still remain before expectations can be translated into reality. Parliaments have made progress in using ICT to disseminate information to the public, but there are a few truly interactive parliamentary websites currently functioning. Websites are still primarily used for one-way communication by Members of Parliament, parliaments and political parties. Some experiments with blogs and other interactive features of websites are underway, and there are several efforts in different countries to develop online discussions and receive citizen comments on pending legislation and policies under consideration by parliament.³³

The report supports the notion that these initiatives should be helpful in identifying good approaches to engaging citizens more actively. It is interesting that many chambers and parliaments that responded to the survey have confirmed their plans to further develop

³³ *The World e-Parliament Report 2008*, p 137

these channels of communication. This serves as an incentive to find alternative or new methods for engaging the citizenry through an interface that is largely driven by technology.

Leapfrogging parliaments to smart users of ICT may potentially lead to an impact similar to one experienced in work flow software when the PC and e-mail were combined for the first time – one of Friedman’s flatteners. An illustration may help strengthen this point:

“Remember, before the diffusion of computers and the Internet, work flow consisted of your sales department taking an order on paper over the phone, walking it over to your shipping department, which shipped the product, and then someone from shipping walking to billing with a piece of paper and instructing the billing department to churn out an invoice to the customer. But as a result of the Wall-PC-Netscape innovations, work flow took a huge leap forward.”³⁴

The conditions for a new technology revolution already exist. For example, in 2009, Eurostat’s research³⁵ indicated that the share of daily computer and Internet users has increased over the past five years in all age groups while the gap across generations had remained stable. In 2008, more than 70 percent of those aged 16-24 used a computer daily and 66 percent used the Internet every day or almost every day, mostly from home and from the place of education.

The IPU report³⁶ concludes by stating that the various technologies are just beginning to be widely deployed and so it is understandable that it will take time before they are made available for parliamentary purposes. In other cases, major challenges remain in terms of:

³⁴ Friedman Thomas L. 2005. *The World is Flat*, p 79

³⁵ Eurostat. 2009. *Youth in Europe: A statistical portrait*, p 10

³⁶ *The World e-Parliament Report 2008*, p 137

- which technologies work best;
- how to capitalise on the positive aspects of interactive technologies while managing information overload or possible abuse of the systems; and
- how to use ICT in ways that engage citizens while ensuring coherence with the representative function and role of parliament.

These are some of the challenges the thesis will attempt to address in exploring alternatives to improved interaction with citizens.

7 Theoretical perspectives

In order to achieve democracy for the people parliaments need to utilise e-parliament system to open space for people's voice to be heard in a democracy.

7.1 J A Schumpeter's theory of technological innovation

In this regard, J A Schumpeter's³⁷ exposition of the three stages of technological innovation provides one example. According to this form of innovation, people first use technology to replace old forms. They then move to another stage where they use technology to improve the way in which they work. It is only at the third stage that the full potential of the technology is revealed, when people completely transform the way they behave. From the perspective of this study, the last stage would appear to represent the stage of e-democracy.

This theoretical approach can be used to assess the transition from using e-parliament as a means of ensuring efficiency and effectiveness to a stage where it is used to support and enhance democracy. It can further be argued that the purpose of implementing e-parliament is to facilitate a shift to e-democracy, a stage Schumpeter regards as "the third stage of technological innovation". This is a stage where people transform completely the

³⁷ Kingham, Tess. 2003, p 28

way they behave. e-Democracy thus represents a new wave in terms of which ICT is used to advance political outcomes. For this purpose, ICT solutions must be accessible, enduring and relevant to survive the rigours of such a fundamental shift.

7.2 Expert locator knowledge-sharing system

On the other hand, the field of knowledge management provides some good examples that could assist in enhancing e-democratic practices. One example is the expertise-locator³⁸ knowledge sharing system used to help locate intellectual capital within an organisation. The system is used to catalogue knowledge competencies, including information not typically captured by human resources systems, in a way that could later be interrogated across the organisation. Parliaments could use this system or approach to learn more about the external publics, including ordinary citizens, non-governmental organisations, academics and other groups of people who possess different levels of knowledge that could facilitate the citizen-parliament interface.

For instance, in developing communication tools or strategies for interacting with the public, the following different levels of competencies from Becerra-Fernandez et al, could be used to analyse the type of information that is required and how it could be presented:

- Ignorant – totally unaware
- Beginner – vaguely aware, no experience
- Advanced beginner – aware, relatively unskilled
- Competent – narrowly skilled
- Proficient – knowledgeable in selected areas
- Expert – highly proficient in a particular area, generally knowledgeable
- Master – highly expert in many areas, broadly knowledgeable
- Grand master – world-class expert in all areas of domain.

³⁸ Becerra-Fernandez et al. 2004. *Knowledge Management: Challenges, Solutions and Technologies*, pp 310-313

The expert-locator approach could be used by the developers of content, for internal³⁹ and external publics, in an organisation to tailor communication according to the different levels of sophistication of the targeted audience. An expert system allows non-experts to make decisions that are comparable to those of an expert in that problem area.⁴⁰ In the context of an e-democratic parliamentary system, it can be used to assess the relevance of information for each demographic group in society.

7.3 Organisation as a living organism

Further, another theoretical perspective treats an organisation as a living organism.⁴¹ Viewed in this manner, an effective e-democratic parliamentary system would demonstrate the ability to possess a “shared understanding of what the company stands for, where it is going, what kind of world it wants to live in, and, most important, how to make that world a reality”. This is analogous to Morgan’s⁴² concept of the holographic brain metaphor. Morgan’s is a system that, although it displays the qualities of the whole, these are enfolded in all the parts so that the system has an ability to self-organise and regenerate itself on a continuous basis.

7.4 Senge’s learning organisation

A shift from e-parliament to e-democracy would necessitate that parliaments adapt continuously. Central to this is the notion of learning. Learning in organisations⁴³ means the continuous testing of experience and the transformation of that experience into knowledge – accessible to the whole organisation in relation to its core purpose. Hence the following related questions:

³⁹ These are the people that interact with the public and who always need to be informed

⁴⁰ Wessels P L et al. 2007. *Information Systems in a Business Environment*, p 54

⁴¹ Nonaka, Ikujiro (ed). 2005, p 289

⁴² Morgan, Gareth. 2006. *Images of Organisation*, p 97

⁴³ Senge, Peter et al. 1994. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organisation*, p 49

- Do you continuously test your experience?
- Do you produce knowledge?
- Is the knowledge shared?

It is important to note that when employees invent new knowledge, they are also reinventing themselves, the company, and even the world.⁴⁴

7.5 Boisot's I-Space

One other theoretical perspective that can help advance the argument regarding how best to diffuse knowledge for the benefit of citizens is Boisot's information space⁴⁵ (I-Space). The I-Space provides a framework for understanding and explaining information⁴⁶ flows and the creation and diffusion of knowledge. The framework consists of three dimensions. They are codification - a process of giving 'form' to phenomena; abstraction - a process of discerning the structures that underlie the forms; and diffusion - the process of sharing information with a targeted population.

According to Skyrme⁴⁷, a typical evolution path, observable in Boisot's model of the I-space, goes from uncodified personal knowledge to codified proprietary knowledge, then

⁴⁴ Nonaka, Ikujiro, p 292

⁴⁵ The I-Space is a conceptual framework within which the behaviour of information flows can be explored and, through these, the creation and diffusion of knowledge within selected populations can be understood (Boisot, 1998, pp 41-69)

⁴⁶ "Although the terms 'knowledge' and 'information' are commonly used interchangeably, a clear distinction exists between the two concepts. Information has been variously defined as: a flow of messages that increases knowledge, restructuring and modifying it (Machlup, 1983); a raw material capable of yielding knowledge; and a signal carrying information from which we can learn (both Dretske, 1981). Following this through, knowledge would be a representation of representations: a belief derived from information." – Baumard, Phillippe. 2004. *Tacit Knowledge in Organisations*, pp 18-19.

⁴⁷ Skyrme, David J. 2001. *Capitalising on Knowledge: From e-Business to k-Business*, p 22

to diffused textbook knowledge and ultimately to common sense (diffused yet uncodified). In practice, as knowledge evolves, it is continually converted from tacit to explicit and vice versa, and is also disaggregated and recombined in different ways. But overall, the corpus of codified knowledge grows and is more widely shared.

In simple terms, codification will relate, for example, to a situation where an organisation gives shape to its ideology by structuring it in a manner that gives it some existence. Abstraction will relate to a situation where the codification exercise is accompanied by an attempt to ensure that the constructed ideology is understood and internalised. And diffusion will be a stage where the organisation makes the ideology available to a wider or limited audience, using certain channels. The ideology is then subjected to scrutiny or some form of engagement by the population that is along the diffusion line, whose interpretation and interrogation may eventually lead to the organisation rethinking or recasting its product.

Parliaments by nature are information-centric organisations. The information they process is traditionally embedded in physical substrates (employees, MPs and artefacts such as statute books, policy documents, etc.), as we shall see under chapter 4 on comparative analysis, and is codified and abstracted for internal and external populations. To aid the shift from e-parliament to e-democracy, it appears that special consideration would have to be given to how diffusion is facilitated and the kind of value that is derived thereof. This could potentially mean that parliament may need to focus on the capacity of the population to receive, to process and to transmit data.

8 Research question

This thesis examines the extent to which parliaments have deployed e-parliamentary systems to establish the extent to which these have assisted in creating space for the expression of the voice of the people. It appears that in general parliaments have embraced e-parliament but have used this mainly to improve their internal organisational

efficiencies. Yet the most important function of parliament in a democracy is ensuring that the interests of the people are safeguarded. It does this by promoting regular interaction between representatives and the electorate and ensuring responsiveness.

In order to address this problem the thesis must answer the following question: How can parliaments take advantage of e-parliamentary systems to advance democracy through the effective use of ICT?

Chapter 2

Literature Review

1 Introduction

The introductory chapter makes the point that technology supports the means for promoting democratic expression in legislatures. e-Parliament presents an important opportunity for boosting democracy as we know it today. This is clear in that it can be used to promote transparency and to ensure accessibility to information so that citizens are empowered to influence laws and policies that govern them. It can also be used to strengthen accountability by public representatives and, above all, facilitate effective communication.

Nonetheless, the question is whether parliaments are currently using e-parliament effectively to achieve this.

2 The role of e-parliament

Having explained e-parliament in the previous chapter as a legislature that is empowered to be more transparent, accessible and accountable through ICT, let's look at what it can achieve for democracy. In the foreword to a paper⁴⁸ by Tess Kingham, Roumeen Islam⁴⁹ provides an important observation about e-parliament and its future:

*“If the application of ICT to parliaments seems nowadays inevitable, then inevitable will be its impact on the functioning of parliamentary institutions. The development of ‘e-parliaments’ will transform both the ways in which parliaments operate as well as their representative function”.*⁵⁰

⁴⁸ Kingham, Tess, 2003, p 1

⁴⁹ Manager for Poverty Reduction and Economic Management Division at the World Bank Institute in 2003

⁵⁰ Kingham, Tess. 2003, p 1

He argues, however, that the potential to transform parliaments centres on three main areas:

- increased administrative efficiency
- improved information access and dissemination, and
- enhanced interaction with citizens *for purposes of influencing decision making*.

In essence, this means that e-parliament has the potential to equip parliaments to be more responsive to the needs of the people. It is apparent though that many parliaments still need to improve with regard to enhancing interaction with citizens.

There are lessons that could be learnt from the implementation of e-government, as Khosrow-Pour⁵¹ notes when arguing that e-government initiatives around the world are changing the internal cultures of governments with innovative approaches to building cooperation among specific agencies. For example, the State of Washington, USA, has developed the unique in-house Digital Government Application Academy. Departments interested in developing new business applications are brought together to build business applications for use across departments in a “build-it-once, share-it-often” approach.

Kingham notes some of the emerging initiatives that have the potential to facilitate the implementation of e-parliament. These include:

- the increasing internet connectivity that is being facilitated by wireless and satellite technology, and
- the spread of mobile telephones, which gives some indication of the willingness on the part of the rural poor to use advanced technology.⁵²

⁵¹ Khosrow-Pour, Mehdi. 2005, p 126

⁵² Kingham, Tess. 2003, p 15

From these observations, he concludes that if this readiness to adopt mobile telephones can be transferred to new technological advances that give access to the internet, then there is some hope of bridging the digital divide.

The digital divide⁵³ has been shrinking in terms of numbers of fixed phone lines, mobile subscribers and Internet users. Nonetheless, there remains a gap. The International Telecommunications Union (ITU) estimates that some 800 000 villages, representing around one billion people worldwide, still lack connection to any kind of information and communication technology. In 2004, Africa had close to 100 million total telephone subscribers, 76 million of which were mobile subscribers. Africa has the highest ratio of mobile-to-total-telephone subscribers of any world region and has been dubbed “the least wired region in the world”. In 2009, South Africa was ranked number three in the continent in the ICT Development Index⁵⁴, behind Seychelles and Mauritius.

Bridging the digital divide is one of the challenges facing in particular poor countries in Africa. It needs to be facilitated by, among other means, a regulatory framework that supports competitiveness. Competition has the potential to encourage the introduction of many players and thus lead to the lowering of telecommunication costs.

Notably, Kingham points out that the countries that had the resources to allocate for the application of ICT to governance usually started by improving the workings of parliament, and moved on to providing better information and more services online.⁵⁵ Against this assertion, it is particularly interesting to note that in the UN 2008 e-Government Index⁵⁶, there are no countries in the top 35 from the African, Caribbean, Central American, Central Asian, South American and Southern Asian regions. The high cost of deploying a robust infrastructure capable of handling e-government applications is

⁵³ *World Summit on the Information Society: Geneva 2003-Tunis 2005* (<http://www.itu.int/wsis/tunis/newsroom/stats/>)

⁵⁴ ITU. 2009. *ICT Indicators Database*.

⁵⁵ Kingham, Tess. 2003, p 16

⁵⁶ UN 2008 *e-Government Index*, p 20

one reason for this discrepancy. The Africa i-Parliament Action Plan⁵⁷ notes, however, that there are relatively affluent parliaments on the continent that are more likely (not guaranteed) to have better systems than less affluent ones.

Kingham supports the point that ICTs offer the potential for people to participate more actively in the democratic process by permitting more involvement and contact with their representatives. The interactive nature of the Internet can play a facilitatory role between representatives and citizens.⁵⁸ This presupposes training and improvement at the level of access.

He views the application of ICT as having the potential to facilitate the making of political demands and the expression of opinions outside the set-piece rituals of elections and the channels controlled by policy networks and parties. That will depend crucially on whether constituents are able to use ICT effectively to hold their representatives, and through them the government, to account.⁵⁹ We have already seen some growing reliance on Facebook as a source of news by the news media and people. This shows that space for the views of ordinary people is being given some attention.

This thesis would be incomplete without the careful consideration of the possible options to facilitating a better interface between constituents and ICT, and, through ICT, with the legislature. The South African parliament has certain initiatives in this regard, including integrating communication technologies, e.g. mobile phones and video conferencing, for purposes of promoting public participation.

It is common knowledge that there is often a gap between the government and the people in many democracies. Governments seem to be closer to the people and have lively

⁵⁷ Matanga, Cecilia. *Africa i-Parliament Action Plan [Presentation made at the World e-Parliament Conference 2009, Washington D.C.]*

⁵⁸ Kingham, Tess. 2003, p 25

⁵⁹ Kingham, Tess. 2003, p 26

dialogue with them in particular during election time. Yet e-parliament has the potential to assist legislators to improve relations with the citizens beyond election periods, especially if ICT platforms are carefully considered.

Kingham is of the view that people often feel distant from government, especially in an age where expectations are higher in terms of openness, transparency and efficiency. ICT and, in particular, virtual forums for debate, can provide a platform for freedom of speech and a channel through which representatives can be contacted, engaged with and influenced. As yet this form of e-democracy has not developed as quickly as was predicted. People do not seem to wish to engage in online debate with politicians. Kingham shares the common view that although e-mail is increasingly being used to contact representatives, this causes problems of information overload and cannot necessarily be assumed to be the best way of contacting representatives.

However, one would disregard the usefulness of direct forms of engaging politicians at one's peril. Focus will soon turn towards improving their effectiveness. The thesis will expand on this point when reflecting on the approaches to managing public content later on. Needless to say, while ICT hold the promise of enhancing interaction between the people and their public representatives, there is obviously no universal solution.

3 Parliaments and public aspirations

Opening the World e-Parliament Conference 2009 held at the United States Congress, Washington DC, the organisation's Secretary General, Anders B Johnsson, said:

“Parliaments as an institution and parliamentarians as individuals must be concerned about the gulf that separates public aspirations for democratic governance and vigorous public debate, and the widely-held perception of

*political life as a closed space where there is little room for dissent and real consideration of alternative policy options”.*⁶⁰

However, regardless of this observation he made an important point about the interest expressed by people in democracy. He referred to a worldwide opinion poll commissioned by the IPU in September 2009, which confirmed that there was widespread support for democracy. Of the more than 20 000 respondents, 90 percent said that it was important or very important to live in a country that is governed democratically. But the poll showed that citizens around the world had deep misgivings about the way political life functions in their own countries.

He also noted that the ability for citizens to hold parliaments to account depends on the availability of accurate and up-to-date information about what parliament is doing. He stated that constituents are increasingly interested in learning how their representatives have voted on key issues before parliament and are interrogating them about their actions. Johnsson’s point is an important signal that once communities appreciate and use the available means to participate in democratic processes beyond the elections, democracy will be enhanced. There is already an interesting development concerning the use of new forms of media for networking purposes and for taking part in political discourse.

This is supported by Kingham’s⁶¹ observation, that as people acquire ever more diverse opportunities to access information and express their opinions, the need to use parliamentary channels may decline if parliamentary representatives do not use ICT to make themselves more representative and more accountable. There is thus a great opportunity for parliaments to use e-parliament as a means of entrenching democratic practices.

⁶⁰ Speech by Anders B Johnsson, *World e-Parliament Conference 2009*

⁶¹ Kingham, Tess. 2003, p 27

It is an ever-present challenge for many parliaments, especially those in developing countries, to find ways of ensuring that citizens are kept informed of developments at political level. One imagines a situation where people in far-flung rural areas are able to receive information on issues being considered by parliament on time, even on a daily basis, and can actually canvass the community's views and channel input back to parliament without leaving their area. This is not impossible, given that people in rural areas are already organised and have platforms such as *imbizos* (traditional gatherings) for discussing matters of common interest.

4 Case studies on ICT strategic planning, management and oversight in the legislative environment

One of the examples of the possibilities provided by ICT in supporting democracy can be gleaned from the Swedish Parliament.⁶² In addition to improving interaction with their citizens and ICT support for MPs, the Riksdag (the Swedish Parliament) has been taking advantage of ICT capabilities for enhancing international co-operation when it is not always possible to meet face-to-face.

According to Anders Forsberg⁶³, for example, the Riksdag has been a driving force in an European Union (EU) project known as IPEX (Interparliamentary Information Exchange). This project has now resulted in a website that enables parliaments in EU member states and the European Parliament to exchange information about the proposals presented to their respective governments by the European Commission. This information helps parliaments in their examination of their governments' lines of action.

This is an important case study, especially given the Riksdag's expressed commitment to becoming a public service parliament and to ensuring that it uses ICT to facilitate

⁶² Presentation by Mr Anders Forsberg, Secretary of Swedish Parliament, at *World e-Parliament Conference 2009*

⁶³ Secretary General of the Swedish Parliament

parliaments' internal work procedures. These internal work procedures must also be linked to citizens' opportunities to follow or participate in the decision-making and legislative processes. The approach can be useful if applied in different contexts, e.g. at national level, where citizens engage parliament on certain legislative proposals. But this would require careful consideration of the need to lend credibility to the process by ensuring that dominant views do not come mainly from those with access and resources.

On the other hand, the Assembly of the Republic of Macedonia adopted an ICT plan which was aimed at transforming its basic ICT infrastructure into an advanced networking infrastructure by 2010, as part of its e-parliament strategy. This process envisaged moving from an outdated server operating system, outdated server applications, outdated audio-visual and messaging infrastructure, manually managed clients, non-exercising security policies, etc, to a modern system with the following features:⁶⁴

- automatically and centrally managed servers and desktops;
- best practices deployed security solutions for internet gateway, servers and desktops;
- secure mobile access to the system from any place and any device; and
- high availability for critical systems.

According to Veljanoski⁶⁵, information worker functions, that is functions of staff who are using the new system, were to be process-oriented, with the following features:

- single piece of legislation consisting of a set of documents and metadata;

⁶⁴ Presentation by Trajko Veljanoski, President of the Assembly of the Republic of Macedonia, and Jani Makraduli, Vice President of the Assembly of the Republic of Macedonia, at the *World e-Parliament Conference 2009*, Washington D.C.

⁶⁵ President of the Assembly of the Republic of Macedonia, *World e-Parliament Conference 2009*

- multiple versions of legislations;
- bills/laws (timetable for parliamentary sessions);
- reports from meetings (to follow parliamentary committee proceedings);
- parliamentary TV channel on the net;
- searchable video and audio archives; and
- subscriptions for notifications (intended for users).

The Assembly has identified the following benefits for e-democracy as a result of the modernisation of their ICT infrastructure to support parliamentary functions.⁶⁶

- parliament portal for information sharing;
- enabling transparent citizen access;
- increased transparency in the implementation of decisions and their accessibility to the public;
- enabling transformation of the internal data sources into information available for the citizens; and
- contributing to the reform of the public administration, enabling accumulation of “legislative knowledge/resources”.

These technological innovations led to British MP, Lord Richard Best, making the following comments about the Macedonian e-parliament:⁶⁷

“I can only salute Macedonia for achieving such a success. As an MP, I’m a little bit jealous, because you have done things we haven’t even reached. For instance, I’m not able to follow past debates on video link to see whether I was good or not

⁶⁶ Ibid (f⁶⁵)

⁶⁷ Ibid (f⁶⁵)

or to see the performances of colleagues. Macedonia, as a younger state, has surpassed those much older ones in the process.”⁶⁸



Fig 5: The Assembly of the Republic of Macedonia considers e-parliament as an ecosystem in which citizens play a central role. (Source: World e-Parliament Conference 2009)

In order to facilitate broader appreciation it is important to ensure that the e-parliamentary system is used optimally. For example, it is no use to have capabilities for a video link to past debates for MPs if many MPs are not able to use the tool or often find that the infrastructure is always unreliable. Hence the issue of high availability for critical systems and security is essential.

5 United States and e-parliament

⁶⁸ Lord Richard Best, as quoted in presentation made by the Assembly of the Republic of Macedonia

The United States is one of the countries that are credited with playing a leading role in the area of ICT. This stems from the way the US has embraced e-parliament. The Speaker of the House of Representatives, Nancy Pelosi⁶⁹, gave a telling illustration at the World e-Parliament Conference 2009, hosted by the United States Congress, when she explained how Congress uses e-parliament. She pointed to some promising signs of e-parliament's potential to further democratise the business of parliament.

“In the history of American democracy, there was a time when a message could travel only as fast as a horse could gallop or a ship could sail. Today, a message from the American people to their representatives in Congress travels as fast as a citizen can twitter, blog, or post to Facebook.

Leading the way in this regard are the young people of the world. In my travels as Speaker, I have met with presidents, prime ministers, and kings. But what impressed and inspired me the most were my encounters with young people. Young people are engaged in their own international dialogue through the most current forms of technology.

In Iran following the election, hundreds of thousands participated in protests organized over Twitter. In America, students joined in solidarity on Facebook and Twitter by turning their profile pictures green - the color of the opposition party. Young people are disruptive thinkers - unsatisfied by the status quo. And so too must we be. e-Parliament gives us an opportunity to break with old ways of thinking and engage in dialogue just as the young people of the world are.”

The increased use of ICT by youth in some parts of the world is also supported by research conducted by Eurostat. The study shows that in the European Union, young generations (aged 16-24) have integrated the Internet into their day-to-day life as a communication tool, for example, using search engines to find information (86 percent), sending e-mails with attached files (77 percent) or posting messages on chat rooms (61 percent). And that among the wide range of Internet activities, more than 80 percent of

⁶⁹ Nancy Pelosi, Speech at the *World e-Parliament Conference 2009*

the population aged 16-24 accessed the Internet to communicate, to search for information, to use online services and for leisure activities.⁷⁰

The role of the youth in pushing the boundaries with regard to the use of ICT brings hope for the future of e-parliament and its future potential to deepen democracy. It is important to note that, like most developing countries, South Africa has a high proportion of its population falling into the category of youth. These are the people who are under the age of 35 (the United Nations classifies the youth as people that fall between the ages of 15 and 24).

There are now strong indications that the youth is progressively taking responsibility in defining the future of South Africa. This observation is supported by the level of youth participation in the 2009 general elections⁷¹, which stood at 40.7 percent of the 17.9 million votes cast. Interestingly, 58.1 percent of young people between the ages of 20 and 29 participated and this augurs well for the future, and certainly a future where political participation is strategically supported by ICT.

In their study⁷² of the use of two online vote advice applications (VAAs) during the 2006 Dutch parliamentary elections, Hirzalla et al conclude that younger people use VAAs more than older people. They also conclude that political interest and knowledge have significant indirect effects on VAA use in the sample groups with all respondents and older people.⁷³

⁷⁰ Eurostat. 2009. *Youth in Europe: A statistical portrait*, p 10

⁷¹ Independent Electoral Commission, South Africa, 2009

⁷² Hirzalla et al. 2011. *Internet Use and Political Participation: Reflections on the Mobilisation/Normalisation Controversy*, p 8

⁷³ Ibid, p 10

Youth engagement with political content is said to be the trend globally, ostensibly due to the fact that almost 50% of the world's population (3 billion) is under the age of 25.⁷⁴ Technology is also a significant factor, with many youths increasingly taking advantage of social networking tools on the Internet to post political content. For instance, research shows that two thirds of young Internet profile owners took part in some form of political activity on social networking sites during the US presidential election campaign in 2008.⁷⁵

This is evident in the way Speaker Pelosi illustrates the changes that the United States has experienced over the years, drawing important lessons for democracy:

“When it comes to governance, technology provides opportunities for discussion and engagement; it strengthens accountability; ultimately it makes democracies more democratic. Or as President John F. Kennedy said, ‘A nation that is afraid to let its people judge the truth and falsehood in an open market is a nation that is afraid of its people’.

When I became Speaker, I pledged we would have the most open Congress in history. Led by the innovation and enthusiasm of young people, Americans and Members of Congress are holding a running conversation - in real time. There is no greater tool to increase transparency than the Internet. Now, Americans can watch committee hearings, check votes, read bills, and review financial disclosures - all online. Next month, they will be able to see exactly how Members of Congress are spending their office funds, and at the start of next year, they will be able to watch and search our House floor proceedings in real time.”

The approach of Congress straddles both the needs of the public and the needs of those that represent the public. It is an interesting example of how the imagination of the

⁷⁴ United Nations Department of Economic and Social Affairs. 2010. *World Population Ageing*, p 18

⁷⁵ Background Discussion Paper, *World e-Parliament Conference 2009*, p 4

technology-savvy population can be captured by using ICT for democratic expression and participation.

“Members of Congress who want to communicate with their constituents are using Web video conferencing to talk to students about the environment, Tweeting what’s happening in Congress, blogging their positions, Facebooking and text messaging; they are posting YouTube videos, holding tele-town halls, and using Google maps to show how Recovery Act projects are progressing in their districts.”

While appreciating the possibilities presented by e-parliament towards promoting democracy, it is important to note that with the advancements in technology the question is no longer whether participation is possible. Rather, it is whether it happens and the implications thereof. While the thesis will attempt to answer this question, the subject requires a study that goes beyond preliminary analysis.

At this point, it is important to reflect on the challenges with regard to using ICT to support democracy. The challenges faced by parliaments with regard to using e-parliament to promote democracy are captured in the background discussion paper prepared for the World e-Parliament Conference 2009⁷⁶, authored by the Global Centre for ICT in Parliament.

6 ICT challenges for the legislature

The World e-Parliament Conference 2009 discussion paper notes that because of technology, today’s legislator faces extraordinary opportunities and enormous challenges in communicating with citizens. In many countries MPs can now choose to email, blog or Twitter. They can use Flickr, YouTube, RSS feeds and e-newsletters; engage in online discussions, hold phone-based town hall meetings (tele-town halls), post online surveys;

⁷⁶ IPU. 2009. Background Paper for *World e-Parliament Conference 2009*, pp 5 - 7

create a Facebook page and a Web homepage; participate in television and radio shows; use mobile text messaging and more. Citizens also can use technology to follow their parliament and their representatives.

This is often easier said than done. Many parliaments still struggle with having enough bandwidth to satisfy the needs of their internal clients. As a result, some organisations restrict access to social networking platforms solely because of bandwidth pressures, while on the other hand they encourage their use in communicating with external clients.

It is very important to note the context within which these new technologies emerge. In some countries they are regarded as luxury tools, largely as a result of economic considerations. Therefore, they do not rank as high in the list of priorities as providing social grants or basic services such as water to the citizenry.

Further, the 2009 conference document⁷⁷ argues that while diversity holds the promise that parliaments and representatives can reach more citizens in more ways – “meeting them where they are”, as it is sometimes described - it also makes great demands on the time and attention of legislators, many of whom are already heavily engaged in the daily work of parliament on behalf of their constituents. Yet many legislators, who are concerned about the increasing disenchantment with politics and politicians, especially among the young, feel they cannot ignore these new technologies and the potential they hold for engaging citizens of all ages. If they do not utilise these new methods of communication, particularly those that encourage interaction, they risk being seen as out of touch, and even worse, as irrelevant.

The IPU document⁷⁸ goes on to suggest that legislatures face a serious challenge because it is not yet clear how these new technologies can be employed most effectively in the

⁷⁷ Ibid (f⁷⁶)

⁷⁸ Ibid (f⁷⁶), p 3

governing process. It has been shown that the strategic deployment of technology can have a significant effect on elections, but dealing with policy issues, developing and assessing alternatives, forging compromises and finding viable solutions are very different from using technologies for running political campaigns and elections.

One advantage though of using technology for voting, especially in rural areas, is that it has the potential to enhance the integrity of democracy. The difficulty in accessing some rural places because of topographical challenges can impact negatively on how citizens view the democratic outcome. Yet by introducing technology, for example e-voting, such challenges may be overcome. It is worth noting that Kenya used, but with limited success, the system of e-voting in rural areas for the purpose of the referendum on the harmonised constitution in August 2010.⁷⁹ This is an important developmental initiative which is still at its early stage in Africa.

An example of a leading country in the area of e-voting is Switzerland. Here citizens “vote online for three levels of government. These are the local, cantonal and federal” levels.⁸⁰ It is believed that citizen-initiated online referenda will be the means of increasing citizen’s participation in democratic processes.

Another challenge is that while it is true that technology can enable more people to voice their opinions, it may be difficult to know how informed those opinions are, how representative they may be and how they may have been influenced by those who can use these same technologies to control the discussion through the manipulation or misrepresentation of facts and analyses.

Importantly, the authors identify in the IPU document some of the many new challenges brought about by the new methods of communication:

⁷⁹ CP-Africa <http://www.cp-africa.com/2010/04/13/kenya-enters-era-electronic-voting>

⁸⁰ Khosrow-Pour, M. 2009, p 187

- **Diversity** – this relates to the challenge, occasioned by the huge growth of a range of communication options, that parliaments and Members of Parliament have had to deal both with have increased pressure to expand their use of these technologies and with the need for resources that such use demands
- **Directionality** – this refers to whether the method supports communication that is primarily uni-directional, for example a website or a newsletter, or bi-directional, for example an email from a citizen and a reply from a Member of Parliament
- **Responsiveness** – the challenge here is that ICT can make it so easy for citizens to send communication electronically that having the time and resources to provide thought-out responses to all of them, at least at individual level, can be extremely difficult, if not impossible
- **Volume** – the challenge here is that the volume of communication that can be generated through the Internet can affect the extent of responsiveness
- **Value of citizen comments** – this relates to the difficulty often experienced, of determining how representative the comments received are and how informed they may be and,
- **Access** – this relates to equal opportunity and access, given the digital divide that separates those with reliable Internet access and those without.⁸¹

7 Knowing what works and what does not work

Regarding the many options for using technology that are available today, the Global Centre for ICT in Parliament argues that legislators need to know what works and what does not, what will help them in their efforts to be responsive and representative and, at the same time, help them make the best decisions on behalf of their citizens and their country. Legislators also need to have more knowledge of the costs, both in terms of the

⁸¹ Ibid (f⁷⁶), pp 5-7

technology and of the time commitment that will be required on their part. Most importantly, they need to learn from the experiences of other parliaments that are using these new social media.

The Centre⁸² goes further to suggest that using technology to communicate more effectively, however, cannot be achieved simply by acquiring the best available tools. Success in this regard requires a solid technical foundation of affordable hardware and software that are developed and supported by knowledgeable technical staff who are experts in their field and who also understand the nature of parliaments. One believes that understanding the nature of parliaments, which are generally sensitive multi-stakeholder environments with often rigid rule-based system of engagement, means that technicians should find solutions that do not threaten but support the environment and culture with its constraints.

Better communication with the public, according to the Global Centre for ICT, must also be based upon reliable and efficient internal management processes. These include capabilities to plan and manage the legislature's documents, its website, its systems for supporting committee and plenary activities, and its services for providing information and research to keep its Members informed.⁸³

Parliaments need technologies that support all their work – not just communication – efficiently and effectively. Citizens would also need information that is available in different formats for purposes of accessibility and usability.⁸⁴

According to the authors of the critique, in the past, technology was sometimes not understood as a strategic asset for legislatures. However, the intertwining of politics and technology that has occurred in recent years demonstrates that technology has indeed

⁸² Ibid (f⁷⁶)

⁸³ Ibid

⁸⁴ Ibid (f⁷⁶)

become vital to the work of parliaments if it is implemented with vision and if it is well managed.⁸⁵ Perhaps a point to consider here is finding the means of funding technological infrastructure as well as focusing on training for poor countries, given their socio-economic challenges. This is, however, a matter that though important is not the subject of this thesis.

8 The 2009 global ICT survey

The findings of the 2009 survey on ICT in parliaments⁸⁶ help to throw some more light on the nature of the challenges parliaments are facing with regard to the implementation of e-parliament. The study, which surveyed more than 90 countries and a total of 127 assemblies, reveals that 95 percent of the 127 institutions had a local area network while the rest were planning on or considering having one. It also shows that between 2007 and 2009, the provision of basic technical services to MPs was 83 percent for e-mail, 70 percent for the printers, 70 percent for Internet and the latter rose from 79 percent to 85 percent.

It appears that parliaments may need to look at areas of great need and start from these while creating and promoting other methods of communication. But a holistic approach must always inform the design of any solution for enhancing parliament-citizen engagement through ICT.

In respect of communication between parliaments and citizens, the top methods being used or considered by 50 percent to 70 percent of parliaments in terms of the study were as follows:

⁸⁵ Ibid, p 4

⁸⁶ Survey: *The status of ICT in Parliaments 2009* (by Global Centre for ICT in Parliament, presented by Jeffrey C. Smith, senior advisor, at the World e-Parliament Conference 2009)

- webcasting of plenary sessions (70 percent)
- parliamentary TV channels (50 percent)
- webcasting of committee meetings (50 percent).

The survey shows that 40 percent to 50 percent of parliaments are using or planning to use:

- TV programmes on other channels (47 percent)
- alerting services (47 percent)
- parliament WebTV (46 percent)
- webcasting of special programmes (44 percent)
- e-consultation on bills (42 percent)
- blogs (40 percent).

However, the survey identified the following challenges:

- MPs not familiar with technology (39 percent)
- citizens not familiar with the legislative process (34 percent)
- effort required (30 percent)
- citizen access to the Internet (24 percent)
- none (*meaning no challenges*) (24 percent).

At 39 percent, the number of MPs not familiar with technology is promising. This number needs to be increased drastically if democracy is to be meaningfully expressed through ICT means. Also, given that the Internet provides the most effective means of accessing information, it is important that countries work hard to improve citizen access from the current 24 percent.

The survey made an important observation that citizen use of communication technologies was increasing instead of decreasing. This is a promising phenomenon. The following are the observations of the Global ICT Centre, based on the results of the study:⁸⁷

- gains in the infrastructure have been slow
- it takes time to build
- it takes resources
- the need for lower cost solutions
- excellent opportunities for networking and co-operation among parliaments to improve ICT
- parliaments are expressing a need for support
- parliaments are expressing a willingness to help
- communication with citizens using ICT tools is growing.

The main barriers were:⁸⁸

- knowledge of MPs about the technology
- knowledge of citizens regarding the legislative process and the technology
- access to the Internet.

According to the survey, the growth of cell phones is one of the developments that could affect parliaments. This is interesting, given this important observation by Hamadoun Toure, Secretary-General of the International Telecommunications Union, noted in the

⁸⁷ Ibid (f⁸⁶)

⁸⁸ Ibid (f⁸⁶)

study⁸⁹, that it looks highly likely that global mobile cellular teledensity will surpass 100 percent within the next decade or earlier.

The researchers who carried out this survey ask this important question, which no doubt is critical to this thesis: “*What does it mean for parliaments that within the decade, everyone will be connected to each other ... and not long after that, everyone will be connected to the Internet?*”⁹⁰ As argued earlier, this provides an opportunity to consider leaping forward using the mobile cellular as a catalyst.

While the survey reveals some of the facts and possibilities with regard to the implementation of e-parliament and its future in enhancing and sustaining democracy, it is becoming more important to learn about one another’s experiences and to prepare now for a future that holds so much for technological support to politics.

9 Developments in Southern Africa

In the context of Southern Africa, one notes some key developments towards promoting the use of ICT to support democracy. One of these is the recognition by the parliaments of the Southern African Development Community (SADC) that the low level of connectivity in SADC beyond mobile phones, and particularly in rural areas, needs to be addressed to ensure the vital participation and the economic inclusion of the citizenry in the information age and the input of citizens in the democratic processes.⁹¹

Obviously, this has profound implications for democracies in the Southern African region. Many of the struggling democracies, where there is instability, could revive the

⁸⁹ Ibid (f⁸⁶)

⁹⁰ Ibid (f⁸⁶)

⁹¹ Communique of *The SADC Parliamentary Forum Information and Communication Technologies Conference on “e-Parliament, Concepts, Policies and Reality”* held in Cape Town from 12 to 14 October 2009

hope of the masses if they were to work hard on ensuring that the electorate is always informed and has the means to participate in democratic processes much beyond the elections.

In this regard, the SADC Parliamentary Forum has made some important recommendations which are:⁹²

- to ensure that legislative and regulatory frameworks exist and are effectively implemented to address the ICT needs of our nations;
- to review institutional mechanisms and structures to allow for effective co-ordination and integration of ICT across sectors;
- to adopt, at national level, open and common standards and regulations in the following areas: broadband and roaming;
- to take action regarding the mobile phone call and broadband costs and roaming charges, since these elements are directly related with Internet and ICT access; and,
- importantly, to include the ICT component in the budget allocation (both government and parliament).

However, without overstating the point, major challenges still face Africa in respect of efforts to use ICT for democratic participation and citizen empowerment. For instance, a recent gender-focused research⁹³ shows that women are not equally able to access and use ICT. It states that important factors such as income, education and social position play a major role in explaining ICT access and usage.

In his paper, *Digital Democracy and Political Systems*, Martin Hagen makes a relevant point regarding Africa's digital problem. He states that in discussing digital democracy

⁹² Ibid

⁹³ Gillwald et al. 2010. *Gender Assessment of ICT Access and Usage in Africa*. p 29.

one needs to place concepts of digital democracy in the context of national political systems and culture⁹⁴. An understanding of the economic and political challenges within Africa is important in the process of considering the potential of ICT in enhancing democracy. For instance, any assessment of progress from e-parliament to e-democracy in the context of Africa would have to take into account the reality that all sub-regions on the continent (i.e. Eastern, Middle, Northern, Southern and Western Africa) fall below the world average with regard to e-government development.⁹⁵ Tunisia is a leading country, followed by Mauritius, Egypt and South Africa respectively. It is not surprising therefore that social media played a critical role in the popular revolt against President Zine El Abidine Ben Ali forcing him to flee Tunisia in January 2011.

10 Conclusion

In Kingham's⁹⁶ view the transformation of parliament, which in the context of this thesis is the shift from the stage of e-parliament to the stage of e-democracy, centres on the following three main areas:

- increased administrative efficiency
- improved information access and dissemination, and
- enhanced interaction with citizens.

However, parliaments seem to have focused on improving or increasing administrative efficiencies and access to information. There are nonetheless interesting examples of how some parliaments, in particular the United States Congress, have used new technologies to promote democratic engagement. This is supported by the growing number of youth

⁹⁴ Hagen, Martin in *Digital democracy: Issues of theory and practice* by Kenneth L Hacker and Jan van Dijk (eds). 2000, p 65

⁹⁵ UN *E-Government Survey 2010*, pp 61-62

⁹⁶ Kingham, Tess (ibid)

who participate in engaging with political content and the increasing influence of social networking tools.

The Assembly of Macedonia has made inroads in embracing e-parliament by implementing a 10-year strategic plan whose fundamental basis is to transform old technology infrastructure into new and modern infrastructure. This is intended to manage the inputs of MPs and to provide various communications for citizens to engage with parliament. The United States is one of the leading countries when it comes to facilitating interaction with citizens through an interactive e-parliamentary system.

In spite of these achievements, legislatures are still facing a number of challenges, some as a result of the proliferation of new technologies. These include increased pressure for legislators as a result of citizen inputs facilitated by diverse communication mechanisms, the inability to ascertain the representivity of citizens' comments and the issue of access due to the digital divide.

Chapter 3

Systems and Approaches

1 Introduction

The aim of this chapter is to present and analyse some systems and approaches being implemented to manage public content for purposes of advancing democracy through the use of ICT. These systems facilitate interaction between legislatures and the people or between Members of Parliament and the public. An examination of these systems should facilitate the learning process towards an alternative or new approach.

However, before reflecting on some of the examples, it is important to provide a background regarding the extent to which some of these systems or components are utilised by legislatures globally to engage with citizens.

2 Background

The results of a survey conducted as part of the World e-Parliament Report 2008⁹⁷ show the following with regard to the most widely-used methods for citizens to communicate with parliament and the extent of their deployment:

- E-mail is the primary method for citizens to contact parliaments electronically, with 88 percent of chambers and parliaments providing e-mail addresses for the public to connect directly with their legislature.
- 77 percent indicated that an official of parliament receives the e-mail, compared to 59 percent stating that the Member of Parliament who represents the citizen receives it.

⁹⁷ 2008 report, p 138 (the 2010 report noted some increases in certain areas, p 179)

- Parliaments respond to e-mails in 83 percent of cases, reflecting the importance placed on providing replies. Comments made by respondents reflected the difficulty of dealing with information overload from the high volume of e-mails, especially for those who have limited staff and resources.
- Very few parliaments have e-mail management systems in place and over 60 percent in the high income group indicated that they have no plans to implement one.
- Only 18 percent of parliaments have the capability for group online discussion. This is another area where the resources needed, both in terms of technology and of trained staff, may not be available.

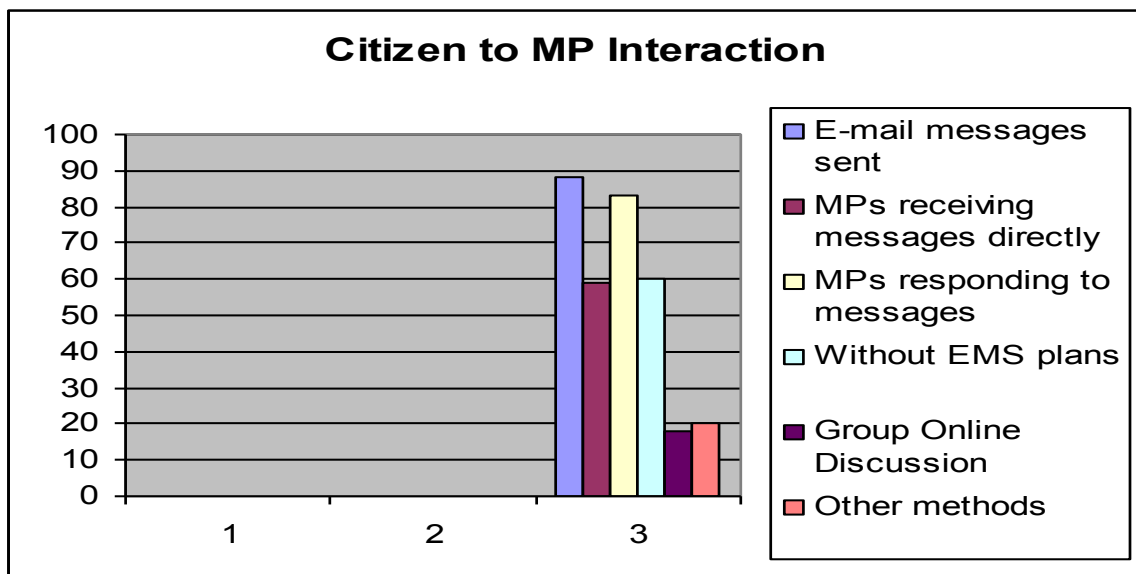


Fig 6: A graph showing communication using ICT from citizens to MPs (Source: IPU e-Parliament Report 2008)

- 20 percent indicated that they also have other methods of enabling citizens to make their views known to parliament. Parliaments and chambers in the Latin American group reveal the highest percentage of such methods for online citizen input (64 percent).

- Legislatures that have such systems view them as serving the goals of listening to the concerns of citizens and engaging them in policy discussions, rather than as a means of conducting opinion polls.⁹⁸

It is clear that overall, e-mail messages are popular whether as a means of direct interaction or intermediary one. Relatively few people make use of online discussion within parliament. This is not surprising. It should be noted that in the parliamentary context, parliamentary support staff or officials do not participate in party-political lobbying. This is the province of politicians or their party caucus staff. MPs are therefore the main voice of their parties. Unfortunately, in some parliaments politicians constitute the smallest percentage of traditional users⁹⁹ of ICT. As a consequence, online lobbying is bound to become skeletal and largely unappreciated.

When it comes to MPs who communicate with citizens, the results are as follows:

- 42 percent of parliaments indicated that Members of Parliament use websites to communicate their positions, however, there is a wide variety among income level groups, with 73 percent in the high income group compared to none currently in the low income group.

⁹⁸ Ibid (f⁹⁷)

⁹⁹ In his paper, *e-Parliaments: The Use of Information and Communication Technologies to Improve Parliamentary Processes*, 2003, pp 18-19, Kingham cites the example of the Danish parliamentary website that was established in 1997 to make parliamentary documents available to people, the business sector and the media (initial discussion emphasised the website as a tool for enlarging democratic participation), with the final product mainly directed to the traditional users, i.e. politicians and journalists. This was mainly because the website accommodated very few possibilities for actual participation and as such did not enhance the participatory side of democracy in a strong way. It should be noted that while in some democracies politicians are regarded as traditional users of ICT, alongside journalists, this is hardly the case in other democracies. In South Africa, for example, the average number of MPs with ICT skills is 45 percent (see research feedback in the next chapter).

- There is some experimentation, with Members of Parliament having blogs to communicate ongoing activities to constituents, but the numbers are very small at this stage.
- Only 16 percent of chambers and parliaments offer other electronic means for enabling Members of Parliament and parties to communicate their views. TV and radio programmes were identified most often, with some parliaments making use of webcasting technology, TV and radio broadcasts of sessions.

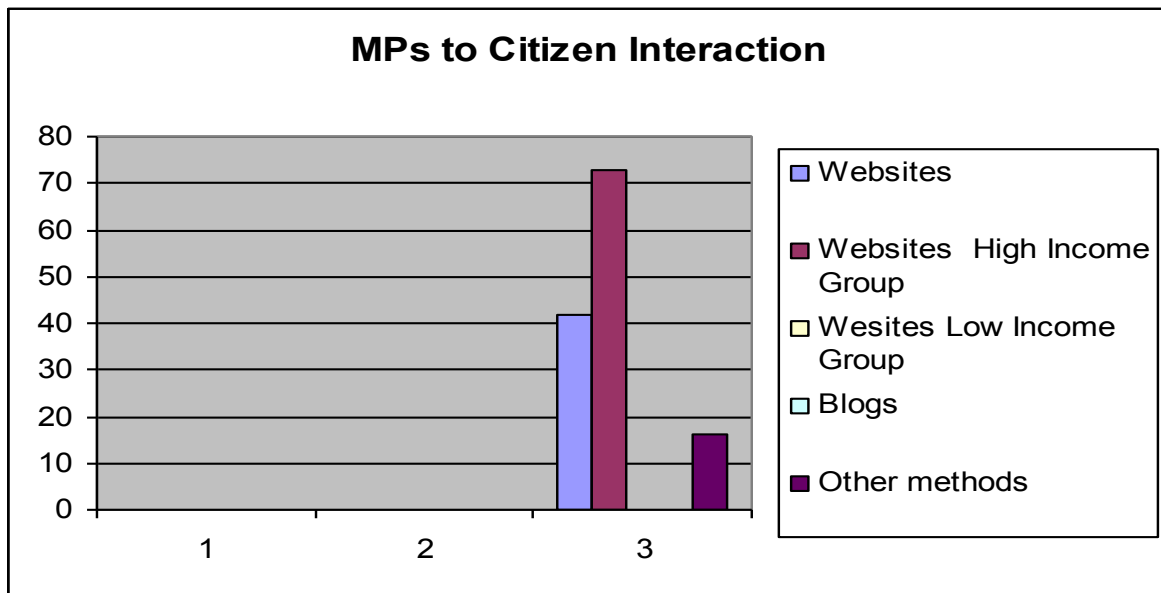


Fig 7: A graph showing communication using ICT from MPs to citizens (Source: IPU e-Parliament Report 2008)

While this picture is promising, it is nonetheless a clear demonstration that the shift to using e-parliament effectively to advance democracy would require the active participation of MPs and proper resourcing. This is a point we will return to when reflecting on initiatives towards e-democracy by the South African parliament later in this chapter.

3 Bungeni¹⁰⁰

In order to make parliaments more open and accessible, the United Nations Department of Economic and Social Affairs (UNDESA), through its Africa i-Parliament Action Plan, developed the Bungeni 2.0 information system. This is a collaborative software development initiative for handling and managing parliamentary documents. The system builds on the idea of a model that allows for self-publishing, which is a form of uploading¹⁰¹ by self-organised groups or individuals. A well-known example of a system that allows for uploading is Wikipedia.

3.1 Flexible architecture

Bungeni¹⁰² is designed using a flexible component architecture model that makes use of standard Internet protocols to provide access to interfaces between the different components and users over the Web or the local area network. Users can access the system using a Web browser interface. Alternatively, they can have access to *input* and *revision* modules via stand-alone desktop clients. The system can, among other things, be used for drafting, revision and amendment of various legislative documents.

This suggests that, depending on their status and authority, different users will have differentiated powers to work with information. An example would be the authority to edit or publish documents.

Users within a legislature, including MPs and support staff, may use Bungeni as an application that supports the creation and management of the entire range of parliamentary documents and activities. They will be required to subscribe to the system to have valid user credentials both for security and accountability reasons. External users, that is citizens, civil society organisations, institutions and private companies, may use the system to access parliamentary works and also to present contributions, opinions or

¹⁰⁰ <http://www.bungeni.org>

¹⁰¹ Thomas L Friedman identifies three forms of uploading (one of the ten flatteners) in his book *The World is Flat*, p 95

¹⁰² Bungeni: *Parliamentary and Legislative Information System* (<http://www.bungeni.org>)

feedback on specific issues of their concern (e.g. during the bill amendment phase or during some committee hearings).

The systems' ability to provide for a collaborative approach to feedback from the public can help enhance the value of the inputs as the document will be self-revealing insofar as difference in opinion among contributors is concerned. For instance, people from the same constituency or industry could offer different views. In this way it would be of great interest to parliament to establish the reasons while at the same time considering the validity of other views.

In order to facilitate the processing of the different opinions Dudley¹⁰³ envisages a particular role for a social scientist in dealing with multiple agendas. Firstly, the social scientist can help to determine, as much as possible, what the relevant parts of the villager's agenda are. Secondly, he or she can determine who else may be involved in a particular situation and how their agenda may differ.

3.2 Document and workflow approach

Bungeni uses a document- and workflow-centric approach. The aim is to better reflect parliamentary processes built around a process of documents that change over time. This enables a formalised process for creating, modifying and publishing parliamentary documents that can be easily configured to match the unique processes of different parliaments.

In his paper on e-government systems¹⁰⁴, Rahul Dé identifies a challenge regarding e-government whereby e-governance systems do not separate "the front from the back". He wants government to change from a document-centric to a data-centric system in order to facilitate a shift away from having interactions in government offices contingent upon submission of physical documents. But Bungeni is different in that its document-

¹⁰³ Dudley, Eric. 1993, p 158

¹⁰⁴ Dé, Rahul, *E-Government Systems*, p 380

centric approach is part of the e-system. This means that the document flow is embedded in the system and therefore part of an automated process.

Towards achieving this, the South African parliament has deployed the Parliament Content Management System (PCMS).¹⁰⁵ The system has the potential to reduce the amount of paper-based documentation in the institution and enable people to work in a fully integrated electronic environment. It is hoped that information sharing can occur more easily and quickly, so that core business processes are able to run more smoothly.

It is common knowledge that parliaments are institutions that have information in abundance. Therefore, procedure plays a central function in facilitating access to documents or in amending them. It makes sense to have a system that is built around documents and processes. This caters for the management of explicit knowledge, which is passed down from one generation to the next.

3.3 Different components

The different components of Bungeni are all integrated together via a workflow system which coordinates different tasks in the system and provides a common and uniform user interface. The system is able to trigger processes based on system events or on a schedule, and it keeps track of status, history and notification. It is designed to allow parliamentary staff to create, view and edit their data as typical recognisable documents at all stages of processing. The system provides parliamentary staff with a familiar word-processing and web-based experience to handle the life cycle (creation and management) of parliamentary documents.

Given its user-friendliness, the system must have been designed with the user or customer in mind. It allows for tracking of actions as well as for familiarity, by means of uniform

¹⁰⁵ PCMS is a system whose objective is to improve document and records management using computers to create, store, track and manage documents through their lifecycle. It enables parliament to track information as it flows. Its services include central repository, document management facility, electronic faxing, electronic signatures and workflow.

user interface. It is a suitable approach for a mass audience, especially for generic e-services such as e-voting procedures or forms.

The system will store multiple versions of a document in order to keep a “snapshot” of documents at various points of time with reference to the person who made the changes - a process that is very central to the parliamentary activities. This is critical to authenticating the source of information for purposes of credibility. It is also critical to knowledge management in that the system allows one to see the stages the document has gone through. This also makes it easy to locate the source of expertise within the system or even within the organisation.

The system can be configured to handle semi-structured information. In some jurisdictions, organisations may be required by law to track and manage semi-structured content. Laudon and Laudon¹⁰⁶ observe that some vendors have responded to this challenge by developing semi-structured knowledge systems that track, store and organise semi-structured documents, as well as more structured traditional documents. One example is the OpenText Livelink ECMTM, which combines document management, knowledge management, business intelligence and portal technologies, and can be used for managing semi-structured as well as structured knowledge.

The ability to manage semistructured information is essential for purposes of facilitating knowledge management. This is so because a lot of information, which can be transformed into organisational knowledge, is often available in a semi-structured format and therefore difficult to manage or add value to it.

3.4 Open standards

Open standards is an approach to the development of software that harnesses the power of distributed peer review and transparency of process. It promises flexibility and an end

¹⁰⁶ Laudon et al. 2006. *Management Information Systems: Managing the Digital Firm*, p 441

to predatory vendor lock-in.¹⁰⁷ On the other hand, proprietary standards relate to specifications for hardware or software that are controlled by one company.¹⁰⁸

In respect of Bungeni, all parliamentary documents produced through the system are eventually converted, validated and stored as XML files compliant with AKOMA NTOSO¹⁰⁹ guidelines. This makes the system highly interoperable with existing applications. As such, it eliminates the risk of lock-in to proprietary technology and puts parliaments in control of their technology strategy.

In the context of business, for instance, open source application vendors could be the force that brings affordable enterprise solutions to the masses of businesses that could never afford an Oracle database or an enterprise resource planning (ERP) system from SAP. And who knows, they just might empower a whole new revolution in business productivity, and perhaps even kick-start a renaissance for the small and medium-size business.¹¹⁰

Interoperability or integration efforts are about making information from one system syntactically and semantically accessible to another system. The fact that identical terms can differ significantly in meaning between different systems makes it difficult to make systems work together. However, the difference can be minimised if systems are designed using agreed data formats.¹¹¹ Parliaments can therefore benefit both at intra- and inter-organisational level if there is compatibility of systems or processes.

Bungeni uses open standards for tagging the elements of records so that they can be interpreted properly by computers for purposes of editing, searching, exchanging and preserving documents. This would indeed be beneficial to parliaments in Africa,

¹⁰⁷ *Open Source Initiative* (<http://www.opensource.org>)

¹⁰⁸ *The Free Dictionary* by Farlex
(<http://encyclopedia2.thefreedictionary.com/proprietary+standrds>)

¹⁰⁹ AKOMA NTOSO stands for *Architecture for Knowledge-Oriented Management of African Normative Texts using Open Standards and Ontologies*

¹¹⁰ Tapscott, Don et al. *Wikinomics*, p 84

¹¹¹ Tripathi, Rakhi et al. 2007, p 8

especially if we take into account the reality of the digital divide raised in the preceding chapters. The digital divide means that different communities enter the information age at different stages and are using varying and often incompatible means. Therefore, access to parliamentary communication in different formats that are commonly compatible with easily accessible equipment (e.g. for presenting written and voice data) should be made effortless for these communities.

However, the challenge is that different formats require different types of solutions. Sometimes customisation necessitates new and sometimes costly solutions as it may require tools that are pricey, thus making the notion of improved access for citizens difficult to realise. This is the other side of the technology coin which requires large-scale investment.

It is important to emphasise that while open standards are said to be preferable because of their potentially expandable flexibilities than proprietary software, the argument is that this often comes at a price in light of the implications for organisational processes¹¹². Again, Africa is not economically strong to be able to balance such costs with social priorities.

The important consideration, for purposes of legitimacy and convenience, is that the Bungeni system is capable of outputting any of the stored documents in various formats as may be required, e.g. Web format for Web publishing, print format for downloading and printing, and specialised typographical markup or desktop publishing files for mass printing. The possibilities are huge, thus making it ideal for general and varying public needs.

The key challenge that is facing government, which calls for standards, is how to present users with a coherent view of information stored in radically varied ways on systems that were created and have been optimised for a variety of purposes from base technologies. The other, how to make this coherent view both easy to use for non-technicians and

¹¹² IPU. 2010 Report, p 87

adaptable to the various purposes that users might have in mind.¹¹³ These are important considerations if ICT is to facilitate interaction between parliament and the citizen.

3.5 Procedures

The Bungeni system covers the following procedures:

- Bill process – e.g. for drafting and amending bills
- Motions and questions – e.g. for submitting, revising and scheduling motions and questions
- Debate records – e.g. for providing verbatim records of proceedings
- Parliamentary business – e.g. for providing weekly or daily agenda
- Votes and proceedings – e.g. for providing summary of main issues of debate and decisions
- Virtual workspace – e.g. for providing virtual workspace for MPs to share information
- Citizens' interactivity and participation – e.g. for providing opportunity to annotate documents, taking part in polls and petitions and,
- Publishing of parliamentary documents – e.g. for making available documents in different formats.

In keeping with the scope of this thesis, a closer look at the feature for citizen's interactivity and participation is necessary. Besides improving access to parliamentary work, one of the aims of the Bungeni portal is to provide opportunities for citizens' participation in the legislative and oversight process. It makes provision for the following functionalities¹¹⁴ that may be used in whatever section or part of the site each parliament may choose:

- **Annotation:** Parliaments will have the ability to allow registered users to annotate draft documents, e.g. bills, committee reports, etc. This functionality will allow

¹¹³ Kavikondala, Sriram et al. *Data Standardisation for e-Governance: A Practical Approach*, p 28.

¹¹⁴ Bungeni website (<http://www.bungeni.org>)

parliaments to collect written advice and opinions of citizens in a very detailed and articulated fashion.¹¹⁵

However, the pertinent questions are: What do parliaments do that is tangible with the information or feedback they receive from the public? To what extent do parliaments take advantage of these system capabilities in a manner that makes citizens feel that their inputs are worth the effort? Of course, this does not mean always agreeing with all points of view but feedback is feedback irrespective of whether it is viewed as positive or negative by the participant.

- **Blog-like-discussion:** Committees and/or MPs can set up a blog where they can present issues that are debated, or issues of concern to a particular MP, and allow citizens to comment and present their contribution on the Web. The debate records of the MP could also be published as dated blog entries.¹¹⁶

This seems useful, particularly where politicians are assisted by their support staff in lobbying or pushing the party position or the content of parliamentary engagements. A typical example of such an initiative, although external to parliamentary processes, is the Democratic National Committee's *Organising for America* project which posts President Barack Obama's content and official itineraries on Facebook.¹¹⁷ At last count, in August 2010 the Facebook page for Obama had close to 13 million online friends.

- **Feedback:** It will be possible for parliaments to allow citizens to easily send feedback from any section/page of the website by simply clicking the "feedback" icon and filling in a form with the notes of the user.¹¹⁸

This is an important feature, if used effectively. However, evidence suggests that while some parliamentary websites may have the feedback section, it is not

¹¹⁵ <http://www.bungeni.org>

¹¹⁶ Ibid

¹¹⁷ Facebook page <http://bit.ly/2bVCm>

¹¹⁸ <http://www.bungeni.org>

always used effectively. One confirmed this in the process of conducting research for this thesis through testing the features. A request for information was deposited on 28 September 2010, using “feedback” and “contact us” options on the websites of the parliaments of Ghana, Kenya and India. By 28 October 2010, 30 days later, no response had been received other than the instant automated responses indicating receipt of query. This led one to conclude that these features were not being used effectively in the three websites.

In order to facilitate an ICT bond between the people and parliament, it is important that the automated function is properly configured. For instance, by reading certain features of the public input, they can be configured in such a manner that they generate general but relevant responses or acknowledgements, regardless of whether a section is for feedback or comment. This could be achieved by extracting the group or personal profile of the person submitting the comment or question. It is generally accepted that personalised service leads to gratification on the part of the customer.

The geographical information system (GIS)¹¹⁹ could add value in terms of improving this aspect through the provision of location-specific information to help understand the circumstances of a citizen or group of citizens better. For example, a pilot study underway in Accra, Ghana, is leveraging the latest geospatial technologies to create a land titling process and GIS-based land records system where neither existed in the past.¹²⁰ This shows that GIS could be used to obtain information about the circumstances of a particular group or community.

¹¹⁹ GIS allows for visualisation of data (<http://www.esri.com/what-is-gis/index.html>)

¹²⁰ *Leveraging GIS to Alleviate Poverty in Ghana*, 2009, p 5. The project, which was embraced by the then President of First American, Craig DeRoy, is based on economic theories described by Dr Hernando de Soto in his acclaimed book, *The Mystery of Capital*. According to DeRoy, government recognition of landownership rights gives the poor an identity, which yields numerous benefits. His view is that when formally recognised, their land can ultimately be used as an asset to leverage permanent change in their economic and financial futures. GIS-based technology is being used to capture title

- **Polls and Surveys:** It will be possible for parliaments to have an online poll on any page of the site to solicit the opinion of citizens and/or request them to fill in a survey form if the information requested is more complex than a simple “yes/no” poll.

One notes that this feature is used successfully in the online news media to gauge reader or viewer opinion on topical issues. The instant nature of the tally of votes can be reassuring to a citizen who has taken part in the voting process. It can reinforce the belief or perception that his or her voice counts. This has the potential to create a lasting impression, with people eventually warming up to the notion of a responsive parliament simply because they are able to get immediate feedback through a highly interactive medium.

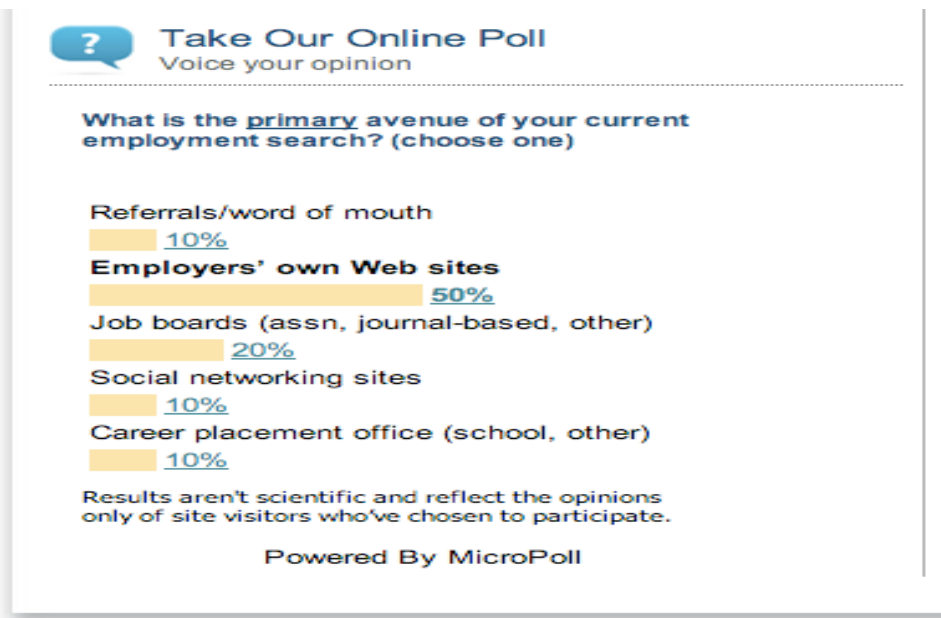


Fig 8: This sample Micropoll¹²¹ online poll for job search immediately reflects the vote results to indicate to the participant or potential participant trends at a given moment. It can be used to improve interactivity on parliamentary website.

and parcel data, which is provided to the landowner in a form designed to meet registration requirements, then batched and provided to the Ministry of Lands.

¹²¹ Micropoll website http://micropoll.com/images/micropoll/show_result_full.png

- **Petitions:** It will be possible for parliaments to allow registered members of the public to submit petitions and other members of the public to sign the petitions. It will be possible to track the status of petitions on the portal. Petitions submitted will not be accessible before the designated staff of parliament is satisfied that it complies with the specific regulations and requirements that each parliament will set.

This has great potential. Nonetheless, as indicated earlier, there is still a need to develop a mechanism to establish the location of a petitioner geographically in order to lend more weight to the petition itself. This is especially so in light of the importance of demographics in public participation processes, especially given the reality that in many communities ICT favours the urban population. The significance of ensuring that people are able to petition parliament in a simple way should not be downplayed. The requirements and regulations developed by parliaments should therefore not defeat this purpose.

4 Website guidelines

Websites are the face of organisations to the external public. If used appropriately, they can constitute an important element in the parliament-citizen interface. As “a collection of related Web pages, images, videos or other digital assets”¹²², a website is a strategic platform for packaging and presenting information which is easily accessible via the Internet.

The IPU has a set of guidelines¹²³ to be considered by parliaments when developing their websites. This is important given that, as stated above with regard to the 2008 IPU Report survey, already 42 percent of parliaments indicated that their Members use websites to

¹²² Wikipedia, <http://en.wikipedia.org/wiki/Website>

¹²³ IPU. 2009. *Guidelines for Parliamentary Websites*, pp 16-32

communicate their positions¹²⁴. It is therefore important that websites are designed in a manner that will enhance their effectiveness.

In appreciating the importance of ensuring interactive communication and developing techniques for fostering dialogue with citizens, the IPU recommends the following tools¹²⁵ or features for parliamentary websites, subject to testing and evaluation for effective and efficient use:

General feedback

- A feedback utility that allows one to send comments and ask questions about any section of the website, and
- Information about options and recommended ways of contacting Members of Parliament, committees, and officials of parliament such as by phone, by mail, in person and through the Web.

Communication between Members of Parliament and citizens

- The capacity to contact Members of Parliament, committees and officials of parliament by unstructured e-mail messages or e-mail forms
- Tools to enable Members of Parliament, committees, and officials to efficiently receive, manage, and respond to e-mail from citizens and civil society
- Interactive tools such as blogs, online fora and discussions, e-petitions, and other methods of interacting with citizens
- Systems for allowing online polling when the subject matter is sufficiently important and the results can be considered helpful, and
- Testing and implementation of new methods for citizen-parliament interaction as technologies emerge and as they prove useful to parliaments.

The last point is important if we want to ensure that parliaments become learning and evolving institutions. Learning and evolving institutions facilitate the process of building

¹²⁴ *World e-Parliament 2008 Report*, p

¹²⁵ *Guidelines for Parliamentary Websites*, p 27

capacity “for doing new tasks and performing the current tasks in a new and better way”¹²⁶.



Fig 9: This website of the Parliament of Ghana¹²⁷ has some of the features proposed by the IPU. However, one notes the absence of features for online polling, e-petitions or citizen-parliament interface (at least at face value).

5 The approach of the South African parliament

This section will provide an analysis of the implementation of e-parliament to facilitate ICT-supported democracy by the South African parliament. The analysis will be based on the institution’s ICT strategy.¹²⁸

It is important to note that while providing an analysis of e-parliament in the South African context, the study will not extend to the nine provincial legislatures, except from

¹²⁶ April, Kurt et al. 2004, p 19

¹²⁷ Parliament of Ghana website

¹²⁸ SA Parliament’s ICT Strategy 2009-2014

a point of view of national parliament. The legislative sector in South Africa encompasses the national, provincial and local spheres of government. It would require a new study to look at these different entities within this sector. Together they amount to no less than 295, including municipal councils. However, one needs to bear in mind that the national parliament has two houses, one of which provides for representatives of the three spheres of government under one roof by means of a constitutional provision. So while the analysis does not cover legislative institutions at subnational level in South Africa, this does not suggest that the efficacy of a strategy at the level of national parliament would be limited given the inherent link with provincial and national institutions.

5.1 Towards e-democracy

As alluded to in chapter 1, the South African parliament is now moving towards a higher level of e-parliament, that is e-democracy. For purposes of this thesis, e-democracy is viewed as the highest technological form of engaging citizens and allowing them to participate by airing their views on policy and legislative issues through the use of ICT. The strategy is premised on the understanding that the institution has laid the basis for a far-reaching strategic use of technology to enhance democratic practice. The institution is now at a point where it is positioning itself to facilitate an external focus on increasing public participation, becoming more people-centred in approach and deepening democracy.

The shift to e-democracy through the ICT strategy, according to the South African parliament¹²⁹, is intended to support seven key focus areas of the business. They are as listed below:

- Capacitating Members of Parliament optimally
- Deepening public participation

¹²⁹ Parliament of RSA. 2009. *ICT Strategy 2009-14*. 2009, pp 10-11

- Legislation in action
- Effective oversight
- International participation and regional collaboration
- Co-operative government and the legislative sector
- Institutional performance.

The above are in line with the strategic objectives¹³⁰ of the fourth South African parliament which are:

- Strengthening the oversight function
- Increasing public involvement and participation
- Strengthening co-operative government
- Improving and widening the role of Parliament in international co-operation and participation, and
- Building an effective and efficient institution

However, for purposes of this thesis and in keeping with the argument in the first two chapters, we will only deal with the first two focal areas. This is simply because they address directly the problem that is the subject of this thesis, which is promoting the use of ICT for purposes of enhancing democracy through citizens' participation. Of course it should be borne in mind that oversight and performance are also important for purposes of encouraging participation. If people do not believe in institutions they will stop participating.

In respect of these areas, the strategy proposes the following:

¹³⁰ Parliament of RSA. *Strategic Plan of the Fourth Parliament*. <http://www.parliament.gov.za/content/Strategic%20Plan%20of%20Parliament%20Aug%202010%20v1~2.swf>

- Members of Parliament must be optimally capitalised so that they can perform their function as representatives of their constituencies. The understanding is that to achieve this means providing technology solutions that will help Members of Parliament to be more mobile, have better access to information and knowledge in performing their tasks.
- To deepen public participation by making it easier for Members of Parliament to participate in the processes of parliament and also to have solutions in place that make more information available to the public for participation. The intention is that public participation will be deepened through ensuring effective public participation campaigns that address the aspirations and vision of a better future for all.

Given that the goal of the ICT strategy is to achieve a state of e-democracy characterised by increased public participation, people-centredness and deepening of democracy, it is critical that special attention is paid to capacitating Members of Parliament and creating space for citizen involvement. The new approach extends to legislation in action. This means that the institution is planning a process of tracking the impact and outcomes of laws that it passes using technology.

In many democracies, legislators rely on members of the executive branch of government (e.g. government ministers and their officials who are often well-resourced) for information with regard to understanding the impact of the laws they pass. This is a weakness for democracy as the perspective of the executive will always prevail when assessing government performance. Hence the need to resource legislatures and ensure that they conduct oversight independently of the executive. This is especially so if the notion of the separation of powers to ensure checks and balances in governance is to be meaningfully realised.

5.2 Level of infrastructure

The shift to the key focal areas, in this case the capacitation of MPs and the deepening of public participation, has to be accompanied by a shift at various conceptual levels of the design of ICT solutions. Noteworthy among these is the shift at the level of infrastructure. The shift will be extended to allow for the convergence of various technology solutions to enable improved secure access to information, better communication and enhanced mobility of Members of Parliament and administration.

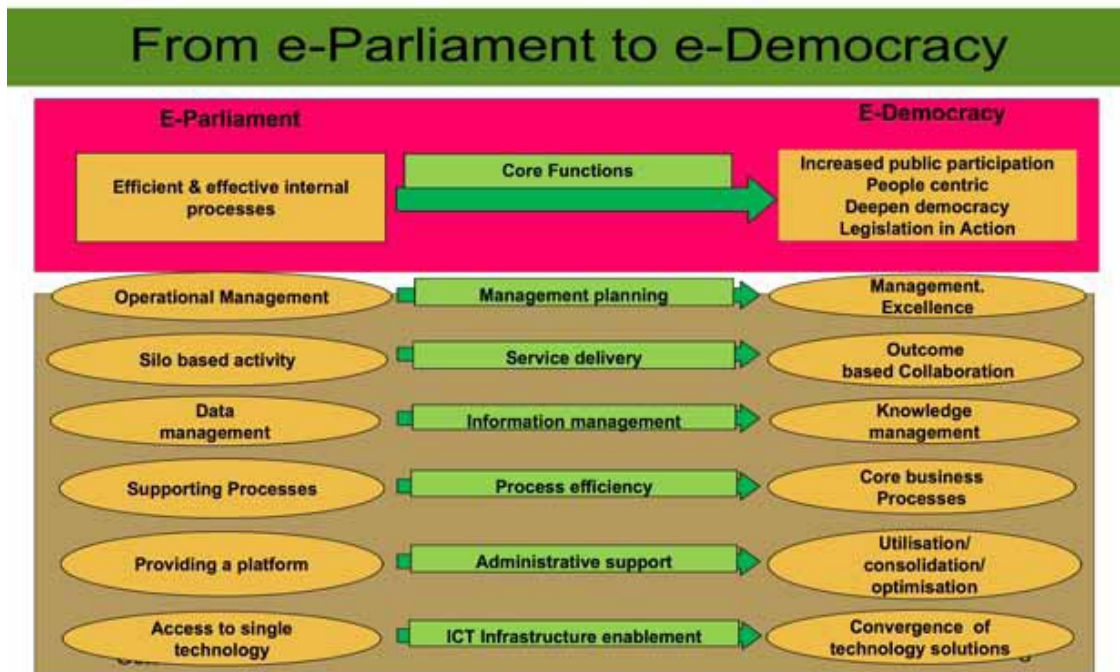


Fig 10: The South African parliament's ICT strategy proposes a shift from e-parliament to e-democracy by 2014 (Source: Parliament of RSA).

5.3 Promoting public participation

Correspondingly, ensuring the capacitation of MPs and the convergence of technology solutions would need to be supported by some form of incentives to the public. It would not be completely justifiable to fully capacitate MPs while leaving their communities entirely out of the picture. For democratic expression to thrive some incentives, whether

in the form of reduced per call charges or share-call system for members of the public communicating with parliament via mobile phones, for example, would need to be in place. Otherwise the risk is ending up having a disproportionately technology-savvy MP without an engaging constituency.

South Australia's approach to adopting and implementing ICT for democratic processes provides some lessons for consideration. Through its *Networking the Nation* project launched in 1997, the country secured more than \$49m and other available sources of funding, such as from the sale of Telstra (their national telecom) towards funding telecommunications infrastructure. Among other projects, the money was used to provide information technology infrastructure for mobile phone base stations and Internet access across remote regional local government areas, local personal, community and business communications, inter-community video conferencing, the virtual health network, community library access to the Internet, digital archiving for aboriginal communities and community access centres for computer training and Internet access.¹³¹

In respect of the focal area of deepening public participation, the South African parliament has identified the following initiatives:

- Enabling effective bi-directional communication between parliament and the public (this relates to collaboration)
- Connecting parliament with the right constituencies at the right time (this relates to knowledge management)
- Keeping a record of interactions between parliament and the public (this relates to relationship management)
- Sharing information with the public through various sources of information, e.g. voice, video, pictures (this relates to multi-media, document management, publications)

¹³¹ Khosrow-Pour, p 189

- Educating the public (this relates to e-learning)
- Managing and co-ordinating public participation events more effectively (this relates to calendaring and event management) and,
- Speaking and recording the language of the public to improve communication with the public (this relates to language services).¹³²

5.4 MP-centric approach

In implementing the shift to e-democracy, the strategy places the Member of Parliament at the centre of its design principle. It suggests that every ICT initiative should result in better support for the Member of Parliament. This brings to the equation the pivotal issue of the speed at which MPs are capacitated in tandem with the expectations and reality of the populace. For instance, we can use Becerra-Fernandez' expert-locator system to locate expertise, to see where the majority of Members of Parliament are in relation to technology and its use, and how this is likely to shape parliament's responsiveness and effectiveness of strategic interventions over time. This is critical given that every five years there is an election in terms of the Constitution. As happened after the 2009 elections in South Africa, the number of new MPs can go up to 60 percent. This has the potential to erode institutional memory which is important for purposes of continuity.

The location of the Member of Parliament at the centre of the design principle is informed by the understanding that an MP is the key stakeholder in the execution of the constitutional mandate of parliament. Hence the ICT strategy regards the efficiency of Members of Parliament as key to the effectiveness of parliament in executing that mandate. As such, initiatives that offer more value to the MP are set to receive higher priority than initiatives that do not.

¹³² *ICT Strategy 2009-14*. 2009, p 14

However, the process of capacitating MPs must happen with the understanding of their ICT limitations and how such limitations can impact on the success of the e-democracy revolutionary thrust.

5.5 Access to right information at the right time

Another important consideration for the design principle is the ability to have the right information at the right time. The principle is to ensure that ICT solutions provide secure access to the right information at the right place and at the right time without unnecessary duplication. This is informed by the understanding that access to the right information at the right time enables parliament to make decisions based on complete, relevant, current and actionable information. The compelling argument is that with so much often irrelevant and outdated information, users spend much of their time looking for the most relevant or correct information.

In today's world, many organisations are grappling with the challenge of information overload. The challenge is how to take advantage of the information revolution without falling victim to this phenomenon of information overload. Weick¹³³ notes in this regard the disparity between the speed and complexity of information technology and the ability of humans to comprehend the outputs of technology. In accepting the reality that ICT has irreversibly contributed to speed and complexity, it is important that people become innovative in how they manage information and make it accessible in good enough doses.

In trying to ensure that websites, for instance, have a targeted approach to finding information we need to first accept that the first step that is often ignored by the end-user is the *frequently asked questions* tool. This eliminates a number of enquiries on issues that are already processed and are at the public's disposal. But often these are designed in such a manner that they defeat the purpose of providing a simple means of finding

¹³³ Weick, Karl E. 1995. *Sensemaking in Organisations*, p 177

information, leading to the end-user wandering about and searching for information that is already available. Simply improving packaging, including indexing answers that often require elaboration, can add value to the tool.

5.6 Knowledge-creating environment

With regard to knowledge management, one notes that while this is the foundation on which e-democracy will be built globally, it is however a relatively new concept which has not been purposely embedded or integrated thus far. This is especially so in the public sector. Yet knowledge management has the potential to enable public institutions to better manage knowledge and to use it for purposes of engaging citizens. It stands to reason, therefore, that knowledge workers would inevitably be part of an e-democratic solution. But this is not going to be an easy task because in general organisations “struggle to capture and manage knowledge”.¹³⁴

Here, let’s consider the example of Tearfund¹³⁵, with regard to how a public organisation leveraged its knowledge to ensure a more proactive and integrated response to disasters to help the beneficiaries more effectively. The agency’s knowledge management efforts were founded on the recognition that learning from successes and failures during responses to disasters should improve responses to later ones. One of the components of the organisation’s knowledge management efforts is utilising the learning opportunities that arise during and after any major activity, by involving key participants in the activity to perform after-action reviews that describe lessons learned from the activity. The outcome is said to have been a more proactive and integrated response to disasters, something that helped in providing help to beneficiaries more effectively.

¹³⁴ Prof Juani Swart. 2010. Presentation at University of Stellenbosch Business School’s Leader’s Angle on 2 September 2010

¹³⁵ Becerra-Fernandez, p 57 (Tearfund is a large relief and development agency in the United Kingdom)

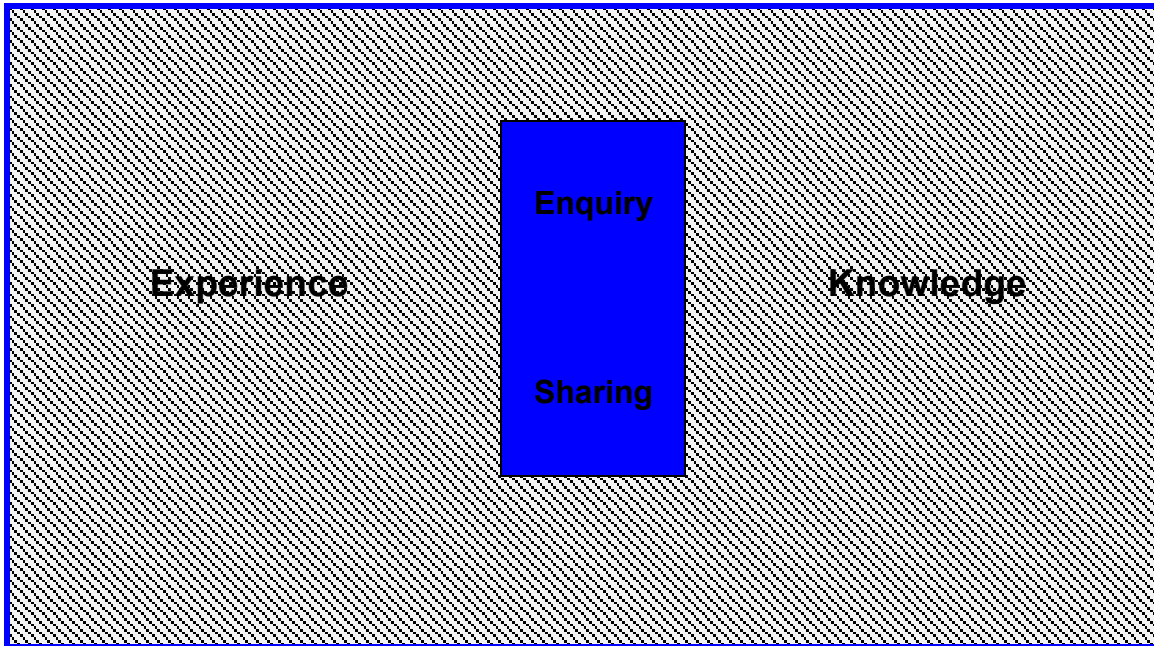


Fig 11: Within parliament a knowledge-creating environment is based on the experiences of knowledge workers of the internal or external environments. Their experiences are subjected to some form of enquiry and are shared. Knowledge is then developed as a product of this process.

5.7 Organising communities

The Tearfund model can be further explored for purposes of improving parliament's knowledge management capacity. For example, organisational knowledge could be used with a view to achieving better understanding of different virtual communities and their common needs. This process could include the creation of a platform for engaging people on their experiences, for conducting enquiry and sharing of knowledge. The knowledge-management process could assist the organisation's communication functions in a big way, if it could be designed in such a way that it informs the content of the parliament-citizen interface. Turban and Volonino¹³⁶ identify some examples of virtual communities which one believes parliaments can make use of. They are:

¹³⁶ Turban and Volonino. 2010, p 295

- associations
- ethnic communities
- gender communities
- affinity portals
- catering to young people
- megacommunities

Earlier an example was made about people in rural areas who are already organised and who together consider issues of common interest. Imagine them receiving information, without leaving their communities, possibly on a daily or weekly basis, or as per arrangement with parliament, on matters before parliament. Imagine how they could influence decision-making. Through their *imbizos* (traditional gatherings), they can canvass the views of the people in the community and present feedback to parliament using ICT. This has the potential to cover a number of people who do not need to have technical skills to engage parliament – as long as there are a few *intermediaries* who can convey the group's views on a particular matter in a transparent and authentic manner.

In such an organised system, one could find that it is possible to have traditional leaders acting as conveners of these public meetings. A Member of Parliament or his or her representative could then act as the intermediary, conveying the input of the villagers to parliament for consideration. In turn, parliament could ensure that the same community receives feedback with regard to the outcome of the process.

With regard to ICT for rural development, Malhotra et al¹³⁷ emphasise the adoption of a more systematic approach to integrating Traditional Knowledge Systems and ICT inputs to ensure the sustainability of rural e-governance projects. They argue that the main

¹³⁷ Malhotra, Charru et al. 2007. *ICT for Rural Development*, p 222

issues impeding success are the lack of localisation of content for rural communities and the inadequate participation of rural communities in the design of rural ICT initiatives.

The *imbizo* approach takes this dynamic into account. Instead of going through a 50-page document containing, for example, the text of a bill, the community could be asked to respond to broad questions that capture the intent of the proposed legislation or policy. The inputs could then be captured in a simple and easy-to-interpret fashion. The Western Cape provincial government has a system for processing public enquiries emanating from government's *imbizo* programme (see fig 9 below). The system's features are as follows: Issue; outputs or actions; response; contact details; issue target; accountability; and progress.

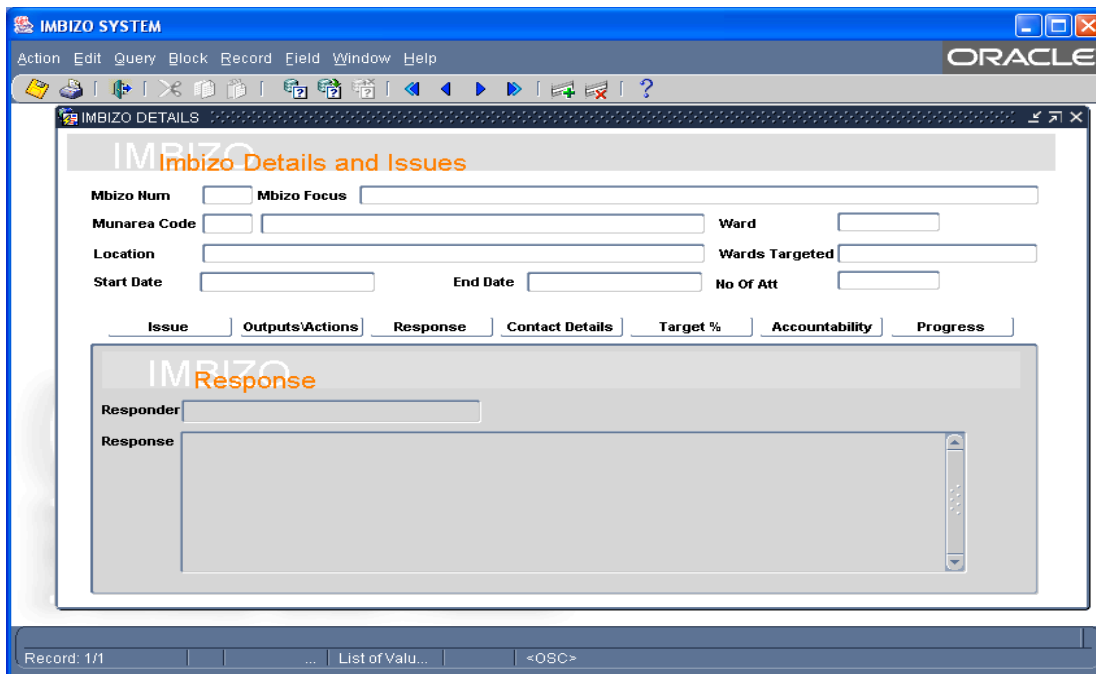


Fig 12: A 'Response' screen shot of the Imbizo management system of the Western Cape provincial government¹³⁸ which is based on Oracle. The system is used to track government responses to issues raised by the people during public participation campaigns.

¹³⁸ Western Cape is one of South Africa's nine provincial governments.

When assessing the potential of knowledge management with regard to creating a responsive and effective organisation, the Tearfund experience remains instructive. This is in relation to the organisation's practice of learning from previous activities for purposes of improving its service to the people. In the same manner, parliament could leverage on such experiences and knowledge, including the knowledge and experience that reside at national, provincial and local levels. By sharing people's experiences in relation to service delivery or policy issues with provincial legislatures located in the nine regions of the country, the institution could create a knowledge bank that can assist in improving the content of its conversation with citizens. Imagine the possibilities for improved delivery of services if such sharing of experiences could be extended to include the 284 municipalities which, unlike the national parliament, interact with people directly on a daily basis. This could further enhance learning and knowledge creation.

Such interaction and sharing of experiences would feed into the parliamentary portal, which is intended to provide people with the freedom to choose a channel to communicate with parliament. The portal requires that all channels be available to the citizen. The ICT strategy is based on the understanding that South Africa has various forms of communication and levels of accessibility that should be tailored to the needs of the citizen/constituent. Other than the face-to-face encounter, the digital channel includes telephone, cellular, PDA, e-mail, SMS, MMS, video and television, multimedia, teletext, computer, Web browser, fax, as well as social networks, as mechanisms of communication.

5.8 Utilisation of new ICT tools and methods

The South African parliament is still planning to conduct an assessment of the value of communication methods¹³⁹ such as blogs, radio programmes, the parliamentary TV channel and social networking sites such as Facebook and MySpace, to ascertain their

¹³⁹ Response to questionnaire for this thesis

usefulness in supporting the work of parliament or in increasing communication between citizens and parliament. This is crucial for purposes of facilitating the advance to e-democracy, more especially given that young people are progressively showing interest in political content - as shown in the previous chapter - and their media of choice are the social networking tools.

This raises the question of whether it is possible, in the short to medium term, to ignore the issue of the fit between social networks given their leisurely character and the serious nature of the business of parliament. Perhaps this is the issue that we need to face sooner rather than later, because we do not know for sure what will inform the style and import of ICT-supported democracy in future. Conceptually, e-democracy should be facilitated through multiple channels, with social networking tools being part of the mix. This is important in light of Hagen's argument (previous chapter) that one needs to place concepts of digital democracy in the context of national political systems and culture.

5.9 Accessibility of information

In the context of the South African parliament, applications that will be required to implement the shift to e-democracy, but are not currently available, include media and storage management for storing parliament's museum artworks, library media, media photos, video and voice. The other, without exhausting the list, is ensuring that both structured and unstructured information is managed and available. Both these are crucial given that, firstly; people use various forms of communication and therefore the formatting of information for general accessibility is necessary; and secondly, ways and means of managing structured and unstructured information are absolutely necessary for a knowledge-creating environment.

To facilitate easier, faster and more accurate information, the strategy document of the South African parliament proposes the deployment of geographical information systems (GIS) to access information about the demography of the country, allowing for better

targeting or directing of public participation initiatives.¹⁴⁰ As we are already aware, GIS allows one to view, understand, question, interpret and visualise data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports and charts.¹⁴¹ Very few parliaments have explored the usefulness of GIS in taking advantage of the power of maps to understand the detail of a particular geographical area. Yet parliaments work with geographically demarcated constituencies. This is significant in facilitating learning and better understanding by parliament, as a custodian of democracy, of the citizenry and their conditions.

5.10 Ensuring system integrity

All ICT plans and considerations inevitably lead to security concerns. The South African parliament's ICT strategy envisages increased security in managing access to information. A single contact database for all business contacts, for example foreign stakeholders and government staff, and a single point of authentication and data quality management are among options being considered.

The point of departure, as reflected earlier on with regard to requirements and specifications for petitions, is that security measures must smoothen and not hinder the process of facilitating the transition to e-democracy. While it is necessary to ensure that the system is fully protected from being corrupted in any way, procedures regulating citizen participation must not be strenuous. Otherwise enthusiastic participants might soon be disillusioned. Once this happens, it might signal a setback to the push for further democratisation of parliamentary processes.

In chapter 5, we will revisit the issue of security when we deal with the thesis proposal for a new system to facilitate e-democracy.

¹⁴⁰ *ICT Strategy 2009-14*, p 30

¹⁴¹ Environmental Systems Research Institute (<http://www.esri.com/>)

6 Conclusion

Research shows that some of the methods used by parliaments to communicate with citizens and by citizens to communicate with parliament are e-mail, websites, television and radio. Although e-mail is the most popular method for direct communication, very few parliaments have e-mail management systems in place.

New information management systems such as Bungeni will provide parliaments, especially in Africa, with a platform that integrates document management, knowledge-sharing, workflow processes and multiple channels. The system has been developed using open standards. This will help parliaments to be in control of their technology strategies as information from one system will be made easily accessible to another system. Importantly, the system can be configured to handle semi-structured information, something that will enhance activities for capturing and storing knowledge.

In light of the fact that websites serve a vital link between citizens and parliaments, it is important to explore their potential further. Unfortunately research indicates that parliaments “have been slow in transforming the potential” of ICT tools into accomplishments¹⁴². Yet a lot can be done to improve their utilisation by improving their interactivity, leading to better management of feedback functions.

The ICT strategy of the South African parliament, which is aimed at shifting the institution from the stage of e-parliament to the stage of e-democracy, includes the development of an applications function that will facilitate relationship management, collaboration and messaging, and knowledge management. The institution is also looking

¹⁴² IPU. 2010. *World e-Parliament Report 2010*, p 178

at exploring the use of GIS technology. These are some of the key features that any parliament wishing to improve communication with citizens will need to consider. If we are to use ICT effectively to promote democratic expression, the parliament-citizen interface must creatively include traditional communities that are not currently exposed to technology.

Chapter 4

Comparative Analysis: Parliaments of the Czech Republic¹⁴³, India¹⁴⁴, Kenya and South Africa

1 Introduction

The aim of this chapter is to do a comparative analysis of the South African parliament and the parliaments of the Czech Republic, India and Kenya in respect of policies, technologies, practices and organisational culture concerning the implementation of e-parliament. All four parliaments have implemented e-parliament. The Czech Republic is

¹⁴³ The Houses of Parliament of the Czech Republic have separate ICT departments and thus strategies. Responses were provided by the ICT director of the Senate of the Parliament of the Czech Republic and therefore do not necessarily reflect the situation as it pertains in respect of both Houses. In order to get a complete picture, both Houses were sent a questionnaire each, but only the Senate responded.

¹⁴⁴ The Houses of Parliament of India (Lok Sabha and Rajya Sabha) have separate ICT departments and by implication separate strategies. Responses were provided by the Rajya Sabha and therefore do not necessarily reflect the situation as it pertains in respect of both Houses. In order to get a complete picture, both Houses were sent a questionnaire, but only the Rajya Sabha responded.

located in the European Union; it is a developed economy. India is one of the oldest and biggest democracies in the world; it is a developing country in Asia. Kenya is located in the same continent as South Africa; it is a country with established democratic practice. The analysis will include the views of these parliaments, through officials who manage ICT departments, with regard to e-democracy. From this exercise, lessons learnt and general issues for consideration will be highlighted.

At the outset, it should be noted that this comparative study is merely exploratory and preliminary. There is still room for a more comprehensive exercise.

The research instrument used to elicit information for purposes of this exercise was a questionnaire. A questionnaire¹⁴⁵ was sent to heads of ICT in the following parliaments:

- Czech Republic
- India
- Kenya
- South Africa
- Uganda

However, no feedback was received from the parliament of Uganda within the timeframe that was set for purposes of finalising this thesis. The research is exploratory. It is intended to provide insight into whether there are any lessons the South African parliament can learn with regard to policies, technology, practices, organisational culture and e-democracy through effective use of ICT.

¹⁴⁵ See annexure to this thesis

2 Questions and feedback

2.1 Policies

Under the section on policies, the following questions¹⁴⁶ were asked:

2.1.1 Whether the organisation has in place a strategy to support the implementation of e-parliament, if so, to give three elements of the organisation's strategy to support the implementation of e-parliament.

The parliament of the Czech Republic has no written strategy to support the implementation of e-parliament. However, all public information about parliamentary processes is published on the website. All information about parliamentary processes is in electronic form and accessible on the parliamentary intranet. The chamber uses electronic archives and systems to support the legislative process in the country and in the European Union.

The parliament of India has an e-parliament strategy in place. The key elements of the strategy include well-defined ICT Plan that is supported by qualified professionals from National Informatics Centre – a government department, a dedicated team of officers in Rajya Sabha, and by the promotion of ICT education in the secretariat through various trainings.

The parliament of Kenya has a strategy to support the implementation of e-parliament. The three elements of their strategy include the training of Members of Parliament and staff on ICT; the renovation of the chamber to allow e-voting and electronic attendance; as well as the recruitment of professionals to the ICT department.

¹⁴⁶ All questions are in italics and are followed by feedback from the respective institutions.

The parliament of South Africa does have a strategy to support the implementation of e-parliament. Political will, change management and ICT strategy constitute the three elements of the organisation's strategy to support the implementation of e-parliament.

2.1.2 Whether the organisation has in place a set of policies regarding the use or management of information and communication technologies for purposes of supporting e-parliamentary systems. If so, to mention at least three policies the institution would regard as key to supporting e-parliamentary strategy. Secondly, whether there is a process of monitoring and evaluating the organisation's policies for purposes of supporting and enhancing the implementation of e-parliament.

The parliament of the Czech Republic has no written strategy and thus no set of policies regarding the use or management of ICT for purposes of supporting e-parliamentary systems. There was thus no feedback in respect of policies and the process of monitoring and evaluating the organisation's policies for purposes of supporting and enhancing the implementation of e-parliament.

The parliament of India has in place a set of policies regarding the use or management of ICT for purposes of supporting e-parliamentary systems. Three key policies supporting the organisation's strategy include hyper linking policy, privacy policy, content ownership moderation and approval policy, archival policy, monitoring and review policy, and security policy. These policies are defined in the website quality manual and the ICT plan. There is a process for monitoring and evaluating the organisation's policies.

The parliament of Kenya has a set of policies regarding the use or management of ICT for purposes of supporting e-parliamentary systems. The three policies that the institution regards as key are the adoption of latest technology policy, the policy for replacement of ICT equipment and disaster recovery, as well as the policy on insuring equipment.

The parliament of South Africa does have in place a set of policies regarding the use or management of ICT for purposes of supporting e-parliamentary systems. The institution's key policies are the parliamentary policy imperatives, namely knowledge and information management policy and information security.

2.2 Technology

Under the section on technology, the following questions were asked:

2.2.1 Whether the organisation has in place the required type of technology infrastructure to support the implementation of its e-parliament strategy. What elements or systems of the organisation's infrastructure are regarded as key to supporting the implementation of e-parliament?

The parliament of the Czech Republic does not have in place the required type of technology infrastructure to support the implementation of e-parliamentary strategy. However, the three elements or systems of their infrastructure that are regarded as key to supporting the implementation of e-parliament are the website, document management system supporting publication on the website; managing all documents used in all legislative processes in the chamber; and a secure network infrastructure.

The parliament of India has in place the required type of infrastructure to support e-parliament. Its three key elements or systems are servers located in data centre, a 'strong'¹⁴⁷ network, and a 'strong' information society infrastructure.

The parliament of Kenya has in place the required type of technology infrastructure to support the implementation of e-parliamentary strategy. The three elements or systems of

¹⁴⁷ Note that 'strong' was not explained by the respondent.

the infrastructure that are regarded as key to supporting the implementation of e-parliamentary strategy are the rollout and termination fiber link; development and maintenance of infrastructure; and upgrade and maintenance of the Internet links.

South Africa also has in place the required type of technology infrastructure to support the implementation of e-parliamentary strategy. The three elements of the infrastructure that are regarded as key to supporting the implementation of e-parliamentary strategy are hardware and software, processes and skills.

2.2.2 Whether (a) parliament's ICT infrastructure was designed as part of a project plan for the implementation of e-parliament, or, (b) the implementation of e-parliament was informed by available infrastructure.

The parliament of the Czech Republic's ICT infrastructure was designed as part of a project plan for the implementation of e-parliament on the one hand, and was informed by available ICT infrastructure, on the other. In Kenya, it was informed by available ICT infrastructure, while in India and South Africa it was designed as part of a project plan for the implementation of e-parliament.

2.2.3 To what extent does the organisation make use of the capability of ICT infrastructure and systems to support the implementation of e-parliament? Does the organisation have the capacity required to ensure that the deployed ICT infrastructure is utilised to its full potential for purposes of supporting the implementation of e-parliament?

In the parliament of the Czech Republic the e-parliamentary system now depends fully on existing ICT infrastructure. However, the organisation does not have the capacity required to ensure that the deployed infrastructure is utilised to its full potential, similarly with Kenya and South Africa. In India the ICT infrastructure is used extensively and the available infrastructure is used according to its capacity. On the other hand, the Kenyan

parliament uses about 60 percent of ICT infrastructure, hence training is said to be needed. With regard to the South African parliament, evidence points to the availability of broadcast infrastructure (video), websites, streaming, e-mail, etc.

2.2.4 Whether the organisation has the capacity required to ensure that the deployed ICT systems are utilised to their full potential for purposes of supporting the implementation of e-parliament.

The parliaments of the Czech Republic and Kenya have indicated that they do not have the capacity required to ensure that the deployed ICT systems are utilised to their full potential. However, India has answered in the affirmative, while South Africa has indicated that it has about 70 percent of the required capacity.

2.2.5 Whether the organisation, in the view of the respondent, gets value for money from the ICT solutions that are there to facilitate the implementation of e-parliament.

All the ICT directors indicated that in their view, their organisations get value for money from the ICT solutions that are there to facilitate the implementation of e-parliament.

2.2.6 The degree of penetration of the Internet (a) within the organisation and (b) within the country. The extent of the organisation's reliance on ICT for (a) legislative purposes, (b) oversight and (c) public participation functions (for the second part of the question three options: low, medium and high, were given¹⁴⁸).

¹⁴⁸ Low represents up to 40 percent, medium up to 70 percent and high 70 percent and above.

In respect of the parliament of the Czech Republic, the degree of Internet penetration within the organisation is 95 percent and 50 percent within the country. The extent of the organisation’s reliance on ICT for purposes of legislative work is high; oversight is not applicable while public participation is low.

The degree of Internet penetration in the parliament of India is 100 percent. However, with regard to the country Internet penetration is between 50-60 percent.

The degree of Internet penetration within the Kenyan parliament is 75 percent while within the country it is 56 percent. The extent of the organisation’s reliance on ICT for purposes of legislative work is high, oversight and public participation are both medium.

In the case of the South African parliament, Internet penetration within the organisation is 99 percent while within the country it is 10 percent. The extent of the organisation’s reliance on ICT is high with respect to legislative work, oversight and public participation.

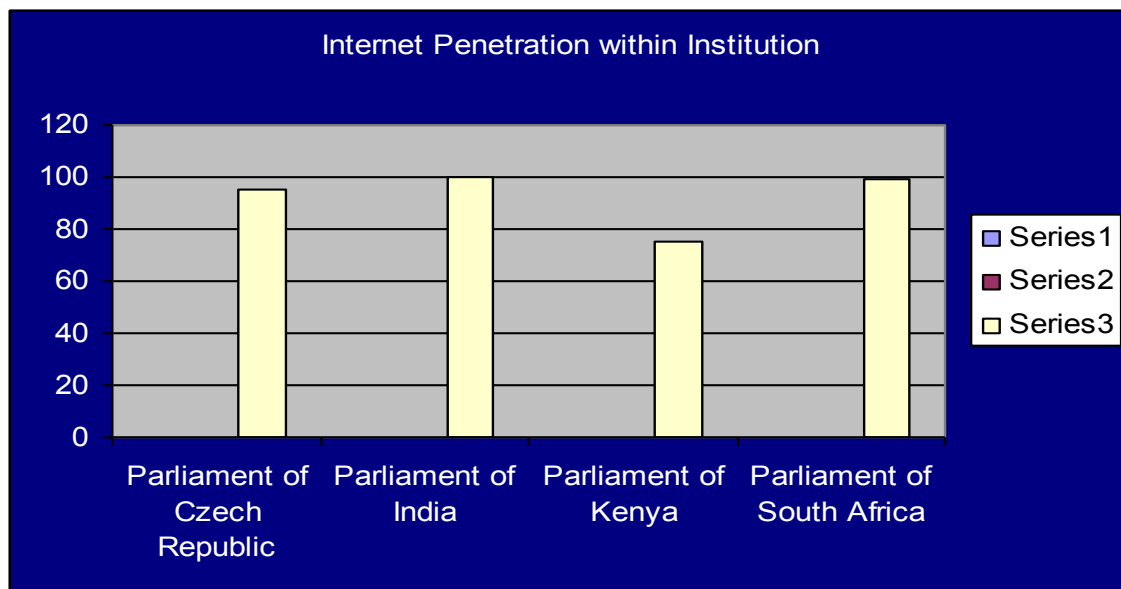


Fig 13: A graph illustrating Internet penetration in the four country parliaments (Source: Responses to questionnaire)

2.2.7 Mention at least three examples of interactive technologies that allow for communication between parliament and the public or interest groups and, if any, the most popular form or type of the interactive technologies for communication between parliament and the public or interest groups.

The parliament of the Czech Republic indicated no specific interactive technologies. Feedback mechanisms such as the website, telephone and e-mail are listed by India, with e-mail being the most popular; Internet (Facebook), including blogs, website including parliamentary website, daily newspapers, radio or television, are examples of the interactive technologies being used by the Kenyan parliament, with the website and the newspaper respectively being the most popular.

In respect of South Africa, interactive technologies include the website, PDO kiosks¹⁴⁹ and video conferencing, the most popular being the web technology.

2.2.8 Whether the organisation's ICT systems or tools (e.g. parliamentary website) provide Members of Parliament or the parliamentary administration with the geographical information requirements option (e.g. registering the number of electronic submissions or e-petitions received per area) for purposes of capturing, processing or analysing the information or the needs of a specific constituency.

The parliament of the Czech Republic does not provide MPs or parliamentary administration with the geographical information requirements option; the same with regard to the parliaments of India, Kenya and South Africa.

¹⁴⁹ These are kiosks that are used in the parliamentary development offices (PDOs), which are satellite parliamentary offices around the country (at the time of writing this thesis, three out of nine provinces had these offices).

2.2.9 The average percentage of people, who interact with parliament using interactive technologies (e.g. chatrooms or e-petition facilities from parliament's website) for purposes of communicating with parliament.

The parliaments of the Czech Republic and India have no information in this regard, while the average for Kenya and South Africa is 40 and 10 percent respectively.

2.2.10 Whether the organisation has the capacity to process all the electronic content (e.g. e-mails) from people who use ICT facilities to interact with parliament.

Two of the four institutions indicated that they do not have the capacity to process all the electronic content from people who use ICT facilities to interact with parliament, with India and Kenya being the exception.

2.3 Practices

Under the section on practices, the following questions were asked:

2.3.1 Whether there are any programmes or incentives designed by the organisation for purposes of encouraging the use of information and communication technologies by internal users to facilitate communication by parliament.

Both parliaments of the Czech Republic and Kenya do not have programmes or incentives for purposes of encouraging the use of ICT by internal users, and India and South Africa have indicated that they do have some programmes in place.

2.3.2 Whether there are any programmes or incentives designed by the organisation for purposes of encouraging the use of ICT by external users to facilitate communication with parliament.

The parliament of the Czech Republic did not respond to this question, while both India, Kenya and South Africa indicated that they do not have programmes for this purpose.

2.3.3 To give three categories of end-users (e.g. MPs, parliamentary staff, NGOs, the public etc), in order of significance, who use information and communication technologies frequently in their interaction with the public or parliament. Three categories¹⁵⁰ were given from 'a' to 'c'.

The Czech Republic and India did not respond to this question, while Kenya listed (a) parliamentary staff, (b) NGOs and (c) Members of Parliament, and South Africa had (a) parliamentary staff (b) MPs and (c) NGOs.

2.3.4 Whether the organisation has in place dedicated training programmes in ICT skills for (a) MPs and (b) parliamentary staff?

The parliament of the Czech Republic has no dedicated programmes for MPs but does have dedicated programmes for staff. India, Kenya and South Africa have dedicated programmes for both MPs and staff.

2.3.5 The average percentage of MPs with ICT skills in your parliament?

The Czech Republic and India have no corresponding data, but Kenya and South Africa reported 60 and 45 percent respectively.

2.4 Organisational culture

¹⁵⁰ In terms of the categories 'a' represented most frequent end-users, 'b' in the middle and 'c' less frequent.

Under the section on organisational culture, the following questions were asked:

2.4.1 In performing their work as representatives of different constituencies, are the MPs more inclined to use (a) traditional methods of communication, e.g. telephone, letters, fax or (b) more modern methods, e.g. e-mails, Facebook, to communicate?

The parliament of the Czech Republic has no corresponding data, while those of Kenya and South Africa indicated that MPs were more inclined to use more modern methods of communication. In India some prefer traditional methods while others prefer modern methods.

2.4.2 What form is information for MPs in your organisation mainly packaged or embedded in? Is it in the form of (a) physical artefacts, e.g. manuals, documents; (b) visuals, e.g. electronic presentations, videos; or (c) sound, e.g. CDs?

With regard to the parliament of the Czech Republic, information for MPs is mainly packaged or embedded in physical artefacts but is also available by means of visual presentations. In the case of India, most of the information is made available in electronic format on the website. In the case of Kenya, it is mainly visual presentations, and in respect of South Africa it is mainly packaged or embedded in physical artefacts.

2.4.3 Whether the organisation actively promotes the use of either web video conferencing, tele-town hall or social networking (Facebook, Twitter, YouTube) by MPs in the performance of their work.

The parliaments of the Czech Republic and India do not actively promote the use of web video conferencing, tele-town hall or social networking by MPs in the performance of their work. Both Kenya and South Africa do.

2.4.4 Whether the presiding officers¹⁵¹, as heads of parliament, have dedicated e-mails for general submissions from members of the public or interest groups? If yes, what is the attitude of MPs towards these tools as means of communication?

The question was not applicable to the parliament of the Czech Republic. India answered 'yes', adding that every member uses e-mail facility. Both Kenya and South Africa had no indication as to whether presiding officers have dedicated e-mails for general submissions from members of the public or interest groups. It can be assumed that if the service is there, it is not linked directly to the presiding officers but facilitated through a help desk, given the response to the following question.

2.4.5 If so, how many e-mails on average are (a) received and (b) responded to each month?

The parliaments of the Czech Republic and India have no corresponding data. The question was not applicable as it is linked to the one above. However, Kenya indicated that on average 200 e-mails are received per month and that on average 150 e-mails are responded to per month. With regard to South Africa, on average 1 000 e-mails are received per month, but there is no information on the average number of e-mails that are responded to per month.

2.5 Shift to e-democracy

¹⁵¹ Presiding officers are political heads of parliaments or chambers of parliament (e.g. Speaker, Chairperson of a House of Parliament).

2.5.1 *Whether e-parliament is often viewed as a step towards e-democracy. Do you think that your parliament has reached the stage of e-democracy, as explained by Tess Kingham¹⁵²?*

All four institutions responded in the affirmative.

2.5.2 *If not, what do you regard as an impediment towards embracing e-democracy?*

The parliaments of the Czech Republic and India did not provide an answer, given that the question was not applicable in light of the answer to the first question. However, Kenya still noted political goodwill and lack of ICT skills as impediments, while South Africa noted poor broadband penetration, the cost of bandwidth and illiteracy as impediments.

2.5.3 *Theorist J A Schumpeter identifies three stages of technological innovation.*

With reference to the stages listed below:

First stage – people first use technology to replace old forms;

second stage – once people have replaced old forms, they use technology to improve the way they work; and

third stage – it is only at this stage that the full potential of technology is revealed, when people completely transform the way they behave.

¹⁵² e-democracy is a stage where parliamentarians use ICT to ensure that they are better connected with their electorate, offering members of the public an opportunity to participate more directly and collectively in the policy input processes of parliamentary democracy, using ICT (Kingham, 2003, p 17).

At what stage of J A Schumpeter's three stages of technological development would you locate your parliament's efforts at using e-parliament in pursuit of or in the implementation of e-democracy?

While both the parliaments of the Czech Republic and South Africa indicated that they were in the second stage, Kenya indicated that they were in the third stage of theorist J A Schumpeter's three stages of technological innovation. India did not respond to the question.

2.5.4 If you were to advise on success stories of e-democracy, which country parliaments would you recommend as examples of best practices (mention at least two, if any)? Give reasons.

The parliaments of the Czech Republic and India provided no information. The Kenyan parliament indicated that it was the parliament of South Africa, citing that the institution has adopted electronic voting systems and strong ICT policy. On the other hand, South Africa cited Korea (presumably North and/or South), United States, Europe, Estonia and Brazil as examples of countries it can recommend as having best practices when it comes to e-democracy but did not provide reasons for its choice.

2.5.5 The following challenges¹⁵³ brought about by the new methods of communication have been identified: diversity, directionality, responsiveness, volume, value of citizen

¹⁵³ **diversity** - the challenge, occasioned by the huge growth of a range of communication options, is that parliaments and Members of Parliament have had to deal both with increased pressure to expand their use of these technologies and with the need for resources that such use demands; **directionality** - refers to whether the methods support communication that is primarily uni-directional, for example a website or a newsletter, or bi-directional, for example an email from a citizen and a reply from a Member of Parliament; **responsiveness** - the challenge here is that ICT can make it so easy for citizens to send communication electronically that having the time and resources to provide thoughtful responses to all of them, at least at the individual level, can be extremely difficult if not impossible; **volume** - the challenge here is that responsiveness is exacerbated by the volume of communication that can be generated through the

comments, and access (refer to footnotes below for explanation). What has your parliament or organisation done, or is doing, to respond to these challenges in the context of strengthening democracy? Explain briefly under the following: diversity; directionality; responsiveness; volume; value of citizen comments; access.

The parliaments of the Czech Republic and India did not provide feedback on this question. Kenyan and South African parliaments commented as follows:

2.5.5 (a) *Kenya*

- *diversity*

Kenya has taken this very positively and recognise diversity as significant towards achieving e-parliament and e-democracy.

- *directionality*

Being focused is one of the elements that the institution has recognised and has encouraged in order to achieve the set targets.

- *responsiveness*

This is one of the strengths that the institution has encouraged and identified as one of the key elements needed to foster any reforms in the institution.

- *volume*

The institution has used the volume positively to improve the institution through the reforms agenda.

- *value of citizen comments*

Internet; **value of citizen comments** - this relates to the difficulty often experienced, of determining how representative the comments received are and how informed they may be; **access** - this relates to equal opportunity and access, given the digital divide that separates those with reliable Internet access and those without. (*Background Discussion Paper, World e-Parliament Conference 2009, p 4 – hosted by the U.S. House of Representatives, Washington D.C.*)

The institution has encouraged and accepted the values of citizen comments and implemented some of the citizens' views in the institutional reforms.

- *access*

The institution has facilitated public access to the institution and its information. This has demystified the institution in the eyes of the public.

2.5.5 (b) *South Africa*

- *diversity*

Identifying specific technology that is accessible and usable by members and staff.

- *directionality*

Interactive, bi-directional communication is critical and is a design criterion for all citizen-facing systems.

- *responsiveness*

Content is usually processed by committee staff or management before being forwarded to relevant stakeholders for responses.

- *volume*

The IT department does provide for the processing of high volumes of information. The challenge is the capacity to deal with the information in a timely manner once it has been received.

- *value of citizen comments*

Most information received has to be screened and validated before it is forwarded to relevant committee, MP or staff. Legitimate public comments are normally processed by the committee concerned.

- *access*

The digital divide still marginalises many communities. This is a national issue but must be addressed through the MDG¹⁵⁴ initiatives and appropriate policy framework.

3 Key findings

The section outlines the key findings derived from the comparative study. However, it should be noted that given its exploratory nature the research cannot be extrapolated much further. There is nonetheless scope for more detailed and comprehensive study and such a study would have to be careful in setting up the interaction and the sample in such a manner that reliable and multi-level understanding is enhanced. The following are the key findings:

3.1 The South African parliament has both strategy and a set of policies to support implementation of e-parliament. The parliament of the Czech Republic has no written strategy. Kenya and India have policies.

3.2 The average percentage of MPs with ICT skills in South Africa is 45 percent while in Kenya it is 60 percent. No corresponding data in Czech Republic and India.

3.3 Through their e-parliamentary system the parliaments of the Czech Republic and Kenya have focused on delivering and maintaining secure infrastructure for document-management and Internet purposes. India is focusing on networking and creating an information society. South Africa uses infrastructure to focus on (improving) processes and skills.

¹⁵⁴ United Nation's Millennium Development Goals

3.4 The South African parliament has about 70 percent capacity to utilise deployed ICT. The parliaments of the Czech Republic and Kenya do not have the required capacity. India does have enough capacity.

3.5 The availability of ICT infrastructure partly informed the design of e-parliament in the case of the parliament of the Czech Republic and wholly in the case of the parliament of Kenya, whereas in the case of the Indian and South African parliaments ICT infrastructure was designed as part of a project plan for the implementation of e-parliament.

3.6 All the four parliaments have improved Internet access within their internal environments (Czech Republic as 95 percent, India 100 percent, Kenya 75 percent and South Africa 99 percent).

3.7 Just like the India and Kenya, the parliament of South Africa has ICT infrastructure that provides for alternative means of communication such as broadcast, websites, video streaming and e-mail, with South Africa being the only parliament that has indicated high reliance on these ICT tools for public participation purposes. The Czech Republic mentioned not specific interactive technologies.

3.8 The parliament of South Africa has a unique programme of setting up ICT kiosks in satellite parliamentary offices for purposes of reaching out to rural people away from the seat of parliament.

3.9 The parliaments of South Africa and Kenya, unlike India and the Czech Republic, actively promote the use of web video conferencing, tele-town hall or social networking by MPs in the performance of their work.

3.10 The average number of people who use interactive technologies (e.g. chatrooms or e-petition facilities from the parliament's website) for communicating with parliament is 40 percent in Kenya, 10 percent in South Africa. No information was provided by the Czech Republic and India.

3.11 None of the four parliaments has indicated using ICT to facilitate the processing of content from citizens in a manner that makes it easy to disaggregate inputs by constituencies. As such, while receiving on average 1 000 e-mail messages from the public each month, the South African parliament has no information on the average number of e-mails that are responded to per month.

3.12 The categories of end-users of ICT solutions in the parliaments of Kenya and South Africa are varyingly parliamentary staff, MPs and NGOs. No response from the Czech Republic and India.

3.13 In the parliament of South Africa information is mainly available in the form of manuals and documents (physical artefacts), while the Czech Republic, Kenya and India have material available varyingly in visual form in addition to documents.

3.14 While Internet penetration within the South African parliament is 99 percent, it is the lowest of the four countries at 10 percent within the country.

3.15 The parliament of South Africa regards itself as being in the second stage of J A Schumpeter's three stages of technological innovation (i.e. using technology to improve the way it works). This is the same with the Czech Republic. Kenya indicated third. India did not respond.

3.16 The South African parliament regards bi-directional communication (from either side of the communication line) as a design criterion for all citizen-facing systems while Kenya regards it as significant.

3.17 To ensure responsiveness the parliament of Kenya is in the process of introducing some reforms aimed at ensuring that the voice of the people is accommodated, while on the other hand, the parliament of South Africa has a system in place to consider public content before it is processed. However, this is not adequate for processing all information that comes directly from the public.

4 Lessons for the South African parliament

The following are some of the lessons that may prove useful for consideration by the parliament of South Africa in the process of facilitating effective use of ICT to promote democratic expression:

4.1 There is a strong need to improve ICT skills among MPs. This will require change management strategies.

4.2 There is a need to improve capacity to utilise ICT to include networking and the creation of an information society. The e-parliamentary system will need to accommodate the use of networking tools.

4.3 The accommodation of the views of the public in the process of fashioning ICT solutions may prove useful in the long run for the development of an outward-looking system.

4.4 The fact that the parliament is second to the parliament of India in terms of Internet access, within its internal audience, suggests that it is ready to vigorously facilitate access with the rest of society.

4.5 Through actively adopting traditional and alternative means of communication the parliament of South Africa may further advance its high reliance on ICT tools for purposes of public participation. This could be achieved also by creatively integrating the system of *imbizos* into the ICT milieu.

4.6 There is a strong need for the parliament to develop, encourage and to facilitate the public use of interactive communication technologies such as chatrooms and e-petitions from its official website. This must include the introduction of a 360-degree approach to how parliament engages with the public.

4.7 There is an urgent need to improve the management of e-mail messages from the public in a responsive manner. It might be important to look at the example by David Price¹⁵⁵ of a sophisticated correspondence management software programme. The programme allows for logging, tracking and responding to letters from the public in an organised and “hopefully” timely manner.

4.8 There is a need for a drive to ensure that citizens are among the primary end-users of ICT solutions in addition to parliamentary staff, MPs and NGOs. This is linked to empowering MPs and promoting a 360-degree culture of communication above.

4.9 Steps need to be taken to ensure that parliamentary material is also easily available in visual and other formats in addition to document format.

¹⁵⁵ David Price, Chairman of the House of Democracy Partnerships, US House of Representatives Statement at the *World e-Parliament Conference 2009*, input contained in *World e-Parliament Report 2010*, p 23.

4.10 The government of South Africa needs to make available resources to try and improve access by the majority of the populace to the Internet.

4.11 There is a need to enhance the system or protocol that is used for considering content from the public before it is processed. GIS technology can be used to learn about the peculiar circumstances under which the electorate live in order to contextualise public submissions and to disaggregate them by constituency.

5 General issues for consideration

Evidently, ICT is increasing the number of opportunities for interacting with citizens, especially the youth, as part of promoting democratic activity. e-Parliament is a means of taking advantage of this, eventually leading to a culture of e-democracy (a state where ICT is used effectively to enhance democracy). However, there is a need to establish a philosophy or a set of principles that should underpin this push, considering the examples and argument presented thus far. This should include an answer as to how such principles could inform the search for a new or alternative approach or solution.

In designing an alternative or new system for managing public content as part of a process leading to an effective ICT-supported democratic culture, there is a need to take into account the realities of today's audience or the nature of interaction between citizens and their public representatives. A more telling illustration is given by Steven Clift¹⁵⁶ when he states that there are more citizens on the city's website than actually physically go to the town hall. One may add that progressive town halls are now fitted with self-

¹⁵⁶ *Government 2.0 Meets Everyday Citizens and Democracy* – this is a speech delivered by Steven Clift at the 2008 conference of the *Council of Europe's Forum for the Future of Democracy* (<http://stevenclift.com/?p=273>)

service kiosks to access e-services. The same kiosks are found at the supermarket situated down the street. So the dark walls of the traditional town hall are slowly being deserted.

However, the town hall meeting in its current form will remain indispensable. That will be the case until town halls have efficient and effective systems of interacting with people, which can change the lives of citizens and the rules of engagement for the better. Clift argues that no on-line blogs will suddenly change the attitude of a politician: “If you are a local official and you have heard about these blogs, are you going to pay any attention to the public-sphere online if you have no idea whether they are your constituents or not?” But just imagine if such on-line blogs were, according to Clift, geographically navigable and there was an authentic way of disaggregating the on-line comments according to the different constituencies.

There are interesting developments that can assist in addressing the challenge of geographical navigability of public content. For example, the Second Life¹⁵⁷ demographic data is able to provide information with regard to the people that are logging into the site. The site indicates that Europeans make up 61 percent of total users, for instance. As of first quarter of 2007, the fastest-growing segment was the United States, accounting for 16 percent of total log-ins. The third largest group was the Asian Pacific at 13 percent, with the Middle East and Africa providing only 2 percent of total active residents¹⁵⁸. These are constituencies, although they are global in nature. The solution might be to develop a system that would have the capability to capture the geographic location of participants that are engaging parliament online, or by other means, at local level (the level of the constituency).

¹⁵⁷ A ‘virtual world’ website for role-playing, live music, avatar fashion and 3D chat rooms (<http://www.secondlife.com>).

¹⁵⁸ Deans, Candace P. 2009. *Social Software and Web 2.0 Technology Trends*, p 83

Clift's argument raises the important point regarding the huge potential of technology in influencing the change in political space and attitude. As he argues, "if democracy is not available to people on their own terms, it will not exist in the long term".

Nevertheless, more than anything, this argument allows us to look critically at how people in general appreciate the role of politicians in society or legislative institutions. The starting point is that the general understanding among the people - reinforced by democratic practices and arrangements - is that public representatives are there to act on their behalf. By implication, they do not need to act on issues entrusted to politicians but raise their voice when they feel things are not going right. Similarly, legislatures, like courts, are there to take decisions that impact on people.

Logically, through creating platforms for people to raise their views - whereby they feel they are being heard - a democratic function is seemingly being served. Therefore, it is not necessarily by paying a visit to the office or house of a politician or to parliament that one feels a sense of involvement; many people may not be interested in that. This is not to say that such pilgrimages are not important in a democracy, but they count for little in advancing a broad and sustainable democratic push. They are merely symbolic activities compared to the sum of all considerations that define a democratic dispensation.

As suggested earlier in this thesis,¹⁵⁹ with reference to the observation made by the secretary-general of the IPU at the e-Parliament Conference in 2009, parliaments and MPs "must be concerned about the gulf that separates public aspirations for democratic governance and vigorous public debate". The gulf is not a physical one, but one informed by the desire for meaningful expression and impact by citizens in shaping decisions in a democracy.

¹⁵⁹ Thesis, chapter 2

However, a recent survey¹⁶⁰ on citizens' use of technology to communicate with parliaments shows a promising picture. It shows that 85 percent of parliaments that have employed ICT-based communication methods have reported that the use of ICT methods by citizens for communication had increased since introduction. Fourteen percent said it had remained steady, and only 1 percent reported that it was decreasing. This is a positive development towards promoting a culture of effective democratic participation that is assisted by ICT.

Against this background, one is not easily convinced that democracy should mean the possibility for citizens to meet parliamentarians directly, other than when they are in their constituencies to solicit the views of constituents. It is more plausible that citizens would be far more content with knowing that they are able to communicate with their public representatives, irrespective of where they are in town or village, and without having to worry about time, space or official protocol. Thus interactivity becomes critical. As stated earlier, ICT changes the notion of space and time.

An example that graphically illustrates the point that people want to interact, not necessarily physically, is the response to Venezuelan President Hugo Chávez's initiative to use Twitter as part of communicating with the people. This can be seen from the following recent news extract.

*"Venezuela's president has harnessed the social networking and microblogging service for his socialist revolution by encouraging the population to tweet him its concerns. Chávez's Twitter account, @chavezcandanga, has exceeded 720 000 followers after establishing a reputation as a way to bypass bureaucracy and appeal directly to the president. It has been gaining about 2 000 followers daily."*¹⁶¹

¹⁶⁰ 2010 report, p 43

¹⁶¹ Mail & Guardian, August 13 to 19 2010, p 18 (from © Guardian News & Media 2010)

Another similar example is the response to the Presidential Hotline introduced by the Presidency in South Africa after the 2009 national elections. The objective was to ensure easier access to the Presidency and to promote citizen care and a government that is responsive, interactive and effective. Within a year the hotline had received 72 299 calls, of which 57 000 were complaints.¹⁶² However, the government concedes that the major challenge in engaging with the citizenry is obtaining quicker responses from government departments and provinces. Based on the figures, it can be argued that the number of calls on average for a population of over 45 million is small. Perhaps it is so because of what the hotline is able to handle. Hence it is proper to argue for a multi-faceted platform for engaging people, a multi-channel approach than a one-dimensional telephone service.

It has been established through research¹⁶³ that flexi-channeling is extremely important in its own right and may not be a temporary phase at all. It involves informed and skilled users switching between channels according to their personal preferences. It is also strongly associated with both greater and more successful use of government services generally. Such flexi-channeling strategies are used much more by e-government users than others, and this appears to be a deliberate choice, based on each channel's own strengths and weaknesses, which, taken together, are highly complementary and beneficial to users.

6 Conclusion

The parliaments of the Czech Republic, India, Kenya and South Africa have varyingly advanced e-parliamentary systems that have been developed as part of a project for the implementation of e-parliament or whose development was informed by available ICT infrastructure. However, they face a huge challenge with regard to improving communication with the public through ICT given the relatively low levels of Internet

¹⁶² South African Government Statement on the Presidential Hotline on 23 September 2010 titled *Hotline turns one year old*

¹⁶³ Norris, Donald, 2008, p 265

penetration within their countries. This phenomenon is much more pronounced with regard to South Africa where Internet penetration within the country is estimated at around 10 percent. This calls for massive investments in technology, accompanied by change initiatives to promote utilisation of electronic tools for democratic engagements.

The idea of using ICT to facilitate interaction with communities in remote rural areas, for example through linking up with the *imbizo* gatherings that are traditionally used for consultations, can assist in ensuring that those citizens that are socially excluded are brought into the mainstream democratic processes. This would ensure that their views do not only matter during the voting time but that they find expression during the course of the governing period. In this way all citizens would form part of the information society, irrespective of whether they have technical skills to use technology or not.

In light of this, consideration should be given to localising content from parliament as well as ensuring that the design of parliament's communication tools takes into account the needs of the unskilled rural people. This is important in designing a system to support and promote e-democracy. Linked to this is the critical aspect of developing a system with the capability to disaggregate inputs by constituency. None of the four parliaments that formed part of the research for this thesis has indicated having such a system in place.

With regard to the South African parliament, consideration should be given to making information that is currently embedded in physical artefacts (e.g. manuals, documents) to be available also in many other formats. The institution already has capacity for this as its infrastructure accommodates audio-visual broadcasting, Web technology etc. Given that out of the four parliaments it is the only institution that has indicated that its use of ICT for promoting public participation is high, it may benefit from examining the extent to which its public participation function can be supported further.

People will appreciate democratic participation if they have convenient means to express themselves or to interact with those in government. ICT has the potential to facilitate e-democracy through improving access to parliament by the majority of the people in a convenient manner.

Chapter 5

The e-Democracy Model

1 Introduction

The aim of this chapter is to reflect on the findings of the study in relation to using e-parliament to achieve an effective ICT-supported democracy, and to explore a new system or approach to achieving e-democracy. The study departs from the premise that e-parliament falls within the stage of technological innovation that precedes but supports development of electronic communication towards the ultimate state called e-democracy.

2 Summary of direct implications of study

The outcome of the comparative study on implementation of e-parliament in the preceding chapter has the following direct implications and preconditions for the development of a new model:

- Improvement of ICT skills among MPs
- Networking and creation of an information society
- Entertaining the views of the public in developing ICT solutions
- Access to Internet by rest of society

- Improving reliance on ICT tools for public participation
- Engagement of parliament by the public through interactive communication technologies
- Better management of e-mail messages from the public
- Citizens to be among primary users of ICT solutions
- Parliamentary material to also be available in visual and other formats
- Method to establish value of public submissions
- Ability to disaggregate public inputs geographically by constituency

3 General analysis of the research

In analysing the research question in general to establish how parliaments can take advantage of e-parliamentary systems to advance democracy through the effective use of ICT, the following key issues emerge?

- **Strategic value of websites** – given their increasing popularity, websites are proving to be more critical as a means of communication with citizens. Some websites already partly answer the question of geographical navigability of e-democracy participants by having localised portals, and this is important for purposes of locating the origin of complaints. A good example can be found in the state parliament of Southern Australia which, although not as advanced as the parliament of South Africa which by now boasts Web broadcasting, already has fewer Members of Parliament who have own sites¹⁶⁴ that are linked to the official parliament website.
- **Social networks** – it appears that while many parliaments recognise the importance of taking advantage of linking parliamentary processes to the social

¹⁶⁴ Khrosrow-Pour, Mehdi, p 192

networking bandwagon, the actual utility of social networks in interfacing with parliamentary processes is not already widespread. However, the experience of the US Congress in this regard is worthy of serious consideration. It is important to note the possibility that a meaningful shift from e-parliament to e-democracy could be realised on the back of social networking tools and related culture.

- **Knowledge management** – the shift from e-parliament to e-democracy will be supported by knowledge management. This requires the parliament-citizen interface to be supported by knowledge workers or subject specialists who will add value to content to and from the public. This must include accommodating the knowledge systems of rural villagers as part of a deliberate exercise to understand the different circumstances of all citizens.
- **ICT investment** – indications are that many (85 percent) of the parliaments that have invested in ICT infrastructure have seen an increase in the use by citizens of ICT methods to communicate. This suggests that the increased reliance and availability of ICT tools may assist in furthering the democratisation of society.
- **Identifying user needs** – it seems critical, in order to facilitate the movement to e-democracy and citizen support, that parliaments consider involving the public in designing some of the systems meant for citizen-parliament interaction. This can assist in ensuring that systems or processes are localised so that they are compatible with different environments and thus promote one and not two democracies (one being for the elite and the other for ordinary people).
- **Geographical Information System** – there is no evidence, at least immediately, to suggest a big push by parliaments to use GIS technology as part of informing themselves about the peculiar circumstances under which the electorate live. Yet it appears to be a key mechanism for gathering location-specific information. With such information, public content can be customisable in a manner that

enhances relevance and efficacy. This is an important tool for knowledge workers. At strategic level, the South African parliament is planning to accommodate GIS. The case study of Ghana¹⁶⁵ provides important lessons for us on how GIS technology could be used for development purposes.

- **Online polls** – online polls could be used strategically for purposes of informing parliament about the general views of a particular constituency on an issue of interest, or as a means of informing citizens about prevailing views on certain topical issues that are before parliament. They can influence these through their participation.

- **Impact of mobile cellular teledensity** – the prediction by the International Telecommunications Union in the 2009 global ICT survey that it looks highly likely that global mobile cellular teledensity will surpass 100% within the next decade, and probably earlier, can act as a steroid for the development of e-democracy. This is especially so given the possibility of a combination of factors (Internet and mobile phones). In 2010, there are about two billion Internet users and about five billion cellular subscribers worldwide.¹⁶⁶

- **e-Imbizo** – the effect of the digital divide is that it creates a gap between those with the means to interact with parliament using ICT methods and those without. Yet it is possible that through organising people in communities into community groups, parliament could find a means to have their views on issues that are before parliament conveyed through an ICT-enabled intermediary. MPs or community leaders could act as intermediaries between the people and parliament, using very transparent and credible ICT platforms. The provincial government of the Western Cape has an Oracle-based system for managing and processing public input.

¹⁶⁵ See chapter 3

¹⁶⁶ Harris, Lance. 2010. *Insulate Against Future Shock*, USB Agenda No 2. 2010, p 21

4 A new approach to achieving effective ICT-supported democracy

It is important to start this section by reiterating the argument made earlier in the course of the thesis with regard to general understanding of the desired state of ICT-supported democracy (e-democracy). Such an understanding is based on the appreciation of the theory advanced by J A Schumpeter, which identifies three stages of technological innovation, the third being the stage where the full potential of technology is revealed, when people completely transform the way they behave. This suggests that if e-democracy is understood in this context, the state of e-democracy will only be measured by the extent to which technology has transformed people's behaviour in respect of the manner in which they participate in democratic processes. Therefore effective ICT-supported democratic expression is achievable when the majority of the citizens participate in democratic processes.

In their definition of e-democracy, Professors Streib and Thomas of Georgia State University¹⁶⁷ offer a clear and interesting elucidation of this phenomenon as opposed to other forms of e-services or e-transactions:

“Citizens who engage in these online activities join in the democratic process by seeking to shape the development or implementation of public policies. By this definition, e-democracy includes activities such as advising elected officials about preferences on policy questions and voicing of complaints about governmental services (e.g., potholes) since both entail efforts to influence government policies or programmes. This is an active participation process, too, extending beyond simple information seeking on policy question.”

¹⁶⁷ Streib and Thomas. Undated paper on *e-Democracy, e-Commerce, and e-Research: Examining the Electronic Ties Between Citizens and Government*, pp 3-4

The centrality of the behaviour of citizens in this definition of e-democracy is worth noting. For instance, citizens advise elected officials. Although it is one of the categories in the definition of participation, Brynard¹⁶⁸ argues that “it is doubtful if the receiving of information by citizens can really be considered participation”.

4.1 Adaptation of e-business model

Given the lessons learnt in the previous chapter and key findings, and informed by the realisation that e-democracy is a future state of e-parliament, the thesis will now turn to the search for what could constitute a new solution to achieving the state where ICT is effectively used to promote meaningful interaction between parliaments and citizens in furtherance of democracy.

The search for a solution to the lack of space for the expression of the interests and needs of the people, and how to accommodate these, could be influenced through an adaptation of the e-business solution¹⁶⁹, focusing on one of its critical elements: the customer relationship management system (CRM). This is a process of creating relationships with customers through the introduction of reliable service-automated processes, personal information gathering and processing, and self-service in order to create value for customers.

To appreciate the value of this basic system, let us look at the three categories of the CRM user applications, that are supported in a variety of e-business literature, and they are as follows:

¹⁶⁸ Brynard, Petrus A in Bekker, Koos (ed). 1996. *Citizen Participation in Local Government*, p 41

¹⁶⁹ Papazoglou and Ribbers. 2006, pp 7-8

- **Customer-facing applications:** These include applications that enable customers to order products and services and obtain customer service and support.
- **Sales force-facing applications:** These include applications that automate some of the company's sales and sales force management functions to deliver effective customer service and support and sell products and services to customers.
- **Management-facing applications:** These include applications that analyse data gathered by the other applications and provide management reports, including calculations and reports that compute *return on relationship* according to a company's business model, competitors, industry trends and macro-environmental variables.

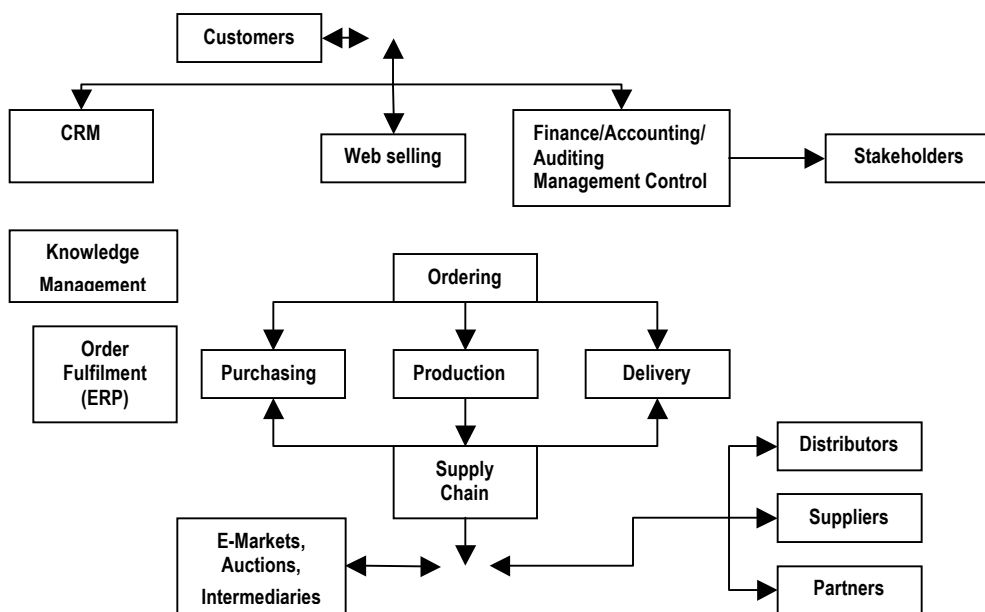


Fig 14: An adaptation of Papazoglou and Ribbers' diagram showing the elements of the e-business solution (see Papazoglou and Ribbers¹⁷⁰ for original).

The Bungeni system, which we analysed in chapter 3, uses a similar model or approach. Below are the three components that make up the Bungeni system:

¹⁷⁰ Papazoglou and Ribbers. 2006, p 6

- **Bungeni portal** – for the public
- **Bungeni MemberSpace** – for Members of Parliament
- **Bungeni Workspace** – for registered parliament users

With regard to the implementation of a CRM strategy for an organisation, Peelen¹⁷¹ highlights three important elements that are related to Papazoglou and Ribbers: customer-supplier relationships, business strategy and relationship-orientation. Building a relationship with the electorate should be part of the strategy for promoting e-democracy. Trust, which Peelen¹⁷² deems as the foundation for an organisation's future plans, is based on each of the parties in a relationship fulfilling its own promises. In order to achieve an effective ICT-based system for facilitating engagement with citizens that instils confidence, relationship-building would require exploring a number of options directed at serving the public.

In this regard, Dé points out that the interface process – which includes people-related interfaces, technology-related interfaces and process-related interfaces – envisages various options. These include digital convergence, the voice-video-visual option, and interactive modes such as the operator-supported keyboard-mouse option, text-to-speech and touch screen with voice prompts.¹⁷³

The three categories of the CRM element in Papazoglou and Ribbers' e-business solution illustrated above can be modified to serve the purpose of parliament, with a view to designing an e-democratic system that engenders a dynamic relationship between parliament or MPs on the one hand, and the citizens on the other. This is demonstrable in the following manner:

¹⁷¹ Peelen, Ed. 2005, pp 21-84

¹⁷² Ibid, p 67

¹⁷³ Dé, Rahul. 2006, pp 380-381

- **Customer interface** – for the public and e-services
- **Sales interface** – for business, legislation and policy
- **Management interface** – for public representatives.

Having reflected on the business model and how it could be customised, a new design or solution will be developed to represent a possible system for the management of content as a means of communicating with citizens. The design will seek to facilitate the shift from e-parliament to e-democracy for purposes of enhancing ICT-supported public participation.

4.2 Guiding principle for a new model

The search for a new model for an effective ICT-supported public engagement system should be informed by the point raised above. The point is that public representatives are there to act on behalf of the people that have elected them. By implication, people do not need to act on issues entrusted with politicians. However, they reserve the right to raise their voice when they feel it is necessary to do so. They do not lose their right to influence decision-making simply because they have elected people to represent them.

What then is the principle? A medical doctor does not need to leave his or her surgery to go and participate in political decision-making. His or her contribution is in the medical field. However, he or she should be in a position to engage his or her public representative, or the legislature, directly when he or she feels that certain policy decisions are impacting negatively on his or her business or patients. Generally, parliaments have constituencies which are the link with the people. Therefore, in designing an effective ICT-supported system, it is important to keep in mind that citizens have access to parliament either directly or via constituency offices. Unfortunately, the constituency office route is hardly utilised. The reason could be that these offices lack the dynamism that one finds when engaging parliament directly.

An effective ICT system should make it possible for these constituency offices, or at least the people who man them, to have a dynamic link with parliament. This would assist in creating more sites for engaging parliament depending, of course, on how the two sites

(parliament and the constituency office) share information. A model for electronic democratic participation that is effective should seek to bring parliament closer to the people through facilitating access to information and interaction.

4.3 Creating a new model for effective ICT-supported democracy

The model¹⁷⁴ or new design should contain the following elements:

- **Business process** – for purposes of supporting the system business processing function
- **Public process** – for purposes of facilitating an interactive relationship
- **Public representative process** – for purposes of handling enquiries related to a particular constituency (but supported by parliament and party caucus processes). This would entail using a portal for each parliamentary constituency linked to an MP for local or constituency-related (as opposed to general) matters
- **Legislation and policy process** – for parliament’s core business, and
- **e-Services** – for facilitating e-voting, e-consultation, e-petition and online polls (linked with the public process).

The system design will cater for the business of parliament, activities that support the business of parliament and channels or technologies for communication between citizens and parliament as shown in the next diagram.

¹⁷⁴ The system will have data, voice and video capability (including capability to manage social media content).

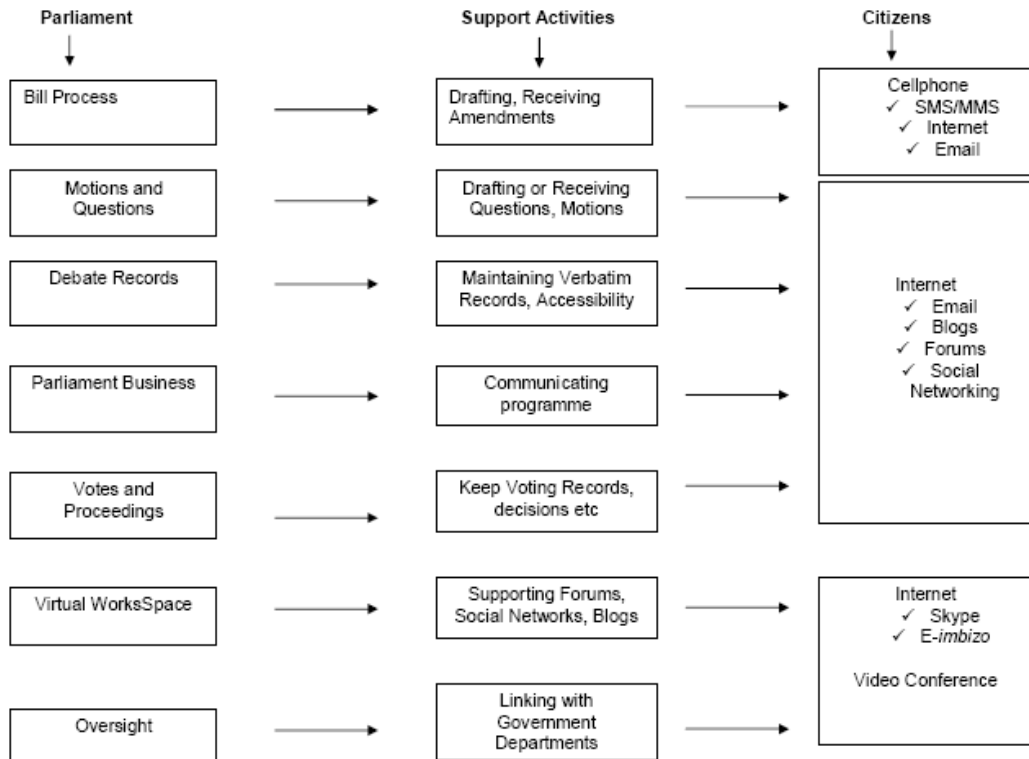


Fig 15: The new design of an e-democracy model will be characterised by a platform for engagement between parliament and citizens, with citizens accessing parliamentary information using any ICT tool. In turn, parliament provides access to its services and information through an interactive array of support activities.

4.4 Information management system

The information management system to support the e-democracy system will consist of at least three critical information-processing platforms from the point of view of parliament:

- **Front-end support** – this is for the frontline staff and ICT mechanisms that are designed to handle public enquiries directly. This desk is capable of providing basic information through human interface or via an automated system. The desk would among other things access information from a database by means of the structured query language¹⁷⁵ (SQL). The public will have access through a

¹⁷⁵ SQL allows people to perform complicated searches by using relatively simple statements or key words. – Rainer et al. 2007, p 106.

mechanism that facilitates simple selection procedure and steps depending on the nature of information required or supplied (for example, e-mail messages will be traced by subject line, while submissions will have pre-designed, easy-to-use templates). The front-end support service will channel enquiries according to functional categories for processing by the processing desk (these are enquiries that require more than just basic information easily available to the front desk).

- **Functional mechanisms** – this is a platform for the channelling of enquiries that cannot be immediately facilitated through the front-end mechanism. This is merely a processing desk, purely for channelling enquiries appropriately through the system. It is also a back-up service for the front-end support desk.

This platform will automatically sort subject matter enquiries or feedback into clustered components for speedy response (for example, police, justice and constitutional development issues will be directed to the cluster for security and constitutional development). The advantage of the cluster approach is that it will eliminate the silo effect and assist in developing parliamentary expertise in related fields. Ideally this desk will be fully automated or will be manned by a team of few staffers during the early phase of introduction. Once processed, enquiries will then be channelled accordingly to the next platform which consists of a team of knowledge workers.

- **Knowledge specialists** – this is a special public desk which is made up of knowledge specialists in the different functional areas of parliament. These specialists are a strategic link between parliament and citizens. They are there to provide or receive information and to facilitate interaction following system procedures. For example, enquiries or information being processed will be categorised in terms of its severity – low (**green**) will mean that a response should be available within two days and medium (**amber**) within four days. High (**red**) entails that an explanation regarding the return of service or the process will be

made available within seven days. The high severity stage is there to process and provide feedback to the citizen with regard to issues that are politically sensitive or that have not yet reached parliament and therefore require some further research. Such information may include policy issues that require a well-considered response before being communicated. This is to ensure that the institution maintains a high level of integrity in respect of how it manages information or processes for disseminating sensitive content.

The importance of this platform is that it integrates information or knowledge that is already within parliament with knowledge or information that is not yet available to parliament. It is a stage where the knowledge workers interface with MPs and internal and external experts, and engage feedback from organised groupings or ordinary citizens (through experience, enquiry and sharing) to create new knowledge. Public hearings organised by parliamentary committees or MPs in their constituencies provide learning opportunities for this group of content specialists. The new knowledge they generate is shared with MPs for purposes of engaging their constituents (feedback through MP portals) and with members of the public who communicate with parliament using collaborative technologies or e-services or the *e-imbizo* platform or vice versa.

4.5 Expert-locator system for managing knowledge

Knowledge specialists will play a critical role in locating expertise within and outside the organisation. According to Mowbray¹⁷⁶, learning organisations are developing directories and systems that, in theory, allow an employee facing a specific problem to use mere keystrokes to find the most qualified staff member for advice on an issue, wherever they may be in the world. However, according to the research conducted by the American Productivity and Quality Center¹⁷⁷, subject matter expert directories, or expert locator

¹⁷⁶ Mowbray, Ben. 1994. *Challenges in locating experts*, p 1

¹⁷⁷ Ibid

systems, are a challenging effort, even for early adopters and best-practice knowledge management organisations.

In the South African context, expertise can be found in a number of parastatals and government departments, and non-governmental organisations such as the Institute for Democracy in South Africa, the Parliamentary Monitoring Group and the United Nations Children's Fund. To facilitate this, there needs to be a symbiotic relationship between parliament's knowledge platform and a range of experts to ensure that the knowledge is integrated with the knowledge of the environment, including knowledge from the traditional village participants and members of virtual communities.

The knowledge specialist platform for parliament will be central in establishing parliament as a learning organisation. It will assist in facilitating the process of the continuous testing of experience, in producing knowledge and in sharing the knowledge that is being produced – the three key questions Senge¹⁷⁸ wants all learning organisations to answer as reflected in chapter 1 of this thesis. In a large corporation, Mowbray argues, it is unlikely that there are any problems for which someone, somewhere in the company, has not already figured out an effective solution. The challenge is in finding that person quickly and efficiently.

The aim behind managing knowledge is to create effective and efficient institutions. This means that knowledge management is not an end in itself but a means, in this context, to promoting the quality of democratic engagement. As suggested by Pfeffer and Sutton¹⁷⁹, “we now live in a world where knowledge transfer and information exchange are tremendously efficient, and where there are numerous organisations in the business of collecting and transferring best practices. So, there are fewer and smaller differences in what firms know than in their ability to act on that knowledge”.

¹⁷⁸ Senge, Peter et al. 1994. *The Fifth Discipline*, p 49

¹⁷⁹ Pfeffer, Jeffrey and Sutton, Robert I. 2000. *The Knowing-Doing Gap*, p 243

As suggested earlier in this thesis, the expert-locator approach could be used by the developers of content in an organisation for internal and external publics. The information could be tailored in such a manner that it takes into account the different levels of sophistication of the targeted audience. It can be used to assess the relevance of information for each demographic group in society. This would help ensure that the information that is distributed by parliament, whether in the form of feedback to enquiries from ordinary members of the public, is plain and simple. Thus the role of knowledge specialists would be to ensure that government jargon does not stand in the way of conveying information clearly, ensuring that it is understood by the targeted group or person irrespective of the level of education. This also presupposes communication in the language used by the people.

In order to sustain the system and to ensure that the system is always operating at its optimal level, reliable ICT infrastructure is vital, supported by a server with adequate storage capacity. The system should be designed to support citizen-parliament interaction from mainly two sources, namely: general enquiries or submissions on national issues, and constituency-based enquiries or submissions on matters relating to constituencies of MPs.

4.6 The proposed new model

The diagram below is the proposed new model that integrates ICT solutions for effective democratic engagement between parliament and citizens. The technologies for engaging with citizens are linked directly to the front-end desk and indirectly to functional processing desks and knowledge specialists. The same interaction is possible through structured e-services or through constituency portals or *e-Imbizo* system. Parliament supports the content of this interaction, i.e. legislation, oversight and general policy matters, through its business workflow or networking systems (business processes). The low, medium and high severity levels suggest applicable procedure or protocol for handling different kinds of information.

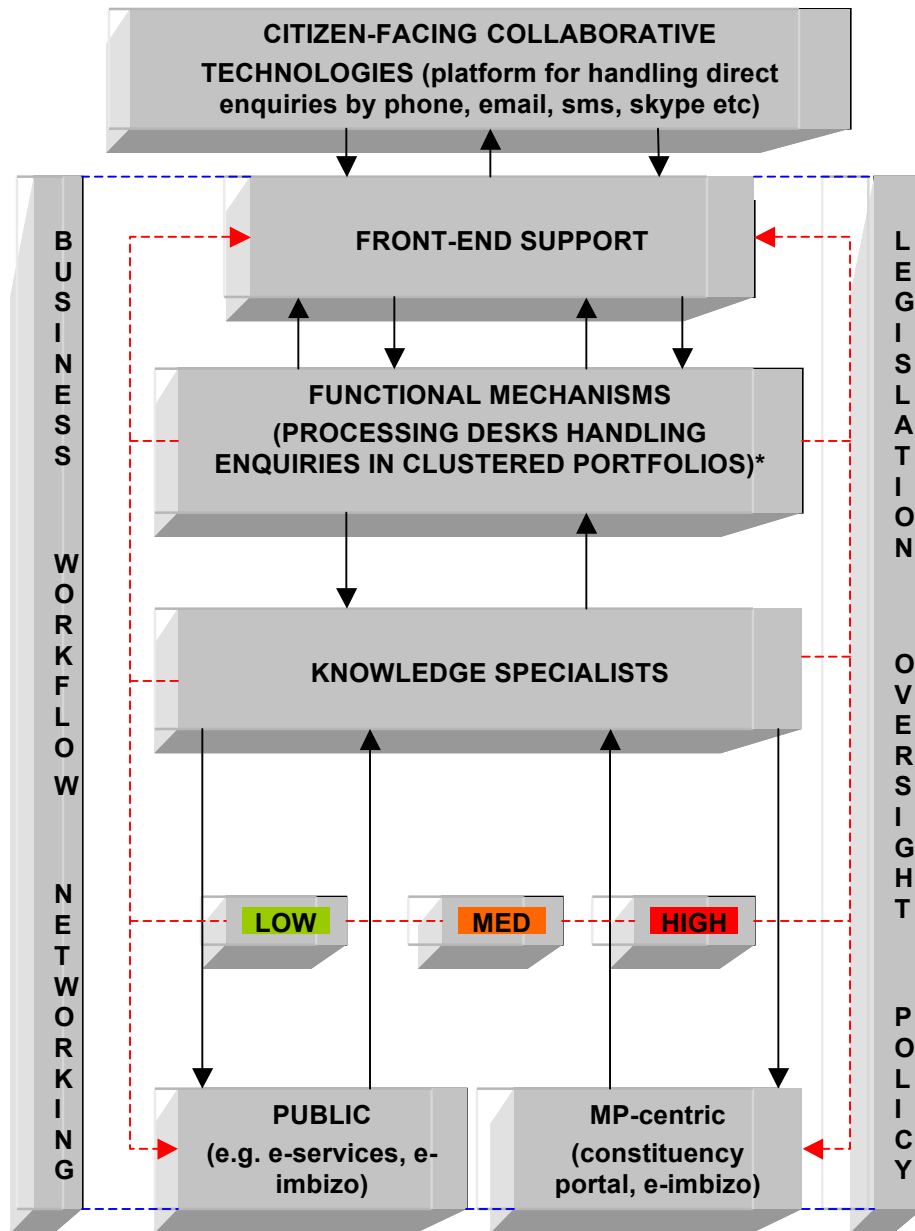


Fig 16: An integrated ICT platform for an e-democratic parliamentary system. * The clustered portfolios are public services, social development, security and constitutional development, education and recreation, land and environmental affairs, finance, trade and international relations, labour, and special groups (youth, women, children and people with disabilities).

4.7 Dealing with risk factors

Installing a public system, or any information and communication technology system, requires that due attention is paid to ensuring that it is as secure as possible. This refers to security from external threat and, in most cases, internal threat resulting from lack of knowledge about the dangerous exposure of the system.

However, before deciding on what security measures to implement, one needs to first determine the level of risk involved. Laudon and Laudon¹⁸⁰ suggest that this exercise should start with an assessment of the activities or processes that are exposed to risk, and the impact and nature of that risk. This includes the extent of software vulnerability. Once this has been done, and a full diagnosis made, the second step is to develop a security policy. This may result in the development of measures such as the authorisation policies¹⁸¹ to control access by different users performing different functions.

It should be easy to develop and apply security control measures for users within an organisation. A set of protocols could be developed. But it is a different matter altogether to ensure security and continuing operation of a system that is exposed to the public. Other than the possibility of flooding, when the system is under strain because of the number of people that are making use of it, there are other risks associated with being exposed to the public. One of these, which is still a challenge in many countries across the world, is identity fraud. This entails accessing someone else's personal information without consent and using such information to commit fraud or misrepresent one's identity.

Security is of utmost significance if people are to trust the e-democracy. Lack thereof can be a threat in terms of their personal interests, for example where their identity is stolen

¹⁸⁰ Laudon et al. 2006, p 330

¹⁸¹ Ibid, p 331. These are policies which determine differing levels of access to information for different levels of users.

or, in political terms, where party lobbyists use their inputs for party posturing. However, stricter measures and certain protocols could be developed to prevent unnecessary exposure of people who use ICT to engage with parliament as part of exercising their democratic rights. Regarding strategies to prevent identity fraud, which has a potential to generate national security concerns if systems are exposed, collaborative efforts could be initiated whereby parliament could have real-time access to the Home Affairs Identification System (commonly known as HANIS) for managing citizen identity information, for instance. By the end of 2005¹⁸², one million fingerprint records had been digitised through the Automated Identification System. Plans have been initiated to digitise 70 000 records per day since then.

Electronic content heightens the level of risk to an organisation. To avoid risks associated with electronic dissemination of content, especially personal and potentially embarrassing correspondence, it is important to develop policies governing electronic usage and content. In order to help maximise compliance and minimise terminations, it is advisable to use written e-policy to specify rules governing personal use of e-mail, the Web, and other electronic business communication tools.¹⁸³ This extends to the means of handling confidential information as part of ensuring that the integrity of the institution is not compromised.

4 Conclusion

As indicated in chapter 3, websites are proving to be more critical as a means of communication between parliament and citizens. Nonetheless, the notion of flexi-channelling would require that there is a host of bi-directional and collaborative mechanisms to complement or support the website or other tools that are increasingly being used for communication. In this regard attention should be given to, among other things, accommodating social networks as the shift from e-parliament to e-democracy

¹⁸² Annual Report. 2006. *Home Affairs Annual Report 2004-05*, p 27

¹⁸³ Flynn, Nancy. 2009. *The e-Policy Handbook*, p 84

could be realised on the back of social networking tools and culture. This is especially so in light of the fact that digital natives¹⁸⁴ are beginning to participate in political content.¹⁸⁵

Significantly, the fact that 80 percent of parliaments that have invested in ICT infrastructure have seen an increase in the use of ICT by citizens when communicating with parliament suggests a high possibility that investments for e-democracy would be rewarded. The current environment, where there is a huge increase in mobile cellular teledensity, is supportive of this view. In addition, the use of GIS technology for purposes of gathering location-specific information could assist parliaments to understand their constituencies better and to fashion their interventions accordingly.

Furthermore, it is worth emphasising the point that attention should be given to the creative use of technology to bridge the gap between parliament and communities that have limited, or no access, to technology. This could be done, for example, by integrating the traditional *imbizo* with electronic democracy, thus heralding the birth of *e-imbizo*. The role of knowledge workers will be critical in eliciting knowledge from experts, non-governmental organisations and ordinary citizens, through a process of enquiry and sharing of experience.

In designing a system for e-democracy it is important to look at the lessons from business-supporting models. An important feature, that has relevance for the development of a system that promotes strong relationship with citizens, is the e-business model's customer relationship management element. This is the process of creating relationships with customers through the introduction of reliable service-automated processes, personal information gathering and processing, as well as self-service, in order to create value for customers. It is important to emphasise that in an e-democracy system citizens have the same status, if not more, that customers enjoy in a business environment.

¹⁸⁴ Harris, Lance. 2010. USB Agenda. *Insulate Against Future Shock*, p 21 (“digital natives” are the people “growing up with MP3 players, smartphones and the Web”)

¹⁸⁵ Background Discussion Paper, *World e-Parliament Conference 2009* (see chapter 2 of this thesis)

The adaptation of the e-business model for purposes of developing an e-democracy model can be reflected in the following key building blocks of such a system: business process, public process, public representative (MP) process, legislation and policy process, and a host of e-services.

A new e-democracy model would be designed in such a manner that it provides a seamless platform for engagement between parliament and citizens, by integrating ICT infrastructure, processes and human resource. This will include direct frontline support, a mechanism for processing information and knowledge requirements or inputs and knowledge specialists who are responsible for the social context of the system. All these processing mechanisms would support the citizens directly or indirectly through their public representatives by means of direct citizen-MP engagement or via portals that are constituency-based. It is envisaged that each MP will have a portal that is supported by the parliamentary system. The arrangement, which provides for an interface with a relevant public representative, is in recognition of the fact that no democratic government can be run purely electronically.

Critically, the infrastructure that is required to support the system will have capabilities for collaborative technologies, business workflow processes and networking, as well as legislative, oversight and policy processes. It will have data, voice and video capability, including capability to handle social media content and semi-structured information.

Chapter 6

Summary and Conclusion

1 Introduction

The aim of this chapter is to recapture the essence of this thesis and to suggest areas for further research in facilitating the use of e-parliament to achieve an effective ICT-supported democratic expression. It is important to point out that the required investment in new and modern technology to support democratic expression will be offset by gains in respect of the developmental agenda. However, this is easier said than done given the fact that many poor countries are struggling to address social conditions of citizens and therefore prioritising the ICT as an enabler for democratic engagement may sound impressive but unrealistic.

Therefore, the approach to ensuring the progress from optimising e-parliament strategies with a view to achieving e-democracy should be a collective and not an individual one. Initiatives such as the Bungeni information management system are a good example of this collective approach.

The potential of new technology is that “it offers the opportunity of taking votes and sounding opinions by new means. For instance, opinion polls can be much more accurate and quicker than they were; votes can be cast by telephone or over a computer network;

and potentially ordinary citizens can take a more prominent part in public decision-making than ever before”.¹⁸⁶

2 Summary

2.1 Literature

The transformation of parliament, which in the context of this thesis is the shift from the stage of e-parliament to the stage of e-democracy, according to Kingham¹⁸⁷ centres on the following three main areas:

- increased administrative efficiency
- improved information access and dissemination, and
- enhanced interaction with citizens.

However, parliaments seem to have focused on improving or increasing administrative efficiencies and access to information. There are nonetheless interesting examples of how some parliaments, in particular the United States Congress, have used new technologies to promote democratic engagement. This is supported by the growing number of youth who participate in engaging with political content and the increasing influence of social networking tools.

The Assembly of Macedonia has made inroads in embracing e-parliament by implementing a 10-year strategic plan whose fundamental basis is to transform old technology infrastructure into new and modern infrastructure. This is intended to manage the inputs of MPs and to provide various communications for citizens to engage with parliament.

¹⁸⁶ Held, David and Pollitt, Christopher (eds). 1986. *New Forms of Democracy*, p 9

¹⁸⁷ Kingham, Tess. 2003, p 1

In spite of these achievements, legislatures are still facing a number of challenges, some as a result of the proliferation of new technologies. These include increased pressure for legislators as a result of citizen inputs facilitated by diverse communication mechanisms, the inability to ascertain the representivity of citizens' comments and the issue of access due to the digital divide.

2.2 Systems and approaches

Research shows that some of the methods used by parliaments to communicate with citizens and by citizens to communicate with parliament are e-mail, websites, television and radio. Although e-mail is the most popular method for direct communication, very few parliaments have e-mail management systems in place.

New information management systems such as Bungeni will provide parliaments, especially in Africa, with a platform that integrates document management, knowledge-sharing, workflow processes and multiple channels. The system has been developed using open standards. This will help parliaments to be in control of their technology strategies as information from one system will be made easily accessible to another system. Importantly, the system can be configured to handle semi-structured information, something that will enhance activities for capturing and storing knowledge.

In light of the fact that websites serve a vital link between citizens and parliaments, it is important to explore their potential further. Unfortunately research indicates that parliaments “have been slow in transforming the potential” of ICT tools into accomplishments.¹⁸⁸ Yet a lot can be done to improve their utilisation by improving their interactivity, leading to better management of feedback functions.

¹⁸⁸ IPU. 2010. *World e-Parliament Report 2010*, p 178

The ICT strategy of the South African parliament, which is aimed at shifting the institution from the stage of e-parliament to the stage of e-democracy, includes the development of an applications function that will facilitate relationship management, collaboration and messaging, and knowledge management. The institution is also looking at exploring the use of GIS technology. These are some of the key features that any parliament wishing to improve communication with citizens will need to consider. If we are to achieve e-democracy, the parliament-citizen interface must creatively include traditional communities that are not currently exposed to technology.

2.3 Comparative analysis

The parliaments of the Czech Republic, India, Kenya and South Africa have advanced e-parliamentary systems, at varying levels, that were developed as part of a project for the implementation of e-parliament or were informed by available ICT infrastructure. However, they face a huge challenge with regard to improving communication with the public through ICT given the relatively low levels of Internet penetration within their countries. This phenomenon is much more pronounced in regard to South Africa where Internet penetration within the country is estimated at around 10 percent. This calls for massive investments in technology, accompanied by change initiatives to promote utilisation of electronic tools for democratic engagements.

The idea of using ICT to facilitate interaction with communities in remote rural areas, for example through linking up with the *imbizo* gatherings that are traditionally used for consultations, can assist in ensuring that citizens that are socially excluded are brought into the mainstream democratic processes. This would ensure that their views would not only matter during the voting time but that they would find expression during the course of the governing period. In this way all citizens would form part of the information age, irrespective of whether they have technical skills to use technology or not.

In light of this, consideration should be given to localising content from parliament as well as ensuring that the design of parliament's communication tools takes into account the needs of the unskilled rural folk. This is important in designing a system to support and promote e-democracy. Linked to this is the critical aspect of developing a system with the capability to disaggregate inputs by constituency. None of the four parliaments that formed part of the research for this thesis has indicated having such a system in place. The ability to understand as from which part of the land a complaint or view comes from is indispensable if ICT is to meaningfully facilitate democratic expression. Otherwise "policy-making would be in danger of being led by populist opinion which would be open to manipulation by those with the technical expertise and money to do so".¹⁸⁹

With regard to the South African parliament, consideration should be given to making information that is currently embedded in physical artefacts (e.g. manuals, documents) to be available also in many other formats. The institution already has capacity for this as its infrastructure accommodates audio-visual broadcasting, Web technology etc. Given that out of the four parliaments it is the only institution that has indicated that its use of ICT for promoting public participation is high, it may benefit from examining the extent to which its public participation function can be supported further.

It can be argued that people will appreciate democratic participation if they have convenient means to express themselves or to interact with those in government. ICT has the potential to facilitate e-democracy through improving access to parliament by the majority of the people in a convenient manner.

¹⁸⁹ Kingham, Tess. 2003, p 8

2.4 Findings and the new model

As indicated in chapter 3, websites are proving to be more critical as a means of communication between parliament and citizens. Nonetheless, the notion of flexi-channelling would require that there is a host of bi-directional and collaborative mechanisms to complement or support the website or other tools that are increasingly being used for communication. In this regard attention should be given to, among other things, accommodating social networks as the shift from e-parliament to e-democracy could be realised on the back of social networking tools and culture. This is especially so in light of the fact that digital natives are beginning to participate in political content.

Importantly, the fact that 80 percent of parliaments that have invested in ICT infrastructure have seen an increase in the use of ICT by citizens when communicating with parliament suggests a high possibility that investments for e-democracy would be rewarded. The current environment, where there is a huge increase in mobile cellular teledensity, is supportive of this view. In addition, the use of GIS technology for purposes of gathering location-specific information could assist parliaments to understand their constituencies better and to fashion their interventions accordingly.

Furthermore, it is worth reiterating the point that attention should be given to the creative use of technology to bridge the gap between parliament and communities that have limited, or no access, to technology. This could be done, for example, by integrating the traditional *imbizo* with electronic democracy, thus heralding the birth of *e-imbizo*. The role of knowledge workers will be critical in eliciting knowledge from experts, non-governmental organisations and ordinary citizens, through a process of enquiry and sharing of experience.

In designing a system for e-democracy it is important to look at the lessons from business-supporting models. An important feature, that has relevance for the development of a system that promotes strong relationship with citizens, is the e-business model's

customer relationship management element. This is the process of creating relationships with customers through the introduction of reliable service-automated processes, personal information gathering and processing, as well as self-service, in order to create value for customers. It is important to emphasise that in an e-democracy system citizens have the same status, if not more, that customers enjoy in a business environment.

The adaptation of the e-business model for purposes of developing an e-democracy model can be reflected in the following key building blocks of such a system: business process, public representative process, legislation and policy process, and e-services.

A new e-democracy model would be designed in such a manner that it provides a seamless platform for engagement between parliament and citizens, by integrating ICT infrastructure, processes and human resource. This will include direct frontline support, a mechanism for processing information and knowledge requirements or inputs and knowledge specialists who are responsible for the social context of the system. All these processing mechanisms would support the citizens directly or indirectly through their public representatives by means of direct citizen-MP engagement or via portals that are constituency-based. It is envisaged that each MP will have a portal that is supported by the parliamentary system. The arrangement, which provides for an interface with a relevant public representative, is in recognition of the fact that no democratic government can be run purely electronically.

In essence, the construction of an e-democracy system or model should be informed by the desire to manage intellectual capital within and outside the organisation. Therefore, it must nurture intellectual capital resources. These can be categorised into three, i.e. relational, organisational and human resources.¹⁹⁰

¹⁹⁰ Roos, Göran et al. 2005. *Managing Intellectual Capital in Practice*, pp 72-76

- 1) Relational resources encompass all those relationships the organisation has with entities outside the organisation and that influence the organisation's ability to create value.

Critically, the infrastructure that is required to support the system will have capabilities for collaborative technologies, business workflow processes and networking, as well as legislative, oversight and policy processes. It will have data, voice and video capability, including capability to handle social media content and semi-structured information.

3 Conclusion

e-Democracy is a stage that is beyond e-parliament but which is facilitated and supported by e-parliament. The views of experts seem to converge in as far as the conceptualisation of e-democracy is concerned. The following paraphrased definitions seem to suggest this:

- It is a stage where the full potential of technology is revealed, where people completely transform the way they behave (as enunciated by Schumpeter).
- It is a democratic process facilitated by online activities where citizens seek to shape the development of implementation of public policies, including activities such as advising elected officials about preferences on policy questions and voicing of complaints about governmental services (as enunciated by Streib and Thomas).

It is however possible that a stage is achieved where electronic communication fundamentally changes the way citizens that have “technical expertise and money” behave, in respect of their interaction with parliament. Nevertheless, there is an important

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- 2) Organisational resources make up the nonhuman embodiment of the accumulated knowledge that has been developed by the organisation and suppliers to the organisation that are contributing to the organisation’s value chain. They are the developed structures, systems and other tools of the organisation’s trade.
 - 3) Human resources relates to all the resources embodied in the individuals employed by or linked to the organisation in a way that makes it possible to for the organisation to deploy these resources.

condition that needs to be satisfied to achieve e-democracy. This condition is that such transformation must apply to the majority of citizens. In simple terms, the majority of citizens must have a choice to either go to the “town hall” to lodge a complaint or to use ICT, irrespective of their circumstances. If this condition is not met, achieving e-democracy will be a self-fulfilling prophecy that is not supported by objective factors.

In order to facilitate interaction with citizens an e-democracy system should be designed in such a manner that it provides a seamless platform for engagement between parliament and the majority of citizens by integrating ICT infrastructure, processes and human resource. It is important that in spite of the advancements in ensuring ICT-enabled communication, democracy should always preserve the dynamic of the social context.

The push from e-parliament to e-democracy, however, should as a matter of priority include addressing the number of challenges that are experienced as a result of the proliferation of ICT tools that make communication with parliament easier and quicker. These challenges include those identified by the Global Centre for ICT in Parliament in 2009, such as relating to:

- diversity
- responsiveness
- volume
- access

For instance, one of the means of improving responsiveness is by enhancing interactivity. One example in this regard is the introduction of automated, but customisable, e-mail management system in the handling and answering of incoming e-mail. Three of the parliaments we studied, that is the Czech Republic, India and South Africa, do not have information on how received e-mail messages are responded to.

Another important feature for consideration in developing a system that will facilitate e-democracy is one that makes it possible for parliaments to know where a complaint or comment emanates from, i.e. geographically. This is important because unless we are able to disaggregate the inputs of the public by constituencies, we may not know whether the overall input represents the general views of the public or a particular lobby group. Realistically speaking there are no people that live in cyberspace.

The global push towards strengthening e-parliament with a view to reaching the stage of e-democracy will need to be supported through collective and collaborative efforts. The ultimate aim should be to democratise the use of ICT as a contributor to the creation of parliaments that are representative, transparent, accessible, accountable and effective.

Bibliography

- ANDERSEN, BIRGITTE; HOWELLS, JEREMY; HULL, RICHARD; MILES, IAN and ROBERTS, JOANNE (eds). 2000. Knowledge and Innovation in the New Service Economy. Edward Elgar. Cheltenham, UK.
- APRIL, KURT and IZADI, FARZAD AHMADI. 2004. Knowledge Management Praxis. Juta and Co Ltd. Cape Town.
- BAUMARD, PHILLIPE. 1999. Tacit Knowledge in Organisations. Sage Publications. London.
- BECERRA-FERNANDEZ, IRMA; GONZALEZ, AVELINO and SABHERWAL, RAJIV. 2004. Knowledge Management: Challenges, Solutions, and Technologies. Pearson. New Jersey.
- BEKKER, KOOS (ed). 1996. Citizen Participation in Local Government. J L van Schaik. Pretoria.
- BENTLEY, TREVOR. 1998. Managing Information: Avoiding Overload. The Chartered Institute of Management Accountants. London.
- BOISOT, MH. 1999. Knowledge Assets – Securing Competitive Advantage in the Information Economy
- BOTHA, DF: 2005. MIKM Class Notes on Max Boisot's Knowledge Assets. University of Stellenbosch
- BUNGENI: Parliamentary and Legislative Information System. *Retrieved on 27 July 2010.* (<http://www.bungeni.org>)

- CARAYANNIS, ELIAS G and SIPP, CAROLINE M. 2006. e-Development Toward the Knowledge Economy: Leveraging Technology, Innovation and Entrepreneurship for ``Smart'' Development. Palgrave Macmillan. New York.
- CHORAFAS, DIMITRUS N. 2002. Enterprise Architecture and New Generation Information Systems. St Lucie Press. Washington D.C.
- CLIFT, STEVEN. 2008. Government 2.0 Meets Everyday Citizens and Democracy (a speech delivered at the 2008 conference of the Council of Europe's Forum for the Future of Democracy). *Retrieved on 22 March 2010* (<http://stevenclift.com/?p=273>)
- CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA. 1996. Promulgated on 18 December 1996, Commenced on 4 February 1997. Government Printers. Pretoria.
- CP-AFRICA. 2010. Kenya enters era of e-voting (article). *Retrieved on 20 February 2011*. <http://www.cp-africa.com/2010/04/13/kenya-enters-era-electronic-voting/>
- DAVISON, ROBERT M et al (eds). 2005. Information Systems in Developing Countries: Theory and Practice. City University of Hong Kong Press. Hong Kong.
- DEANS, CANDANCE P. 2009. Social Software and Web 2.0 Technology Trends. Information Science Reference. New York.
- DE', RAHUL. 2006. E-government Systems in Developing Countries: Issues and Concerns – Discussion. IIMB Management Review. Dec 2006, Vol 18 Issue 4 (pp 377-388). India Institute of Management. Bangalore.
- DE VILLIERS, SUSAN. 2001. A People's Government The People's Voice. A Review of Public Participation in the Law and Policy-Making Process in South Africa. Parliamentary Support Programme. Cape Town.
- DUDLEY, ERIC. 1993. The Critical Villager: beyond Community Participation. Routledge. London.

- EGGERS, WILLIAM D. 2005. Government 2.0: Using Technology to Improve Education, Cut Red Tape, Reduce Gridlock, and Enhance Democracy. Rowman and Littlefield Publishers Inc. New York.
- EUROSTAT. 2009. Youth in Europe: A statistical portrait. European Commission. Luxembourg.
- HAGEN, Martin in Hacker Kenneth L and Van Dijk, J (eds). 2000. Digital Democracy: Issues of theory and practice. SAGE. London.
- ESRI. 2009. GIS Best Practices: Leveraging GIS to Alleviate Poverty in Ghana. Esri. Redlands.
- FISHER, KIMBALL and FISHER, MAREEN DUNCAN. 1998. The Distributed Mind: Achieving High Performance Through the Collective Intelligence of Knowledge Work Teams. American Management Association. New York.
- FLYNN, NANCY. 2009. The e-Policy Handbook: Rules and Best Practices to Safely Manage Your Company's e-Mail, Blogs, Social Networking, and Other Communication Tools. (Second Edition). American Management Association. New York.
- FRIEDMAN, THOMAS L. 2005. The World is Flat. Penguin. London
- FORSBERG, ANDERS. 2009. ICT Strategic Planning, Management and Oversight: The Complexity of the Legislative Environment [Speech made at the World e-Parliament Conference 2009 by the Secretary General of The Swedish Parliament]. United States Congress. Washington D.C.
- GILLWALD, ALLISON; MILEK, ANNE and STORK, CHRISTOPH. 2010. Towards Evidence-based ICT Policy and Regulation: Gender Assessment of ICT Access and Usage in Africa. Volume 1, 2010 Policy Paper 5. ResearchICTAfrica.net. Braamfontein.
- GORLA, NARASIMHAIAH. 2007. A Survey of Rural e-Government Projects in India: Status and Benefits. Information Technology for Development, Vol.

15 Issue 1 (pp 52-58). American University of Sharjah. Sharjah, UAE.

- GRIFFITH, JEFFREY C. 2009. The Status of ICT in Parliaments: 2009 [Presentation made at the World e-Parliament Conference 2009 by the Global Centre for ICT in Parliament]. United States Congress. Washington D.C.
- HACKER, KENNETH L and VAN DIJK, JAN (eds). 2000. Digital Democracy: Issues of Theory and Practice. SAGE Publications. London.
- HARGIE, OWEN and TOURISH, DENNIS (eds). 2000. Handbook of Communication Audits for Organisations. Routledge. New York.
- HARRIS, LANCE. 2010. Insulate Against Future Shock (Article in USB Agenda No 2: 2010). University of Stellenbosch Business School. Bellville.
- HELD, DAVID and POLLITT, CHRISTOPHER. 1996. New Forms of Democracy. SAGE Publications. London.
- HIRZALLA, FADI; VAN ZONEN, LIESBET and DE RIDDER, JAN. 2011. Internet Use and Political Participation: Reflections on the Mobilisation/Normalisation Controversy. Routledge Taylor & Francis Group. Amsterdam.
- INTERNATIONAL TELECOMMUNICATIONS UNION. 2009. The World in 2009. ICT Facts and Figures. ITU. Geneva.
- INTER-PARLIAMENTARY UNION. 2006. Parliament and Democracy in the Twenty-First Century: A Guide to Good Practice. IPU. Geneva
- INTER-PARLIAMENTARY UNION. 2008. World e-Parliament Report 2008. IPU. Geneva
- INTER-PARLIAMENTARY UNION. 2009. World e-Parliament Conference 2009: Background Document. United States Congress. Washington D.C.
- INTER-PARLIAMENTARY UNION. 2010. World e-Parliament Report 2010. IPU. Geneva.

- INTER-PARLIAMENTARY UNION. 2009. Guidelines for Parliamentary Websites. IPU. Geneva.
- JACKSON, MICHAEL C. 2003. Systems Thinking: Creative Holism for Managers. John Wiley & Sons, Ltd. University of Hull, United Kingdom.
- JOHNSON, ANDERS B. 2009. Opening Remarks at the World e-Parliament Conference. United States Congress. Washington D.C.
- KARLSSON, CHARLIE; FLENSBURG, PER and HÖRTE, SVEN-AKE (eds). 2004. Knowledge Spillovers and Knowledge Management. Edward Elgar Publishing Ltd. Cheltenham.
- KAVIKONDALA, SRIRAM; VISHNUBHOTLA, V RAMANA RAO; GHAMA, SUBBA RAO and PULIPATI, MADHAV. 2007. Data Standardisation for e-Governance a Practical Approach [Paper published in the book Towards Next Generation e-Government by Bhattacharya, Jaijit (ed)]. Computer Society of India. *Retrieved on 18 September 2010.* (<http://www.iceg.net/2007/books/book2.html>)
- KHOSROW-POUR, MEHDI. 2009. E-Government Diffusion, Policy and Impact: Advanced Issues and Practices. Information Science Reference. New York.
- KHOSROW-POUR, MEHDI. 2005. Practicing e-Government: A Global Perspective. Idea Group Publishing. Hershey PA.
- KINGHAM, TESS. 2003. e-Parliaments: The Use of Information and Communication Technologies to Improve Parliamentary Processes. The World Bank. Washington D.C.
- KODAMA, MITSURU. 2008. New Knowledge Creation Through ICT Dynamic Capability: Creating Knowledge Communities Using Broadband. Information Age Publishing Inc. Charlotte, NC. United States.
- LAUDON, KENNETH C and LAUDON, JANE P. 2006. Management Information Systems: Managing the Digital Firm. Pearson Education. New Jersey.

- LAUDON, KENNETH C and TRAVER, CAROL GUERCIO. 2008. e-commerce: business. technology. society. Pearson Education. New Jersey.
- MALOME, THOMAS W; CROWSTON, KEVIN and HERMAN, GEORGE A. 2003. Organizing Business Knowledge: The MIT Process Handbook. The MIT Press. Cambridge, Massachusetts.
- MALHOTRA, CHARRU; CHARIAR, V M; DAS, L K and ILAVARASAN P V. 2007. ICT for Rural Development: An Inclusive Framework for e-Governance [Paper published in the book Towards Next Generation e-Government by Bhattacharya, Jaijit (ed)]. Computer Society of India. Retrieved on 22 September 2010. (<http://www.iceg.net/2007/books/book2.html>)
- MALHOTRA, YODESH. 2001. Knowledge Management and Business Model Innovation. Idea Group Publishing. Hershey.
- MANDELA, NELSON. 2004, May 10. Speech on the Occasion of his Final Address to the Parliament of the Republic of South Africa. Cape Town.
- MATANGA, CECILIA. 2009. Africa i-Parliament Action Plan [Presentation made at the World e-Parliament Conference 2009 on behalf of the United Nations Department of Economic and Social Affairs]. United States Congress. Washington D.C.
- MICROPOLL ONLINE RESEARCH COMPANY. (Image). Retrieved on 28 July 2010 (http://micropoll.com/images/micropoll/show_result_full.png)
- MORGAN, GARETH. 2006. Images of Organisation. SAGE Publications. Thousand Oaks.
- MOWBRAY, BEN. 1994. Challenges in locating experts. American Productivity and Quality Center (article). Retrieved on 14 October 2010 (http://www.providersedge.com/docs/km_articles/Challenges_in_locating_experts.pdf)
- NONAKA, IKUJIRO (ed). 2005. Knowledge Management: Critical Perspectives on Business and Management. Routledge. New York.

- NORRIS, DONALD. 2008. E-Government Research: Policy and Management. IGI Publishing. Hershey PA.
- PAPAZOGLU, MICHAEL P and RIBBERS, PIETER M A. 2006. E-Business: Organisational and Technical Foundations. John Wiley & Sons. England
- PARLIAMENT OF SOUTH AFRICA. 2005. Strategic Plan for Third Parliament: 2004-2009. Parliament of RSA. Cape Town
- PEELEN, ED. 2003. Customer Relationship Management. Prentice Hall. England.
- PELOSI, NANCY. 2009. Let Us Come Together to Foster Transparency and Openness [Speech delivered on 3 November 2009 at the World e-Parliament Conference 2009]. United States Congress. Washington D.C.
- PETERS, GUY B. 2001. The future of governing (Second Edition, Revised). University Press of Kansas. USA
- PFEFFER, JEFFREY and SUTTON, ROBERT I. 2000. The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action. Harvard Business School Press. Boston.
- RAINER, KELLY R Jr, TURBAN, EFRAIM and POTTER, E RICHARD. 2007. Introduction to Information Systems: Supporting and Transforming Business. John Wiley and Sons Inc. Danvers.
- RANADIVÉ, VIVEK. 1999. The Power of Now: How Winning Companies Sense and Respond to Change Using Real-Time Technology. McGraw-Hill. New York.
- RAVITCH, DIANE and THERNSTROM, ABIGAIL (eds). 1992. The Democracy Reader: Classic and Modern Speeches, Essays, Poems, Declarations and Documents on Freedom and Human Rights Worldwide. HarperCollins Publishers. New York.
- RIKOWSKI, RUTH (ed). 2007. Knowledge Management: Social, Cultural and Theoretical Perspectives. Chandos Publishing. Oxford, England.

- RODIN, ROBERT (with HARTMAN, CURTIS). 2000. Free, Perfect, and Now: Connecting to the Three Insatiable Customer Demands. Touchstone. New York.
- ROBSON, WILLIAM A. 1964. The Governors and the Governed. George Allen and UNWIN Ltd. London.
- ROOS, GöRAN, PIKE, STEPHEN and FERNSTRÖM. 2005. Managing Intellectual Capital in Practice. Elsevier Butterworth-Heinemann. Oxford.
- SCOTT, JOEL and LEE, DAVID. 2006. Microsoft CRM 3 for Dummies. Wiley Publishing, Inc. Hoboken.
- SENGE, PETER M; KLEINER, ART; ROBERTS, CHARLOTTE; ROSS RICHARD B and SMITH, BRYAN J. 1994. The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organisation. Nicholas Bradley Publishing. London.
- SKYRME, DAVID J. 2001. Capitalising on Knowledge: From e-Business to k-Business. Butterworth-Heinemann. Oxford.
- SOUTHERN AFRICAN DEVELOPMENT COMMUNITY PARLIAMENTARY FORUM. 2009. Communique of the Parliamentary Forum Information and Communication Technologies Conference on “e-Parliament, Concepts, Policies and Reality” held at Cape Town from 12 to 14 October 2009. Cape Town.
- STREIB, GREGORY and THOMAS, JOHN CLAYTON. Undated Paper. e-Democracy, e-Commerce, and e-Research: Examining the Electronic Ties Between Citizens and Government. Georgia State University. Atlanta. *Retrieved on 2 October 2010.* (<http://www2.gsu.edu/~padgds/Streib>).
- SWART, PROF JUANI. 2010. Winning the Knowledge Game: Client and Employee Perspectives on Managing Knowledge (Presentation at University of Stellenbosch Business School’s Leader’s Angle on 2 September 2010). USB and University of Bath. Bellville.

- TAPSCOTT, DON and WILLIAMS, ANTHONY D. 2006. Wikinomics: How Mass Collaboration Changes Everything. Atlantic Books. London.
- THATCHENKERY, TOJO and CHOWDRY, DILPREET. 2007. Appreciative Inquiry and Knowledge Management: A Social Constructionist Perspective. Edward Elgar Publishing Limited. United Kingdom.
- THE PRESIDENCY. 2010. Hotline Turns One Year Old [South African Government Statement on the Presidential Hotline issued on 14 September 2010]. *Retrieved on 23 September 2010.* (<http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=12930tid=18199>)
- TRIPATHI, RAKHI; GUPTA, M P and BHATTACHARYA, JAIJIT. 2007. Selected Aspects of Interoperability in One-stop Government Portal of India. [Paper published in the book Towards Next Generation e-Government by Bhattacharya, Jaijit (ed)]. Computer Society of India. *Retrieved on 17 September 2010.* (<http://www.iceg.net/2007/books/book2.html>)
- TURBAN, EFRAIM; LEIDNER, DOROTHY; MCLEAN, EPHRAIM and WETHERBE. 2008. Information Technology for Management: Transforming Organisations in the Digital Economy. 6th Edition. John Wiley and Sons, Inc. New Jersey.
- TURBAN, EFRAIM and VOLONINO, LINDA. 2010. Information Technology for Management: Transforming Organisations in the Digital Economy. JohnWiley & Sons, Inc. Asia.
- UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS. 2008. United Nations e-Government Survey 2008: From e-Government to Connected Governance. United Nations. New York.
- UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS. 2010. United Nations e-Government Survey 2010: Leveraging e-

Government at a Time of Financial and Economic Crisis. United Nations. New York.

UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS. 2010. World Population Ageing. United Nations. New York.

VELJANOSKI, TRAJKO and MAKRADULI, JANI. 2009. How ICT can Strengthen Parliaments in Young Democracies: Macedonian Case [Presentation made at the World e-Parliament Conference 2009]. United States Congress. Washington D.C.

WARD, JOHN and PEPPARD, JOE. 2002. Strategic Planning for Information Systems. Third Edition. John Wiley and Sons Ltd. West Sussex. England.

WALLACE, DANNY P. 2007. Knowledge Management: Historical and Cross-disciplinary Themes. Libraries Unlimited. London.

WEICK, KARL E. 1995: Sensemaking in Organisations. Sage Publications. London.

WESSELS, PL; GROBBELAAR, E; MCGEE and PRINSLOO, GTM. 2007. Information Systems in a Business Environment (Fourth Edition). LexisNexis. Durban.

WORLD SUMMIT ON THE INFORMATION SOCIETY: Geneva 2003-Tunis 2005. Retrieved on 8 April 2010 (<http://www.itu.int/wsis/tunis/newsroom/stats/>)

YAO, YURONG; OKOLI, CHITU; HOUSTON, ANDREA and WATSON, EDWARD. 2006. Demographic Differences in Attitudes toward Remote Electronic Voting Systems. Journal of Computer Information Systems. Vol 47 Issue 2 (pp 34-45). Suffolk University. Massachusetts.

Annexure

QUESTIONNAIRE FOR A MASTERS RESEARCH SUPERVISED BY THE DEPARTMENT OF INFORMATION AND KNOWLEDGE MANAGEMENT OF THE CENTRE FOR KNOWLEDGE DYNAMICS AND DECISION MAKING, UNIVERSITY OF STELLENBOSCH, SOUTH AFRICA

RESEARCH AREA: *e-Parliament and the promotion of democracy*

PURPOSE OF RESEARCH: To obtain information with regard to e-parliament policies, technologies, practices and organisational culture for a comparative analysis of the extent to which these assist in furthering the legislative, oversight and public participation functions in modern-day parliaments.

***N.B:** For purposes of this study, e-parliament is defined as the strengthening of parliamentary democracy by enhancing the efficiency, effectiveness, and workings of Parliament using information and communication technologies (adapted from Tess Kingham ¹).*

SECTION A

1. Policies

1.1 Does your organisation have in place a strategy to support the implementation of e-parliament? **Indicate by highlighting answer below in bold.**

YES

NO

1.2 If any, what are the three key elements of your organisation's strategy to support the implementation of e-parliament? **List below.**

(a)

(b)

(c)

1.3 Does your organisation have in place a set of policies regarding the use or management of information and communication technologies (ICTs) for purposes of supporting e-parliament systems? **Indicate by highlighting answer below in bold.**

YES

NO

1.4 If any, mention at least three policies you would regard as key to supporting the organisation's e-parliament strategy. **List below.**

(a)

(b)

(c)

1.5 If any, is there a process of monitoring and evaluating the organisation's policies for purposes of supporting and enhancing the implementation of e-parliament? **Indicate by highlighting answer below in bold.**

YES

NO

2. Technologies (both hardware and software)

1.6 2.1 Does your organisation have in place the required type of technology infrastructure to support the implementation of your e-parliament strategy? **Indicate by highlighting answer below in bold.**

YES

NO

2.2 What are the elements/systems of your organisation's infrastructure that are regarded as key for purposes of supporting the implementation of e-parliament? **Mention three.**

(a)

(b)

(c)

2.3 Was your Parliament's ICT infrastructure designed as ((a) part of a project plan for the implementation of e-parliament, or (b) implementation of e-parliament was informed by available ICT infrastructure? **Mark corresponding letter below in bold.**

- (a)
- (b)

2.4 To what extent is your organisation making use of the capability of ICT infrastructure and systems to support the implementation of e-parliament? **Write answer below.**

1.7 2.5 Does your organisation have the capacity required to ensure that the deployed ICT infrastructure is utilised to its full potential for purposes of supporting the implementation of e-parliament? **Indicate by highlighting answer below in bold.**

- YES
- NO

2.6 Does your organisation have the capacity required to ensure that the deployed ICT systems are utilised to their full potential for purposes of supporting the implementation of e-parliament? **Write answer below.**

1.8 2.7 Does your organisation, in your own view, get value for money from ICT solutions which are there to facilitate the implementation of e-parliament? **Indicate by highlighting answer below in bold.**

- (a) yes
- (b) no
- (c) not sure

2.8 What is the degree of penetration of Internet ((a) within the organisation, (b) within the country)? **Write answer next to corresponding letter.**

- (a)
- (b)

2.9 What is the extent of the organisation's reliance on ICTs for purposes of (a) legislative, (b) oversight and (c) public participation functions? **Indicate by using Low, Medium or High next to corresponding letter below.**

- (a)
- (b)
- ©

[**Low** represents up to 40%, **Medium** represents up to 70%, and **High** represents 70% and above]

2.10 Mention at least three examples of interactive technologies which allow for communication between Parliament and the public or interests groups.

- (a)
- (b)
- (c)

2.11 If any, what is the most popular form or type of interactive technologies for communication between your Parliament and the public or interest groups? **Write answer below.**

1.9 2.12 Do your organisation's ICT systems or tools (e.g. parliamentary website) provide Members of Parliament or parliamentary administration with geographical information requirements option (e.g. registering the number of electronic submissions or e-petitions received per area) for purposes of capturing, processing or analysing information or needs of a specific constituency? **Indicate by highlighting answer below in bold.**

- YES
- NO

2.13 What is the average percentage of people, those who interact with Parliament, who use interactive technologies (e.g. chatrooms or e-petitions facilities from your Parliament's website) for purposes of communicating with Parliament? **Write answer below.**

1.10 2.14 Does your organisation have the capacity to process all the electronic content (e.g. emails) from people who use ICT facilities to interact with Parliament? **Indicate by highlighting answer below in bold.**

- YES
- NO

3. Practices

1.11 3.1 Are there any programmes or incentives designed by the organisation for purposes of encouraging the use of information and communication technologies by internal users to facilitate communication by Parliament? **Indicate by highlighting answer below in bold.**

- YES
- NO

3.2 Are there any programmes or incentives designed by the organisation for purposes of encouraging the use of information and communication technologies by external users to facilitate communication with Parliament? **Write answer below.**

3.3 Give three categories of end-users (e.g. MPs, parliamentary staff, NGOs, members of the public etc), in order of significance, who use information and communication technologies frequently in their interaction with the public or Parliament. **Write answer below starting with (a) for most frequent category(ies) of end-user(s) and (c) for less frequent.**

(a)

(b)

(c)

3.4 Does your organisation have dedicated training programmes in ICT skills for (a) MPs and (b) parliamentary staff? **Indicate answer by marking 'yes' or 'no' in bold for each of the two categories.**

(a) YES NO

(b) YES NO

3.5 What is the average percentage of MPs with ICT skills in your Parliament? **Write answer below.**

4. Culture (organisational)

4.1 In performing their work as representatives of their different constituencies, are the MPs more inclined to use (a) traditional methods of communication e.g. telephone, letters, fax or (b) more modern methods e.g. e-mails, Facebook, to communicate? **Mark corresponding letter below in bold.**

(a)

(b)

4.2 In what form is information for MPs in your organisation mainly packaged or embedded? (a) physical artefacts e.g. manuals, documents (b) visual e.g. electronic presentations, videos (c) sound e.g. CDs?

(a)

(b)

(c)

1.12 4.3 Does your organisation actively promote the use of either web video conferencing, tele-town hall or social networking (Facebook, Twitter, YouTube) by MPs in the performance of their work? **Indicate by highlighting answer below in bold.**

YES

NO

1.13 4.4 Do the Presiding Officers (e.g. Speaker, President, Chairperson) as head/s of your Parliament have dedicated e-mails for general submissions from members of the public or interest groups? **Indicate by highlighting answer below in bold.**

YES

NO

4.5 If yes, what is the attitude of MPs towards these tools as means of communication?

4.5 If so, how many e-mails on average are (a) received and (b) responded to each month? **Indicate answer by marking corresponding letter below in bold.**

(a)

(b)

SECTION B

1.14 1. e-Parliament is often viewed as a step towards e-democracy. Do you think that your Parliament has reached the stage of e-democracy as explained by Tess Kingham?? **Indicate by highlighting answer below in bold.**

YES

NO

2. If no, what do you regard as an impediment towards embracing e-democracy? **Write answer below.**

3. Theorist J A Schumpeter identifies three stages of technological innovation. With reference to these stages listed below:

3.1 *First stage* – people first use technology to replace old forms;

3.2 *Second stage* – once people have replaced old forms, they use technology to improve the way they work; and

3.3 *Third stage* – it is only at this stage that the full potential of the technology is revealed when people completely transform they way they behave

At what stage would you locate your Parliament's efforts at using e-Parliament in pursuit of or in the implementation of e-democracy? **Write answer below.**

4. If you were to advise on success stories of e-democracy, which country Parliaments would you recommend for examples of best practices (mention at least two, if any). Give reasons. **Write answer below.**
5. The following challenges¹⁹¹ brought about by the new methods for communication have been identified: diversity, directionality, responsiveness, volume, value of citizen comments, and access (refer to footnotes below for explanation). What has your parliament or organisation done, or is doing, to respond to these challenges in the context of strengthening democracy. **Explain in brief under each point below.**

5.1 diversity

5.2 directionality

5.3 responsiveness

5.4 volume

¹⁹¹ **diversity** - the challenge, occasioned by the huge growth of a range of communication options, that parliaments and Members had had to deal both with increased pressure to expand their use of these technologies and with the need for resources that such use demands; **directionality** - refers to whether the method supports communication that is primarily uni-directional, for example a website or a newsletter, or bi-directional, for example an email from a citizen and a reply from a Member; **responsiveness** - the challenge here is that ICT can make it so easy for citizens to send communications electronically that having the time and resources to provide thoughtful responses to all of them, at least at the individual level, can be extremely difficult if not impossible; **volume** - the challenge here is that to be responsive is being exacerbated by the volume of communication that can be generated through the Internet; **value of citizen comments** - this relates to the difficulty often experienced of determining how representative the comments received are and how informed they may be; **access** - this relates to equal opportunity and access given the digital divide which separates those with reliable Internet access and those who do not. (*Background Discussion Paper, World e-Parliament Conference 2009, p 4 – hosted by the U.S. House of Representatives, Washington D.C.*)

5.5 value of citizen comments

5.6 access

N.B: Thank you very much for your participation and input.

References:

1. Kingham, Tess. 2003. *e-Parliaments: The Use of Information Communication Technologies to Improve Parliamentary Processes*. World Bank Institute. Washington.
2. e-democracy is whereby parliamentarians are using ICT to ensure that they are better connected with their electorate, offering members of the public opportunities to participate more directly and collectively in the policy input processes of parliamentary democracy using ICT (Kingham, 2003)