

iHub Research Updates

July 2014

PILLARS

1. Technology and Governance

a) *ICT4Gov*

An 18-month project to assess how ICT tools are being used for various aspects of governance in Kenya, Uganda and Tanzania. The project aims to identify, describe and analyze conditions under which *ICT tools can/have successfully facilitate(d) or hinder(ed) two way interaction between government and citizens* towards delivering public services, tracking corruption and increasing transparency and accountability and rights/access to information. Exploratory study getting data on tools and organizations that will be studied has been done; 2 conference papers, reports and blogs written, created tools for data collection. Next step is fieldwork - Uganda (July), Tanzania and Kenya (Aug).

b) *Umati II*

The Umati project was born out of concern that new media may have played a catalyzing role in Kenyan 2007/08 post-election violence. The project seeks to identify and understand the use of dangerous speech in the Kenyan online space.

Umati has been working towards the following:

- To propose both a workable definition of hate speech and a contextualized methodology for online hate speech tracking, that can be replicated locally and in other countries.
- To better define the type of speech most harmful to Kenyan society to enable citizens to recognize it.
- To further civic education on dangerous speech so that Kenyans are more responsible in their communication and interactions with people from different backgrounds.

Update

- Laying groundwork for Umati Nigeria and starting a pilot test in August with one of the organizations we intend to partner with CITAD - Nigeria.
- The automated data collection process continues to be tweaked and tested out with the aim of creating an innovative output for others to replicate the Umati project concept globally.
- Released a report that has gained coverage on local media in light of recent events hence increased visibility for the project.

- Hosted a public panel discussion with various stakeholders at the iHub in January 2014 (recap of Umati forum).

c) *Una Hakika Project*

Una Hakika is a collaborative project run between Sentinel Project and iHub Research. During the inter-ethnic massacres in Tana Delta between August 2012 and January 2013, misinformation was singled out as a main cause of the conflict. Una Hakika is being rolled out in the area so as to understand how misinformation is transmitted throughout a population, particularly how networked technologies influence the spread of misinformation and whether they can be used to map and then counter misinformation.

We've done a baseline survey to get statistics about the area and to know how people in the area receive and send info and structures in place, set up an SMS system (that receives the rumours and sends out messages back out to subscribers), trained 192 volunteers who will be the medium between the system and the people and they shall also be the ones to verify the rumours, partnered with security officials and DCC (Deputy County Commission) and other NGOs. End goal is to change mentalities of the community and to be the info system for the community with the purpose of them picking up the program and running it for themselves.

2. Mobile and Web

a) *eLimu*

A monitoring and evaluation of the power of mLearning using tablets and the eLimu interactive content. The 15-month study will be conducted in GSU School in Embakasi, Kenya. We have gone to the field twice to conduct interviews with parent, teachers and students; reviewed the eLimu platform and 3 reports submitted to the client. Currently data analysis is ongoing. Additionally, a workshop with Motorola is being organized to show how the tablets have been used for data collection.

b) *Karibu Center*

A 10-month study for Karibu Centre (Thika, Kenya) evaluating the computer program (Waterford software) deployed by the center to Standard 1 and 2 students, the students progress, benefits over traditional learning methods and to identify any gaps between the curriculums used for early childhood learning in Kenya and the Waterford Software program in order to advise on practices to be adopted by Karibu Centre.

Fieldwork was conducted in March, submitted a report in May to the client. Waiting for feedback as more analysis is being conducted on the data collected. Upcoming fieldwork is are focus group discussions and interviews with parents in November.

3. Innovation and Entrepreneurship

Rockerfeller

This study is developing a scanning mechanism for job-creating innovations and high-potential enterprises. More specifically, we will generate three key deliverables:

- i. A landscape of innovations generated by Kenyan tech enterprises, with an emphasis on digital job creation for youth.
- ii. A framework composed of relevant criteria for identifying innovations generated by tech enterprises.
- iii. A report outlining recommendations on how to catalyze digital job creation within technology-driven enterprises, and shift the thinking of the innovation community toward the importance of addressing job creation through enterprise development.

Fieldwork in Nairobi and Mombasa has been done. Virtual interviews via phone call for Kisumu. Currently cleaning the data and doing the data analysis. By August, reporting will be happening.

PRODUCTS

1. UX & Market Research

- a) *mNaira - Usability Evaluation on Mobile Money Services in Nigeria (The Grameen Foundation)*

The overall aim of this study is to understand the financial inclusion problem from the perspective of low-income Nigerian urban dwellers (as defined by household income) and develop strategies that Grameen Foundation can adopt to cater to this demographic. It seeks to understand interaction between users and MM, their experience and that of MM agents, so as to recommend practical ways of improving the user experience when using MM services and potentially increasing overall uptake of such financial services. Fieldwork and data analysis complete. Currently working on the 3rd iteration of the report and the presentation.

- b) *Uzazi - Mobile and Digital Family Planning in Kenya (Georgetown University)*

This study will involve testing of three technologies: an SMS-based service available on basic phones, an online web-app that can be accessed via any internet-enabled device and a smartphone app available on iPhone or Android phones.

- i. To gain a clear understanding of whether the message content, the form of the message and the purpose behind the message are correctly understood by the potential user.
- ii. To gain a clear understanding of how potential users from each segment interacts with the three technologies and the challenges associated.
- iii. To recommend improvements to the products that will enhance uptake of this technology.

Fieldwork and analysis complete. Currently working on the 2nd draft of the report.

2. R&D

Founded in November 2013, R&D is a social enterprise think tank and hardware design agency striving to build appropriate technology solutions for pertinent issues that afflict much of the developing world, with a vision to build a culture of afro-centric innovation among youth. R&D's mission is to develop internationally acclaimed and contextual applied technologies with a focus on solving societal problems caused by inadequate infrastructure, provisions or services in the Global South.

They achieve this through:

- i. R&D's reach has grown and developed into a direct community of approximately 150+ University Students through various participatory events.
- ii. Kids' Hacker Camp. Held every school holiday, the camp is a 6-day long camp hosted at the iHub, for kids and teens aged between 7 and 18 years. A fun and educative course curriculum is under iterative development, and aims to spur the STEAM (Science, Technology, Engineering, Arts and Mathematics) fields through activities and exercises that skill the children in 5 C's: Curiosity, Critical Thinking, Communication, Collaboration and Creativity
- iii. PanyaBot - the first collaboratively developed hardware solution. Designed and built to be low cost, PanyaBot is an educational robot platform, made so using reused materials.

The door access system should be set up in 2 weeks. We are working on an inventory system for their hardware.

3. Data Lab

The Lab is designed to provide data support and resources to iHub Research projects while at the same time providing an avenue for consultancy services on the innovative use of data and technology. The Data Lab is building an interactive platform that can easily be updated and used to perform the following critical research processes: *Data Collection, Data Storage, and Analysis, Data Visualization.*

We are supporting different teams and projects to manage the above data processes. Heavy on our plate is the need for analysis several projects including: eLimu, Rockefeller, Umati, and the UX research process.

We are also running a 6-week data jam, currently going to the third week. 3 students. Teaching them the basic concepts of data science in an experiential manner by immersing them in a start-up and two other data projects. We are about to sign up for a consultancy gig to support a local research company do data collection and management.

That said, the way forward for the data science lab is uncertain with a need for a clear strategy, which we hope to be working on in the next couple of months.