



Participatory Mapping in e-Thekwini Municipality, South Africa

VOICE OR
CHATTER?

CASE STUDIES

AUTHOR

KATHLEEN DIGA

AUTHOR

Kathleen Diga is a Research Project Manager for the DST/NRF South African Research Chair in Applied Poverty Assessment based at the School of Built Environment & Development Studies, University of KwaZulu-Natal, Durban South Africa. She is currently working on her PhD at the University of the Western Cape, South Africa.

This report is the outcome of a collaboration between IT for Change and the University of KwaZulu-Natal, South Africa under a research project titled Voice or Chatter? Using a Structuration Framework Towards a Theory of ICT-mediated Citizen Engagement.

This research has been produced with the financial support of Making All Voices Count. Making All Voices Count is a programme working towards a world in which open, effective and participatory governance is the norm and not the exception. This Grand Challenge focuses global attention on creative and cutting-edge solutions to transform the relationship between citizens and their governments. Making All Voices Count is supported by the U.K. Department for International Development (DFID), U.S. Agency for International Development (USAID), Swedish International Development Cooperation Agency, and Omidyar Network (ON), and is implemented by a consortium consisting of Hivos, the Institute of Development Studies (IDS) and Ushahidi. The programme is inspired by and supports the goals of the Open Government Partnership.

Research coordination team

Lead Researcher: Anita Gurumurthy
Research Associates: Deepti Bharthur & Nandini Chami
Design: Deepti Bharthur & Swati Mehta
Editorial Support: Swati Mehta & Dara Casey

Disclaimer: The views expressed in this publication do not necessarily reflect the official policies of Making All Voices Count or our funders.



© IT for Change 2017

Research outputs from the Voice or Chatter project are licensed under a Creative Commons License Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0).



MAKING ALL
VOICES COUNT

A GRAND CHALLENGE
FOR DEVELOPMENT

Table of Contents

1. Executive Summary.....	1
2. Rationale.....	1
3. Context.....	3
3.1 National Infrastructure.....	4
3.2 eThekweni Municipality and ICT citizen engagement.....	4
4. Methodology.....	5
4.1 Theoretical Framework.....	5
4.2 Methods.....	5
4.3 Warwick Market: Site Description.....	5
4.4 Data Collection.....	6
5. Analysis & Results	6
5.1 Municipality’s Vision of Citizen Engagement.....	6
5.2 Trader-Municipal Engagement in Warwick Junction.....	7
5.3 Municipal Engagement on Health Issues.....	8
5.4 ICT-mediated Citizen Engagement in the Municipality.....	9
5.5 Intermediation: <i>Asiye eTafuleni</i> ’s Role in Warwick Junction.....	10
5.6 The Intervention: ICT-mediated Citizen Engagement and Informal traders.....	11
5.7 Legitimation: Shifts in Norms.....	13
5.8 Domination: Shifts in power relations.....	14
6. Conclusion	16
References.....	18
Annex 1: Protocol Letters.....	21
Annex 2: Informed Consent Form.....	23

1. Executive Summary

The South African study provides analytical insights into an Information & Communication Technology (ICT) micro-level initiative, namely the 'Empowering Street Traders through Urban Disaster Risk Management' project. Implemented in eThekweni municipality, Durban, South Africa, this project explores ICT-mediated citizen engagement strategies for enhancing government accountability in public service delivery. More specifically, this initiative makes provisions for training and collective organizing with the intention to equip street traders with digital evidence to support their demands for a healthy, sanitary and safe work environment.

Greater ICT availability in South Africa suggests a growing possibility for citizens to use mobile phones and Internet to hold government accountable. However, there is a paucity of literature that maps ICT-mediated engagement initiatives within marginalized sub-populations. This study attempts to explore this gap, by interrogating an initiative in one of the largest informal markets of sub-Saharan Africa. Within this project, informal traders creatively deployed Frontline SMS and the Ushahidi platforms for crowdsourcing feedback responses and engaged in participatory mapping that identifies issues around their occupational health and safety. The project was built on the premise that ICTs can change the way citizen engagement is imagined within local governance processes, especially those which are currently absent. Citizen engagement, particularly with local government service providers, can be useful for informal traders to provide collective feedback on public health services within their work environment. Through the ICT initiative, street vendors were able to re-imagine their rights at work, especially in relation to occupational health and safety, through the use of digital hazard maps, and, with intermediary assistance, were able to negotiate for better safety workplace mechanisms together with local authorities.

2. Rationale

This case study from South Africa provides reflective insights into ICT and local governance within the 'Empowering Street Traders through Urban Disaster Risk Management' project. Undertaken as a partnership between the non-governmental organization (NGO) *Asiye eTafuleni*, local market traders, and the metropolitan municipality, this project intended to equip street traders with training and facilitated digital mapping to illustrate issues that prevent them from reaching a healthy, safe and sanitary working environment. Within an urban informal market in eThekweni municipality, within the city of Durban, two ICT platforms, Frontline SMS and Ushahidi platforms, were utilized for training and digital mapping.

The project was built on the premise that ICTs can change the way we imagine citizen engagement in local governance processes. The ability to stay connected and contribute to ongoing dialogue with government leaders and public servants through ICTs can alter the way citizens approach governance. Through digital platforms, citizen interaction with local government can extend to everyday activities, and push forward non-traditional means of citizen-government collaboration. ICT-mediated engagement can also help citizens gain confidence and assert their agency, thereby working towards positive change in their local communities. The evidence of such instances of civic engagement – particularly amongst vulnerable groups however, is underreported. This is the gap that this case study seeks to fill.

In a young democracy like South Africa, democratic institutions have been around for a relatively short period, commencing from the abolition of the apartheid regime in 1994. The creation of the republic was built on a promise for a non-racial society, with basic rights enshrined within the Constitution, including the right to education, housing, and health care (Republic of South Africa, 1996). Under a democratic government, the South African standards of living have improved, with

a reduction in income poverty, despite remaining high, moving from 66,6% in 2006 to 55.5% in 2015 (Statistics South Africa, 2017a). With regard to basic services, 59.0% of poor households have piped water inside their dwelling and 39.3% have access to flush toilets; whereas 86.7% of non-poor households have piped water and 80.8% have use of flush toilets (Statistics South Africa, 2017a). Income inequality continues to be persistently high (Leibbrandt *et al.*, 2016). These broad indicators reveal that much more remains to be done in terms of holding the government accountable in mobilizing fair distribution of quality public services to all sections of the population.

In terms of ICT access, South Africa has fared well regionally, owing to major investments in the country's built telecommunication infrastructure, as well as the high adoption of ICTs by citizens in comparison to its African country counterparts. The Global System for Mobile communication (GSM) signal coverage is nearly 100% in the country. Even low income households have mobile phone ownership rates of 74.8% in 2011 (Gillwald *et al.*, 2012). The growing interest in the Internet is reflective of gains from the dropping cost of equipment, and thereby improved access. Today, 59.3% of South African households¹ report Internet usage (Statistics South Africa, 2017b).

With relatively high ICT adoption, citizens could potentially use ICT tools to monitor and demand for responsive public service delivery. But at the moment, citizen use of ICTs for such purposes remains limited (Abrahams, 2011). The lack of investment in building digital skills and capabilities of citizens is one of the reasons for differentiated encounters of ICT use towards local governance (Diga, 2017). High income households are able to assert their demands through use of the available ICT mechanisms. However, resource constrained groups are pushed away from such opportunities; those absent of formal structures or services negotiate their disenfranchisement through resistant tactics and protest. In this case, the chance to extend digital capabilities and online means to engage electronically with government become missed opportunities.

Within the context of heightened level of violent protests against poor delivery of services (Mottiar, 2013), South African municipalities, organizations and individuals are currently testing various online and telephony-based tools for use by citizens towards monitoring and communicating their public service delivery needs. The priority of national government is around service delivery focusing on the provisions to poor households, and less emphasis is placed around the policies that address the social security of informal workers (National Planning Commission, 2011). Many informal workers are generally excluded from public provisions for safe working environments, and compensation from workplace injury, or occupational health needs. Yet, governments are obligated in implementing policy to assist those working within the informal economy. Furthermore, the paucity of literature on the use of ICT-mediated citizen engagement amongst traders within the informal market sector leaves room for further investigation.

This case study attempts to address two main questions two questions;

1. What is currently in place in terms of local government policy and related ICT citizen engagement around public service provision?
2. What are the possibilities of ICT tools for local market traders to hold government to account for service delivery such as public health provision?

The larger question that the research aims to answer is how theoretical structures of signification, legitimization and domination play out within ICT-mediated citizen engagement, and thereby shape local governance. Finally, the research examines the conditions under which ICT-mediated citizen engagement can support and promote democratic local governance.

The project presents a first for ICTs being used in occupational safety and health within an informal

¹ At least one household member reports the use of Internet in General Household Survey, 2016

work environment. The idea that a digital platform was being used with the intention to improve the working conditions of the poor elicited the interest of this researcher. A review of literature finds that ICT micro-entrepreneurs have mostly been focused on mobile or computer access and use for their economic activities, and less so around their social protection (Diga, 2013). In the South African context, one digital inclusion study showed how traders in Warwick market were using ICTs to make arrangements with their clients and suppliers, and help expand their clientele (Jhabvala & Harvey, 2016). The traders' precarious situation also needed them to anticipate scenarios such as the police raids (confiscation of their goods), and in some cases, the informal workers used their mobile phones to warn members of these attacks (Jhabvala & Harvey, 2016). Previous literature has also shown how mobile phones amongst South African informal workers was used towards productive work purposes, but less so around organizing traders in the market or facilitating trader issues around service delivery (Alfers *et al.*, 2016).

A gap was identified within this literature with respect to understanding the use of ICTs by informal traders in their engagement with formal government processes, such as occupational health services. This case study asks what lessons can be drawn from an ICT project that embedded digital mapping tools, in this case, Ushahidi and Frontline SMS, in producing evidence which support the informal workers' demands for better occupational health practice. In terms of local governance, how were the ICT tools used to support traders in the markets of Warwick Junction, especially in raising their concerns around public health and safety hazards within the work place? This research, in addition to addressing these questions, also hopes to positively contribute to the NGO and the local municipality's future engagement with ICTs amongst market traders around public health issues.

3. Context

Citizen-based monitoring, particularly of local government services, can be useful in aggregating feedback around public service demands from the local community. This is, however, predicated upon the existence of certain institutional safeguards that guarantee citizen rights (Diga, 2017). South Africa is guided by its Constitution that clearly outline the rights of citizens to freedom of speech, freedom of association and freedom of information, including the right to access state information pertaining to all spheres of government (Republic of South Africa, 1996). Specific government departments have been tasked with upholding these human rights, and, on this basis, they have gone on to create various citizen accountability mechanisms at the national level. The Department of Planning, Monitoring and Evaluation (DPME) and the Department of Public Service Administration (DPSA) have clear guidelines on citizen voice input into government processes even though, in most cases, activities are new and mostly at an information provision stage. Furthermore, the consolidation of the telecentre movement has seen the Department of Government Communications and Information Systems (GCIS) bring citizen services to one central hub. Three salient citizen engagement examples are striking; 1. DPSA's delivery of standardized government information online; 2. the DPME's Presidential hotline; and 3. the GCIS' Thusong Service Centre.

Firstly, the DPSA has made headway into digital engagement by investing in standardized government websites making national government information readily accessible. Secondly, under the frontline service delivery monitoring system, the Presidential hotline was created under the DPME to receive public service feedback through phone calls, emails and post from citizens (Republic of South Africa, 2014a). Citizen feedback is sent to the appropriate line departments, and their response is monitored until relevant action is taken to address the raised issue or concern. While the Presidential hotline is a key state-led ICT initiative that directly engages South Africans, a recent five-year review indicates that its small call log (over 190,000 calls in five years

for a population of 55 million citizens) falls short of meeting the service demands of the country's population (Republic of South Africa, 2014a).

Lastly, facilitated access to online platforms and ICT citizen engagement are most prominent within community public access points. The centres allow for blended (both face-to-face and online) support in moving citizens towards using eServices. These community ICTs come from a historic legacy of the government's techno-centric approach to digital policies (Moodley, 2005). In the 1990s and early 2000s, the main thrust of digital policies was on alleviating the digital divide, and ensuring inclusive Internet access, all of which was to be answered by the telecentre movement. Today, the telecentre strategy has been consolidated, and eServices for citizens are being housed within a 'one stop shop' called Thusong Services Centres (Government Communication and Information Systems, 2006). Given high broadband costs, such eServices integrated within a physical office are well situated for citizens to apply for public services or lodge complaints (Vivier *et al.*, 2015).

Besides these ICT initiatives, there are few policies mandated for ICT citizen engagement through national government implementations of note. Rather, of those that exist, an incremental approach (as in mixed offline and online techniques) in integrating ICTs for citizen engagement are being pursued.

3.1 National Infrastructure

The exploration of ICT-mediated citizen engagement initiatives is further supported by telecommunications infrastructural upgrades in the city space. The National Development Plan has expressed concern over the high cost of broadband (National Planning Commission, 2011). The Presidency's Infrastructure Development Act seeks to expand national fiber-optic networks (Republic of South Africa, 2014b). Furthermore, the development of city wifi networks are on the rise, and in some cases, partnerships for public wifi are being implemented in larger municipalities (Project Isizwe, 2016). By improving competition and broadening Internet access, ICT initiatives could expand. However, these large infrastructural investments would need to be complemented with digital training or mentoring initiatives, which are not always factored in to the infrastructure plans. Without such digital training and capacity building, these wifi and broadband strategies are at risk of being techno-centric, as was seen in the early telecentre movement.

3.2 eThekweni Municipality and ICT citizen engagement

Besides large national initiatives, ICT citizen engagement tools are being tested at local government levels, particularly around public services in the eThekweni Municipality. For example, a Whatsapp hotline was launched for reporting water leaks and sanitation issues (eThekweni Municipality, 2016c). Citizens are now able to either send a message (both text and image) or call the hotline number to report water leaks and sanitation issues. Furthermore, civil society organizations also share the enthusiasm about ICTs, and are keen to be part of initiatives that seek to leverage the potential of digital technologies for strengthening the political voice of marginalized groups (Diga, 2017).

The traders of the Warwick informal market comprise of one such group. The historical tensions of informality have rendered many of the workers invisible, or unaccounted for, and therefore local governance structures usually available to formal sector workers to channel their demands are not equally available to this group of informal workers (Alfers *et al.*, 2016). It was to address these needs that the NGO, *Asiye eTafuleni*, initiated the *Phephanathi* occupational health and safety project (*Phephanathi* means "Be safe with us" in the isiZulu local language). This initiative intended

to enable informal traders to re-imagine the informal market as a workspace in which they have rights to various occupational health services. The NGO undertaking this effort was guided by the idea that informal traders are major contributors to local economic development, and hence their health rights at work must also be guaranteed by the state. Prior to taking up the ICT initiative, the NGO had already facilitated occupational health activities such as the formation of occupational health committees, and the implementation of fire hazard and health trainings amongst informal traders.

The project was able to further leverage ongoing health and safety initiatives and gain additional funding to better understand the use of ICT tools for occupational health. As a sub-component of this initiative, innovative ICT solutions including – a crowd-sourcing solution that leveraged Frontline SMS and Ushahidi platforms to build an occupational health database of infrastructural problems and hazards – were explored. The intent was to help the street traders to use mapped evidence to legitimize their demand for a safe working space. By aggregating grassroots data, the evidence base was intended to initiate dialogue on making local municipal services responsive to traders' needs in the realm of occupational health and safety.

4. Methodology

4.1 Theoretical Framework

Using Anthony Giddens' structuration framework, this case study investigates how values are re-negotiated, new rules evolve to legitimize new forms of participation, and power is re-distributed between government and citizens. In reflecting on the ICT initiative in Warwick market, the study traces how interactions among actors can continuously shape and reproduce governance structures. Further, these insights can be used to draw generalizable insights on good governance practices and guidelines.

4.2 Methods

A qualitative case study methodology was selected for this research as the most appropriate method for abstracting the above broad theoretical insights as it plays out in these specific contextual experiences. The case study of Warwick Market takes a multi-faceted investigation first by reviewing local government policies around citizen engagement, particularly around ICTs, informality and occupational health. The majority of the research relied on the archival data and documentation from 2014 to 2017. The investigation of the applied case of ICTs used to address the occupational health policies within the Warwick informal market complements the policy review.

4.3 Warwick Market: Site Description

Warwick Junction is an urban trading place within the inner city of Durban. The Warwick market hosts between 6000-8000 traders (and thousands of other support workers) and is one of the oldest (over 100 years old) and the largest informal market in the country (Conley, 2015). Within the eThekweni Municipality's Spatial Development Framework, the area of Warwick is found to be a major transport node, particularly as an inter-connector for the public transport corridors (eThekweni Municipality, 2015). Given the perpetual flow of daily commuters, the area constitutes a major customer base for the informal market located within. The market is vibrant in its offerings of an assortment of goods and services within nine distinguished markets, from fresh produce and meat to local clothing and traditional bead works (Conley, 2015). The Warwick Junction's ongoing renewal has received both local and international recognition for the activeness of the informal sector and those supporting this initiative (Dobson & Skinner, 2009).

Warwick Junction has been chosen as one of the National Treasury's key catalytic projects for the "Built Environment Performance Plan" – a regeneration development plan that seeks to facilitate the construction of selected infrastructure and, in turn, maximize economic benefits to local communities. As part of a larger project of urban renewal, transportation facilities are to be redesigned to encourage the travel link between work and home, and the infrastructures for informal trade are to be updated (eThekweni Municipality, 2017a). A number of public consultations in relation to this are currently underway.

4.4 Data Collection

Secondary and primary methods were used for data collection. Firstly, secondary published and unpublished reports written by *Asiye eTafuleni*, as well as policy and strategy documents of eThekweni Municipality, were analyzed to give triangulation to the interviews and site visits. The primary data collection included three site visits to the Warwick informal market to conduct interviews and participant observation. The interviews with key informants were central to the study. The researcher interviewed the managers of the non-governmental organization, *Asiye eTafuleni*, the implementers of the Frontline SMS and Ushahidi ICT initiative. Other interviewees included: informal traders within the market, one manager, a municipality consultant to the area, and an independent researcher associated with the NGO, who headed the ICT research. The interview guide is enclosed as an Appendix. The interviews were transcribed and analyzed on the NVivo platform – keeping the research questions as the thematic point of departure.

4.4.1. Frontline SMS/Ushahidi

The two digital platforms, Frontline SMS and Ushahidi, were used to systematically build an occupational health database of infrastructural problems and hazards within the market. The digital platforms were used in mainly three activities: collaborative digital mapping, awareness messaging and training, and trader feedback. Firstly, an exercise of marking hazards, with the use of global positioning system (GPS) in the market place -- such as inappropriate storage of gas tanks or blocked fire exits -- was conducted. The identification of hazards were co-produced with traders, the provincial disaster management unit, and the local fire department. All the GPS points were then aggregated on to a digital map using Ushahidi, marking the various hazardous places in the market. The intention was for the stakeholders to use the mapping data to work towards a disaster response plan in the market. Another component was on communicating basic health messages. Frontline SMS was used to send bulk SMS to their trader telephone contacts, and share public health and safety message reminders. The launch of this Frontline SMS intervention was accompanied with basic training on the use of the ICT tool and an occupational health and safety training course. Finally, the Frontline SMS was also used to receive feedback messages from traders on public safety hazards. The Ushahidi platform was separately tested to digitally map out these trader feedback messages within the Warwick market (Alfers, 2016). The multi-faceted ICT activities created new mechanisms intended to bring light the occupational health issues of informal traders.

5. Analysis & Results

5.1 Municipality's Vision of Citizen Engagement

The broad vision of eThekweni Municipality, as outlined in the Integrated Development Plan (IDP, its main planning document), is that "by 2030, eThekweni will enjoy the reputation of being Africa's most caring and livable city, where all citizens live in harmony" (eThekweni Municipality, 2016a: p. 158). Currently, the IDP is completing year five of the five-year plan, within are outlined processes and procedures for public participation and consultation (eThekweni Municipality, 2016a: p. 26).

Under the category, *good governance and responsive local government*, the municipality are to have mechanisms and procedures in place in order to deal with community issues of local governance in a timely manner (eThekweni Municipality, 2016a: p. 366).

The idea of public participation cuts across all the programs of the municipality. In addition, “Section 1.21: Good governance” within the 2016/2017 IDP review specifies that the Community Participation Unit (CPU) is tasked with implementing the Community Participation policy (eThekweni Municipality, 2016a).

The main purpose of the policy is to provide guidelines for increasing the level of active citizen participation in the decision-making process of local government, and to create an enabling environment for civil society in which ordinary citizens and social groups may find platform upon which they voice out their concerns and take part in the fundamental decision making on issues that affect their lives. (eThekweni Municipality, 2016a: p. 384)

The CPU runs four main activities: a) vulnerable groups programs, b) poverty alleviation programs, c) community based planning programs, and d) citizen engagement programs (eThekweni Municipality, 2016a: p. 124-125). Out of these programs, most relevant to this case study is the citizen engagement program which aims to “liaise, co-ordinate, mobilize, inform and assist communities with access to services provided by government and/or by the municipality.” (eThekweni Municipality, 2016a: p. 125).

Current activities of the citizen engagement program include: the *Masakhane* Campaign, an organized stakeholder participation initiative, and Operation *Sukuma Sakhe* (a nationwide poverty reduction scheme). Each of these activities cater towards organized forums to garner collective citizen issues that are then sent as feedback to local government. A recent critique of community participation reports that pointed to low levels of communication between unit employees and local stakeholders/constituents, and poor efforts to monitor the progress of their programs (Ngcamu, 2014). The city’s Community Participation policy are intended to reinforce public engagement towards responsive public service delivery, yet the implementation of this policy appears weak (Ngcamu, 2014).

5.2 Trader-Municipal Engagement in Warwick Junction

Policies supporting informal traders-government engagement amongst Warwick Junction traders appears limited. The Municipality’s informal economy policy (2001) highlights public consultation, stating that there should be an “establishment of a negotiating forum where all organizations would have the opportunity to gain recognition as bona fide representatives subject to a set criteria” (eThekweni Municipality, 2001: p. 24). The current IDP review has yet to demonstrate effectiveness in participatory methods for the informal sector workers (Robbins & Quazi, 2014). Current engagement interventions implicating the informal economy have majority forum participation by the municipality and its respective project consultants, and less engagement with informal economy workers or their representative groups (Robbins & Quazi, 2014). Consultations are narrowed down to specific projects (therefore, not of an ongoing nature), and further, lack training on complex urban development processes. High level sector strategies input from informal traders is therefore limited. Municipality representatives perceive their work to include extensive consultations, but they feel “frustrated and perplexed by objections raised by informal economy workers about lack of consultation” (Robbins & Quazi, 2014: p. 42). They perceive the stated shortcomings lie not in the consultation approach, but in the disorganized informal sector. However, those working in the informal economy perceive municipal approaches as top-down and limited in their participatory aspects (Robbins & Quazi, 2014). Difficulties of communication between municipality and informal traders can make the implementation of public consultation within the informal economy a challenge.

In Warwick Junction, citizen engagement mechanisms are embedded within informal trader networks. Firstly, the interviews reveal that many types of street associations and trader committees (both voluntary and membership fee based) exist in the market. All groups are organized based on different needs and issues, and are somewhat decentralized. This variation of these groups, in itself, can make widespread consultation with traders difficult. There is, however, a consolidated forum for trader participation, which was first put in place in the late 1990s by the city as the Durban Informal Trade Management Board (ITMB). However, while the ITMB has been the umbrella body for street committees and had previously worked with the municipality, recent relationships with the traders have not been amicable (eThekweni Municipality, 2017b), and questions are raised on its legitimization in local governance processes. A parallel organization has recently come onboard – the eThekweni Municipality Informal Economic Forum (EMIEF) – to meet the informal economy policy mandate. The EMIEF membership includes not only trader organizations, but also the municipality’s area managers, local councilors, the Chamber of commerce representative, and the Metro police. One objective of the forum is to “deliberate on developmental issues pertaining to informal traders and recommend appropriate mechanisms of addressing them (eThekweni Municipality, 2017b: .p 6). Ongoing issues seem to be hindering the EMIEF from becoming a legitimate governance body (including the lack of freedom of association, lack of knowledge and information, unsatisfactory secretariat role, negotiating in bad faith, limited trust between parties, poor reporting mechanisms, and representatives for the Forum being elected under false pretenses (eThekweni Municipality, 2017b). The coordinated participation of local traders is fraught with difficulties due to its decentralized nature and various politics mentioned above. The face-to-face model of consultation (as a Forum or Board that physically meet together) may thereby benefit from alternative mechanisms of participation to complement the mandated processes. This is especially true in the effort to legitimize the EMIEF forum for trader-government feedback, and where traders can feel included in the local governance processes.

5.3 Municipal Engagement on Health Issues

For this case study, one of the relevant points within the Municipal vision is that of providing access to services, specifically occupational health services. The Occupational Health and Safety Act (61 of 2003) is provided by national government, and is constitutionally mandated as the responsibility of local government. Under *Plan 4: Fostering a socially equitable environment*, the municipality seeks to meet this mandate “to promote and create a safe, healthy and secure environment” (eThekweni Municipality, 2016a: p. 309). Occupational health is part of the municipality’s Health Unit programs, which also drives primary health care programs. In fact, the sub-program on *Enhance Environmental Health Service Delivery* addresses some of the key concerns around occupational health and safety (eThekweni Municipality, 2016a: p. 309). The specific mandate of occupational health and environmental health is entrusted to the environmental health services (EHS) (eThekweni Municipality, 2017c).

The IDP 2015/16 review notes that Environmental Health Services are “currently being delivered sub-optimally” in eThekweni Municipality, mainly due to human resource issues (eThekweni Municipality, 2016a). However, the health unit is in the process of building up its staff complement. The current IDP makes no mention around citizen engagement within the occupational and environmental health program. Rather, occupational health hazards actioned by the municipality are viewed as reactive, rather than proactive in relation to engagement with traders’ participation (Interviewee #1). At the moment, EHS practitioners can be contacted on their telephone or email, details of which are provided on the eThekweni Municipality website. Occupational health and safety for informal traders are a minor (if not generally excluded) area of focus within local

governance. Occupational health and safety standards tend mainly to formal workplace settings. As far as activities within the informal economy, the only reference in the EHS is for the safe food handling at production, storage and delivery stages (eThekweni Municipality, 2017c). Recent interactions of the environmental health services with informal traders revolve around health education classes and issuance of certificates of food safety to persons trading in foodstuffs. Considering the under-resourced department, citizen engagement with various EHS municipal officials (for both formal and informal activities) appear weak.

Besides EHS, other departments work within the Warwick Market around public health. The other unit of the municipality that works closely with traders and other stakeholders in Warwick Junction is the Business Support Unit (BSU) of the municipality. The BSU is located within the area based management unit, Inner Thekwini Regeneration and Urban Management Program (iTRUMP) (Dobson, nd). Using its revenue from trader permits and licenses, the BSU has the mandate to contract appropriate line departments to deal with public health and safety issues, such as sanitation (via contract cleaning), refuse/waste removal, water and security services, repair and maintenance of infrastructures in public spaces, and creation of ablution blocks (Robbins & Quazi, 2014). However, such services have not been well provisioned, and traders have often suffered from poor service conditions and marginalization (Conley, 2015).

At the provincial level, disaster response needs to ensure that processes are in place to deal with emergency or health outbreak situations, including within the Warwick market. Fire department and police coordinate to deal with emergencies, such as toxin inhalations or other health hazards. Several provincial departments would work in coordination with EHS to ensure health issues expressed by informal traders are addressed, especially amongst those working in the Warwick market, however such coordination has only recently been brought to light as a result of the Phephanathi project.

The EHS does not seem to have systems for citizen-government engagement, yet the potential seems high for such mechanisms. Good health is a major developmental issue for traders, that could be taken up by traders to the EMIEF Forum. Furthermore, the mandate of the community participation unit could also create new mechanisms for citizen engagement within the EHS program. Finally, the special project consultations on the Warwick Market precinct and informal trader infrastructure upgrades again provides space to raise occupational health issues. However, such recommendations have yet to be raised, all of which contributes to an ongoing negligence of informal traders' health needs and priorities in the EHS.

5.4 ICT-mediated Citizen Engagement in the Municipality

The design and development of ICT-mediated approaches to citizen engagement falls under eThekweni's good governance implementation strategies. Within the IDP, the strategic focus area, "create an efficient, effective and accountable administration," hosts the ICT work (eThekweni Municipality, 2016a). Under this focus area, the following ICT-related program are mandated:

- Program 7.9 Provision of automated solution development
- Program 7.10 Network, telecommunications and electronic services
- Program 7.11 Managing ICT customers and desktop infrastructure
- Program 7.12 Provision of a secure and robust server and data centre infrastructure

These programs show an overwhelming focus on the municipality's ICT back-end office development, and less emphasis on front-end online customer services. Of recent, the major investments on public wifi are being implemented, with several wifi towers being erected during 2016, and more announced in 2016/17 financial year (eThekweni Municipality, 2016b). This wifi

provision has the potential to serve as the backbone on which numerous ICT-mediated citizen engagement initiatives can be rolled out. In other words, this supply side thrust is justified by the rationale that the online information and service provisioning by municipality needs to be complemented with ICT infrastructure that makes the Internet accessible and affordable to all citizens. Currently, citizens have the following three local government options to address citizen issues: 1) direct one-on-one discussions with the municipal councillor for service-related queries, 2) one-stop shops like the Sizakala customer care centres in eThekweni Municipality (eThekweni Municipality, 2017d), and 3) limited online tools to pay for electricity, water or rates (but these services mainly cater formal ratepayers). These citizen engagement activities are mainly focused on household or domestic issues, and less focus is placed on, for instance, market traders.

In the domain of occupational and environmental health issues, there are a few options available for citizen ICT-based engagement. The Environment Health Services office has a phone number and email address for public health issues and their details are provided on the eThekweni Municipality website. Besides EHS, there have also been other city level initiatives that have invested in ICT-mediated citizen engagement. They are not specifically targeted at addressing occupational health and safety engagement of informal traders, but have the potential to complement such engagement. A Whatsapp hotline was launched for reporting water leaks and sanitation issues (eThekweni Municipality, 2016c). Citizens are now able to either send a message or call the hotline number to report water leaks and sanitation issues. Given the ICT unit's main policy implementation has been on back end infrastructure provision, the website provision of EHS details and the latest water issue hotline are welcomed additions to bringing citizen engagement within public health issues.

5.5 Intermediation: *Asiye eTafuleni's* Role in Warwick Junction

In the case of Warwick Junction, *Asiye eTafuleni* (AeT or “*come to the table*” or “*let's negotiate*” in the isiZulu indigent language) has played a historic role of facilitation and collaboration between government and working class citizens in the area. *Asiye eTafuleni* works to support informal economic spaces within urban city planning and budgeting priorities. The result is a supportive environment for traders to earn a living and “create vibrant and culturally important urban spaces for the entire city” (*Asiye eTafuleni*, nd). The NGO has also been integral in helping to organize informal economy participants with regard to social justice issues, and creating legitimacy of the presence of informal workers in the Warwick Market, as evidenced by several landmark court cases contested on behalf of informal traders (Chen, 2016). In 2011, the High court ruled in favor of informal workers against the city's action to lease the Warwick Junction land to developers, with the potential of destroying the informal market, and building a shopping mall as its replacement (Chen, 2016). In 2015, the High Court again ruled in favor of a trader against the police who had impounded and confiscated his goods, calling it unconstitutional (WEIGO, 2015). In both cases, AeT facilitated the access to informal workers affected by repressive city policy implementation. Furthermore, *Asiye eTafuleni* distinguishes the organizing work, ensuring the involvement of traders in planning processes, and infrastructure development within the spaces where they work. Most recently, traders were engaged in the design of infrastructural interventions; *Asiye eTafuleni* facilitated meetings by building their understanding of the planning processes which affect them (Mathers & Mkhize, 2016a).

Asiye eTafuleni took the decision to work on the Phephanathi project because of their historic relationship with the network, Women in Informal Employment: Globalizing and Organizing (WEIGO). There has been an ongoing working relationship between the two entities – particularly around social protection – and the Phephanathi project is part of this extension. A collaborative effort helped draw in funding from the Rockefeller Foundation to develop an occupational health

and safety project amongst traders in Warwick. The ICT idea was experimental as there is no existing intervention that brought to light occupational health issues. Several absent or weak policy implementation helps to justify the ICT processes which unfolded in the Phephanathi project.

5.6 The Intervention: ICT-mediated Citizen Engagement and Informal traders

5.6.1. Collaborative Digital Mapping

This first activity was a coordinated meeting of interested market traders, AeT, the provincial disaster management unit, and the local fire department to walk around certain parts of the Warwick Market and identify major fire and safety hazards. Hazards included inappropriate storage of gas tanks or blocked fire exits. During the walkabout, the global positioning system (GPS) points were gathered, along with the hazard description and these points were then digitally produced onto a map using Ushahidi (Interviewee #2). The intention was for the stakeholders to use the mapping data to start the initial work towards a disaster response plan in the market.

The activity use of a blended engagement (both offline, face-to-face meetings and digital representation) was useful to both the government officials involved and traders as the NGO was able to facilitate the walkabout, and allow for intermediated engagement between the two groups who have not worked well together in the past. *Asiye eTafuleni* facilitated the creation of a platform for state-citizen dialogue which could be used to work with officials to address the occupational health and safety needs of informal street traders. The Phephenathi project has also initiated complementary occupational health interventions for traders such as fire safety training, physical check-ups, and trader-run risk management committees in the market as a mechanism to speak to the state in one voice around public health issues. Though the NGO cannot stand in for the traders or claim to represent them in these interactions, The NGO staff can however assist in translating technical information and enable the traders to organize themselves in order to evolve and assert collective demands.

AeT's intermediation has been helpful in enabling the traders obtain governmental responses for some of their issues/concerns. For example, in liaising the hazards walkabout and digital mapping with the fire and disaster management department, AeT further facilitated a training which involved fire marshals teaching safety techniques to traders who were operating food stalls. The fire marshal staff felt that AeT's facilitation helped in ensuring that their sessions had an appropriate audience – something which they had failed to do in their previous attempts. Clearly, the NGO was successful in increasing government responsiveness, as it focused on addressing communication difficulties of between state officials and traders in creating a dialogic platform. It is difficult to comment on whether this intermediation by the NGO has contributed to a sustained change in trader-government interaction, as there has been no monitoring after the pilot. Nevertheless, the collective digital mapping of public hazards provided a profound starting point for trader – state engagement around occupational health in the public space.

5.6.2. Awareness Messaging and Training

The second digital activity was the provision of occupational health messages through the use of mobile phone. Various short messages were developed by the AeT on ergonomic issues and work-health environmental issues. The platform, Frontline SMS then sent these messages through bulk SMS to their trader telephone contacts, sharing public health and safety message reminders. A basic training was also provided to chosen informal traders (mainly from the formed health committees) on the use of the ICT tool and an occupational health and safety training course. One report stated that the majority of respondent traders found the SMS messages useful (UN-Habitat, 2015). However, another discussion on the use of ICTs stated that the Frontline SMS messages

needed to be complemented with further face-to-face health workshops in order to be useful to the traders (Jhabvala & Harvey, 2016).

5.6.3. Trader Feedback

The Frontline SMS/Ushahidi hotline was designed to allow for trader feedback, mainly in reporting public health issues. More specifically, the Frontline SMS program was advertised to market traders, and some traders were briefly trained on the use of SMS to report sanitation issues. The Ushahidi platform was then used to receive any Frontline SMS messages and other messages received and record fire and sanitation risks within Warwick Junction through a photograph, a short description, time and date. The reports were further aggregated onto a digital map by a technical volunteer at *Asiye eTafuleni*. The digital map was intended to contribute to the visual database around occupational health and safety infrastructural issues within the Market – which could then serve as an evidence base for advocacy with local government for improved service provision in the Market. The messages were received through the ICT system for one month. The Frontline SMS system, even with training sessions with traders, had some issues when implemented on ground. In some cases, the messages that were sent would not be specific to a health issue, and it would be missing key information (such as location). Many of the messages could not be translated by the interpreter into a coherent fire, health or sanitation issue. The type of issues which were translated included some serious ones like when a trader had found a deceased body in the market's public toilet. Not all traders were able to effectively use ICT tools for reporting occupational or environmental health issues. Traders who are illiterate or have rarely used SMS for communication with others struggle to use the system to message the Frontline SMS platform created under the project. Some traders only write in the isiZulu language, and at times, this became a barrier to texting. Others would use the platform to write long (and what would seem like) incoherent stories, and interpreters were left uncertain of the intent of such messages. Further ICT education and literacy training and building capabilities of traders in re-articulating their experiences in the formal language of claims-making would help to meet some of the inadequacies. Similarly, traders' unfounded expectation, that the new ICT tools would provide an immediate response to the issues they raised, had to be tempered.

While the current pilot was run by AeT, if it has to be sustained in the future, there needs to be dedicated investment of resources. Further, as with many NGOs, AeT was not equipped with a trained information technology specialist which made initial implementation difficult. While the open source technology is freely available, some technological knowledge was necessary to be able to set up the system. A technical volunteer had provided some assistance, further support staff received the messages and then map them out on top of their current duties, however further technical assistance was difficult to find.

5.6.4. Overall Challenges

While ICTs have the potential to enable the assertion and amplification of traders' voice on their occupational and environmental health issues, there are some caveats. Interviewees mentioned that the high cost to communicate as a key barrier, particularly the cost of data packages and airtime for phone calls on mobile phones. As many of the traders own feature phones, they are able to do limited advanced functions such as the use of certain mobile applications and some Internet browsing. Whatsapp and SMS are useful platforms for traders to keep in touch with their customers. However, while traders use mobile connectivity for contacting customers and expanding existing work opportunities (Alfers *et al.*, 2016), they have not fully leveraged the digital opportunity for mobilization. When traders need to organize, they tend to rely on word-of-mouth or face-to-face methods. The perception about using ICTs towards organizing is mixed. One interviewee believed that there is no potential for ICTs, as it is likely that traders have not thought about using ICTs for organizing traders on public service issues. However, there is an observation

of more frequent use of ICTs for knowledge sharing amongst traders. The idea of using ICTs for organizing market traders may have potential if ICT education and literacy training has been made available to meet competence insufficiencies (Alfers *et al.*, 2016). As mentioned in the trader feedback activity, some of the traders are illiterate or the way messages are written on SMS cannot be translated to useful information on public service provision. All these contribute to making text-based communication over SMS functions or Whatsapp messaging quite difficult among traders.

A sustainable local governance tool can be designed for the needs of informal traders as long as the support structures are equipped to process incoming queries, all of which can improve the situation of the market traders. However, this experience shows that an NGO without dedicated resources and in-house technical expertise may find it challenging to implement a new ICT system on citizen engagement. Also, the historic context of marginalization of informal traders in eThekweni Municipality means ICT-mediated citizen engagement measures must adequately address the lack of ICT capacity and techno-literacy skills of this group, if they are to be truly effective.

5.7 Legitimation: Shifts in Norms

In a review of the above three ICT activities, as well as policy implementation to date, the emergent norm is to involve an intermediary, in this case, AeT. The NGO provided facilitation for citizen-government engagement for occupational health policy, and appears to be a necessary step, in the context of the marginalized traders in Warwick Market. It is, of course, possible to argue that rather than design the intervention on its own, the NGO AeT could have focused on first mobilizing traders via organized health committees, and ensuring that they played a central role in idea development and overall project steering. However, considering that up to this point, traders had never framed or approached occupational health and safety as a rights issue, the choice that AeT made to design the project with WEIGO, and subsequently bring on board traders, may be justified.

The Phephenathi Project is starting to create trader expectations for occupational health and safety, which had not existed in the past. The overall expectation is that government response to health issues within the trader workplace environment of Warwick become legitimized. In relation to occupational health, traders are more aware of their rights to health services, and are learning ways to gain assistance which mitigate health hazards. Previously, traders found engagement to be difficult with government. The Phephenathi project has helped alleviate some of those issues. With respect to ICT tools for reporting, previously, there were very few expectations about the pilot amongst traders, as such a mechanism had never been extended to them prior to the project. Nevertheless, after using the ICT tool, traders mentioned that they now recognized health and safety as part of their rights at work, and found some of the ICT interventions useful for their public health.

Further, Ushahidi/Frontline SMS tools have the potential to shift the norms and improve communication between municipalities and citizens around public health needs. In the future, traders could constitute risk management committees to help carry out ongoing hazard audits or reporting of health issues via ICTs. What has most potential seems to be collective digital mapping, the facilitated activity that has created tangible evidence to inform disaster management. In the long run, it may be possible for a digital map of health and safety issues to become a key evidence-based tool for informal traders to self-organize and articulate collective demands, shifting the balance of power. But as the pilot project has ended, at the time this research was undertaken, the traders and AeT had not reached this stage of traction.

On a broader note, the municipality has started operating a water and sanitation hotline for reporting issues immediately and with the intent of ensuring an effective response. This initiative seems to be a progressive step in shifting the norm, using ICTs as a legitimate mechanism for

citizen engagement with local government. However, given the lessons learned from this Ushahidi/Frontline SMS pilot, the use of this mechanism may remain differentiated. In other words, it is likely that street traders without appropriate ICT skills would struggle to use the Whatsapp municipality water hotline unless building trader capacity to use ICT tools are addressed. As the project pilot has come to an end, little can be said of the shift in practice of using mobile phones to communicate with government on public health issues. Unfortunately, the external factors are overwhelming to simply be addressed by the ICT themselves.

5.8 Domination: Shifts in power relations

The broader Phephenathi project within which the 'Empowering Street Traders through Urban Disaster Risk Management' is located, set up ongoing process structures within which traders could engage with municipal departments on public health issues. The Phephenathi Project offered an opportunity to make the previously missed linkages possible between traders and municipal officials around public health. Previously, municipal staff stated wanting to work with the traders. However, they did not know how best to engage with informal traders.

One interviewee referred to an example of the fire department, previously seeking to discuss ways to mitigate fires within the cooking areas of the Warwick market. Though this effort was well intentioned, the department was previously unable to dig deep and identify the reasons for the limited uptake with the traders. They tended to explain this away as an inexplicable lack of interest among the trader community, about how it was not possible "...to get the traders to do anything, because they never want to collaborate". However, as the interviewee, a street trader himself, explained: "It's because they don't know how to talk to the traders, and to engage. So I think it's a lot of work that has to be done about making sure that engagement can actually happen." In this case, the availability of a facilitator or translator between municipal services and informal traders proved essential.

The Phephenathi project demonstrated – by specifically linking food traders to fire department staff – that creating opportunities can improve interactions, in this case, improving fire hazard techniques when cooking over an open flame can increase safety. The project has also created the possible expectation that there are times when formerly divided stakeholders needed to speak in unity. In a previous court case, the market traders had to join together and use legal means in order to retain their working space in the Warwick Junction (Chen, 2016). Finally, the technical assistance of AeT also ensured interpretation of technical terms in architecture and social facilitation for the participatory design, making for appropriate and meaningful engagement between traders and municipality, in this case, in dealing with the municipality's infrastructure plans.

As a positive outcome, the layer of NGO-municipal-trader collective intermediation has had influence in other initiatives like activities within the recent urban design and built environment performance plans. For example, AeT was able to facilitate discussions between eThekweni and traders in the traditional herb and bovine market on the architectural design of the market upgrade (Mathers & Mkhize, 2016b). The inputs traders in the market facilitated by AeT has ensured that infrastructural upgrade plans to their workspace in Warwick were inclusive of trader needs such as space and sufficient roof coverage and ventilation (which was not part of the original plan). Technical jargon from architectural plans was translated and made understandable to the traders by the NGO so they could give input. The plans then took these inputs into consideration and worked with municipal officials who were willing to be somewhat flexible in allowing for participatory trader plans and integrating the changes.

Through the Phephenathi project, the language of health is now articulated by the traders, with statements such as "we have a right to be healthy in our workplace" or "this is making our

workplace unhealthy". Without AeT, trader engagement and such framings could have been non-existent with the municipality and the architectural upgrades would have missed the needs of traders. Furthermore, without appropriate trader input and facilitation, government accountability (with proper trader consultation in place) would not have been possible.

Furthermore, the creation of health risk management structures helped leverage the enlisting of traders or committee members to use the NGO-led crowd-sourcing initiative, and further the transformative relationship between the NGO, traders and municipal staff. In setting up a layer of intermediation, as in the risk management committees, some ownership of improving public health amongst traders can be taken upon by selected trade leaders. While this committee has successfully run some of the health activities on their own beyond training, it is yet to implement accountability mechanisms with appropriate municipal authorities, as is the case with the EMIEF forum.

5.8.1. Daily Structural Challenges of Traders

The daily structures and perpetual struggles of a trader's daily activities hinder limit citizen-government engagement from reaching its full potential. Traders are busy, and their lack of time is a serious barrier to participation. Even if traders take the initiative to engage with the municipality on a health issue (our interviewee refers to an example of a blocked street drain), their lack of certainty around an issues' departmental jurisdiction is a problem. Such engagement with local municipal workers is marked by doubt and hesitation, there would likely be going back and forth with departments, none of whom take responsibility, thereby wasting the time of the trader. Many of the health issues are linked to multiple department responsibilities. In an actual issue of a blocked street drain in the market, an intervention by an NGO affiliate to the overall management of the city had been the only instance of departmental collaboration in sorting out the health hazard issue. In this case, the interviewee who works closely with the NGO wrote a letter to the city manager on the blocked drain in the middle of the market, which led to the instruction for departments to work together to unblocked the public drain. Also, as the traders are on the borderline as far as their legitimacy is concerned, NGO or third party intermediation to bring traders and government actors on the same stage seems inevitable-- going by previous instances. The ongoing absence of social security and structural protection to the informal trader will outweigh the intervention of better trader-government ICT engagement. Furthermore, systematic change in health, such as health insurance or a workplace compensation fund, would ensure risks are covered and traders are left with more time to engage with the government. However, at the moment, such social protection is absent.

Since traders in Warwick Junction are classified as informal workers, their claims to health and safe working environment has never been perceived by the authorities as fully legitimate. While they do pay revenues for licenses and food safety permits, their 'invisibility' in the eyes of local government means that there is very limited responsiveness to requests for services and rights-claims from this population. The Phephanathi project asks traders to re-think their relationship with the municipality, re-imagine their citizenship roles, and re-articulate their health and safety concerns in the language of rights. While the ICT interventions remained experimental, the attempt to collect data on the health and safety demands furthers shifts of power and practice in governance towards trader's rights to a healthy work environment. Improving the ways in which traders can seek health and safety assistance is one step closer to shifting towards furthering the legitimacy of traders and for government to recognize their human rights.

While this pilot only saw limited response to health and safety issues amongst traders, the increasing use of ICT platforms to speak to citizens via government intervention expanded the techno-mediated space for asserting citizen demands. However, the ability to use such techno-mediated space will remain unequally distributed unless cost barriers to connectivity, and lack of

digital capabilities for citizen engagement are addressed.

The current government response to occupational health issues in the Warwick market has been poor. However, the Phephenathi project was put in place to turnaround the relationship with government and the conventional opinion around urban public health hazards experienced everyday by traders. The first point of call is that traders now have the awareness of their public health rights and can use the appropriate language to approach government when meeting their rights. Rather as stated by interviewee, “we call it occupational health because we are trying to make a point that this [Warwick Junction] is a working place [for informal traders]”. Traders’ perception to government responsiveness may have improved slightly around the work of particular departments such as the fire department because of the Phephenathi intervention. In relation to citizenship, one interviewee believes that there is shift in how traders perceive their health rights “so I feel like traders are aware that they have rights to health now, that the municipality does need to pay attention...” (Interviewee #1).

6. Conclusion

The policy implementation within eThekweni Municipality guide the space in which citizen ICT mediated engagement can occur. In Warwick Market, there are emergent developments which are attempting to implement informal economy policy, specifically, to create citizen–government engagement space that could legitimize traders’ rights and citizen voice. More specifically, the current eThekweni Municipality informal economic activity forum (EMIEAF) is mandated to work on development issues of traders. This institutional structure could strengthen the assurance of better public health for traders, and even take up alternative mechanisms such as ICT mediated citizen engagement in providing much needed voice to public service issues. These structures are still work in progress, therefore, their ability to make decisions and improve the working conditions of the traders effectively still remain unclear. Nevertheless, this is a starting point for transformative state-citizen engagement.

Also, little can be said about environment health services (EHS) and its citizen engagement efforts given EHS weak capacity as well as lack of platforms for traders to report on major public health issues. However, the facilitation of *Asiye eTafuleni*, through the Phephenathi project, reflects an ability for traders to bring their workplace health issues and urban health hazards to light. Furthermore, the timing of the Ushahidi and Frontline SMS reflection is appropriate as it helps to enhance the understanding of how informal traders could best use ICTs in improving citizen engagement with government, particularly around urban health hazards. The improvements of the EHS and the increased visibility of ICTs for citizen voice to government are strong factors towards more engagement.

At this point, the learnings of the Phephenathi project could be taken forward by *Asiye eTafuleni*, in integrating its previous efforts to the municipal Whatsapp hotline that aims at addressing water and sanitation needs of the city. The initiative can be strengthened by using previously developed trainings of ICT capacity building and ICT-mediated citizen programs to apply to a larger group of traders, particularly those traders with access to Whatsapp. It would also be important to monitor the external context which will influence uptake of the hotline amongst traders. This can include monitoring the changes as the expansion of free public wifi arrive in the area. The effects of lowering costs of data and airtime, changes in telecom policy and competition regulations, amongst other factors can be monitored for their effects on traders. Furthermore, with the eThekweni Municipality informal economic activity forum (EMIEAF) emerging and further upgrades to the Warwick Market being contemplated, traders could be contributing to work space changes. However, appropriateness of such engagement would need to be considered. Lastly, there could

be a potential role with the Community Participation Unit in training community members in such citizen ICT engagements. Finally, there is potential also for the local NGO and the Business Support Unit to coordinate such efforts to ensure that traders can have their public health issues taken into consideration.

Policy also has an integral role in ensuring inclusion of citizen engagement. In South Africa, the national Department of Planning, Monitoring and Evaluation are coordinating and implementing national strategies to meet the mandate of citizen engagement and accountability, mainly through their frontline service delivery monitoring system (DPME, 2009). Embedding ICT mechanisms within participatory strategies is new, innovative and mixed in the South African context. From a policy perspective, the national government is in the midst of building citizen reporting structures around issues such as service delivery. The current national strategy falls short in describing the role within local municipalities and ways in which to ensure that marginalized citizens receive targeted intervention so that they can use ICTs to strengthen their claim to public service delivery.

In this context, the ICT component of the Phephenathi project may well be a blessing in disguise as the local municipality attempts to ramp up its citizen engagement. The city wished to show immediate results after the ruling party, African National Congress (ANC), experienced substantial drops of voter support in the country – and eThekweni municipality (including the city of Durban), however, was one of the few major cities able to hold onto the ruling party majority. This city now has much to prove to ensure that it avoids the same fate of voter losses as its sister cities. The mayor, in making a marked statement for change, reported that one of her key initiatives or visions is addressing the high citizen demand for responsive service delivery and implemented, in 2016, a Whatsapp hotline to deal with water and sanitation issues. The Phephanathi project preceded this development, and may be a useful point of reference to turn to for the city's forays into deploying ICT tools for citizen engagement particularly for marginalized citizen and street traders.

The ICT component of the Phephenathi project has been able to capture some of the complexity involved with citizen voice and embedding ICTs as a structure to government, particularly amongst a sub-population who are generally "invisible" and under-served in any type of public services. Furthermore, any new ICT initiative would need to be complemented with some trainings on its usage, as well as organized, or blended (including face-to-face) facilitations for larger issues, especially for marginalized populations like informal traders. Without such intervention, populations such as those in Warwick Junction will continue to face exclusion.

References

- Abrahams, L. (2011). South Africa's e-Development Still a Futuristic Task. *Journal of the Knowledge Economy*, 2(1), 145-171.
- Alfers, L. (2016). Empowering Street Traders through Urban Disaster Risk Management in Durban, South Africa Report on Value-Added Digital Technologies. Unpublished Report.
- Alfers, L., Bali, N., Bird, M., Castellanos, T., Chen, M., Dobson, R., Hughes, K., Roever, S., and Rogan, M. (2016a). Technology at the Bottom of the Pyramid: Insights from Ahmedabad (India), Durban (South Africa) and Lima (Peru). WEIGO Report. Cambridge, MA: WIEGO. Retrieved from <http://www.wiego.org/sites/default/files/publications/files/WIEGO-Technology-Base-pyramid-2016.pdf>
- Alfers, L., Xulu, P., Dobson, R., and Hariparsad, S. (2016b). Extending Occupational Health and Safety to Urban Street Vendors Reflections From a Project in Durban, South Africa. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, 26(2), 271-288.
- Asiye eTafuleni (nd). *Asiye eTafuleni* website. Durban. Retrieved from <http://aet.org.za.www12.flk1.host-h.net/>
- Conley, P. (2015). Empowering market traders in Warwick Junction, Durban, South Africa. Inclusive cities project. August 2015. Cambridge, MA: Women in Informal Employment: Globalizing and Organizing (WIEGO). Retrieved from <http://www.inclusivescities.org/wp-content/uploads/2015/09/IC-Durban-Case-Study.pdf>
- Chen, M. (2016). Managing the Urban Commons: What Space for Informal Livelihoods? What Role for Organizations of Informal Workers?. Paper presented at Informality and Development: a conference in honor of Elinor Ostrom. 22-23 October 2016. Indiana University.
- Diga, K. (2017). *State of the Art report on ICT mediated citizen engagement in South Africa*. IT for Change Research Report. India: IT for Change.
- Diga, K. (2013). Chapter 6 - Local Economic Opportunities and ICTs: how ICTs affect livelihoods (part II). In H. Emdon, L. Elder, B. Petrazzini & R. Fuchs (Eds.), *Connecting ICTs to Development: The IDRC Experience*. Ottawa: IDRC.
- Dobson, R. (nd). iTRUMP [inner Thekwini Regeneration and Urban Management Programme] AREA BASED CONTRIBUTION TOWARDS MANAGING THE INFORMAL ECONOMY. Durban: eThekwini Municipality. Retrieved from http://www.durban.gov.za/Documents/City_Government/Area_Based_Management/Itrump.pdf.
- Dobson, R. and Skinner, C. (2009). Working in Warwick: Integrating Street Traders into Urban Plans. Durban: University of KwaZulu-Natal.
- eThekwini Municipality. (2017a). Draft eThekwini Built Environment Performance Plan 2017-18. March 2017. Durban: eThekwini Municipality.
- eThekwini Municipality (2017b). eThekwini Municipality Informal Economy Stakeholder Relations. MILE Symposium. Durban: eThekwini Municipality. Retrieved from <http://www.mile.org.za/QuickLinks/News/Informal%20Economy%20Learning%20Exchange%202017/Informal%20Trade%20Stakeholder%20Relations.pdf>
- eThekwini Municipality. (2017c). Environmental Health Services. *eThekwini Municipality website*. Durban: eThekwini Municipality. Retrieved from http://www.durban.gov.za/City_Services/health/Environmental_Health_Services/Pages/default.aspx
- eThekwini Municipality, (2017d). Sizakala Customer Services Unit. *eThekwini Municipality website*. Durban: eThekwini Municipality. Retrieved from http://www.durban.gov.za/City_Services/sizakala_customer_care/Pages/default.aspx.

- eThekweni Municipality. (2016a). *Integrated Development Plan: 5 year plan: 2012/13 to 2016/17 - Annual Review 2016/2017*. Durban: eThekweni Municipality.
- eThekweni Municipality. (2016b, June 13). City to roll-out free WiFi. Durban: eThekweni Municipality. Retrieved from http://www.durban.gov.za/Resource_Centre/new2/Pages/City-to-roll-out-free-WiFi.aspx
- eThekweni Municipality. (2016c, September 21). A City at Work EThekweni Launches Whatsapp Water Reporting Line. Durban: eThekweni Municipality. Retrieved from http://www.durban.gov.za/Resource_Centre/Press_Releases/Pages/A-City-at-Work-EThekweni-Launches-Whatsapp-Water-Reporting-Line.aspx
- eThekweni Municipality. (2015). Spatial Development Framework: review 2015-2016. Durban: eThekweni Municipality. Retrieved from: http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Documents/SDF%20Review%202015-2016.pdf
- eThekweni Municipality. (2001). *Durban's Informal Economy Policy*. Durban: eThekweni Municipality.
- Gillwald, A, Moyo, M., and Stork, C. (2012). Understanding what is happening in ICT in South Africa *Evidence for ICT policy action*. Cape Town: Research ICT Africa.
- Government Communication and Information Systems. (2006). *Thusong Service Centres Business Plan 2006-2014*. Pretoria: Republic of South Africa.
- Jhabvala, R., and Harvey, J. (2016). *Financial and digital inclusion from the perspective of women in the informal economy*. Cambridge, MA: WEIGO. Retrieved from <http://www.wiego.org/sites/default/files/resources/files/WIEGO-SEWA-financial-digital-inclusion.pdf>.
- Leibbrandt, Murray, Finn, Arden, and Oosthuizen, Morne. (2016). Poverty, Inequality, and Prices in Post-Apartheid South Africa. In C. Arndt, A. McKay & F. Tarp (Eds.), *Growth and Poverty in Sub-Saharan Africa* (p. 393-417). Oxford, UK: Oxford University Press.
- Mathers, A. and Mkhize, P. (2016a). An inclusive and participatory design process for the Bovine Cooks Facility: Part 1. *Asiye eTafuleni website*. Durban: Asiye eTafuleni. Retrieved from <https://aet.org.za/an-inclusive-and-participatory-design-process-for-the-bovine-cooks-facility-part-1/>
- Mathers, A. and Mkhize, P. (2016b). An inclusive and participatory design process for the Bovine Cooks Facility: Part 2. *Asiye eTafuleni website*. Durban: Asiye eTafuleni. Retrieved from <https://aet.org.za/an-inclusive-and-participatory-design-process-for-the-bovine-cooks-facility-part-2/>
- Moodley, S. (2005). The Promise of E-Development? A Critical Assessment of the State ICT for Poverty Reduction Discourse in South Africa. *Perspectives on Global Development Technology*, 4(1), 1-26.
- Mottiar, Shauna. (2013). From 'popcorn' to 'occupy': protest in Durban, South Africa. *Development and Change*, 44(3), 603-619.
- National Planning Commission. (2011). National Development Plan: Vision for 2030. Pretoria: Republic of South Africa.
- Ngcamu, B. S. (2014). Responsiveness of Community Participation and Action Support Unit's activities to local communities' needs: A case of eThekweni Municipality. *Administratio Publica*. 22(4): 144-158.
- Project Isizwe. (2017) Project Isizwe website. Retrieved from <http://www.projectisizwe.org/>.
- Republic of South Africa. (2014). *Infrastructure Development Act, 2014*. Pretoria: Republic of South Africa.
- Republic of South Africa. (1996). *The Constitution of the Republic of South Africa*. Pretoria: Republic of South Africa.
- Republic of South Africa. (2014). *People First: "Four Years of the Presidential Hotline" 2009 - 2013*. Pretoria: Republic of South Africa.
- Republic of South Africa. (2014). *Infrastructure Development Act, 2014*. Pretoria: Republic of South Africa.

- Robbins, G. and Quazi, T. (2014). Informal economy budget analysis: eThekweni Metropolitan municipality (Durban, South Africa). WEIGO working paper No 34. December 2014. Cambridge, MA: WEIGO.
- Statistics South Africa. (2017a). *Poverty Trends in South Africa: an examination of absolute poverty between 2006 and 2015*. Pretoria: Statistics South Africa.
- Statistics South Africa. (2017b). *General Household Survey, 2016*. Pretoria: Statistics South Africa.
- United Nations Human Settlements Programme (UN-Habitat). (2015). Local governments' pocket guide to resilience. Nairobi: UN-Habitat. Retrieved from http://www.citiesalliance.org/sites/citiesalliance.org/files/Resilience%20handbook_%20LOW%20RES.pdf
- Vivier, E., Seabe, D., Wentzel, M., and Sanchez, D. (2015). From information to engagement: Exploring communication platforms for the government-citizen interface in South Africa. *The African Journal of Information and Communication*, 81.
- WEIGO (2015, July 20). A Durban street vendor wins precedent-setting victory in court. Cambridge, MA: WEIGO. Retrieved from <http://www.wiego.org/blog/durban-street-vendor-wins-precedent-setting-victory-court>.

Annex 1: Protocol Letters



30 August 2016

Mrs Kathleen Diga 4433
School of Built Environment and Development Studies
Howard College Campus

Dear Mrs Diga

Protocol reference number: HSS/1003/016

Project Title: Voice or Chatter? Using Structuration Framework towards a theory of ICT Mediated Citizen

Engagement: Case study of Durban

Full Approval – Expedited Application

In response to your application received 4 July 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

A handwritten signature in black ink, appearing to be 'Shenuka Singh'.

Dr. Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor/Project Leader: Professor Sarah Bracking
Cc Academic Leader Research: Professor Oliver Matpuri
Cc School Administrator: Ms Nolundi Mzolo



Humanities Ethics Committee
College of Humanities
School of Built Environment and Development Studies
University of KwaZulu-Natal, 4001

23 August 2016

RE: LETTER OF SUPPORT TO THE "VOICE OR CHATTER" RESEARCH PROJECT: PERMISSION TO CONDUCT RESEARCH

The organisation, Asiye eTafuleni has considered your request to use an Asiye eTafuleni project as a case study for the research titled, "Voice or Chatter? Using a Structuration Framework towards a theory of ICT mediated citizen engagement: case study in Durban." This

We wish to inform you of the acceptance of the request and gatekeeper's permission is hereby granted for you to conduct an independent study of Asiye eTafuleni. The outcome will help our organization in the long run.

Please note that the data collected must be treated with due confidentiality and anonymity.

Regards,

A handwritten signature in black ink, appearing to read "Richard Dobson", is written over a light blue circular stamp. The signature is written in a cursive style.

Richard Dobson

Project Leader

Asiye eTafuleni

Asiye eTafuleni • NPO No. 067-686-NPO
Unit 111 • Business Incubation Building • SEDA eThekweni • 127 Johannes Nkasi Street • Durban • 4001 • South Africa
t: +27 [0]31 309 3880 • f: +27[0]31 309 3878 • admin@aef.org.za • www.aef.org.za

Annex 2: Informed Consent Form

University of KwaZulu-Natal
Howard College

Date: July/August 2016

Information Sheet and Informed Consent Form: Making All Voices Count project

My name is Ms Kathleen Diga, a researcher from the University of KwaZulu-Natal under the SARChI for Applied Poverty Reduction Assessment. We would like to invite you to participate in the study where we aim to understand the processes of introducing information and communication technologies (ICTs) as a mechanism for citizenship engagement.

The aim and purpose of this research is to reflect on the use of ICTs amongst informal traders in the Warwick Market, particularly on a previous pilot study using the mobile application Frontline SMS/Ushahidi. More specifically, the study hopes to understand how ICTs were used to share information on issues of occupational health within the market. The study is expected to speak to 1-2 managers of the original Frontline SMS/Ushahidi project and the lead researcher to the research project. The interviews will be in English. The duration of your participation if you choose to participate in the study is expected to be 30 minutes. The study is funded by 'Making all Voices Count' project under the Institute for Development Studies, Sussex and administered by IT for Change (Canada).

The study will provide no direct benefits to you. The information from the study hopes to help inform and improve the awareness and communication channels around occupational health between stakeholders in the market, government officials and NGOs.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number _____).

In the event of any problems or concerns/questions you may contact the researcher at Ms K Diga or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows: K Diga, Research Project Manager, 031 260 1191 or digak@ukzn.ac.za

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001
Durban 4000, KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609, Email: HSSREC@ukzn.ac.za

Please note that:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person, and the team will protect confidentiality of personal information.
- Data will be stored in secure storage and destroyed after 5 years.
- Any information given by you is voluntary, and the collected data will be used for purposes of this research only.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalised for taking such an action.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the recording equipment.

CONSENT

I _____ have been informed about the study called ‘Making All Voices Count’ by the researcher Ms Kathleen Diga.

I understand the purpose and procedures of the study.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the information above.

I hereby provide consent to:

	Willing	Not willing
Audio equipment		
Photographic equipment		
Video equipment		

Signature of Participant

Date

Signature of Witness

Date

