Stockholm University

*iHub Research

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Exploring conditions for successful Mobile Governance (M-Governance) in Kenya

Results & Lessons Learned

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Executive Summary

Partner: iHub Research
Country: Kenya
Thematic area: Democracy
Duration: 18 months

Budget: 500 735,29 SEK
Spider contribution: 500 000SEK
Additional funding: Ford Foundation – Kenya 34 942USD; Indigo Trust 10 000USD

Spider Network Affiliation: East Africa ICT4Democracy Network

Just as the advent of web 2.0 platforms placed users at the center of development of the internet, the smart phone revolution is affording users the opportunity to shape the use and application of the mobile phone. Everyday experiences are being simplified with various mobile phone applications that provide real time information. As one of the technologies subsumed in the Information Communication Technologies (ICTs) pool, the mobile phone has also contributed to development processes, and is being touted as the technology that will succeed where other ICTs have failed (See Gurumurthy, 2010 problematizing this notion). This is mostly due to its mobile character, and the fact that as a new media it embodies old media skills such as radio transmission, voice transmission, print media, and television broadcasting.

In this era where users contribute to shaping the technology, a number of platforms have been developed by Africans on the continent. For example, Kenya is at the forefront of implementing the use of mobile phone applications that have been developed in the country towards improving socioeconomic growth[1]. However for the economic progress to occur there is a need for transparent, accountable non-corrupt governance structures. If the mobile phone is contributing to the growth of other sectors, the technology should likewise contribute to the improvement of governance processes.

It is with this ambition that iHub Research in Kenya set out in their research project *M-Governance: an effective tool to fight corruption Kenya*, to "describe and produce an analysis of how mobile phones applications can be used to improve transparency, accountability and professional integrity in the Kenyan government"[2]. As noted in Spider Stories 2011, iHub Research suggests "this simple mobile device is changing the face of business, religion, relationships, and learning. It is about time it changes the face of governance in Kenya"[3].

By close of the project, several reports illustrating the different ways in which Kenyans see the mobile phone contributing to improved service delivery by providing bi-directional communication with those in leadership positions were published. This was the original aim of the project, i.e. to produce a comprehensive report that would be made available to the Kenyan government and the public. What the research reports also illustrated is that the mobile phone does not operate in a void, but is shaped by and shapes the terrain in which it navigates its course. The research commenced with the notion of studying mobile applications, but quickly realized the limitations with this focus as majority of Kenyans only have access to a basic feature phone. A reconsideration of what was meant by mobile phone meant incorporating and being aware of the various divides that the smart phone creates.

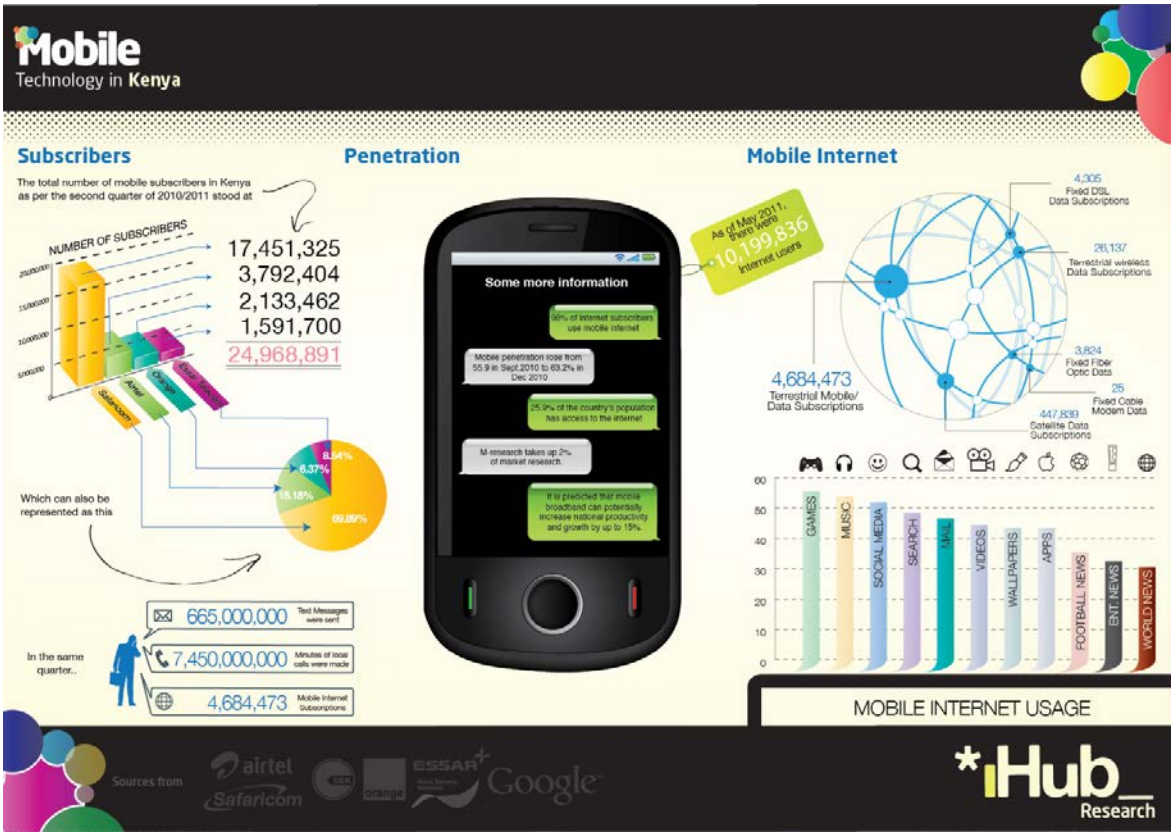
[1] iHub Research Progress report 3.
[2] iHub Research Project Proposal. P.1
[3] Spider Stories 2011, P. 40

TABLE OF CONTENTS

1. Background

iHub Research is the research arm of Nairobi's innovation iHub that provides "an open space for the technologists, investors, tech companies and hackers in the area" to discuss and develop their tech ideas to fruition. The research arm of iHub begun operations late 2010, and has richly contributed to ICT4D research since. Their M-Governance research project with Spider set out to identify, describe and produce an analysis of how mobile technology applications can be used to improve Kenyan governance in the areas of improved service delivery and establishing communication channels between the citizens and their government.

This research project aimed to illustrate how through mobile technology, government's slowness to responding to her citizens can positively increase if mobiles which have managed to penetrate more than half the Kenyan market (See info graph below from iHub Research) are incorporated in governance.



Retrieved from http://www.ihub.co.ke/blog/2011/09/mobile-broadband-in-kenya/ 27 July 2013

The smart phone revolution has seen a growing number of mobile applications emanating from Kenya. Hence the research also sought to understand how mobile applications facilitate effective delivery of services offered by the government.

Additionally the research project set out to better connect the tech community with academia and government. The potential for mobile platforms to improve interactions between the government and the citizens had not been recognized at the start of the research project. The gap between the techies and the government contributed to this

discrepancy, and the iHub Research aimed to illustrate how service provision could be significantly improved, the potential for corrupt transactions reduced, and a government that was closer to the Kenyan people, if mobile technology was usefully incorporated in governance.

Limiting the focus to just one ICT tool in a pool of technologies – the mobile phone - iHub Research was advocating for a convergence of tools to engage with in the delivery of government services. Where ICT often infers the use of electronic communication namely the Internet and as such the idea of e-government, incorporating a mobile component in this standard could hopefully encourage the use of ICT and most importantly the mobile phone by Kenyans in interacting with their government. As such m-governance does not supplant e-governance[4]; it rather complements the existing platforms through the additional opportunities mobile phones can bring to the governance process.

[4] See detailed article by Hilda Moora here http://www.ihub.co.ke/blog/2011/08/governance-in-kenya-the-role-of-icts-in-achieving-good-governance/#sthash.7ZfkVEKk.dpuf Retrieved 27 July 2013.

2. Results (Outcomes)

The ultimate goal of the research was to produce a comprehensive report freely available to the government, tech community, and the NGO fraternity illustrating the opportunities of an M-Governance approach. To accomplish this, iHub Research set out to engage with government, academia and the tech community in order to understand the role mobile technology can play in governance.

The study started out with a general theme of M-Governance and in the initial exploratory study, iHub Research asked the sample population what their understandings of governance were. The findings pointed to a general perception of the term governance relating to the government, suggesting as concluded by iHub a top down approach to leadership. This would also explain why in the research findings communicating with government or those in office through the mobile phone was not identified as the most obvious or popular technical platform. Even though costs for using mobile phones have reduced considerably the charges are still prohibitive to majority of Kenyans, which is one explanation why using the mobile phone to communicate with leaders is not a viable option. Additionally as noted by other research, mobile phone users may struggle to communicate through the technology as developing a trustworthy relationship with the information acquired from this device is difficult. It is easy to lie through the phone (Molony, 2007) and users prefer the face to face meetings that can allow for more honest interaction.

Mid-way through the project, iHub Research identified a specific theme within which to continue their exploratory study in order to comprehend the intricacies involved in using mobile technologies in governance. It was imperative to narrow the focus to just one sector so as to provide a thorough understanding for the target groups. The focus on water, and the technology led governance processes found in this sector, revealed that confining the study to just mobile technology especially during the field work exercise would potentially "lock down" the research particularly as various applications found on the web could be or were complimented through the use of mobile platforms such as the SMS system. iHub Research then changed their focus to mobile technologies in order to encompass the additional technologies that support the mobile components.

The project has produced a number of results that have been disseminated through the web and other channels reaching beyond the target groups that the project was aiming for. The following publications have been produced by iHub:

1. M-governance exploratory survey blog posts found here http://www.ihub.co.ke/blog/2012/02/m-governance-exploratory-survey-on-kenyan-service-delivery-and-government-interaction/
2. M-Governance survey report published here http://research.ihub.co.ke/pages/home.php
3. Presentation of preliminary findings at the UNDP Africa Forum on Civil Society and Governance Assessments in Dakar Senegal. (Nov 2011).
4. Paper presented at the IST Africa 2012 Conference in Dar es Salaam, May 2012.
5. Use ability experience pre-test report on three governance mobile applications developed in Kenya http://www.ihub.co.ke/blog/2012/03/user-experience-pre-test-on-m-governance-applications/

6. Water governance applications –in Kenya- paper http://research.ihub.co.ke/pages/water_governance.php
7. Water governance report and blog post http://research.ihub.co.ke/pages/water_governance.php http://www.ihub.co.ke/blog/2012/07/water-governance-how-collaboration-and-technology-can-help/
8. Release of the water governance research report in three series. First two series completed and found here: https://intra.spidercenter.org/proj/node/679; www.ict4democracy.org; and
9. http://www.ihub.co.ke/ihubresearch/jb_WaterStakeholdersReportWEBpdf2013-8-29-07-43-17.pdf

Use of mobile phones in water governance process by Kenyans is limited. The research encountered 20 mobile applications in the country that have been developed as reporting mechanisms for addressing water challenges. Majority are limited to the urban population that also has greater access to the smart phone. The applications identified could aid in the process of billing, complaints management, energy saving systems and information on where to access water[5]. The research also found that a number of applications did not survive the pilot phase due to funding challenges. The development of applications at events such as Hackathons can be equated to the notion of the telecenter establishments which are instituted as community or public access information seeking spaces. The challenge with these establishments is that they struggle to survive after donor funding runs out. And just as the telecenter requires financial injection to maintain the technologies in place, mobile applications require regular updates, to keep them current, and without the necessary resources, scaling these platforms or maintaining them becomes a challenge.

Unanticipated results in the project include a book chapter based on the results that was written and submitted to the University of Botswana to be published in "Technology, Development and Platform Enhancements for Successful Global E-Government Design". Additionally, the iHub Research team has hosted ideation workshops where they have engaged with various stakeholders in the water sector to discuss gaps identified in governing water issues for the country. These occasions have provided a forum for development partners such as World Bank, the government represented by the Nairobi Water and Sewerage Cooperation, and techies to brainstorm on how to develop research findings into solutions. Through this process existing water governance applications that work similarly to the solutions identified during the ideations, have been identified. iHub Research is preparing to partner with the organizations developing these technical solutions so as to establish user experiences of these apps.

The research project has been mentioned by different international audiences, such as the Accountability Lab http://bloggingonaccountability.org/

[5] iHub Research WaterApps Paper

3. Analysis and Lessons Learned (Outputs)

3.1.*Project Implementation*

The tools used to carry out the research changed from an exploratory study to a large study after limitations with the Open Data Kit (ODK) application were identified during the initial stages of the research. The advantages with this mobile application was that data was being fed into a server while the field research was taking place, which provided instant access to trends emerging in the field. The challenge however was that the ODK required close ended questions to be able to function to its potential, as well as to simplify the work of those in the field. Typing long answers and capturing everything that was being said by the respondent was a challenge. The battery life of these basic android phones was also limiting. Since most of the challenges associated with water access are encountered in rural areas, where access to electricity cannot be guaranteed, using ODK would not be cost effective for the project.

It also became apparent a year into the project that focusing on one sector in this exploratory study would likely provide a more detailed understanding of the role of the mobile phone for improved governance.

The plan was also to develop a mobile application in governance in collaboration with other iHub partners but when the focus turned to water and 20 water applications were encountered in the sector, the process was changed to studying the user experience of these applications.

3.2.Risk and risk management

The project anticipated the following risks,

- Fluctuating prices in Kenya, mainly transport costs that would likely affect the travel aspects of the research
- Delays in the project due to unforeseen disruptions or political events
- The research encountering empathy, disinterest or hostility from government, citizens

The project did not anticipate not having adequate funding to complete the research, and had to acquire additional funding from Ford Foundation Kenya in order to carry out the field work for the large survey on water governance.

The Kenyan national election which took place in March 2013, several months later than initially planned, also affected the ideation workshops hosted by iHub Research to communicate the results of the research to the relevant stakeholders. iHub Research held a second ideation workshop later in May which resulted in identifying mobile platforms already built to support the monitoring of water service delivery. iHub Research also opted not to build their own mobile application, after identifying 20 applications developed around the idea of water monitoring in Kenya. 11 of these applications did not make it past the pilot phase; while out of the 9 that are still running 7 are floundering. Plans for the future include returning to the field and testing the usage of at least one mobile application among the citizens.

Administering 900 bulky questionnaires, as well as coding and analyzing the data proved to be a time consuming exercise. iHub Research decided to publish this enormous amount of data in three series. Thus far two of these have been published and the third is pending.

3.3.Sustainability

iHub Research are applying for additional grant support in order to turn the research findings into workable solutions. Proposals have been submitted to different development partners with limited success. At the same time they have continued to conduct workshops with relevant key players in the water sector and these occasions have sought to establish how to proceed with the research findings. An idea that requires additional resources is to study the user experience with the applications that are still active. But to do this additional funding must be secured.

3.4.Partnerships

As part of the iHub innovation hub, iHub Research partnered with the user experience lab in designing and exploring the use of the mobile phone in governance. The research process was also made possible with collaborations explored with academics, government and the tech community. Through these partnerships iHub Research was able to successfully complete, analyse and publish a number of reports on the role the mobile phone can play in governance processes.

3.5.Network analysis

iHub Research as the tech-savvy partner in the ICT4Democracy East Africa Network assisted different partners with advice on how to work with some of the newer media platforms. They in turn relied on the expertise of the other partners in areas such as gaining access to the field and engaging with the communities. During iHub Research's tenure as the network facilitator, they undertook the process of redesigning and upgrading the network's web page and social media platforms. This has simplified the current facilitators updating exercises.

3.6.Monitoring and evaluation

As a member of the ICT4Democracy East Africa network, iHub Research has participated in the monthly meetings where project updates, and various challenges are shared by the partners. This process has created a situation where members are accountable to each other and to the Spider project officer who is able to monitor project activities on a periodic basis. Like the other partners in the network, iHub Research has been active on a number of web platforms including the project website where project updates and blogs related to the research project have been made publicly available. In addition as a research project, following the publications being produced allowed for greater monitoring and evaluation on the part of Spider.

4. Conclusions

The potential of mobile governance towards improving communication between the citizens and their leaders is enormous. However a number of hurdles stand in the way of using this technology. Many of the respondents were afraid of using their phones to address water governance challenges. The fear was mostly related to the possibility of being victimized. In other instances respondents would hesitate to spend money on their phones reporting bad service delivery. If the applications available or platforms developed are free, some users are prepared to use these avenues.

iHub Research also took to the social media platforms and at the close of their project their face book page registered 329 likes and their twitter account had 760 followers. Their social media following is impressive considering they are but one arm of a conglomeration of Nairobi's innovation hub. Establishing themselves and acquiring their own followers on social media, has largely been through the research products the team have managed to communicate to the world through these channels.

iHub Research has also managed to bring together actors that often struggle to communicate or engage in discussions. The tech community, government and academic sectors were able to sit together and discuss the research process and try to identify workable solutions based on the field results.

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Annexes I - Submitted reports

1. M-governance exploratory survey blog posts found here http://www.ihub.co.ke/blog/2012/02/m-governance-exploratory-survey-on-kenyan-service-delivery-and-government-interaction/
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