

Country Overview South Africa

**VOICE OR
CHATTER?**
STATE OF THE ART

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State of the Art: South Africa

This State of the Art report intends to provide a contemporary picture of citizen engagement in South Africa and the extent to which ICTs are contributing towards citizen participation with government. The paper is broken down into three sections: the first section is an overview of government policies around citizen participation and a national overview on ICT-mediated citizen engagement, the second section explores some of the emerging ICT-mediated spaces in South Africa, and the last section uses the theory of structuration to analyze digital state-citizen engagement.

1. Overview

1.1 The South African Landscape

South Africa offers wide spread ICT infrastructure in the country and adoption is high amongst the population. South Africa ranks in the top twenty countries globally for the provision of international Internet bandwidth (World Economic Forum, 2016: p. 26). It has a growing population currently at 55.6 million people (Statistics South Africa, 2016) and the ownership of mobile phones and Internet use are rising (Statistics South Africa, 2012). In 2016, 93.8 per cent of households in South Africa own a mobile phone; only ten years ago, less than a third of the households had such possession (Statistics South Africa, 2016). Low-cost phones are well-advertised in the country; the most affordable phone is priced at 150 Rands (\$15 USD) for a Nokia 100 handset (Goldstuck, 2013). The adoption of computers has been substantially lower, with computer ownership at only 24.5 percent amongst households in 2016, while in 2011, 64.8 per cent of households remain without Internet access (Statistics South Africa, 2012;2016). Yet, South Africans are embracing mobile and smart phones as well as hand held tablets (mybroadband, 2016).

In terms of standards of living, South Africans have seen a slight improvement in income poverty, a notable improvement in non-metric asset measures (such as in education, health and living standards), but persistently high inequality (Leibbrandt et al., 2016). The working poor constitute a significant proportion of the South African population, “36 per cent of South Africa’s workforce live in households that cannot afford R1,400 (just over \$100 USD) of goods and foods per month” (Rogan & Reynolds, 2015). Yet high income inequality, unemployment and poverty levels have also not deterred low income users from mobile phone ownership. Low income households have mobile ownership rates of 74.8 per cent (Gillwald et al., 2012). The high cost of telephonic or broadband connectivity put budgetary pressure on low income users communication expenses make up a substantial proportion of their income compared to high income users (Gillwald & Stork, 2008). The high inflationary costs of food and basic needs such as electricity, health care and education are also part of the growing concern of the poor (Leibbrandt et al., 2016). Given high individual investments required to participate in a digital-enabled society, the pace of citizen use of ICTs for development is slow (Abrahams, 2011). The resource constrained are continuously pushed away from opportunities for a better life including the chance to extend their capabilities through ICT use.

ICT-mediated citizen engagement is still a novelty and in the infancy stages within this country’s young over twenty years of democracy. As one would expect, national priorities have been around redressing the racial inequalities of the past. Prior to 1994, development infrastructure occurred in very unequal mechanisms, with some regions, such as cities, being provisioned with water, sanitation and public facilities, whilst other regions, such as townships, given less than sufficient resources. But today, the state attempts to meet needs such as universal education and healthcare access, and support social protection programs to the most vulnerable. With greater ICT availability, there is a growing possibility for citizens to hold government accountable, by sending immediate feedback on service performance through digital technologies.

1.1.1 The South African Constitution and Citizen Engagement

Broadly, the citizens of South Africa are provisioned with certain principles of human rights and freedom through the binding national constitution and its respective policies under a political system of democracy. The Constitution of the Republic of South Africa provides the citizens of the country with the guidelines and opportunities of engagement with government (Republic of South Africa, 1996). In regard to citizen voice and participation, the section on the Bill of Rights (Chapter 2 of the Constitution) provides the following critical laws for citizen voice: 1) the provision for the

freedom of speech and expression (Section 16); 2) the freedom to assembly, demonstration, picket and petition (Section 17); and the freedom of association (Section 18). As for state information, the constitution has provisions which guarantee citizens' access to information (Section 32), particularly on its local, provincial and national policies (Section 195(1)(g)). At all spheres of government from municipal, provincial to national the Constitution state that the public are to be facilitated through open and public involvement in government legislative processes. They are required to encourage citizen involvement and communicate the various by-laws, legislature and bills or amendments on the table. These constitutional sections have the intention to provide citizens their rights to participate with government processes, all of which provide the platform for policies and strategies to enable ICTs as a mechanism to carry out these Constitutional mandates.

1.1.2 National Development Plan and Citizen Engagement

While the country is guided by the overall constitution, specific national, provincial and local institutions and policy direct the formal government implementation of citizen participation and voice. The current South African government leads its socio-economic strategies, goals and mission through the National Development Plan (NDP) (National Planning Commission, 2011), and ministerial or departmental policies are aligned with these development planning strategies. Of interest here are the national Department of Planning, Monitoring and Evaluation (DPME) for citizen engagement and the Department of Public Services and Administration for ICT governance.

The National Development Plan stresses on the need to see citizen engagement as integral, supportive and incentivized with mechanisms to allow South Africans to ensure government actions are held to account (National Planning Commission, 2011). It provides suggestions on mechanisms for citizen participation including: school governing bodies, ward committees, community policing forums, clinic committees, and bodies used to draft local government plans. Such face-to-face activities have been the conventional mode of government engagement, but can be insufficient for developing inclusive government and citizen relations (Vivier et al., 2015). The NDP is also well aware of the current challenges for the state to respond in a timely manner to citizens' issues especially around absent or poor service delivery, which thereby lead to discontent and protests (National Planning Commission, 2011, p. 427). Given this context, government is developing innovative participatory mechanisms to improve its communication and accountability channels to their citizens. While making mention of both models of accountability – hierarchical and bottom-up approaches – the NDP describes citizen engagement as those committed to identifying some of the gaps in service provision and ensuring scrutiny of government data (National Planning Commission, 2011). The NDP states some of the past issues include flawed participatory processes and that there remain few incentives and motivation for citizens to work towards their own community plans. It is also aware of needing differentiated approaches for participation in community planning and development, particularly between low and well resourced citizens (National Planning Commission, 2011: p. 275). Aware of previous weaknesses, the current national planning document is clear in the mandate and importance for equal citizen voice for all and encourages citizen participation to be part of development processes.

As pointed out by the NDP, certain citizen engagement processes are to be driven by specific national entities including the Department of Public Services and Administration (DPSA) and the Department of Performance, Monitoring and Evaluation (DPME). These two departments have policies that guide bottom-up citizen engagement, and, in some cases, work with citizens to create useful feedback activities to government. There are also some indications of ICT enabled citizen engagement within the NDP. The next government policy sections specify citizen participation policies of information provision through the open government partnership, as well as accountability mechanisms, using national ICT-mediated citizen activities such as the Presidential hotline.

1.1.3 E-Government and Citizen Engagement

The provision of government information enables citizens to be informed and ultimately use information to hold officials accountable. Under the 1995 White Paper on the Transformation of the Public Service and the Constitution (Republic of South Africa, 1995), public service is to be “people-centered and people driven.” As for information and digital intermediation of services, the Department of Public Services and Administration (DPSA) is coordinating electronic government services through the e-Government Framework (Republic of South Africa, 2001). This framework refers to back-end standardization and interoperability across department internal management information systems and front end through information provision on updated departmental websites. Within the NDP, citizenship engagement includes civil society’s access and use of national or subnational data as evidence to hold government accountable. The DPSA thereby ensure a uniform and coordinated management information systems of its departments, and is guided by one national strategy (Republic of South Africa, 20132). Another issue is the feedback mechanism through e-Services, allowing citizens access to government information and the ability to interact immediately and directly with government online (Republic of South Africa, 2001). Some examples include the digital application for government identification cards.

Also, found within the DPSA’s work stream is the open data initiative titled, Open Government Partnership (OGP), which was implemented in 2011. South Africa, being one of the original members of the OGP, has entered the third country action plan (2016-2018) (Open Government Partnership South Africa, 2016). The idea is for government to partner with civil society in improving transparency, accountability and civic participation. The plan provides coordination across departments on four principles – transparency, accountability, participation and, technology & innovation. More specifically, eight commitments have been set for 2016 – 2018 to support citizen participation. Under the section on ICTs and data for citizen use which falls within the “innovation” principle of the OGP documentation are included: digital data collection, open budget, and website portals. One OGP initiative is citizen-based monitoring (CBM) led by DPME, integrating ICT mechanisms in the future. Open Budget is another OGP activity, ranking South Africa as one of the top three governments on transparency of its national budget. There is, however, recommendation to encourage broad participation in regards to budgetary citizen feedback. Finally, the majority of OGP activities focus on better accessibility to information. The accessibility of computers, tablets and the Internet and the development of website portals for information are some examples. The Department of Environmental Affairs plans to create a publicly accessible portal on environmental management. However, its use for citizens remain information-based only. From previous iterations of the OGP country action plan, there were found to be challenges in citizen participation due to widespread diversity of opinions within civil society. With the main mandate to ensure government information is accessible and public administration systems are ICT integrated, the DPSA has provided varying degrees of citizen engagement through the use of ICTs and are placed as a coordinating body to ensure ICT integration across government.

1.1.4 Monitoring, Evaluation and Citizen Engagement

The DPME at the national level are mandated to develop indicators around government performance and monitoring which would specifically measure South African government’s ability to meet their key performance areas. For citizen participation, the NDP also clearly identifies the DPME to ensure accountability. Specifically, this department has been suggested to lead bottom-up mechanisms to ensure citizens have a way to share their issues and gain feedback from government through its action (National Planning Commission, 2011: p. 427). Within the DPME programmes, the main citizen participation program is the frontline service delivery monitoring system. This frontline system was created in response to citizen protests and a call by the president for his administration to be more responsive to citizens’ issues (Republic of South Africa,

2009). Three main activities were designed within the frontline program: 1) the Presidential hotline; 2) the citizen-based monitoring framework; and 3) unannounced visits to certain frontline services. Firstly, the toll-free presidential hotline was established to manage citizen complaints and provide resolution to issues (Republic of South Africa, 2014b). ICTs are fully integrated within the hotline, receiving feedback through phone calls, emails and regular mail. Receiving over 190,000 complaints in the past four years, the hotline has been seen as a marked improvement in resolution of grievances, moving from 64 per cent resolution in the first year (2010), to over 95 per cent resolution (Republic of South Africa, 2014b;2014c). The second activity is the framework on citizen-based monitoring (CBM). As a local level accountability mechanism, local community members work with front line civil servants, conducting surveys and interviews to collect data on citizen issues. Ultimately, the team produces reports with the collated information, and report back to their own communities. While surveys are paper-based, an automated report system was created with the help of the local university's software engineering centers (Republic of South Africa, 2016a). In December 2015, the CBM evaluation concluded the pilot implementation of CBM, stating that citizens appreciated the opportunity to provide feedback. There were, however, issues around local skill transfers, how to leverage existing formal citizen structures within the CBM processes, and how to monitor commitments made at the feedback community meeting. Despite these issues, citizens found the process meaningful and effective for voicing citizen concern. Finally, the unannounced visits to various departments had assessment criteria to monitor the department's effectiveness. As for citizen engagement, the assessment reviews the use of traditional mechanisms for citizen feedback such as the provision of a feedback box, but little is mentioned on the use of ICTs to facilitate citizen feedback. The three activities within the frontline service delivery monitoring system are provisioned to improve citizen engagement with government.

In analysis of the national policies within the National Development Plan, DPME and DPSA have clear guidelines of citizen voice to government processes. The departments overall state explicit initiatives on increasing citizen participation in government processes from the CBM to the provision of government information on its websites. Yet the ICT-mediated citizen engagement appears, in most cases, a novel, information provision stage with exception of the Presidential hotline. Of all the stated activities, the Presidential hotline uses ICTs to directly assist South African engagement with government. Yet with the size of a country like South Africa, the receipt of the stated 190,000 complaints over the initiative's short time period pales in comparison to the likely demands of 51 million citizens (Republic of South Africa, 2014c). The other mechanisms of citizen based engagement and other formal spaces such as local ward committees and Thusong Service Centres provide face-to-face venues to request for service delivery and feedback. There are extensive resources committed to get these on-the-ground mechanisms to work. These formal spaces however, could encourage further citizen participation through extending the use of ICTs. The national departments have provided accessibility to digital government information and, to a lesser extent, to digital transactions and online feedback mechanisms.

1.2 National policy for ICT Infrastructure

Brief coverage around government policy on universal ICT access and connectivity would be complementary on a discussion around ICT-mediated citizen engagement. The National Development Plan discusses the concern around the high cost of broadband Internet connectivity and looks for mechanisms to ensure South Africa does not end up on the wrong side of the global digital divide (National Planning Commission, 2011: p. 23). In order to address this concern, the Presidency's Infrastructure Development Act (Republic of South Africa, 2014a) includes the strategic integrated project to expand the access to communication technology including the fibre-optic networks and a supportive regulatory framework are suggested to ensure Internet broadband is of improved access, of high quality, and affordable. Furthermore, the NDP notes addressing the

low broadband usage gap through initiatives such as “smart subsidies” (financial incentives to under-resourced areas) and an e-literacy training component within education and health programmes. To date, the development of city Wi-fi networks are on the rise, and in some cases, partnerships are being successfully implemented in some municipalities (for example, Project Isizwe, 2016). Through synergistic expertise of Project Isizwe, cities like Tshwane (Pretoria) are helping to accelerate the delivery of free or subsidized wifi for the public in these cities. The public private partnership (PPP) governance in South Africa falls under the National Treasury implementation of Regulation 16 to the Public Finance Management Act, 1999 (PFMA) and Section 168(1)(d) of the Municipal Finance Management Act (2003).

Besides the recent infrastructure development, little is identified as to specific regulation of PPP models in e-participation. However, there is one case of the South African Department of Labour Stakeholder website interface partnering with Siemens (under a competitive tender process) to build an e-government portal for information access to citizens (infodev, 2009). Despite these developments, it is noted that fixed line broadband remains dominated by one service provider (Telkom) despite the market being open to competition (Gillwald et al., 2012). The ICT section of the NDP does not specify that ICT be used towards citizen engagement with government and remains broad in its use towards terms of economic and social participation (National Planning Commission, 2011). Nevertheless, the inclusion of ICTs for human development through a specific section on information and communications infrastructure represents a shift to include communication policy as relevant to society at large (National Planning Commission, 2011: p. 190).

As for specific policies of the Department of Telecommunications and Postal Services (DTPS), the Broadband policy for South Africa (Republic of South Africa, 2013c) remains the main policy to provide sufficient connectivity to citizens. Since the launch of the NDP, three major ICT policy deliverables have been established in South Africa. First, the 2020 Vision statement for broadband promises that “100 per cent of South Africans will have access to broadband services at 2.5 per cent or less of the population’s average monthly income,” by 2020 (National Planning Commission, 2011). The Broadband policy (2013) then operationalizes the promised vision on information and communications infrastructure, integrating its strategies into four component categories: 1) digital readiness; 2) digital development; 3) digital future; and 4) digital opportunity (Republic of South Africa 2013c). While the first three categories concentrate on supply side regulation to drive competition, digital opportunity provides a strategic point on fueling the demand side of ICT. Building local content and e-literacy capabilities of South Africans are emphasized within digital opportunities. Aligned with the broadband policy is the National eSkills Plan of Action (NeSPA) (Republic of South Africa, 2013a) which provides guidance on improving the digital skills of South Africans. Such skills would also allow for improved e-participation. Finally, the National Integrated ICT Policy Green Paper (2014) (Republic of South Africa, 2013b) has a specified in section 9 – an ICT policy review on eServices which thereby cross-cuts with the DTPS’s 2001 e-Government document. This section on eServices specifies ICT-mediation between citizen and government.

1.3 The History of e-participation in South Africa

Prior to the contemporary policies that are in place, much of the historic emphasis was on citizen participation indirectly through the provision of ICTs for all, taking a techno-centric approach (Moodley, 2005). The supply side approach was meant to alleviate the digital divide of the 1990s and early 2000s. More specifically, the telecentre movement was the main strategy for universal access in South Africa and the telecentres themselves had taught policy makers many lessons. Challenges of cost with a policy for not-for-profit delivery of service (Gomez et al., 2012), and ineffective operations of the past (Benjamin, 2001; Parkinson, 2005) have been barriers faced by telecentres in meeting the everyday digital needs of citizens. Lessons from South Africa reflect the

need to incorporate multiple structural components (human, political and technical), rather than solely the 'Internet connection', as necessary for a successful telecentre (Attwood *et al.*, 2013). The evolution from the previous access policy to current ICT policy show increased emphasis on people's participation (Diga *et al.*, 2013).

Today, telecentres and e-Services centers have been consolidated for citizens into a 'one stop shop' titled Thusong Services Centres (Government Communication and Information Systems, 2006). The 'one-stop shop' is a physical place which provides subsidized computer and internet usage for all South Africans as well as face-to-face assistance on the provision of government information, library services and feedback (Vivier *et al.*, 2015). Non-government organizations are also able to use the space for meetings and help to address community needs. The consolidation of telecentres within institutional structures help to ensure stable government telecom infrastructure (USAASA, 2011). Community-designed training (both computer and goal-setting) which fit their specific needs have been shown to effectively improve the lives of telecentre users in KwaZulu-Natal (Attwood *et al.*, 2014). In urban areas, we see more exploration of mobile applications by both government and non-governmental organizations to reach citizens on public issues (Vivier *et al.*, 2015). Infrastructural upgrades in the city space, as well as more visibility of mechanisms for citizens to reach government digitally are indicative of enhancing the government citizen ICT space. The main approach of e-participation has been based on addressing the ICT supply gap, ensuring inclusivity of Internet access across rural and urban divides as well as various socio-economic divides. As the approach has concentrated on consolidated infrastructure provision, little is known of whether these evolved telecentres or Thusong centres are succeeding in aiding citizens with digital tools for government services or democratic processes. The supply side provision of ICT infrastructure has however created some policy thinking on creating an enabling environment for citizens. In the back end of government information systems, standardization of government websites, information provision for citizens and some mechanisms for citizen feedback on the websites are readily available. From the front end or citizen view, the consolidated telecentres within the Thusong centres as well as the provision of wifi and personal mobile phone devices have now moved the historic e-participation supply strategy to one that is embracing holistic community needs, including eServices. The holistic centers can help citizens with an inclusive platform to address some of their service delivery issues with government, either online or face-to-face and create a space for gathering for the community.

Despite these meaningful government efforts, there is a risk that certain ICTs are not well utilized by the poor and marginalized and will further the digital divide due to time and high costs (Vivier *et al.*, 2015). South African youth who would be assumed to be most inclined to ICT usage are found to have less interest to politically engage online than in other online activities such as social relation engagement. Few use the Internet to search and access government services (Oyedemi, 2015) E-participation would thereby benefit from differentiated approaches of communicating government information which still complementing face-to-face mechanisms. Given the telecentre evolution, there is a gap in understanding the current use of these new integrated spaces by citizens for democratic practices as well as use of ICTs for citizen engagement at other levels of government such as provincial and local.

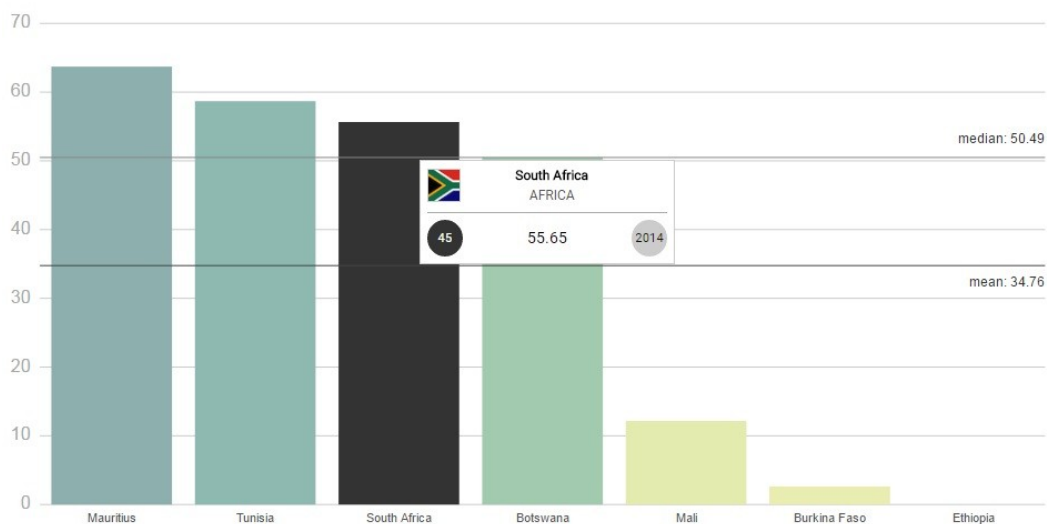
1.4 E-Participation and Democracy Indices

On the World Bank's Worldwide governance indicators, South Africa has scored a strong baseline year of 2005 for indicators in voice and accountability, government effectiveness, regulatory quality and control of corruption (World Bank, 2014). Over time, the same indicators have dropped between the years of 2005 to 2010, and then showed a slight recovery or stability between 2010 to 2015. Political stability and absence of violence/ terrorism have relatively low scores between 39 to 46 (out of 100), most likely due to the country's high crime and public protest rates. Rule of law is

the only aspect that has shown slight improvement over time moving from 55 in 2005 to 59 in 2015. Relative to the rest of sub-Saharan Africa, South Africa scores are substantial higher (at least double the score in most indicators) in all indicators except for political stability and absence of violence / terrorism, which is only slightly higher compared to their regional counterparts.

On the Web Index, South Africa fares well at around the mid-50s in universal access (55.65) and freedom and openness (56.89), but scores in the lower 30s for relevant content (36.17) and empowerment (31.89) (World Wide Web Foundation, 2016). South Africa ranks 45 and has an overall value of 55.65. These results complement the policy section of this paper, as less is understood around developing appropriate local web content and ensuring empowerment of the web in South Africa. The mid 50s score for universal access and openness reflects South Africa’s efforts towards improved digital inclusion and online transparency through participating in initiatives such as the open government partnership. In comparison to other African nations, South Africa is highly ranked and fares slightly better than Botswana, and slightly behind Mauritius and Tunisia.

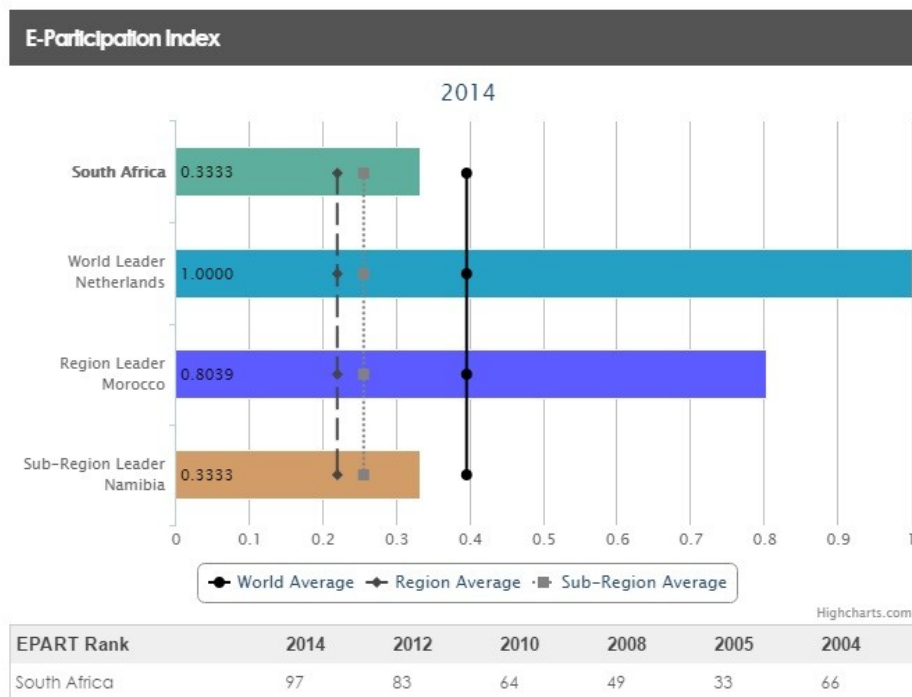
Figure 1: South Africa’s Universal Access score (compared to 6 other African countries)



Source: World Wide Web Foundation (2016)

On the e-participation index, South Africa scores 0.3333, which is more or less aligned with the sub-region leader, Namibia, which is also 0.3333 and certainly above the sub-regional average (United Nations, 2016). South Africa is also slightly below the world average of around 0.40. In regards to its rank, besides a drop in 2005, South Africa has experienced a substantial rise to 97 by 2014. Again, complementing the section above, South Africa is moving towards e-participation initiatives now that backend ICT management systems and policies have been established within the last 20 years.

Figure 2: E-Participation Index – South Africa (2014)



Source: United Nations (2016)

To summarize, the relative high score of South Africa within the regional context is well reflected in its evolution of policies, infrastructure and government initiatives in the last twenty years. The country is moving towards the integration of such online tools and website platforms to reach all citizens as seen by the upgrading and improved ICT infrastructures as well as through the establishment of monitoring and evaluation systems for citizen engagement. However, scores are relatively lower for local content development and participation (proxy via indicator of empowerment) compared to regional counterparts.

1.5 Critique: Government & ICT-mediated Citizen Engagement

Based on their policy mandates, national government investment in ICT infrastructure upgrades are in place and this extension of access is to enable citizens to have the capability to freely interact with government on its national processes as well as their specific community issues. From analysis above, government information is readily available, yet less can be said about the extent to which ICT-mediated citizen engagement are embedded as a mechanism for government-citizen relations. Given the national priorities of the last twenty years to redress the inequality of the past, efforts within South Africa have been firstly to set meaningful national policies and strategies towards a non-racial democracy. Citizen engagement is part and partial to this, as a way to ensure transparency and accountability. Embedding ICT mechanisms within such strategies however are new, innovative and mixed in its deployment. With respect to e-information, the government has well established the back end management systems as mentioned above through the DPSA. The government aspects of e-information are covered through national and local websites integration at departmental level (Republic of South Africa, 2012), appearing all operational, and providing various legislation and forms online. As for e-decision making or e-consultation, these activities are under developed for the front end user interface of citizens. As mentioned above, pilot phases of citizen-based monitoring are under way to first build effective on-the-ground processes of citizen feedback. In some cases, some community data are being collected by community workers through the use of tablet devices and collated in a database. However, such ICT platforms are

evolving and are being tested as a complement to the establishment of best practices for face-to-face activities of citizen engagement. Furthermore, the high costs of broadband and the value placed upon users to use their own resources of time and money are hindrances to participate with ICT-mediated citizen engagement, particularly amongst the resource constrained and marginalized population (Abrahams, 2011). Costs and capability would need to be considered should the goals of digital inclusion be a reality.

Furthermore, e-Services are what could be referenced in e-decision making and e-consultation, with particular emphasis on enhancing service provision and payment of services for citizens. In the analysis above, the Presidential hotline is one prescribed initiative that use ICTs to directly assist South Africans. Yet the receipt of only 190,000 complaints during four years is relatively small when compared to the likely demands of 51 million citizens. Given the context of high broadband costs, such e-Services are well suited as a complement with local services centers (.e. Thusong centres) for citizens to go and render e-Services or lodge complaints and issues in a physical office where face-to-face assistance is available. Such complementary one-stop shops along with the current pilots of citizen-based monitoring show some progress in the transition of citizen use of ICTs to interact with government.

1.5.1 'e-readiness'

As reflective of its highly unequal society, e-readiness amongst its population is insightful of this divide. As will be mentioned earlier, South Africa has high ownership and access to ICTs when compared to the rest of Africa (Statistics South Africa, 2016). It also reports high uptake of mobile phone ownership and Internet usage relative to the rest of the continent as well amongst countries of similar GDP size. However due to costs, the effective usage of ICTs may be mismatched to ownership. While there is an attempt to create an inventory of eSkills (through provincial eSkill hubs) in the country, little has been forthcoming on this research, thereby creating uncertainty on local citizen e-readiness research (Republic of South Africa, 2013a). From the web index, relatively low scores on content and empowerment suggests that citizen-government ICT interfaces still require work (World Wide Web Foundation, 2016). With regards to infrastructural e-readiness, there is also a growing trend of government investment to ensure IT becomes available in city centres, as seen through city upgrades of wifi network infrastructure (Republic of South Africa, 2014a). Within global indicators, South Africa relatively high score of universal access and openness reflect positive efforts to these supply side investments. There is a clear broadband infrastructure gap yet government have stated within the NDP, the 2016 State of the Nation address and now local government initiatives to fill this gap through major broadband roll-outs throughout the country. This can be sufficient evidence of supply side e-readiness.

1.5.2 General Trends in Quality of Governance

South Africa is revered for a progressive constitution, signed nearly twenty years ago. The human rights for South Africans through the provision of basic services show the striking improvement of non-financial assets over time (Statistics South Africa, 2016). The dedication of a relatively new department, DPME, is contributing to the improved monitoring of government services at a high level and under the pressures of reducing public protest. Furthermore, citizens are able to take legal remedies on issues pertaining to the Constitution as seen from cases documented on its Constitutional Court website (Constitutional Court of South Africa, 2016). Yet, the freedoms of its citizens to participate are continually questioned. Freedom of speech is tested when peaceful protests and marches are disrupted through the forceful efforts of police (De Vos, 2015). Despite constitutional rights, some peaceful protests take place without permission of a responsible authority and then considered 'illegal', despite the fact that the Regulations of Gatherings Act (1993) does not necessarily require it. As for freedom of association, political killings occurred during the lead up to the August 2016 local elections given battling factions within the ruling party

and popularity strength being gained by opposition parties (Booyesen, 2016). Finally, the national broadcaster had attempted to suppress certain content on the news. In May and June 2016, South African Broadcasting Corporation instructed journalists to provide no coverage of disruptive protest action nor air negative news about the President. It also suspended three journalists who had contravened this instruction (who are taking the SABC to court against this suspension) (Eybers & Nel, 2016). Based on these examples, the country ruled by effective law and justice systems seem to put governance under scrutiny, but such examples are necessary for continual improvement. The constitution and its policies are tools of governance most recently offering assistance to the most poor, yet continually tested, which may make a good sign of democracy maturation.

As viewed from the structuration framework of this study, the available literature seems to indicate mixed results on ICTs being used in mediating citizen engagement. With regard to institutional-mediation structures, there are some clear and well functioning initiatives such as the Presidential hotline and various South African national government websites which demonstrate the vision of transparency and accountability for government information. The hotline, is an initiative evolved from the external pressure of service delivery protests and major power cuts throughout the country, and the intent for the President to show will to address this as a priority. As for ICT-mediation structures, clear visibility of standardized public national government websites and contact information of various officials suggest the back end ICTs are standardized. However, the processes to evolve and include e-decision making and e-consultation within institutional norms remain novel and experimental. Furthermore, the differential capabilities of ICTs for citizens as well as high costs suggests that inequality of ICT mediation for citizen engagement will persist.

1.5.3 Points of Conflict

South Africa's widespread inequality may raise potential conflict of effective and appropriate ICT-mediated citizen engagement for a highly differentiated citizenship based on wealth and resources. Even with the use of ICTs to help mediate issues, the high costs of ICTs would render any meaningful ICT engagement out of reach for the most resource constrained or marginalized citizens. Well established national websites would therefore be useful only to those who can access and afford the Internet. What we see is numerous face-to-face efforts put in place for locals to interact with their local councilors and wards, however, there are limits even within these spaces (Vivier *et al.*, 2015). The process of ICT-mediated citizen engagement could be exclusionary, while at the same time, the conventional face-to-face interventions may perpetuate the restricted participation of the most vulnerable.

Furthermore, South African policy discourse around socio-economic development and ICTs was found to be technology-centric before 2005 (Moodley, 2005). However, there has been a shift towards a more citizen-centric approach. Previously, policy frames mainly attempted to meet quantitative minimum standards from a supply side perspective towards the lowering of the digital gap. However, telecom policy in a developmental state had reached a crossroads in how to go beyond the dominant view point of digital divide measures. Moodley (2005) suggested that there be a stronger emphasis in strategy building which supports the national poverty-reduction strategy. In Diga *et al.*'s (2013) South African policy review, it was noted that national policies have certainly attempted to implement more people-centred plans, especially in light of the recent broadband and ICT policy. The broadband policy (2013) aims at ensuring universal broadband access to all South Africans, as well as facilitate greater broadband demand through e-readiness programs at schools, tertiary institutions and public access venues and creation of appropriate local content (Republic of South Africa, 2013c). Recent ICT policy has become more oriented to developmental reform through digital inclusion efforts (Republic of South Africa, 2016b). While the ICT policy and strategies were well-written to meet the challenges of South Africa's information infrastructure, previous implementation of community ICT adoption was rife and performance was found to be

executed in an uncoordinated fashion (Diga et al., 2013). It remains to be seen if the now clear ICT policy guidelines will work in improving the digital inclusion of all South Africans.

South African policy and regulatory architecture has had to be in the nature of transformational reform given its post-apartheid history. The inclusion of all citizens and expression of voice therefore would be embedded into its policy fabric. Led by a pro-growth, pro-poor agenda, broadband infrastructural upgrades are aimed at promoting modernization while ensuring its reach, even in remote areas. Some subsidized provision would allow urban populations the use of the Internet. Upgrades also included improved access to website information for national departments. Despite the progress with service delivery and information access in the last twenty plus years, some pockets of the population remain under-served which has led to frustration. Some feel there are no effective formal mechanisms for their voice to be heard, and citizens' frustration break out into protest. In the same vein, new platforms supported by policy are citizen based mechanisms to report issues, and in some cases are ICT-mediated. The responsiveness and trust in such ICT-mediated citizen engagement have yet to be widely tested and documented in South Africa.

2. Exploring ICT-mediated Structures of Citizen Engagement

2.1 Techno-mediated Spaces of Citizen Engagement

South Africans have been engaging in a number of techno-mediated spaces and the tables below provide a list of some of the initiatives. The linkages of citizen to government services fall under the three categories: 1) online dissemination portals, 2) online grievance redressal mechanisms and 3) public consultation platforms and participatory initiatives. The tools range from mobile phone applications, to web-based portals to digital survey tools. There is also a mix of active and pilot ICT-mediated tools for citizen engagement. As mentioned above, government are investing in the development of their own ICT tools/platforms for citizen engagement. In other cases, NGOs or private parties are creating third party platforms or using intermediary platforms to mutually engage citizens and government on their issues. These ICT-mediated citizen engagement initiatives span from e-information to e-consultation, and some participatory initiatives involving ICTs. There are bottom-up CSO-led ICT-mediated citizen participation initiatives as well. Some examples include ICTs which provide information provision to citizens, electronic data collection and interactive web portals and data mapping. There are also examples of institutions using a variety of mechanisms for social mobilization.

2.1.1 Information Provision and Online Dissemination Portals

The ability for a citizen to readily access available government information is useful for many reasons. Efforts by the South African government to provide the policies, strategies and government documents have been commendable with online information now available for all departments, provincial offices and municipal departments. All of them are at certain levels of accessibility and ease of navigation, but nevertheless, the information is laid out to be accessible on the Internet for the public. In the development of mobile applications, some departments seek technical assistance, for example, an app developer was contracted by national government to develop the iTunes government app, and a collaborative effort with various funders and institutions to develop the MomConnect mobile service for expectant mothers.

Table 1: Online Dissemination Portals, South Africa

ICT-mediated citizen engagement project	Tool	Active	Pilot
National portal (www.gov.za) http://www.gov.za/contact-your-government	Website portal	Y	N
MomConnect –national department of health	Mobile platform	Y	N
Local government ICT Network (LGICT) – http://lgict.org.za/	Website forum, blog	N	N
eThekweni Small Community Application (http://www.durban.gov.za/Online_Tools/Pages/SmartApp.aspx)	iPhone and Google play mobile app	N	Y
Municipal website portals	Website	Y	N
GridWatch (http://loadshedding.news24.com/apps)	Website, mobile app	Y	N

MomConnect

Launched by the National department of health (DOH), the MomConnect programme is a mobile application which registers pregnancy in a national database and provides pregnant women with information throughout their pregnancy. Once they register their mobile phone or have it done this step through a nurse at the public government hospital or facility, they then receive free text messages on the health information to ensure a healthy pregnancy. As of the end of April 2016, there were under 1 million registrations completed (Department of Health, 2016).

2.1.2 Online Grievance Redressal Mechanisms

Government departments and third party intermediaries are utilizing various ICT mechanisms to help address the needs of citizens. As for online grievance redressal mechanisms, some web portals provide useful information left by other users on current products and services. Such platforms also provide effective recourse, allowing customers to give public reviews of service, and exposing departments or companies which have been ill-performing or well-performing. Private companies have chosen to engage back with the posted issues directly, providing direct response to the citizen and some accountability to the grievance. Recently, some platforms are either government integrated (the city of Tshwane website includes a form platform to report any complaints) or third party (including social media platforms such as Twitter or Facebook) platforms. For example, Johannesburg Road Agency (the transport arm of Johannesburg city) (<http://www.jra.org.za>) provides reports on areas of road construction and traffic via Twitter and their mobile app deals with customer service issues such as potholes and broken traffic lights. A number of recent portals have also been set up by are being piloted by non-governmental organizations with only a few public interactions and in some cases, no citizen information within the pilot's active website. However, some web portals like Hello Peter have gained traction for citizens with consumer power and in some cases constituent power from public ratings and complaints on these online platforms.

Table 2: Online Grievance Redressal Mechanisms in South Africa

ICT-mediated citizen engagement project	Tool	Active	Pilot
Johannesburg Road Agency (http://www.jra.org.za/) - Find	Multiple –	Y	N

ICT-mediated citizen engagement project	Tool	Active	Pilot
and Fix app	app, website, social media		
Crimeline (https://www.crimeline.co.za/tipoff.aspx)	Website	Y	N
Hello Peter	Website	Y	N
Yowzit (http://govza.yowzit.com/)	Website forum portal	Y	N
Mobile instant messaging automated reporting	Mobi4D, Mxit	N	Y
Various Right 2 Know campaign (http://www.r2k.org.za/handssofourinternet/)	Website, online petitions	Y	N
Lungisa (http://www.lungisa.org/)	Website, social media	Y	N*
Speak Up Mzansi (http://speakupmzansi.org.za/)	Website forum portal	Y	N

Hello Peter

Hello Peter, a third party intermediary, is a popular South African customer service web portal for posting various issues, mainly directed to private companies regarding poor service (such as issues with services by cell phone companies). Some municipalities have been engaging with this third party mechanism to address issues posed by their constituents. Hello Peter has also taken on board municipalities such as the 'verified identify' of Ekurhuleni municipality. Until recently, this municipality was using the mechanism to reply to service delivery issues such as water or electricity billing.¹

2.1.3 Participatory Initiatives and Public Consultation Platforms

The available participatory initiatives and public consultation platforms in South Africa are wide ranging in ICT activity or input, from electronic data collection to open public social media forums. Within the process of community participation, electronic data collection platforms are indirect mechanisms which government and communities can gather data via ICT tools such as tablets or mobile phones. In some cases, they complement the use of paper-based tools for monitoring of community needs inputted by workers or volunteers or inputted by the public themselves. Where data is already available, community based organizations are accessing such municipal or government information and databases and make such information readable or visible either through infographics or through maps (as seen with Informal Settlement maps - <http://ismaps.org.za/>). Statistics South Africa has been a leader in making government data accessible and understandable to citizens by using visual infographics and the use of social media.

Some citizens use existing social media platforms like Facebook to stay connected with online community forums for political participation (Steenkamp & Hyde-Clarke, 2014) and to pose community issues. For example, those which require assistance from government are sometimes taken up by the community champions of these forums like 'Rake Jeeves'² within a Durban suburb called the Bluff.

Table 3: Participatory Initiatives and Public Consultation Platforms in South Africa

¹ By the time of publishing, the author found that the municipality had stopped responding on the HelloPeter platform by April 2017 on <https://www.hellopeter.com/emm>

² Rake Jeeves Facebook group: https://www.facebook.com/groups/1663913773824329/?ref=br_rs

ICT-mediated citizen engagement project	Tool	Active	Pilot
Community monitoring and advocacy (Black Sash)	Tested cell phone application, digital surveys	N	Y
Meraka Institute / CSIR	inTouch system, Lwazi – telephone based, speech-driven information system	N	Y
Dashboard/Southern Hemisphere	Cellphone – automated telephonic interviewing, email, online surveys	N	Y
Mobenzi	Mobile data collection	Y	N
Operation Sukuma Sakhe	Data collection, database	Y	N
Informal Settlement maps (http://ismaps.org.za/)	Mapping tool	Y	N
Vote for the Budget (http://vote4thebudget.live.fireworkx.com/NationalBudget2016/)	Interactive web tool	N	N
Social networking platforms	Facebook, Twitter, etc	Y	N

Mapping the Informal Settlements and Toilets in Cape Town

Various organizations based in the city of Cape Town are working with citizens to use public data and ICTs to interact with government on service delivery issues. The Social Justice Coalition worked with a team of legal experts and coders to utilize various ICT mapping tools and create sanitation infrastructure maps within informal settlements. These maps are then used as evidence to make a case for effective city budget use towards informal settlement sanitation infrastructure upgrades. In July 2016, the Social Justice Coalition, along with five women informal settlement residents was able to use the evidence to initiate legal action against the City of Cape Town to request the implementation of permanent sanitation infrastructure, specifically toilets within the informal settlements of CT section and Enkanini, and in September, the High Court ruled in the favour of SJC (*Social Justice Coalition v. City of Cape Town, 2016*). This collaborative group uses each other's complementary expertise (including the use of city data for mapping) and their own active social media accounts to help build awareness and a legitimate legal case for improvements in public service delivery like sanitation in poor areas of the city.

In the range of ICT-mediated citizen engagement spaces listed above, there is a mix of government-led interventions and third party led institutions (both private and non-profit led). Government has been able to develop its online web-based dissemination portals, providing clear navigation and accessible information for users. In some cases, a government department like the

national department of health have been progressive in developing mobile applications which can meet public health information needs. Additionally, a third party instrument like Hello Peter has gone to scale and has been very successful in public accountability of private sector complaints. This platform's success is now spilling over to government departments interacting with its constituents through this platform. As for public consultation platforms and participatory initiatives, existing social media platforms such as Facebook are being led and utilized by community groups and citizens to comment on local issues.

2.2 Strategic Vision of e-participation

Within the South African Constitution's principles of equality and non-discrimination, the NDP clearly stated the vision around using technology to build "a seamless information infrastructure by 2030 that will underpin a dynamic and connected vibrant information society and a knowledge economic that is more inclusive, equitable and prosperous" (National Planning Commission, 2011). The recent ICT policy further details the strategic vision guiding e-participation (Republic of South Africa, 2016b). In the policy, the section on 'digital society' refers to the inclusive digital society for all South Africans, through affordable and relevant local (and indigenous language) content and services. Furthermore, e-participation would pertain to the digital government strategy and roadmap which is to develop one online access point for all e-government services. There is also discussion on the feasibility of zero-rating data fees around public interest digital applications. With that said, the October 2016 policy is still too new for one to understand its impact on e-participation by citizens. However, assumptions of ensuring what equity for all citizens includes could be the feasible subsidization of public digital content under the new ICT policy. Should all assumptions above be put in place such as the lower to no cost to ICTs for citizen engagement, the improvement of local language and relevant content, and the ease of a one-stop portal to government information, the ICT initiatives would expect active and improved digital participation by South Africans with government.

2.3 Norms Informing e-participation

South Africa explicit principles of *Batho Pele* informs the state end of electronic initiatives. However, given South Africa's divided past, the implicit norms of citizenship engagement leave differential citizen uptake of e-information, e-consultation and e-decision making. The principle of Batho Pele, or "people first" is based on the African philosophy of Ubuntu, and are explicit that government must service the needs of the community first before his or her own (Republic of South Africa, 2014e). The *Batho Pele* is guided by eight principles: consultation, setting service standards, increasing access, ensuring courtesy, providing information, openness and transparency, redress and value for money. In the context of e-government, *Batho Pele* enriches government services to ensure its citizens are served first, ensuring e-information, e-consultation and e-decision making help improve their receipt of public services (Kaisara & Pather, 2011). In terms of implicit norms, the approach of 'everyday and lived citizenship' help explain the differentiated norms within South Africa. The uneven reach of basic government infrastructure point to a diffused notions of citizenship (Rodina & Harris, 2016). Citizenship norms may therefore vary across demographic and socio-economic lines as well as be emergent based on local narratives. In cases where citizens are provided with formal subsidized housing and in house water and electricity services, state are expected to provide quality treated water and maintain the infrastructure and citizens engage in 'responsible citizenship', expecting to pay that above the basic minimum for now being part of this formal system (Rodina and Harris, 2016). With this formalization, citizens are also able to use their phones to complain if services are inadequate or non-functioning. This ability extends to e-information, e-consultation and e-decision making, with

those now integrated into formality and accessing services, strengthens their obligation as active or 'responsible citizenship.'

Yet this citizen narrative is not universal, and in contrast, there are differentiated encounters of citizens living in informal shacks and those who use shared communal water and sanitation services. In citizenship education, we find that teachers express to students from poorer schools to practice active citizenship through protest as they had rights and responsibilities to demand for sufficient services (Staeheli & Hammett, 2013). Such citizens would articulate citizenship engagement through the voice of dissatisfaction, acting in forms of resistance and protest in claiming for improved living standards (Rodina and Harris, 2016). As such, these active forms of resistance could be seen as civic willingness to re-imagine the state. With the absence of public services to such shack dwellers, the formal means of logging a complaint falls away as such systems are set up for those with municipal water or electricity accounts. In some peri-urban areas, local councilors of municipalities play integral roles for their constituents. Besides face-to-face meetings with their respective representative, various ward committee meetings or other types of meetings are arranged for citizens to provide feedback to local government. These venues become the main spaces to voice citizen issues in the hope of some alteration of current conditions. Although such local leaders can be effective in change, such spaces may end up being exclusionary if one does not support the particular political party member or experiences other forms of marginalization within one's community. Furthermore, at the provincial and national level, norms of participation could be viewed as less intimate than when compared to local levels. Besides voting, the contribution to legislative processes are much less apparent to citizens. Initiatives such as the Presidential hotline is one way of enabling voice and intends to break hierarchical or political party barriers, allowing citizens to report on their issues and gain some fairly immediate response by responsible parties. This digital mechanism could help the previously excluded to gain access to services which may had formerly been blocked previously due to party affiliation. Of course, citizen behavior leaning towards digital platforms would only change should digital response be adequate, and timely. The norms of citizenship and uptake of ICT initiatives are mixed, with those accessing government services being obligated to engage with government issues whilst those absent of formal structures or services find disenfranchisement to be actively negotiated through resistant tactics and protest.

2.4 New Actors

The involvement of new actors in these initiatives appear to be emerging, particularly between government information applications to mobile application development. In most cases, certain services will be obtained through procurement processes, such as the development of website infrastructure or the introduction of a government app. For example, Creative Spark (PTY), who also developed Memeburn (a media company based in South Africa), is the the app developer for the iTunes government app (Creative Spark, 2015). In maintaining data within their government websites, control of data and ownership of application development would remain with government. With governments relying on private sector for specialized mobile application or website development, training of its use and maintenance of the platforms would need to be implemented in these plans. It is uncertain how much of these responsibilities remain with the third party or skills transfers is then taken up by government civil servants. A better understanding these patterns of implementation would help to understand the future of governance based on ICT initiatives.

Paper based collection and collation of data are still managed within the government departments. Once, complex and specialized ICT tools are introduced, less government expertise is available and the quality of data for community feedback and governance may become compromised and may need further examination in future use of ICTs for e-participation.

2.5 Impact of ICT initiatives in Expectations around Government Responsiveness

At the moment, it is not clear how ICTs are changing expectations of citizens around government responsiveness and participation. Given the only recent approval of the new ICT policy and the fact that many ICT initiatives running as small scale pilots, the impact of ICTs initiatives in citizen expectation of government responsiveness has yet to be seen. Certainly advanced departments such as health have shown progression in its thinking and complementing current public health practices to connect with digital tools (such as MomConnect). The aim of the mobile application is to ensure preventions of unhealthy pregnancy. In one pilot study of Thusong centre participants, respondents preferred engagement through online means of participation (in this case, Facebook) than through conventional means such as imbizos and community forums (Mafihlo, 2015).

2.6 ‘Code is Law’ and ‘Digital as Default’ Practices

South Africa has not yet reached a saturation point of practice whereby ‘code is law’ or ‘digital as default.’ The practice of ICT-mediated citizen engagement is novel therefore, the online codification of citizen engagement is ever evolving with everyday social practices setting how information and laws are set and monitored. Certainly, the department of public services and administration through their policies have seen all government departments making pertinent policies and regulations publicly available on the uniform official government websites. This standardization across departmental websites make ensuring policies and regulation are in the public domain as the norm. There are examples of ICTs being the normal practice; for example, the South African Revenue Services (SARS) have technologically advanced practices such as e-filing of taxes being the norm amongst citizens. Through the act of public information, and through the proficient agency of South African statistics, government data is public for use by citizens. From the citizen side, the example of the Social Justice Coalition sees the collaboration of various organization to use available government data for social justice purposes, challenging government to meet sanitation needs of informal settlement households.

2.7 Asymmetries of Access and Techno-capabilities

Citizen voice and agency remain differentiated in South Africa with respect to ICT-mediated platforms, giving more scope of action to the connected wealthy than the majority of low income South Africans. As for ICT assets, the adoption of computers amongst general South African households remain low and the South African majority remains without Internet access (Statistics South Africa, 2012). The asymmetries remain, with tools working effectively mainly for the minority elites who hold the digital skills and accordances of Internet data through government portals for feedback. When formal structures are embedded in the use of public services, government response is timely. In the case of Hello Peter, an initial look at the platform shows that it mostly services those who already have municipal water or electricity accounts and need resolution of billing issues. The poor, however are less likely to have utility accounts and their issues are more related to the actual delivery of absent public services. With respect to more targeted programs for the poor and remote areas, South Africa provides a blended integrated service of both face-to-face and electronic means through the Thusong Programme for access to government services and information. This service is to redress the imbalance of limited information accessibility for those most in need of government’s social programs. The development of techno-mediated citizen engagement can be at risk of not meeting the needs of the resource constrained if adequate measures are not taken to redress the low levels of access, high costs and low capabilities of citizen’s engagement with ICTs. The implications of such asymmetries would thereby only reiterate South Africa’s existing and high level of inequality.

3. Observing Shifts in Meaning, Norms and Power in State-Citizen Engagement

3.1 Differentiated Citizenship & ICT-mediated Engagement

South Africans are in an environment of differentiated citizenship and this understanding informs the divided nature of ICT-mediated engagement in the country. Given the historic legacy of the apartheid regime, the citizens were made promises of a non-racial democratic state, which would redress the inequalities of the past. While the constitution guarantees provision of basic services to all, the citizen's ability to give feedback on public services vary across demographic and socio-economic lines. On one hand, the 'responsible citizen' feels an expectation to pay for rates should they receive formal water, sanitation and electricity services from the state, but also feel entitled to complain should their paid services be of poor quality (Rodina & Harris, 2016). The integration of ICTs in the provision of public services would help strengthen their position as active or towards 'responsible citizenship.' When it comes to techno-mediated redressal mechanisms, it is third party platforms and government websites that cater to this citizen segment.

On the other hand, those who fall outside of the formal services system have a differentiated encounter through either the absence of water or sanitation services or the use of shared communal water and toilet facilities. Their entitlement for services is less legitimated without, say a rate payer bill of accounts to use as documented evidence. Rather, the absent of services are frustrated within communities. In such a case, other forms of resistance or protest would be the form of their active citizenship (Rodina & Harris, 2016). Mass mobilization would be the efforts to place pressure on government outside of formal processes for policy or structural change. The high rate of protest in South Africa has influenced the recent government's resolve to pro-actively implement formalized mechanisms for citizen feedback. ICT-mediated initiatives such as the Presidential hotline was born out of the strong voice of absent service delivery as well as the erratic cuts of electricity in 2008. The implementation of the hotline and citizen-based monitoring are new embedded government structures to redress issues. In some cases, new ICT channels are being formulated for the marginalized and could be seen as a way to formalized or legitimized the complaints of communities previously placed outside of the formal sphere. Then we also see newly defined citizen spaces such as the Social Justice Coalition using collaboration to redefine the ways in which local communities can use open data in enforcing their rights for say, sanitation service delivery in Cape Town. As such, these active forms of citizen voice via social movements are helping to define the new accountability practices being set up by the state.

3.2 ICT-mediated Engagement in Action

Solely relying on online participation for citizen engagement does not seem to be the current practice in South Africa, nor would it be seen as the appropriate mechanism for participatory engagement. Rather, there appears to be a mixed methods approach to citizen issues which are becoming legitimized and operationalized with policy frameworks and guidelines such as: citizen based monitoring, face-to-face interviews, ICT data gathering and report production for evidence to communities. Certainly, the Internet has opened up ways for citizens and governments to interact with one another and every department is taking up their own strategy for dealing with online queries and complaints. However, the development of good processes and offline forms of engagement such as those suggested in the National Development Plan (2012): imbizos, ward committees, direct contact with local councillor, etc), are the highlighted conventional forms of engagement (National Planning Commission, 2011). In some cases, local councilors or political parties use social media platforms to complement the face-to-face engagements with their

constituents. It is clear that a mix of online and offline efforts are needed to ensure citizen participation.

Citizen based monitoring is the latest phase of improving on-the-ground citizen feedback by government. Structured and policy-informed efforts are involving citizens to help gather community data for government and engage face-to-face on service delivery issues, at least according to DPME operational practices. There is recognition that the previous mechanisms of gathering citizen voice, particularly amongst the marginalized, were inadequate and unsystematic. As such, DPME were prompted to create policy driven mechanisms of local citizen interviews and surveys to collate community reports and use such evidence to improve services and government-citizen accountability. In the promotion of this policy practice, little is mentioned on the use of online mechanisms besides tablets in data gathering. In the context of high unemployment, reports of job creation and training through the deployment of these citizen engagements would make this policy activity attractive given the imperative of addressing unemployment. Through community workers and youth delegates, work is created through these citizen-based monitoring practices. In some cases, such as that in the province of KwaZulu-Natal, the teams have implemented electronic mobile tools within their data collection and database development practice. With that said, government is driven to get citizen-based engagement processes right first and then introduce various digital tools to the practice as they see fit. This citizen-based engagement is a first step in fulfilling the constitutional commitment to appropriate citizen participation and this policy implementation legitimizes on-the-ground government accountability.

3.3 ICT-mediated Engagement and Power Structures

In the analysis of the power balance within ICT-mediated citizen engagement, the inclusion for citizen voice to transform government activity through the means of ICTs remain limited. One pronounced example of rupturing the existing structures of power with ICTs is the legal activism work is being done by intermediaries such as Social Just Coalition mentioned above. Through a collaborative effort with informal settlement members, the coalition is fighting legally for the rights to sanitation in the Cape Town communities. In these few cases, the organization are able to use public data to interpret and produce interactive maps on the insufficient distribution of public toilets in informal settlements. The coalition is also able to mobilize social media and build a community case for better service delivery in townships within Cape Town. The ability for the marginalized to collaborate with strategic partners (whether it be NGOs, or legal organizations) to fight for their constitutional rights would be a pro-poor example of transformative citizen engagement.

ICT-mediated citizen engagement is able to assist South Africans, but besides the legal case above, it seems to privilege those who can afford the Internet. The well resourced individual is able to exercise their existing capability and power, and strengthened through the use ICT tools, they can publicly air their grievances and request action. In some cases, after frustrating attempts to reach direct government departments for service delivery assistance, individuals are able to use public websites such as Hello Peter or local radio station programmes to voice their complaint. The public 'name and shame' tactic in some cases solicit response from targeted departments. Such ICT efforts have led to corrective measures taken by government.

On the larger level, observable shifts are taking place; online communities based on local geographic coordinates are evolving based on previous community participation practice. Various South African social media groups, whether it be Community Policing Forums Whatapp groups or community safety or Block Watch Facebook pages, are forming as micro-level ways for citizens to electronically mobilize and fight crime in the local community, and in some cases, they work in tandem with the South African police services. These networks are newly formed online and welcome community members who would not have been connected previously to community engagements. These online communities appear to be particularly present in well off middle class

communities, and some online champions are then able to see the common threads of their community demands. While caution is treaded with possible implicit gentrification of the areas or online vigilantism, community online champions are well aware of local policies, local government contacts and are able to take them to the correct government authorities to be rectified. This therefore amplifies the position of champion citizens who can have their community issues raised at the government level. In some cases, local councilors are members of these online community forums. The collaborative or aggregate community participation through online chatter are observable shifts of local engagement, directly and indirectly related to ICT mediation.

3.4 The Big Picture on Citizen Engagement in South Africa

There are significant structural transformations within policy that are shifting the ways citizen engagement takes place in South Africa. The implementation of various mechanisms, both online and offline, are attempting to meet policy and constitutional priorities embedded within a democracy such as transparency, accountability, rule of law and responsiveness. The current policies, however, fall short in allowing marginalized citizens to use ICTs to strengthen their ability to persuade government to say implement absent service delivery. It is less known whether their voices are heard on ICT-mediated platforms, particularly to government. Nevertheless, an initial scan on Facebook shows certain townships and sections have group pages (both open and closed) where community members are sharing information, which may well be the transformation of online networks which mobilize for government interaction. Yet it is noted that some who have been waiting for two decades for change and have not yet seen their situations improved may not see ICTs as the mechanism for immediate reaction from government.

The efforts of the digital are starting to reveal the complexities in South African citizenship, revealing that past apartheid racial divisions are far from resolution. The persistent inequality and unemployment in South Africa cannot be merely resolved with better digital integration of all citizens. National priorities of improving work opportunities and uplifting current income generation for the majority poor make the demand for digital services a secondary concern. Yet the digital has the potential to expose the ongoing gaps in public service delivery. Should the digital space continue to accelerate in its current trajectory and move forward without building appropriate and targeted structures to enable citizens with low socio-economic status to use or participate in government processes, further disparity will privilege the minority elites and leave the frustrated majority to the streets in protest.

Besides addressing structural issues of poverty, the ICTs available citizens would also need to be addressed in order to lower the gap. In the case of South Africa, first and foremost the reduction of cost of broadband access particularly to low resource citizens would need to be addressed before transformative citizen engagement can take place. With the presence of all South African government information online and the complements of physical offices to facilitate services, these public resources are a good start towards an informed citizen. Finally, the ability to navigate through an online platform or confidence to make a mobile call on one's own in order to submit a grievance would need addressed. Government can monitor ICT use through the national indicators a person's digital competency, which at the moment, does not exist.

3.5 The eThekweni Case Study Context

Citizen based monitoring, particularly of government services, are major national and local initiatives that are working to give local communities the ability to provide feedback on service demands. At the moment, these pilots currently occur within wards where people live and not

necessarily in places where people work. From the civil society side, ICT are also being tested in order to see the possibilities for marginalized groups to have their voice heard in forums usually poorly structured or even non-existent to them. We explore the research and policy gap, specifically the missing structures of the 'invisible' traders of the informal market in South Africa.

While composed as a small proportion of the labor market nationally, independent traders work at informal markets such as that of Warwick Market, inner city Durban, South Africa. The business and service delivery needs of informal traders at the Warwick Market are different from those service delivery needs of households in, say, the informal settlement. In the case of the informal market, the historical tension of informality has rendered many of the workers invisible or unaccounted for, and therefore structures usually available to formal sector work are not extended to them. In regards to their occupation health and safety needs, they are certainly absent of any resources or services such as plans for emergency exits, hazard trainings, mechanisms to request government services, amongst many things. Therefore, a project such as Phephanathi ("Be safe with us" in the isiZulu local language), have asked informal traders to re-imagine their current informal space as work spaces and thereby render them the rights to public services which are being met for formal work institutions. Lessons from the current project indicate that there are mechanisms where local government and informal traders can work together for a better work environment and build training for preventative measures for health and safety (Alfers *et al.*, 2016).

The project also tested innovative ICT solutions to complement health and safety measures. There, however, remains a reflective gap on lessons of how these ICTs can be used effectively to help facilitate occupational health and safety efforts within an informal market like Warwick Market. Transformative citizen engagement would, in this case, be able to use ICTs to legitimize the resource needs for safe and healthy informal traders. More specifically, the ability to have local government recognize these health and safety needs would therefore be the structural shift needed by the workers.

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