*iHub Research

The Open Data Pre-Incubator Project Progress Update

October 2012

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Background

The Kenya Open Data Pre-Incubator is a six-month experiment to help accelerate the public's ability to make sense of data and to galvanize engagement around critical public issues. The experiment, conducted by a consortium consisting of AMI, Open Institute, @ iLab Africa, iHub Research, the World Bank and the Kenya ICT Board, is to test a model that will be put to use in a broader two-year Incubator effort, endorsed and supported by the highest levels of government led by public mobilization agents with support from the technological community.

The focus themes that have been selected for this pre-incubator are water, education and health, with crosscutting issues based on counties/local government data.

The specific goals of the pre-incubator process are to:

1. Create one app or service or platform per team that is used at scale across Kenyan society and drastically increases the use of open data,

2. Develop use cases, recommendations, toolkits and a critical analysis of the pre-incubation process, and

3. Create an Advisory Board to work on how to formalize the incubation process over a two-year period.

The iHub Research Team is responsible for documenting the process of building and running the open data pre-incubator; critically analyzing the entire process; and delivering use cases and recommendations that can be used for actionable planning. Through the documentation of the Open Data Outreach process, iHub Research will be able to develop a refined model and toolkit in order for the process to be replicable in other communities and countries. Further, iHub Research is using evaluation mechanisms and the documentation to understand how to make the Open Data Outreach initiative sustainable and scalable.

iHub Research is also training and mentoring in design thinking approaches, which the fellows will use to amalgamate the insights from experts with extensive end-user research and their technical expertise to create applications that will try and solve the issues raised.

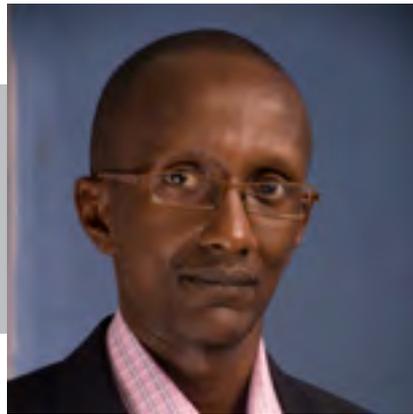Outcomes of this project are to be published in December 2012.

Introduction

Over the past few months we have been expounding in depth, on the project blog, the ideas, motivations and birth of the Open Data Pre-incubator project. In these blogs we mention the events that have been organized and held around the project including the Design Thinking Workshop training we gave the fellows and the Open Data for Development Camp. We have also highlighted the adoption of the Kenyan Open Data Initiative, its applications to date, and the consequent measures being taken to realize its full potential through an Open Data Pre Incubator Initiative. Since then there have been a number of subsequent informative pieces giving the breadth and depth of Open Data. The pre-incubator has been taking shape with the different structures and elements falling into place.

In this update report we are specifically focusing on the Code4Kenya process, in order to give an exposé on the fellows and developers who are working towards moving the open data to open information and building the host organization's capacity to not only use this information but to also empower citizens to use it.

Towards this end, theCode4Kenya team is faced with the task of changing the existing practices within their respective organizations to improve the manner in which they handle data and cultivate a data driven culture. Their key deliverables are given as to:

a. Establish a data desk that shall coordinate and analyze all data collected within the organizations. This data shall be put up in a data portal which the fellows have to establish too

b. Conceptualize and develop a technological application that will communicate information within a thematic area with primary data sourced from the Kenya Open Data Portal and that will be used by citizens and journalists in meaningful ways

c. Create an ecosystem between potential data providers and the host organizations to co-exist in a symbiotic relationship

The Education Challenge

Fellow: Muchiri Nyaggah

Host Organization:Twaweza

Muchiriis the lead fellow in the Code4Kenya project and also embedded in Twaweza. Twaweza is a citizen centered civil society organization that has been in existence for the past ten years, focusing on large-scale change in East Africa. Twaweza seeks to expand opportunities through which millions of people can get information and make change happen in their own communities and by holding government to account.

THE CHALLENGE:

In Kenya, there are two sets of transitional exams taken each year, at the end of the Primary School Education (Standard 8) and at the end of Secondary School Education (Form Four). Most of the time parents with children in each of these examination classes are anxious to know whether their children will perform well enough to be admitted into a secondary school or a university of their choice. When choosing schools for children, parents often rate the schools by performance in such major transitional examinations first and foremost. However, they are unable to quickly and authoritatively compare these schools by performance and mostly rely on anecdotal evidence from trusted sources and from media reports published whenever public examination results are announced. The media reports mostly tend to only cover the prominent schools or extraordinary performance by little known schools.

Further, there are a myriad of other factors that concern the parents when selecting schools or evaluating the school that the children are currently attending. These concerns are not adequately catered for or the anxiety associated with it is not allayed. The complexity of the admission process at secondary school level and at university level is also not adequately explained making it difficult for parents and students to tell with some ease which institutions they qualify for based on their current performance. In addition, there is no single source of information on how primary schools perform during this transition and how that performance is correlated with school admissions at the secondary school level...

THE PROPOSED SOLUTION - 'FINDMYSCHOOL'

Twaweza and Muchiri are developing a simple solution that will making it easy for parents around the country to find out in which schools children can gain admission based on their examination performance. The solution will also feature additional information on the schools' compositions: are they boarding schools; co-educational; National status etc.), which will enable users easily narrow down schools that match their interests. Further the aim of this project is to inspire parents to be well-informed and consequently engaged in the running of the schools by viewing public data about the school, visualizations and comparisons of this same data.

The proposed solution will be provided via PC access and mobile in order to maximize their potential of reaching a wider audience. The solution is developed such that it can be used in any county or country according to any pre-defined criteria, effectively ensuring that it has a mass usage.

SIMILAR APPLICATIONS

There are similar solutions that exist already, although they do not necessarily address the problems identified above that parents have. One such application is EduWeb, de-

veloped using open data published on the Kenya Open Data Initiative (KODI) platform only to provide a listing of schools by county at its most granular level. FindMySchool, on the other hand, shall allow parents, students, journalists and the general public to find schools by performance, location, facility and gender. Performance analysis shall extend beyond national examinations to comparisons of school admissions (e.g 'which secondary schools called children from your primary school?').

KEY MILESTONES IN THE PROJECT

In the past three months that the project has been operational, the following key milestones have been achieved:

• A needs assessment of organization technical requirements and objectives

• Successful meetings with key education experts, entrepreneurs and potential partners including: mPrep, eLimu, Ministry of Education, the Deputy Director of Education, media and parents

• Key datasets assessed, identified and acquired: KODI, Twaweza and Uwazi (a subsidiary of Twaweza) datasets.

The following open datasets have been identified initially curated for the purposes of the project:

• Geocoded dataset of Primary and Secondary schools in Kenya;

• KCPE and KCSE examination results for the last 3 years

• Form 1 intake data and University admission data for the last 3 years

HOST COMMITMENTS:

The host has allocated fellow office space and a desk to work from. They have also committed to opening up their data to the fellow and to assist in setting up of a data portal and a data desk.

Going forward, his tasks will include skill development and capacity building in the host organization and awareness creation of the final product.

The Counties Challenge

Fellow: Simeon Oriko

Devolution: Guidelines for the counties

Updated Tuesday, July 12 2011 at 00:00 GMT+3

By David Ohito

To be a governor in a County Government, one may be required to produce a first degree and members of County Assemblies a Form Four certificate.

Those holding leadership positions in County Governments must also produce certificates of good conduct and criminal-free record from the anti-crime agency. The shape of the new political system took shape as draft laws guiding structures and leadership requirements for Kenya's 47 counties were made public. In the far-reaching proposals, the team wants about 1,500 wards spread over 175 local authorities to be abolished or merged in order to make economic sense.

Host Organization: Standard Newspaper

Simeon is embedded at the Standard Newspaper, which is part of a larger Multimedia House, The Standard Group Limited. Being a media organization, their mission of informing, entertaining and educating by reporting, publishing and broadcasting relevant and timely content across all their multi media platforms has provided the necessary sound foundation for being part of Code 4 Kenya. Together with Simeon they are looking into a Counties thematic area with a focus on crime.

THE CHALLENGE:

There exists several open access crime datasets from official sites such asKenya Policeas well as unofficial aggregates from other third parties such as the US State Government. Despite the fact that these datasets are easily accessible, they are mostly in closed formats such as PDF format. It becomes difficult to analyze this data in order to identify key crime trends and disseminate this crucial information on public safety in an understandable form to the ordinary citizen.

THE SOLUTION: A COUNTY SAFETY VISUALIZATION APPLICATION

Standard Media sees an opportunity to consolidate these different datasets on the online medium. Based on this information, Standard media also believes through the reports they will generate for public usage, they will be able to influence informed policy-making.

The proposed solution is to create a web-based interactive visualization that showcases different crime datasets and visualizes them on a map. Based on these datasets, further, a series of visual animations will be created and will run on television and print with multiple stories around key crime trends

KEY MILESTONES IN THE PROJECT

The following are major achievements in the project so far:

•   Meetings with key stakeholders within Standard Media to assess the company needs and to determine the value addition of such a project to the organization.

•   Identification of a sustainable business model for the project with a specific focus on 4 major areas: Data Collection, Data Analytics, Data Visualization and Business Intelligence.

•   Subdomains for the data deskhttp://data.standardmedia.co.ke andhttp://standardmedia.co.ke/data have been created.

•   Key Crime datasets for the County Safety visualization application have been obtained from the Kenya Police website.

HOST COMMITMENTS

The Standard media has committed to host the fellow, provide him with a work desk and create a data desk. The Head of Innovation has also formed a team led by the Managing Editor to spearhead the initiative from within and ensure that it remains sustainable according to company policies. They have also identified a crime journalist to help work on getting data for the application.

Moving forward, he will be working towards building the capacity of the host organization through activities such as internal data hackathons, etc; and on fleshing out the application with the developers in the hopes that the lessons learnt and strategies used in building the application will be worked into the greater vision of adopting a data driven journalism culture across the Standard Group.

The Health Problem:

Fellow: Madi-Jumba Yahya

Our medicine is safe: Dr Kipkerich Kosgey

MONDAY, 26 AUGUST 2012 06:05 BY KIBWOTT KOROSS

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Registrar of the Pharmacy and Poisons Board Dr Kipkerich Kosgey dispels fears that most anti-malarial drugs are fake He spoke to our Writer Kibwott Koross.

Not many Kenyans know of the Pharmacy and Poisons Board. What is its mandate?

Our role is to regulate the practice of pharmacy and trade in pharmaceuticals as enshrined in Cap 244 of the Laws of Kenya. Our mission is to ensure the availability of pharmaceutical services in the country which satisfy the needs of all for the prevention, diagnosis and treatment of diseases using safe, efficacious, high quality and cost effective pharmaceutical products.

Pursuant to this mission, it is imperative that pharmaceuticals are distributed by highly qualified personnel through outlets that are duly licensed and professionally run. The operations in those premises should at all times be supervised by qualified personnel and the risk of exposing the public to unsafe medicines avoided at all cost.

OUR MEDICINE IS SAFE: Dr Kipkerich Kosgey Photo/ Jack Oscar

*the*STAR

HOME   NATIONAL   LOCAL   BUSINESS   OPINIONS   SPORTS   LIFESTYLE   SOCIETY   WORD IS   CARTOON   WEEKEND   PUBLIC ED   DEBATE

The Host Organization: The Star Newspaper

Madi is embedded in The Star, the third largest newspaper in Kenya that was launched in July 2007 and targets the younger market and particularly the 'thinking' reader. Together they are working on a health solution.

THE CHALLENGE:

There is a lack of sufficient public information on the location and contacts of health care facilities in the grassroots communities. Moreover, there is no open central source of information on existing specialized treatment. The published data on diseases and the general state of the health care sector from government reports are not released periodically and are supposedly manipulated every so often making them unreliable.

THE SOLUTION:

The Star newspaper has proposed to build an online tool to address the lack of health information made available to the citizens. The Star has a large online community and will therefore capitalize on this and build a website to relay the health information to this audience. This website will be interactive and will be accessible through PC web browsers and mobile browsers.

The technology will map out all the health facilities in Kenya in addition to containing three other sections, namely: County Health reports and news; Specialty Information and news; and Diseases and Outbreaks information and news.

This application hopes to inform on the county health policies. This technology will rely on visualizations to disseminate this information in the fastest and easiest way possible, particularly to the youth.

The following have currently been identified as potential sources of data to feed the technology: The Kenya Open Data portal; Non-governmental Health Organizations and other Government and donor agencies.

KEY MILESTONES IN THE PROJECT

The following have been achieved so far in the realization of this health information solution.

- A needs assessment to evaluate the host organization's capacity for the project.

- Employed the use of existing tools in the organization to amine health data that the Star already had.

- Meeting with Industry experts in public health.

- Wireframes for the solution have been designed.

- They reservation of a domain for their proposed data portal: www.data.the-star. co.ke
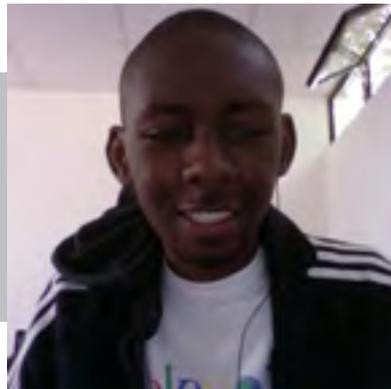
HOST COMMITMENTS

The host organization has an intern who is working closely with the fellow to set up a data desk team and protocol.

Madi will be building capacity in the host organization to ensure the creation of a data desk, constant inflow of data from health sources and continuous use of the data by the journalists as he works towards creating the final product.

The Election Challenge:

Fellow: Jude Mwenda

DAILY NATION

New elections body bares its teeth

SHARE   BOOKMARK   PRINT   EMAIL   RATING ☆☆☆☆☆

Kenya's PM Raila Odinga with members of the Independent Interim Electoral Commission (IIEC) who had paid him a courtesy call at his office. The Bomachoge and Shinyalu by-elections are widely seen as tests of how well the new Interim Independent Electoral Commission (IIEC) in Kenya is prepared to conduct free and fair elections. PHOTO/ PMPS

The Host Organization: Nation Newspapers

Jude Mwenda is embedded at Nation Newspapers, a constituent of Nation Media Group Limited. Together they are working to solve a challenge around the forthcoming general elections.

THE CHALLENGE:

The existing election coverage is mainly about the various candidates and political parties and not necessarily on pertinent issues that affect the citizen's life. While the various candidates go about campaigning to be elected to office come March 2013, there is hardly mention on their manifestos and plans to solve issues that were not tackled by their predecessors while in office., The voting citizen needs a platform to question past performance of election candidates and their intended plans to solve various issues important to the citizen. Such a platform will not only enable stories and visualizations related to electoral coverage but will also engage the public interactively and get their comments on various issues.

THE SOLUTION:

Nation Media proposes a platform that will fulfill the above need to provide the citizen with information about the electoral period while at the same time engaging them actively to obtain feedback and news on the following topics of interest:

Education; jobs; health; infrastructure; economy

This solution will consist of three components sitting on a sandbox in the platform. In this way, the platform can be reused independently and deployed in other instances as befits the situation.

1. A data repository that will also act as the core platform. This will give journalists within the media house access to datasets, which they can share and write stories on. It will be on the open source CKAN platform and will provide a simple solution for journalists to be able to visualize the datasets

2. Data Story will be a simple publishing system that will provide the journalists with tools to write and publish their data-based stories. Particularly, the system will allow the journalists to import datasets, create and embed infographics while writing their stories.

3. The SIASA API will be the central elections platform and will include data from past elections stored in a database. Journalists will have the ability to pull data for specific electoral territories that they are covering. The API will also include opinion polling data to provide insights on the upcoming elections. Finally, there is a citizen engagement tool within the API to allow the citizen comment and raise

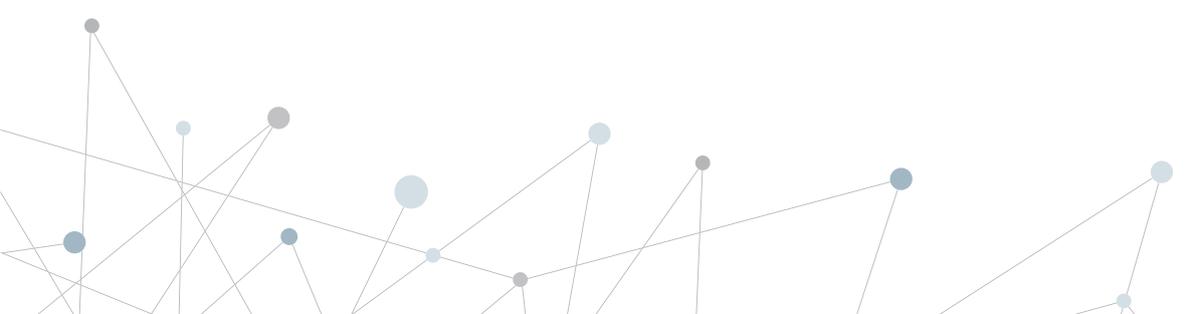issues around governance that directly affect them

KEY MILESTONES

The following are achievements realized in this project so far:

- The assignment of data champions in the media house to the project for the different themes identified to be covered in these elections.

- Data on past elections and referendums has been collected and is being put up in open formats to be uploaded to the repository.

- Created wireframes and visualizations for the data story project and the Siasa API

HOST COMMITMENTS

Nation has provided the fellow with office space and has obtained the domain data.nationmedia.com and acquired server space access and credentials for the data portal. Additionally, they have also agreed to provide a UI designer for the data repository story.
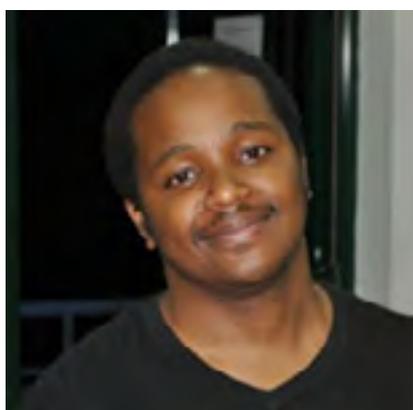
The Developer Team

Dennis Munene

Nick Hargreaves

Job Maina

David Lemaiyan

The developers, under the leadership of David Lemaiyan, are tasked with working with the fellows to identify the challenges to be addressed in each thematic area, assist in gathering of pertinent information, identify technologies that may be used in creation of solutions to the challenges and finally, implementing those technologies.

In the implementation of these technologies, the developers are expected to identify potential barriers to the adoption of new technologies and develop solutions to overcome that. Further, the developers will support the fellows to complete the Beta applications, carry out iterative testing based on an established feedback mechanism.

The developers will assist the fellows in developing sustainable methodologies for building capacity of the in-house data-driven models for the host organizations.

KEY MILESTONES

The key achievements of the developer team include:

a. The set up of a Github repository athttp://github.com/Code4Kenya where all the source codes and technical documentation used in the project will be shared openly.

b. They conceptualization and testing of a Civic Apps and Stories marketplace where all these built solutions and already existing applications will be put up.

c. The development and launch of the project websitecode4kenya.org (Code4Kenya) and a Code4Kenya blog athttp://blog.code4kenya.org.

d. Building wireframes of the proposed solutions above

The fellows and developers are under the leadership of:

Jay Bhalla   Phares Kariuki

Jay Bhalla is the co-founder and executive director of the Open Institute while Phares Kariuki is the Digital Projects & Community Coordinator atAfrican Media Initiative.

Conclusion

The culmination of the project will be in the form of a Demo Day to showcase the applications and to assist in transitioning of the projects from the Code 4 Kenya team to the host organizations.

*iHub Research