Evaluating the Impact of ICT Intervention on the Well-Being of Indigent Citizens within the South African Historical Context

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Abstract

This paper presents preliminary results of an assessment of the impact of e-governance on the well-being of indigent citizens. The analysis examines South African government efforts with e-governance as a critical tool for speeding service delivery to all citizens. The study made use of Sen's capability approach as a conceptual framework. From policy makers' perspectives, the finding demonstrates that current assessment of impact and benefits of ICTs is widely focused on the availability of infrastructures and literacy training. Firstly, this study argues that, to effectively see the benefits of ICTs interventions in poor communities, policy makers needs to pay more attention on addressing existing community needs. Secondly should increase ICTs programme awareness. The benefits of ICTs programme should not be viewed on the number of e-centres. Availability of e-centres and connectivity alone without critical eskills, users' agency and extensive programme awareness will not deliver policy objectives. To date, only users that sees opportunities embedded in ICTs programmes are reaping the benefits of the ICTs programme. This contribute to widening economic and social gap between the have and have not. Therefore, South African's e-governance implementation strategy should be well redefined to ensure ICTs programmes are more inclusive.

Key phrases: ICT4D, well-being, capabilities and functioning, socio-economics, rural areas and poor citizens.

Introduction and background

This study examined the impact of Western Cape ICT4D programme on the well-being of poor citizens living in rural areas through the lens of the Capability Approach (CA). The emphases were on assessing whether the use of ICT programme termed Cape Access has significantly contributed in improving individuals and communities' capabilities. The provincial government is providing ICT Centres with 12 - 50 computers that provide free access to ICT as well as formal and informal digital literacy training. The government's e-government strategy requires citizens to have access to ICT4D and become digitally literate in order to ensure adequate usage of ICT programmes. This study is work in progress evaluating a program that has existed for more than 12 years with 70 centres. The province is currently spending up to R17.5m per annum for maintenance. For every Cape Access centre that is introduced the government is supposed to budget in advance R300 000.00 for operation cost.

According to Harris (2016) South Africa depicts the characteristics of both the developed and underdeveloped world. Despite, its strong economy, good universities, and growing ICT industry, half of the citizens live below the poverty line, and majority are uneducated. Those with relevant e-skills and agency are benefiting out of ICT programme although the majority of the citizens, have not benefited. For this reason, Harris, (2016) is of the opinion that researchers must put emphases on impact oriented research that seek to inform policy makers whether investing in ICT is making social and economical impact in the lives of the poor citizens. This is because ICT programme can only improve citizens' lives when ICT developers and policy makers pay attention to following key elements: *community ownership*, appropriate technology, local content creation, promoting social inclusion and enhancing community networks, and social cohesion (Ponelis & Holmner, 2015). Similarly, the success of ICT4D is determined by what users do with opportunities entrenched in ICTs, this implies that ICTs alone cannot change the lives of rural communities (Ponelis & Holmner, 2015). This view is further shared by Hamel (2010) arguing that ICTs alone cannot improve peoples' lives; it requires strategies that takes note of various context in which the programme will be implemented in. Consequently, from the social and economic perspectives, users and policy makers need to agree on the outcome and how the project should be sustained post implementation. Both parties need to discuss the issue of expectations, e-skills, agency and capabilities that are needed to ensure that the programme is a success (Conger, 2015).

Research Context

This study investigates Cape Access centres in six villages located in two comparable rural communities, the Cape Agulhas (A) municipality and the Overstrand municipality (B) both based in Western Cape Province. Due to earlier discriminatory policies, poor citizens from these selected municipalities still experiencing high level of socio-economic inequalities, this is also evident in the access to and the use of ICT programs. Goldstuck 2010 (in Dalvit,

Kromberg, & Miya 2014) pointed out that in spite of the language barrier, literacy and skills, and user's attitudes, the majority of poor citizens in South Africa will be able to make meaningful use of ICT by 2020.

The Western Cape's province launched e-centres in July 2004, since then the program as been going trough phases of improvement. Cape Access is a programme that provides ICT access to less privileged and rural communities across the Western Cape. Among other strategic objectives for Cape Access are; "to improve access to government services; to bring government information and services closer to the people and to promote access to opportunities; to create a platform for greater dialogue between citizens and the government; to improved good governance and to increase service excellence through technology" (Arendse, 2010). Notwithstanding, the well thought Cape Access objectives, such as creating equal access to opportunities for all communities, to foster inclusive province, control poverty and improve poor citizens' well-being (WCG, 2015), the intervention cannot claim that its strategic objectives have been met this is because there is not an impact study that that has been conducted within the parameters of Western Cape to systematically evaluate the impact of Cape Access on the well-being of poor citizens.

Figure 1. Cape Access locations



Source: Western Cape Government 2012 | WCG-PPT Slide Gallery-01112012.pptx

State of ICT4D on global level

The World Bank report (2016) on digital dividend indicates that poor people living in rural areas, have not benefited from ICTs programmes. The report further states e-government intervention has led to economic polarisation as only citizens with ICT skills continue to benefits out of ICT intervention. In spite of the World Bank Digital dividend report, and many other scholars that have criticised the promotion of e- governance interventions without clear implementation strategy (Maumbe & Klass, 2009; Wilson, 2012; Dombeu &

Rannyai, 2014), and DPME (2015) claims that government performance at all levels has not met citizens' expectations, the Western Cape Government has set aside R3.8 billion to connect all government building by 2020 (WCG. 2012; WCG, 2015).

Governments in developed countries such as United States and United Kingdom have shown incredible support for improved e-governance intervention (Pretorius, 2012). By 2015, 91 percent of households in UK had internet access; and 90 percent of individuals use internet at least once a week and have a broadband connection. Despite noticeable strides in egovernment, the European Union Commission (2016) indicates that the UK government saw regression in the individuals using internet to interact with government, falling from 51 in 2014 against 49 percent in 2015. Similarly, the World Bank report (2016) reveals that in the EU, citizens lag behind in their use of technology for interacting with government as compared to businesses. Countries that have been doing well in the use of e-government, such as the Republic of Korea and Singapore, rely on education, employment, urban residence, and broadband access, integrated policy development and citizen's participation in the design of ICT policy (World Bank, 2016). In Africa, e- governance challenges are highly associated with access to ICT and the divide in capability, and are attributed to lack of resources and the promotion of ICTs interventions before improving citizen's capability respectively (World Bank, 2016). Unlike in developed countries, existing research indicates that e- governance projects in many African countries have probably failed (Mouton, 2007; Albert, 2009; Shanshan, S. 2014). To conclude, e-governance comprises a wide vision of the use of ICT to fortify good governance and encouragement of all stakeholders to actively participate in running the government (Gupta, Dasgupta & Gupta, 2008; Heeks, 2010; Adegoreye, Oladejo & Yinus. 2015).

The South African e-Governance Environment

The South African Revenue Service's (SARS) e-filing is one of the e-governance interventions that has made strides, though its success is attributed to e-filling users being well educated and having full time employment (Naidoo, 2007). The failure of initiatives that were directed at poor citizens is blamed on adopting ICT without taking note of users' capability, especially at local government level (Mutula & Mostert, 2010). Meyer study on the impact of ICT programme conducted in Eastern cape found that ICT literacy remains a substantial barrier to citizens achieving their functionings (Meyer, 2007). Between 2007 to 2012 Western Cape government, also witnessed regression in the use of ICT programme (WCG, 2012). The increased availability of e-centres across the local municipalities contributes to increased demand for effective e-governance implementation strategy; and a policy that promote ICT education (Pretorius, 2012). Heeks (2010) suggests attention should be on evaluating developmental impact on citizens using e- government, instead of focusing on access to e-centres. At the moment, provincial government assessment

of ICTs interventions emphases on the number e-centres and users instead of assessing how ICT4D intervention has improved users lives. The assessment fails to meet policy objectives which seeks to address excessive poverty among indigent citizens (Gupta & Gupta, 2008; Ruhode, 2016).

Moodley (2005) pointed out that, government investment in ICT is of great concerns since it is often done at the expense of other forms of initiatives "*Higher level of emphasis on ICT project without critical analysis and consideration of the broader economic, social, and political elements that interact to improve the lives of individuals, have contributed to unanticipated failures of ICT project"*. Unless poor citizens are empowered to take control of their own development, promote dialogue between communities, and to see themselves as equal to other stakeholders within the web of development, ICT programme will no improve their lives (Moodley, 2005). In spite of the negative picture around the impact of e-government on poor citizens, the number of internet users in South Africa is about 52% (UN - Government, 2016).

State of E-governance at local government

The failure of ICTs programmes at local municipality level is somewhat caused by lack of user's acceptance and lack of users agency, because for decades, e-governance has been developed from the perspective of the government (Albert, 2009; Thakur & Singh 2013). In the case of South Africa, ICT programme is affected by lack of good governance which determines the ability to implement a sound e-governance strategy (Joseph, 2015). It requires clear understanding of information needs of the poorest and most marginalized in society as a starting point for crafting ICT strategies aimed at poverty eradication (Krauss, 2013). Regrettably, most government ICT programme directed at the poor citizens in South Africa tend to take a top-bottom approach. Users are not adequately engaged during ICT adoption and implementation process (Moodley, 2005). In the same way, Moodley (2005) claim that there is little experience of the long- term impact of e-centres in the context of rural areas in South Africa. The primary reason for this is the challenges associated with the ability of topbottom national's programme to incorporate specifics needs of poor community. Additionally, Krauss (2013) postulate that policy design and implementation should take place within the space where the dominant and less dominant citizens see each other as equal partners in the design and implementation of ICTs programmes. Krauss (2013) study which was conducted in Eastern Cape, precisely in Happy Valley pointed out that government ICT policy framework seems seems to be techno-centric, as it presents ICT programme as an end in itself rather as a supporting function.

Contextual Frameworks

To systematically analysis the impacts of Cape Access on the well-being of indigent citizens in the Western Cape the study made use of the capabilities approach by Amartya Sen 1999. The analysis focuses were on the impact of Cape Access, on citizens living in rural specifically the A and B Municipalities. According to Kleine (2013) the CA defines development as a "process of expanding the real freedoms that people enjoy". Sen understanding concentrates on development as freedom of choice in the person, social, economic, and political sphere (Kleine, 2013). The choice of framework was motivated by Sen, (1999) argument that development should be viewed from the perspectives of citizens or those interacting with ICT4D intervention.

Oosterlaken (2012) noted that there is shift on operationalising the CA in the context of ICTs, moving away from evaluating ICT programme exclusively on access, expenditure, and infrastructure to the impact of ICTs on human well-being. The focus is then on examining whether access to ICT and meaningful use of ICT programme can enhance users 'informational capabilities' and in return expand valuable capabilities. Kleine (2013) states that CA have proved useful for criticising the ICT4D mainstream practice, which focuses on economic growth, and "treat users as passive receivers". Focusing too much on expanding access, despite of being aware that access to ICT is not always enough to empower poor citizens to lead the lives they have reason to value (Madon, 2004). Gigler (2008) the benefit of using CA is that it places emphases of analysis on the development of the poor and not on technology, focuses on the end and not the means, making valuable individual human capabilities the ends. According to Moodley (2005) the CA provides thinking for examining whether excessive investment in ICT are consistent with a social goal of empowering the poor. Its calls on greater attention to be paid on whether the poor acquires the needed capabilities to make informed choices. From the CA perspectives, the emphases of ICT should be on what the poor are able to do as a result of their interactions with ICT and what capabilities they are able to acquire as a result of those interactions. CA is interested in understanding to which extend ICT programme can increase individuals' choice to lead the lives the value and have reason to lead (Sen, 1999).

Application of contextual frameworks to the study

Kleine (2013) believe that Sen's 1999 CA consider development as freedom of choice in the person, social, economic, and political sphere. This demonstrates that CA is concerned with what people do with opportunities presented to them through developmental interventions. In the same way, this study is part of an ongoing investigation of what citizens do with opportunities presented to them through Cape Access programme. A list of functionings based to Sen's approach that can be achieved through the use of e- governance

intervention presented by the Cape Access services were identified (Heeks & Bailur, 2007; Mutula, & Mostert, 2010). In order to understand how the use of e-governance interventions has enabled indigent citizens to realise individual's capabilities, and to which extent it has contributed to their well- being this study explored the experience of e-centres users in six small towns and villages to identify whether e-centre users have improved their well-being by examining a limited list of indicators illustrated in the table below.

	8	
1	Increased communication	Ability to communicate with all stakeholders via ICTs
2	Increased confidence	Becoming aware of oneself competencies
3	Income generation	Ability to generate income as a result of using ICTs
4	Knowledge and self-reliance	Increased choice of deciding the kind of the live one
	_	want to lead
5	Increased mobility	Doing all forms of transactions through ICT tools –
		example paving hill banking online payment e-
6	Increased participation in	Opportunity to participate in governance and decision
	decision making process	making were made mentioned of or achieved by users
7	Health environment,	Improved living condition as a result of ICT initiative

 Table 1. Functionings/indicators

Methods/Design/Methodology

Regarding the epistemology, in both municipalities the processes of knowledge production start from the lived experience and practical needs of member of community. A triangulation approach was taken to consideration, and data were thematically coded, and analysed through the lens of CA. What individuals' valued and had reason to choose the lives they want to lead was considered as they become active agents of their own development, this was done by putting analytical emphases on particular themes and patterns (Gilbert, 2008:81). Heeks & Bailur (2007) research in e-governance can be understood from both paradigms interpretivism and positivism. For this study the emphases on qualitative methods following guidance of (Creswell, 2014). Qualitative method is being used to gain access to more in-depth information, as well as understanding users' experiences of the egovernance interventions, policy design and implementation strategies (Mouton, 2007). To critically investigation the situation, the study made the use of four methods comprising of households surveys, documentary review, face to face interviews and participant observations (Denzin, 2005; Mouton, 2007; Creswell, 2014). The study analysed the data thematically.

Participant Observation

The researchers visited Cape Access e-centres regularly to explore whether indigent citizens make use of Cape Access and to learn what they use for. Informally interacted with users

while watching how the use ICTs programme. The purpose of informal interaction was to understand what they do with opportunities presented to them; also to explore their experience and attitude in regards to online government services. Sites visitations were conducted in April 2016; Nov 2016 and in February, March to May 2017.

Scheduled Interviews

Face to face interviews were held with 14 government officials, 2 policy strategist at provincial level, 7 local municipalities employees, centre mangers and municipality human development managers included, 3 local government directors including social and economic development directors, and 2 ICT managers.

Analysis / Discussion

In conceptualising development, access to ICTs facilities is just the process to development and not the end itself thus users' ability to identify and remove barriers to their own development is critical. ICTs alone cannot do what people's have decided not to do. Thus through the lens of CA this study attempt to explore how ICTs can be deployed to tackle societal challenges that continue to cause inequality in poor communities (Poveda & Roberts, 2017). In both cases the finding suggests that the role of the e-centre managers and development managers is to administer and instruct respectively, however the instruction is limited to guidance thus leaving the onus of development to the individuals. Cape Access programme has enabled young people between the age of 8 and 25 to challenge social structures that constrained their development freedoms. Though the benefits that they have acquired is limited to psychological aspect yet economically these users remain under constrained poverty. After acquiring basics ICT skills, the majority of users under the age of 25 use the e-centre for leisure, example many of them use ICT for social media.

The analysis focuses on few themes that were prevalent, and which the researchers found relevant for this phase of the study. Generally, the perceptions among the provincial and local government leadership is that community will make use of ICT programmes as long as they have access to facilities. According to participant (1) and (2), quoted below it is evident that among others reasons, the failure of earlier ICTs programmes was a result of leaders taking decision without adequate consultation with users.

They will make use of it when they have it. Some among us believe that people will make use of ICTs when they access to it - participant (1).

The earlier focuses of the programme were to supply interventions while expecting citizens will use it, thought it is only now when we are looking what do citizens want

and how can we service their needs. So I can totally agree with you that previously the citizens were not adequately consulted – participant (2).

The findings demonstrate conflicting views on whether Cape Access has contributed in improving poor citizens lives. With some participants arguing that it has and other indicating that Cape Access is only beneficial to those with some level of formal education. Citizens living on government subsidies hardly make use of Cape Access, thus not benefiting from the programme.

If the person is living on social grant, he should then take responsibility to send the kids to the e- centre or he should himself make use of the centre. This person is receiving money from government so he has enough time to spent at the e-centre – we hoped that people will use it and I believe the poor of the poor are making use of it. I understand, it is not our responsibility to make the poor people use the centre, that is their responsibility (2)

I'm not quite sure about the impact of Cape Access on the very poor people. To answer, I will be not giving you right answer, because I don't know whether they or their children have ever visited the e-centre. – participant (5).

This is my personal opinion -I don't think that the old generation will come here to open up the e- mail. Is mostly young people that makes use of the centre? So the answer is the young generation will benefit and not those depending on government grant – participant (5)

In terms of investment, I think the government should invest in things that can provide jobs, because people are more interested in job instead of coming to the centre. But again, we should ask ourselves do people know about the Cape Access, do they know the opportunity that they can access through Cape Access - participant (5)

Data shows that students are regular users of centres and are given preference over other users.

The majority of users of the centre are school children from the age of 6 to 20 years old. The youngest people make use of the centre compare to other community members because the search for opportunity. When you young you want to learn more, you are innovative, you just come from school and you don't want to sit at home doing nothing - Participant (4)

Community time is from 8am to 9am, and 2pm to 4pm is for scholars. We always leave few computers for people that might want to come and check their e-mails. More space is needed, for example if we give class from 9am to 12pm and 5pm to 6pm that is four hours taken from the community so we need space where we can train people separately – participant (4)

Interestingly all participants serving in leadership capacity from local to provincial level argued that if Cape Access programme was not making a positive impact on the lives of the people then the number of users coming to the centres would have declined. This view is noted in the following quotes:

The biggest problem is measuring impact; how do you measure impact? The total impact of the programme on the kids coming out of the schools to do their assignment at the e-centres, how do you measure that impact? The centre keeps kids out of the street, so we rather have kids in the centre listening to music instead of them wandering in the streets - participant (2).

To be honest with you, I will say yes. If the centre did not make an impact, we would have not had so many people coming to the centre for free internet and free ICT course – participant (3)

In the absence of a framework for measuring whether Cape Access is changing the lives of poor citizens, provincial and local government officials believe that the success of Cape Access should be measured based on the output. In fact, data indicate that the government until today is yet to commission an evaluation study that focuses on impact. Notwithstanding the fact that many sees the programme as positive, one key official believe that government should have invested in programme that will generate practical jobs for community members instead of investing in ICT4D programmes.

I think those computers out there are not for the very poor people, I think it is for students. Not for poor people – Participant (6).

If you really poor most of time you don't get the chance, some even didn't go to school so they are not interested in ICT. Education is another thing; our people are not well educated. If you think they give them a house, but the don't have job. They cannot contribute to the levy and forth. I would say Cape Access is not for the poor of the poor – Participant (7).

Data reveals that there is a notion that people will learn how to use ICT soon the infrastructure is given to them. However, the CA states that the impact of ICT programme

should not be based on the availability of infrastructures and on the number of users instead on what they do with the opportunities presented to them by ICT intervention and on how these opportunities have changed their well-being. Hence, one would argue there is great need for leaders to shift their attention from focusing on infrastructures to well-being. Based on primary finding coming out of household's survey demonstrates that very poor citizens hardly make use of Cape Access programme. However, earlier assumptions are that lack of individual capability and agency are major impediment as compared to users that have gone through formal education. Also, very poor people are mostly concerned with basics needs such proving meal for their dependent as opposed to making use of e-centres.

Beside of government official's assumption of the positive contribution of Cape Access, there is no empirical data from government manuscript that reveals the impact of Cape Access on service delivery, social and economic development. An analysis of identified ICT4D strategic documents from the Western Cape Government, fail to clearly indicate how the use of Cape Access contributes to the improvement of the lives of poor citizens living in rural areas. The obstruction is attributed to local and provincial government failure to pragmatically demonstrate strategies that were used to prepare poor citizens' psychologically before the implementation of Cape Access.

Consequently, the problem lies on the lack of genuine consultation and ongoing engagement with all key stakeholders. Data demonstrated the engagement process was not constructive, and this is the reason why many community members still don't know about the e-centres. Data coming out of household's survey demonstrate that most households were not aware of the public participation and never were engaged. In fact, many are surprised to learn that there was public participation. Similarly, if citizens were engaged in public participation then the question which is to be answered is, what was nature of participation that took place? Was the participation more about what to do instead of what is needed to be done? Subsequently, other question arising from the study is whether public participations were to legitimise the program and not really public engagement. In same way, astonishing finding is that, some of those making use of the e- centres. As a results, users makes use of e-centres to meet their immediate individuals needs only without interacting with government's services.

Notwithstanding the negative findings coming from various villages there is some hope about the e-centres projects. Interesting finding, comes from a small farming town called Elim based in municipality A. Elim is commune which consist of about 2000 citizens all coloured and run by church council instead of local government. In this community there's ICT users who are already in their 70th, 80th using the e-centre, this seemed to be an issue of culture instead of capabilities. This community seem to be doing very well in terms of making use of

the e-centre for individuals needs and for interacting with government's services. Also, the community has managed to enrol 12 students at South African universities through the e-centres. This achievement is attributed to community members having common understanding on almost everything that is done within community. For many years the community is governed by the church council thus the member of the community has to adhere to certain rules and conditions set by the church council.

In both the municipalities the findings demonstrate that users use ICTs to meet employment, communication, educational, leisure skills and increased self- confidence needs. In municipality B two critical cases were identified where Cape Access enabled the users to achieve their development needs. One member of the community has developed new competences in film-making and editing. He also mentioned that at the moment is now doing motivational speaking in various part of the province, whereby before the introduction of Cape Access he never thought he will live is dream of becoming an actor. Another case is a female participant, who is now delivering food to police station for inmate, and it all started after learning new ICTs skills and the support received at the e-centre. Both acknowledged that are now capable of meeting their economical needs and capable of supporting their immediate family members and friends. Though the finding continues to demonstrate cases like these ones are very hard to find.

To conclude, the context in which most of these e-centres found in are problematic because in some areas the issue of race and colour stand as the barriers from users of a certain social grouping. I have observed that coloured community member tends to use e-centres as compared to black community. Here, the question to be asked is whether the space is accessible? Not accessible in terms of walking into the place but how does the black community feel when visiting e-centres. Do they feel welcome like their counterpart or not? The finding continues to indicates very less black people are making use of the e-centres. Few reasons that were highlighted are, facilitators are not black therefore they are not helping them like they do when assisting coloured. The trainers do not explain to them the same way the explain to coloured, and the time allocated for the use of the e-centres is very limited therefore they hardly complete their tasks. However, participants said the experiences gains in communication skills, self-reliance and confidence.

One would argue that up to date is premature to indicate that Cape Access programme will change the lives of the poor citizens. Current outcomes do not change the uneven economic and social relations that leads to poverty and social exclusion. So the project still has a long where to go in order for users to lead the lives they want to lead and enjoying the freedom to choose their destiny. Cape Access should put emphases on agency based process in which development is conceptualised as people's ability to analyse and tackle their own development

challenges. Within this context Cape Access is not the end but a means of achieving the wider objective of human development. At the moment the availability of ICTs facilities programme and the e-literacy training offered at the centre are seen as ends in themselves, and believed to lead to economic development (Avgerou, 2010).

Conclusion

Notwithstanding the fact that ICT programme if well implemented can change the lives of poor citizens, the introduction of ICT programme in low income areas without taking note of context and the really needs of the community contribute to community polarisation. The emphases of ICT policy designed for the rural community should be on addressing the cause of the roots of existing community needs. Also, the policy should be intentionally in terms of ensuring that citizens will remain motivated to use the programme, and programme awareness will be sustained. Lack of awareness around opportunities that are embedded in ICTs programmes contributes to majority of potentials users not seeing the values and reasons why they should make use it. At the moment users are unable to critically reflect on their self-limitations hence unable to use their agency to advance their chosen change and development action. The paper also shows that ICT4D can have a range of development outcomes which participants' value and have reason to value though without critical agency users will never meet their development needs in spite of having ICTs facilities in their environment.

The two case studies presented in this paper demonstrates that ICTs can play a productive role in enhancing people's capabilities as well as their agency to identify and uproot the structural causes of disadvantage. This is demonstrated by the two users that have made use of opportunity embedded in ICTs to meet their socio-economic needs and also by being able to help other...hence it has contributed on their ability to lead the lives the want and to have the freedom to choose who to help and when to help. Consequently, there is great need to not only focus on immediate community needs without addressing the roots of societal challenges. Failure to address the roots the conceptualisation of development through ICT4D may be limited to meeting people's immediate needs, whilst leaving the structural root causes of their underdevelopment unchallenged and unchanged (Roberts, 2016; Poveda & Roberts, 2017:16). Within the South African historical context, ICTs intervention will rarely address community needs without faithful public participation. South African' citizens still battling with meeting their basics needs such as providing food for their families. This calls on police makers to rethink the way the engage the poor and to have an ongoing discussion with them about a framework that could be used to optimise government decision making and planning processes regarding ICTs programme. This approach would enable decision makers to identify needs that should be addressed, then build individual and community capabilities before launching any developmental programme, especially programme that requires user's commitments. The implications of implementing developmental programme without proper

discretion and faithful consultation by policy makers makes citizens to start loosing trust in government ability to work with community. Finally, all stakeholders, especially the powerful should engage the less powerful faithfully and to encourage them to use ICT programmes that have been brought in their communities.

According to Harris (2016) communication is by far the most cited factor that is hindering development. This is evident even in the study, respondent's states lack of awareness is hindering the progress of Cape Access hence the majority of poor citizens are not making use of the programme. Policy makers and strategist should understand that the impacts associated with ICT4D programme are largely the result of human agency which are easily shaped by social context in which citizens lives in so until the roots of societal needs are adequately addressed ICT4D programme will not produce expected results.

REFERENCES

- Adegoreye, A. A., Oladejo, M., & Yinus SO. (2015). Impact of e-governance service delivery in Nigeria. International Journal of advancement in management and economics, 133 – 138
- [2] African Journal of economic science and International Relations 3(4,)133-141
- [3] Albert, O. I. (2009). Whose e-governance? A critique of online citizen engagement in Africa.
- [4] Aliber, M. (2003). Chronic Poverty in South Africa: Incidence, Causes and Policies." *World Development* 31(3): 473-490.
- [5] Arendse, H.R. (2010). Cape Access Strategy: e-Skill Summit. Department of the Premier: Western Cape South Africa
- [6] Conger, S. (2015). Knowledge Management for Information and Communications Technologies for Development Programs in South Africa, Information Technology for Development, 21:1, 113- 134, DOI: 10.1080/02681102.2014.899960
- [7] Creswell, W. J. (2014). Research Design 4th Ed: Qualitative, Quantitative and Mixed Methods Approach. London. Sage
- [8] Dalvit, L., Kromberg, S., & Miya, M. (2014). The data divide in a South African rural community: A survey of mobile phone use in Keiskammahoek. *Proceedings of the e-Skills for Knowledge Production and Innovation Confer- ence 2014, Cape Town, South Africa*, 87-100. Retrieved from http://proceedings.e-skillsconference.org/2014/e- skills087-100Dalvit842.pdf
- [9] Denzin, N. (2005). Handbook of Qualitative Research. 3rd ed. Thousand Oaks: Sage. Digital divide and e- government. Sustainability, (6):6049 -6069 [Available a www.mdpi.com.jouranal/sustainability]
- [10] Dombeu, F.V.J., & Rannyai, N. (2014). African e-government research landscape. The African Journal of Information Systems, 6(3),85-119
- [11] European Union Commission, 2016. E-Government in the United Kingdom, February Edition 18.0
- [12] Gupta, B., Dasgupta, S., & Gupta, A. (2008). Adoption of ICT in a Government organisation in developing country: An empirical study. Journal of strategic information system, (17):140-150 Hamel, J. (2010). ICT4D and the human

development and capabilities approach: the potentials of information and communication technology.

[13] Harris, W, R. (2016). How ICT4D Research Fails. The Poor Information Technology for Development, 2016 Vol. 22, No. 1, 177–192, http://dx.doi.org/10.1080/02681102.2015.1018115.

- [14] Heeks, R. & Bailur, S. (2007). Analysing e-government research: Perspectives, philosophies, theories, methods, and practice. Government Information Quarterly, 24, 243-265.
- [15] Heeks, R. (2010). Do information and communication technologies (ICTs) contribute to development? Journal of International Development, 22(5):625-640.
- [16] Joseph, R. S. (2015). Success factors influencing e-government implementation. International Journal of Marketing and Technology 5(1) 127 – 135.
- [17] Kleine, D. (2013). Technology of Choice? ICT, Development, and Capabilities Approach. The MIT Press, Cambridge Massachusetts London England.
- [18] Krauss, K. (2013). Collisions between the Worldviews of International ICT Policy-Makers and a Deep Rural Community in South Africa: Assumptions, Interpretation, Implementation, and Reality, Information Technology for Development, 19:4, 296-318, DOI: 10.1080/02681102.2013.793167.
- [19] Maumbe, B, M., & Klass, N. (2009). Crafting an e-government development model for South Africa: A strategic new direction for the Western Cape Province, CONF-IRM 2009 Proceedings.
- [20] Meyer, J.A. (2007). E-government as perceived by the populace of South Africa: An Eastern Cape Study. IST Africa Conference proceedings, 1– 9.
- [21] Moodley, S. (2005). The Promise of E-Development? A Critical Assessment of the State ICT forPoverty Reduction Discourse in South Africa Perspectives on Global Development and Technology, (4):1
- [22] Mouton, J. (2007). Approach to programme evaluation research: Journal of public administration. 42(6), 490-511.
- [23] Mutula, S. M & Mostert, J. (2010). Challenges and opportunities of e-government in South Africa, The Electronic Library, 28(1), 38 - 53
- [24] Naidoo, G. (2007). An Overview of e-Government Policy Initiatives in the South African

Government.

- [25] Oosterlaken, I. (2012). Introduction: The Capability Approach and Innovation/Technology/Design HDCA Maitreyee Number20, March2012
- [26] Ponelis, R.S and Holmner, A. M (2015). ICT in Africa: Building a Better Life for All. Information Technology for Development, 21 (2), 163–177, <u>http://dx.doi.org/10.1080/02681102.2015.1010307</u>
- [27] Poveda, S & Roberts, T (2017): Critical agency and development: applying Freire and Sen to ICT4D in Zambia and Brazil, Information Technology for Development, DOI: 10.1080/02681102.2017.1328656.
- [28] Pretorius, M. C. (2012). PhD Thesis titled: A Methodology to Institutionalise User Experience in a South African Provincial Government. Nelson Mandala Metropolitan University.
- [29] Roberts, T. (2016b). Women's use of participatory video technology to tackle gender inequality in Zambia's ICT sector. Proceedings of the Eighth International Conference on Information and Communication Technologies and Development.
- [30] Ruhode, E. (2016). E-Government for development: a thematic analysis of Zimbabwe's information and communication technology policy documents, EJISDC, 73(7):1-15 1.
- [31] Sen, A. (1999). Development as freedom. Oxford: Oxford University Press.
- [32] Shanshan, S. (2014). Assessment of e-government quality under user satisfaction orientation: The Establishment of E-Govqual Model. Asia Journal of business management, 6 (2),111-117.
- [33] Submitted in fulfilment of the requirements for the degree of Magister Technologies in Information Technology at the Nelson Mandela Metropolitan University.
- [34] Thakur, S. & Singh. S. (2013). Study of Some E-Government Activities in South Africa: African Journal of Computing & ICT, 6(2).
- [35] United Nations Development Programme Humman Development Research Paper 2010
- [36] WCG. (2012). E-Governance Strategy 2012-2019. Version 1.0. 1 Sept 2012. Cape Town WCG. 2015. Western Cape Broadband Initiative: Accelerate Cape Town Workshop. Western Cape Province Cape Town

- [37] Wilson, F. (2012). User requirements framework for mobile government in the Western Cape,
- [38] World Bank. (2016). World Development Report: Digital Dividends. New York. International Bank for Reconstruction and Development, Washington.
- [39] Yin, R. K. (2003). Case study research: design and method 3rd Ed. California. Sage.