Open Data Kit

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Clint Tseng, Mitch Sundt, Gaetano Borriello

http://opendatakit.org

Paper provides both the information capture and retrieval.

Paper-based systems are hard to search or transport.

Paul Persil Patient

Back Print

Gender **Male**
Age **44 years** (~ Jun 01, 1934)
Last Visit **1 week ago** (Aug 14, 2008)
Doug Doctor, Rwinkwavu Hospital

TRACnet ID: 12345
Carte d'Identité: 1234567

IMB ID **12345678-A**

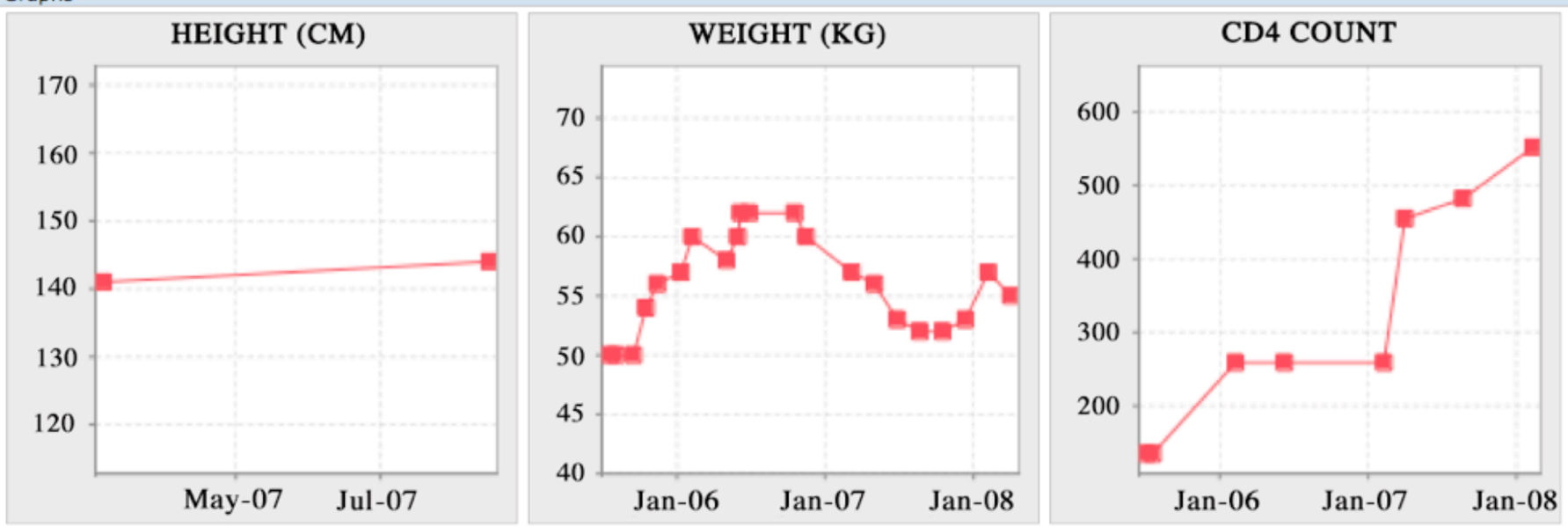
Alerts
NO XRAY RESULT IN THE LAST 6 MONTHS
NO CXR RESULT

Notes
No known allergies

Drug Order	Dose	Frequency	Start Date	Stop Date	Notes
AZT+3TC	1.0 tab(s)	2/d x 7 d/w	Sep 13, 2007		
D4T	150 mg	1/d x 7 d/w	Aug 02, 2007		
Triomune-40 (stopped)	1.0 tab(s)	2/d x 7 d/w	Sep 01, 2007	Sep 13, 2007	Unexplained facial rash
EFV 600 (stopped)	1.0 mg	1/d x 7 d/w	Aug 02, 2007	Sep 13, 2007	

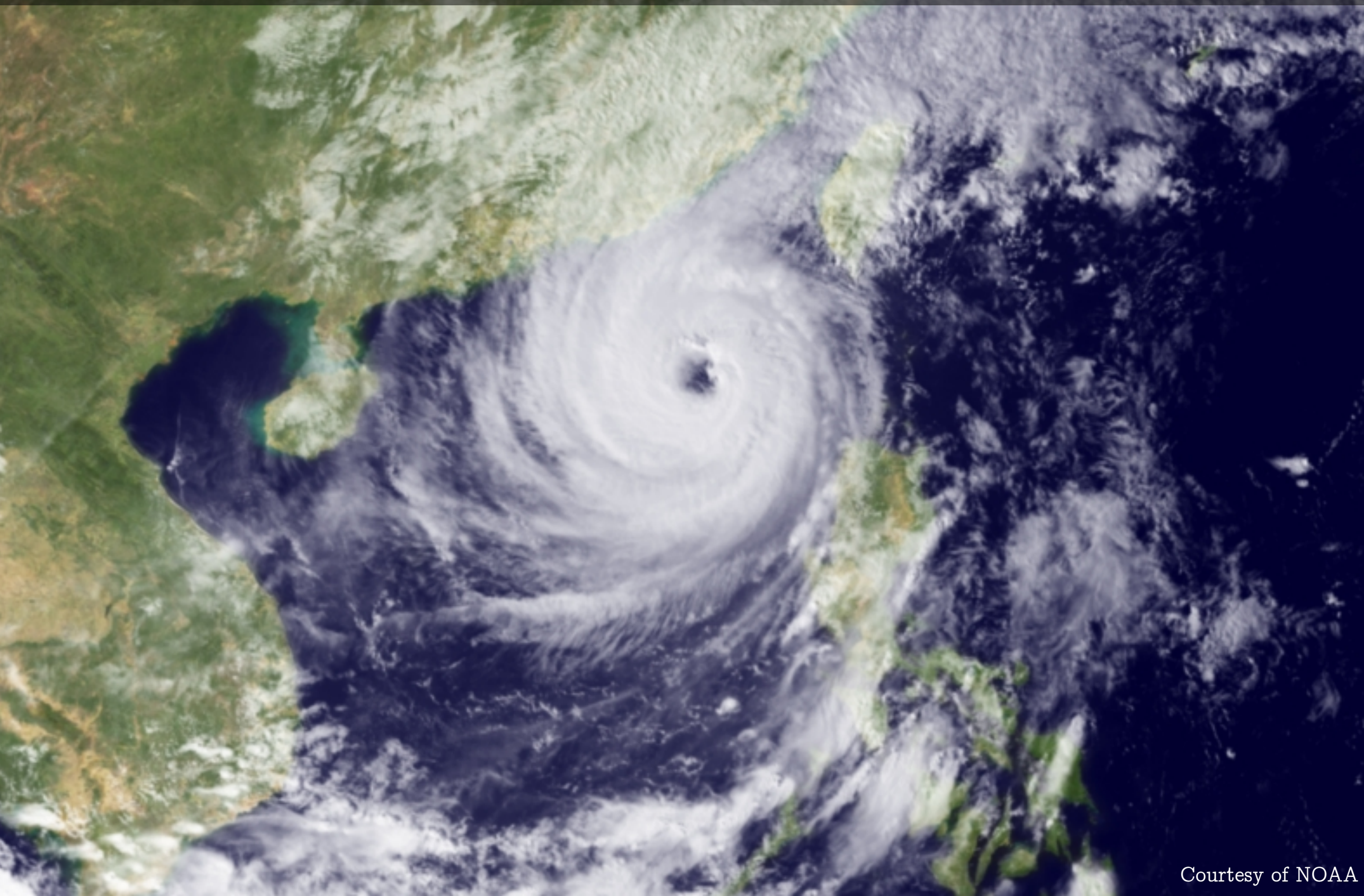
Lab Test	Result	Date	Notes
CD4	**512**	Aug 15, 2008	Ordered by Dr. Doctor
CD4	**259**	Aug 01, 2008	
Viral load	**515**	Jul 28, 2008	Second test for verification of status
Viral load	200	Jul 27, 2008	Ordered by Dr. Green

Graphs



Lag between data collection and actionable information.

Data collection could provide much richer information



Courtesy of NOAA

Mobile phones and cloud servers can increase the scale and speed of data collection in developing regions.

Important features are lost when using basic technology.

Domain-specific tools are inflexible and keep data siloed.

flickr: RaGardner4

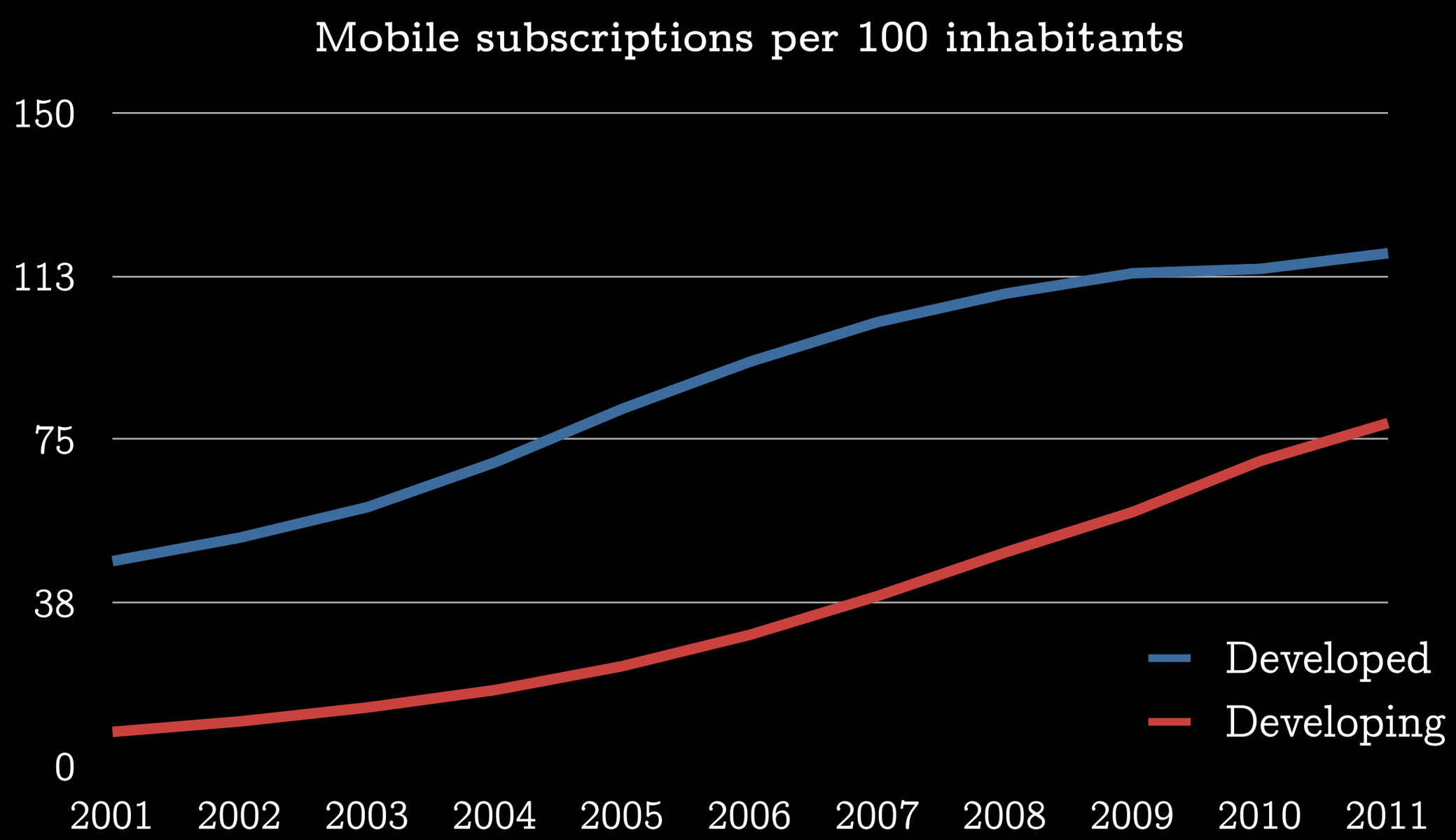
Sustainability is hard to achieve with a small team.

Important features are lost when using the most basic technology.

Domain-specific tools are inflexible and keep data siloed.

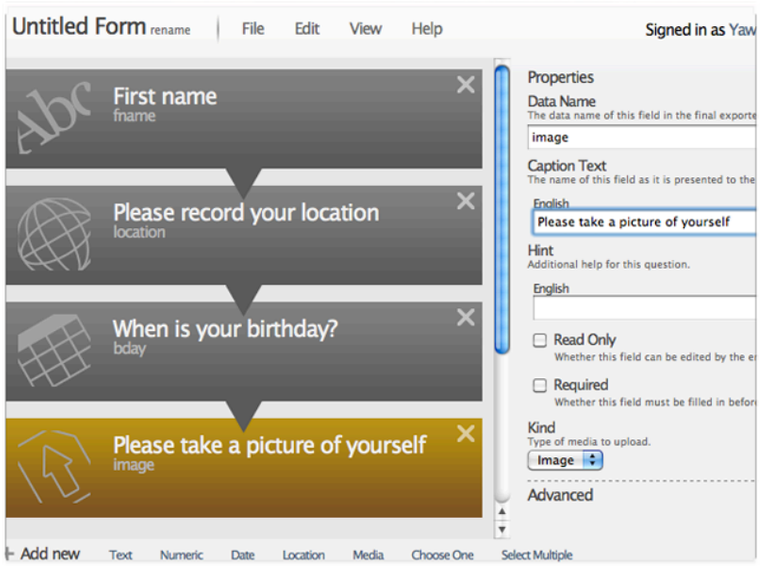
Sustainability and scale are hard to achieve with a small team.

26% of Kenyans have Internet with 98% using cell for access.

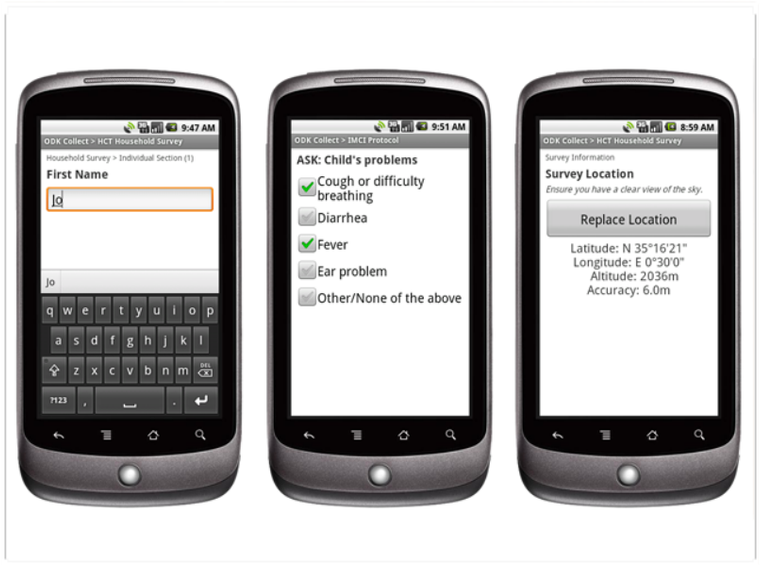


ODK uses phones and servers to digitize data collection.

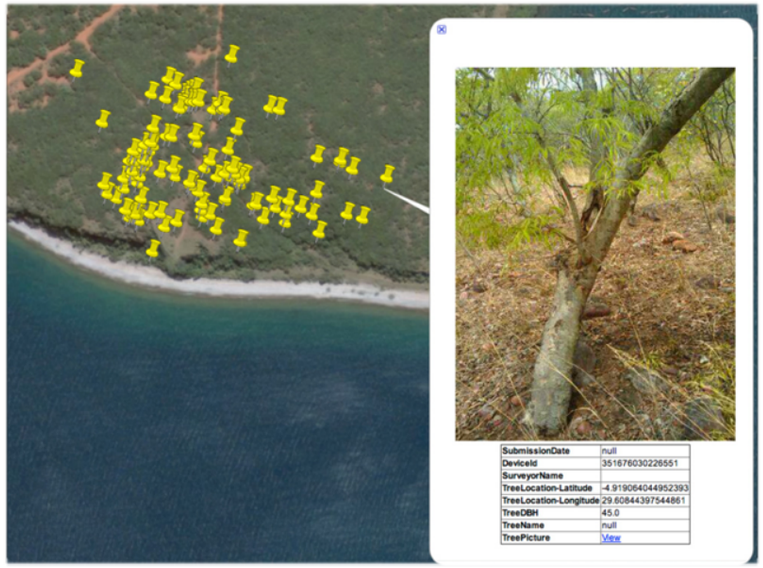
1. Build form



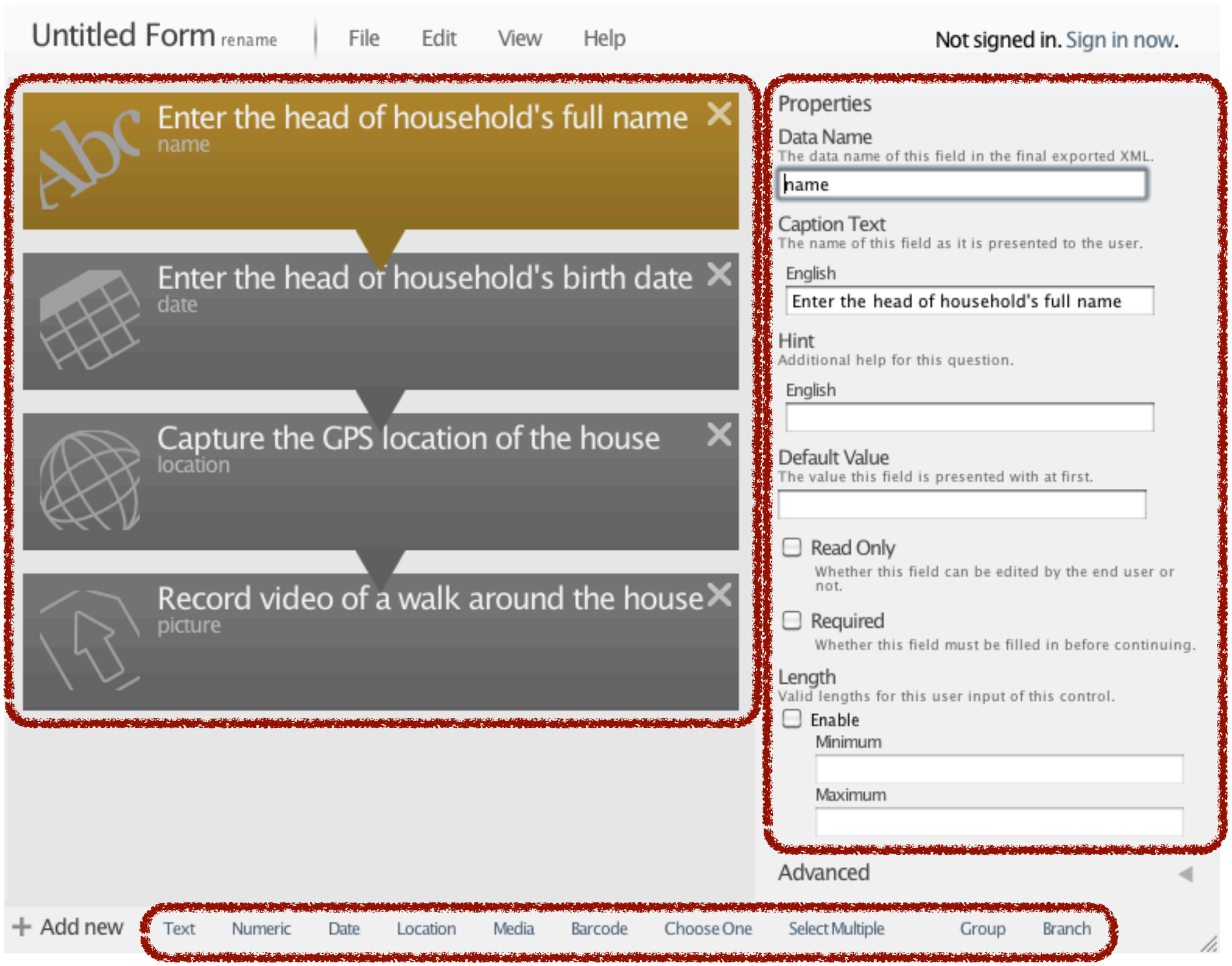
2. Collect data



3. Aggregate results



Build: Drag and drop prompts for form creation.

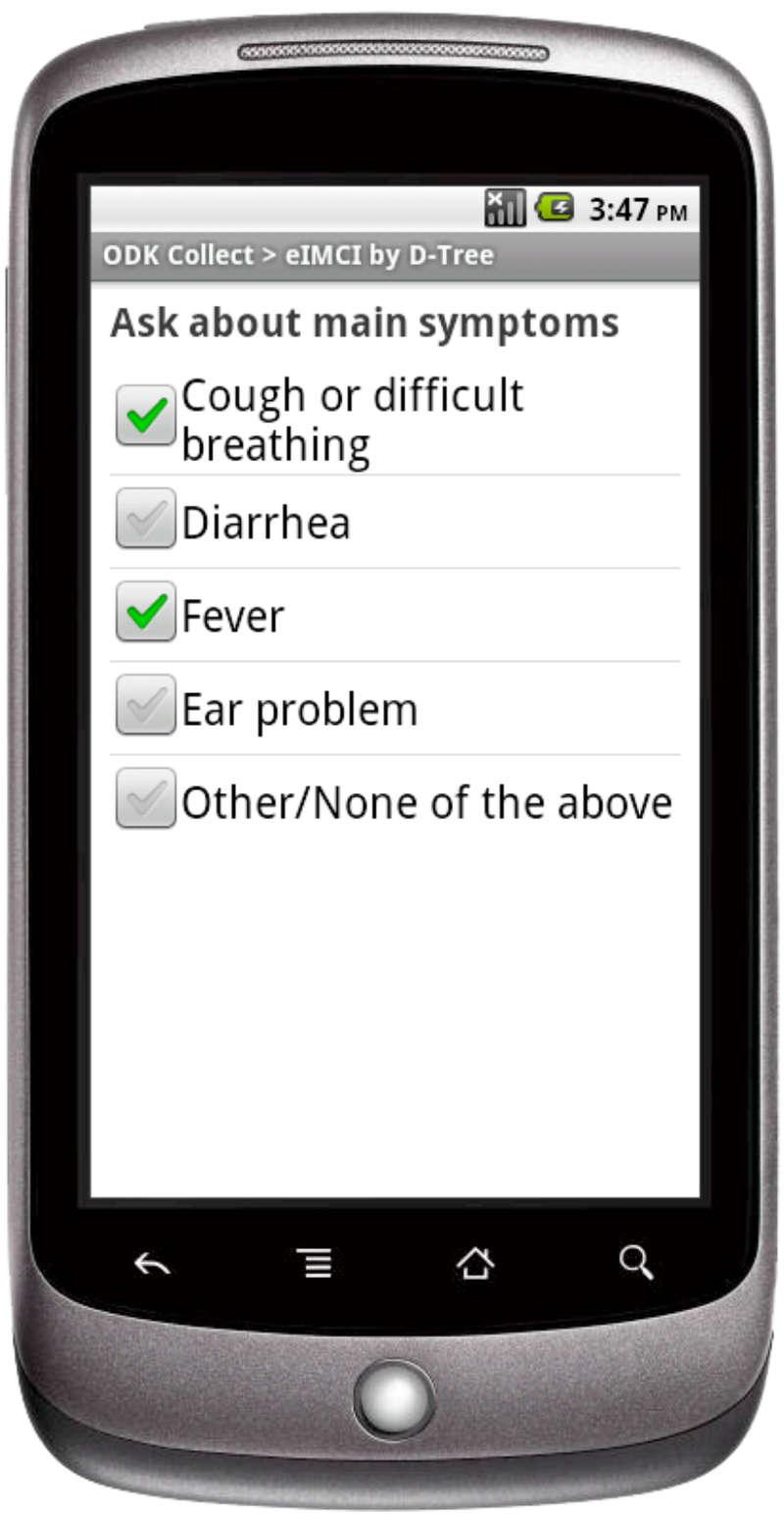


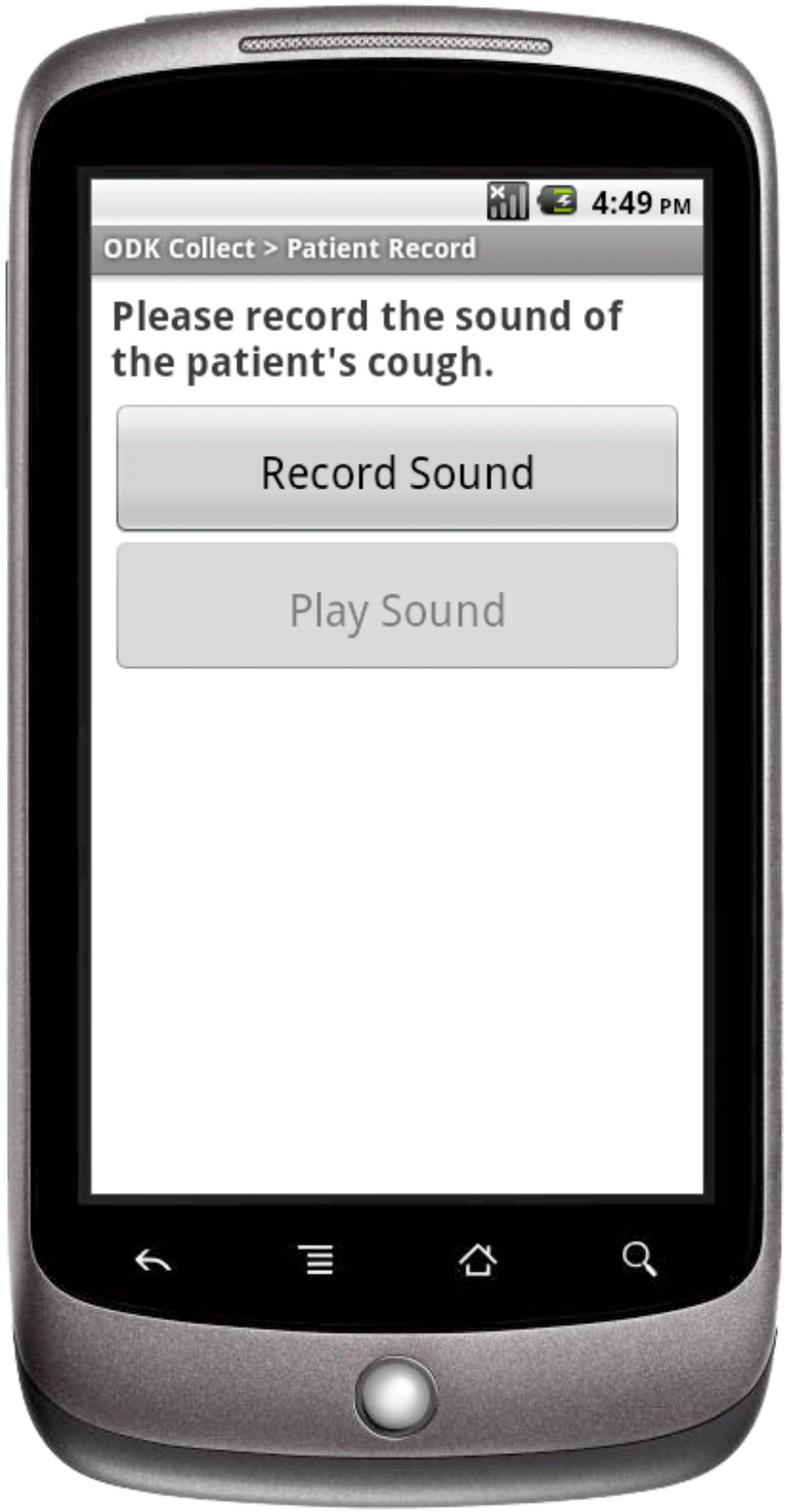
XForms describes the form logic and data schema.

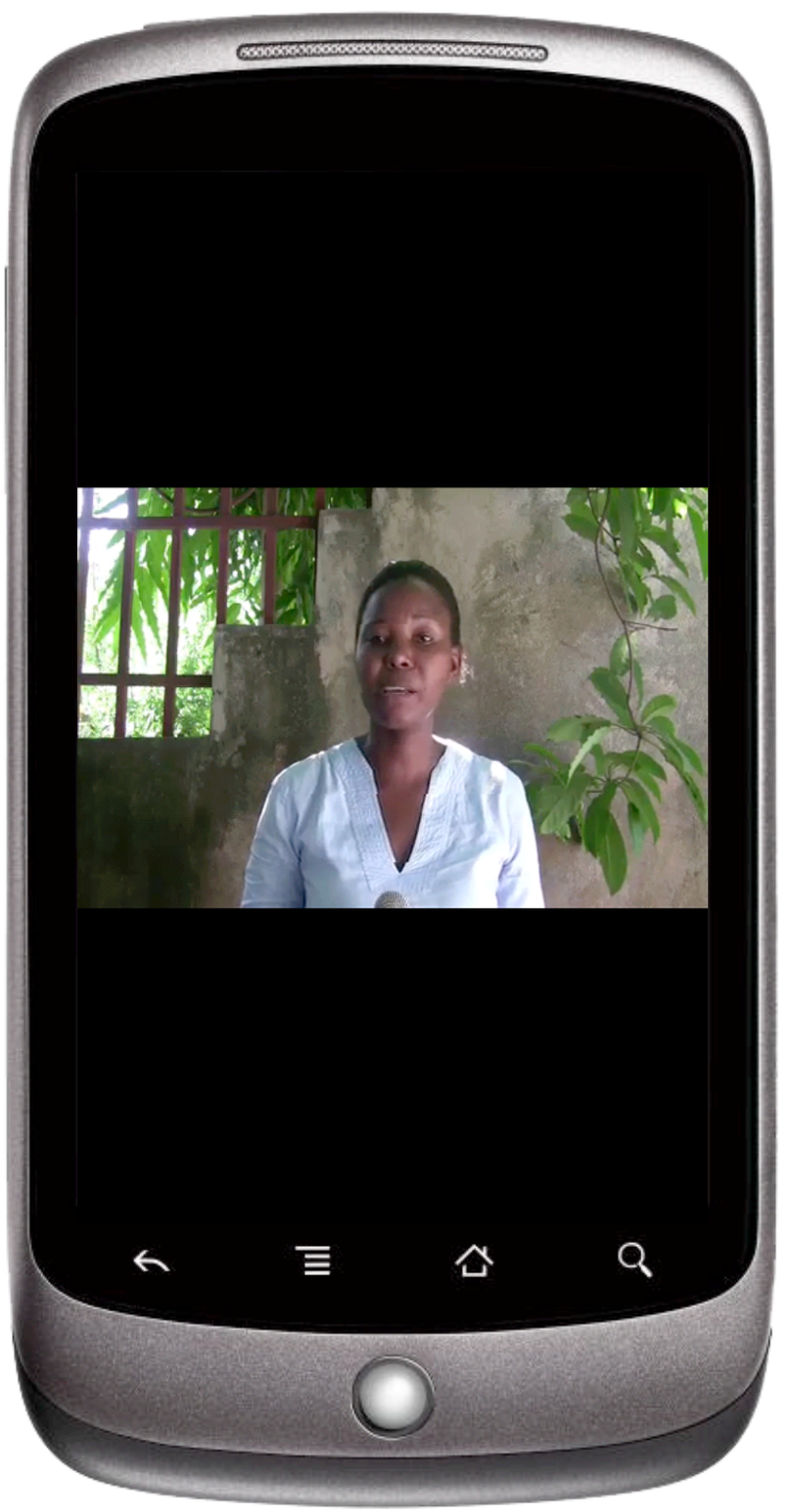
```
        <instance>
            <data>
                <name/>
                <date/>
                <location/>
                <picture/>
            </data>
        </instance>
        <itext>
            <translation lang="eng">
                <text id="/data/name:label">
                    <value>Enter the head of household's full name</value>
                </text>
                <text id="/data/date:label">
                    <value>Enter the head of household's birth date</value>
                </text>
                <text id="/data/location:label">
                    <value>Capture the GPS location of the house</value>
                </text>
                <text id="/data/picture:label">
                    <value>Record video of a walk around the house</value>
                </text>
            </translation>
        </itext>
        <bind nodeset="/data/name" type="string"/>
        <bind nodeset="/data/date" type="date"/>
        <bind nodeset="/data/location" type="geopoint"/>
        <bind nodeset="/data/picture" type="binary"/>
    </model>
</h:head>
<h:body>
    <input ref="name">
        <label ref="jr:itext('/data/name:label')"/>
```

Collect: Display prompts for data collection and delivery.

Collect: Display prompts for data collection and delivery.







Aggregate: Host data and provide extraction interfaces.

Submissions | Form Management | Site Admin

Log Out
wbrunette@gmail.com

Filter Submissions | Exported Submissions

Form: Geo Tagger v2 | Filter: none | Visualize | Export

Save | Save As | Delete

Display Metadata

Submissions per page: 100

Filters Applied

Add Filter

Hide DeviceId

Previous | **Geo Tagger v2** | Next

Image	Location Latitude	Location Longitude	Location Altitude	Location Accuracy	Description
	47.65434975	-122.30498975	21.29999924	6.708204	HUB construction
	47.64834739	-122.29989853	-20.29999924	5.656854	Docks at WAC
	47.65335942	-122.3255423	-14.89999962	6.708204	Foot of Latona
	47.64634424	-122.33644953	-7.0999999	6.3245554	Home
	47.64540379	-122.33636588	-7.19999981	4.472136	Kite hill... Gasworks
	47.62708792	-122.33274967	-8.0	6.708204	Chandler's Cove
	47.65824883	-122.31314593	31.0	5.0	The Ave
	47.66945725	-122.30360415	25.39999962	5.0	Ravenna Park
	47.68088862	-122.3291259	48.59999847	5.0	Greenlake
	47.68999464	-122.3554331	68.59999847	7.2111025	Greenwood

Aggregate: Codebase runs locally and in the cloud.

flickr: theplanetdotcom

Aggregate: Designs database backend using XForm.

(MySQL 5.1.41-3ubuntu12.6) openmrs/mysql/event — SSH Connected

mysql — Select Database

Structure | Content | Relations | Table Info | Query | Table History | Users

Filter

- db
- event
- func
- general_log
- help_category
- help_keyword
- help_relation
- help_topic
- host
- ndb_binlog_index
- plugin
- proc
- procs_priv
- servers
- slow_log
- tables_priv
- time_zone
- time_zone_leap_second
- time_zone_name

Field	Type	Length	Unsigned	Zerofill	Binary	Allow Null	Key	Default	Extra
name	char	64	☐	☐	☐	☐	PRI		None
body	longblob		☐	☐	☐	☐		NULL	None
definer	char	77	☐	☐	☐	☐			None
execute_at	datetime		☐	☐	☐	☑		NULL	None
interval_value	int	11	☐	☐	☐	☑		NULL	None
interval_field	enum	'YEAR','QUAR…	☐	☐	☐	☑		NULL	None
created	timestamp		☐	☐	☐	☐		CURRENT_T…	on update …
modified	timestamp		☐	☐	☐	☐		0000-00-0…	None
last_executed	datetime		☐	☐	☐	☑		NULL	None
starts	datetime		☐	☐	☐	☑		NULL	None
ends	datetime		☐	☐	☐	☑		NULL	None
status	enum	'ENABLED','DI…	☐	☐	☐	☐		ENABLED	None
on_completion	enum	'DROP','PRES…	☐	☐	☐	☐		DROP	None
sql_mode	set	'REAL_AS_FL…	☐	☐	☐	☐			None
comment	char	64	☐	☐	☐	☐			None
originator	int	10	☑	☐	☐	☐		NULL	None
time_zone	char	64	☐	☐	☐	☐		SYSTEM	None

INDEXES

Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Comment
0	PRIMARY	1	db	A	NULL	NULL	NULL	
0	PRIMARY	2	name	A	0	NULL	NULL	

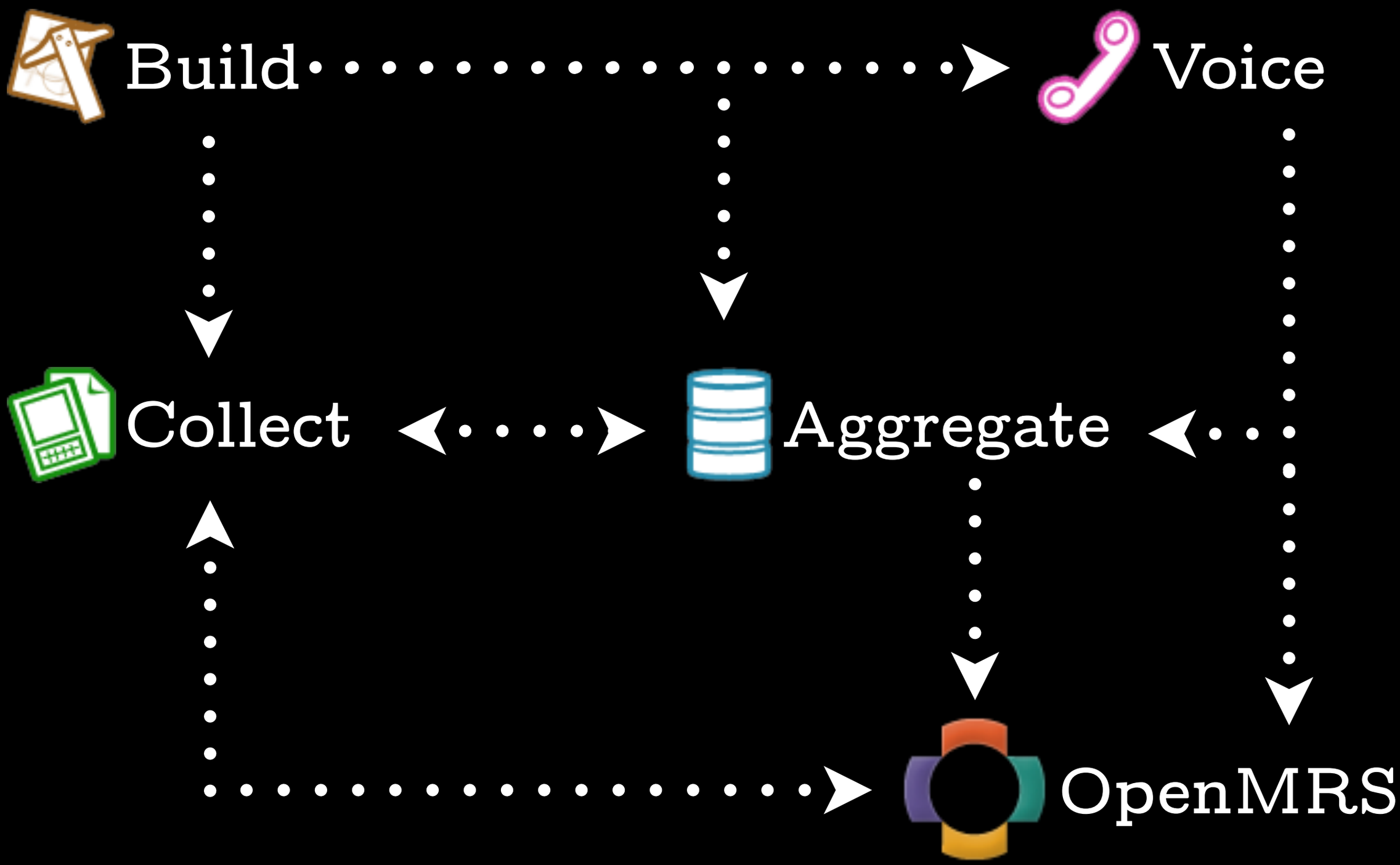
TABLE INFORMATION

- created: 8/18/10
- updated: 8/18/10
- rows: 0
- size: 0 B
- encoding: utf8

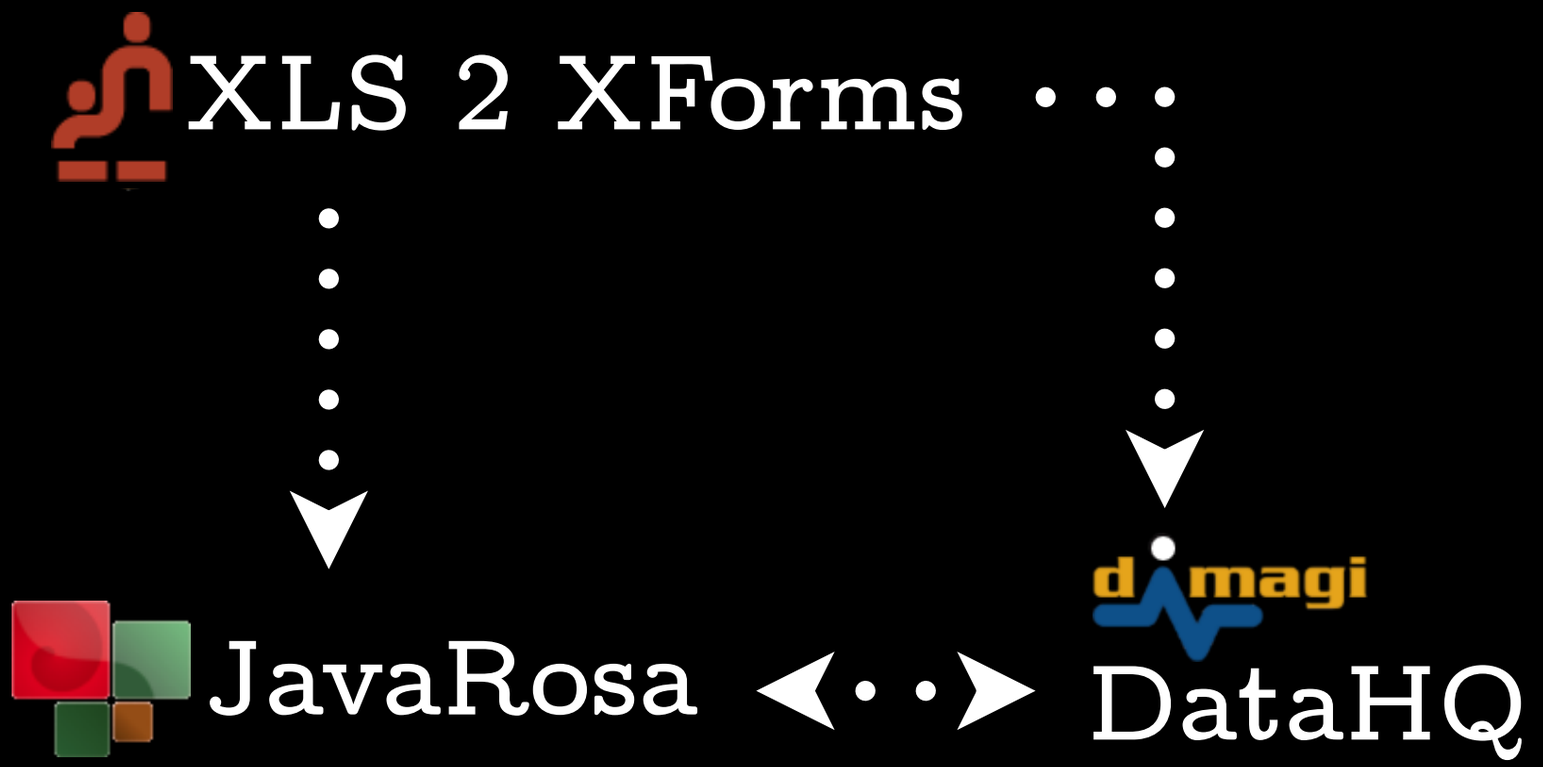
Aggregate: Stores or forwards data to external systems.

DeviceId	351676030226627
SurveyorName	Shadrack
TreeLocation-Latitude	-4.9192410707473755
TreeLocation-Longitude	29.60762321949005
TreeDBH	57.0
TreeName	Myombo
TreePicture	View

ODK tools are designed to fit together.



Users can design an end to end system in under an hour.



Reproductive Health Vouchers

Helping to save the lives of
thousands of mothers and of babies through
access to quality health care.

Carbon For Water collected over 1,000,000 forms with 4,000 ODK-powered phones in 6 weeks.

Carbon For Water finds that ODK enables real-time collection of image, GPS and survey data at scale.

AMPATH's health workers have used ODK to counsel and test over 650,000 people for HIV.

AMPATH finds that ODK is faster and more cost-effective than previous PDA-based or paper-based systems.

Deployments: 10-50k active users of ODK tools globally.

Looking for a company to build a form or customize an ODK tool? Below are a few that we know about.

- Nafundi - A consulting company started by the guys who created Open Data Kit. If you need to customize ODK, they can help.
- Dimagi - Provides support for core and custom development on the Open Data Kit platform. They work closely with team that founded ODK.
- Mindflow Associates - Have experience customizing OpenMRS, ODK data collection solutions, building Android phone based applications, utilizing JavaRosa-based technologies amongst many others.
- Afrisis - Has developed and deployed end to end (mobile, touch-screen kiosks, SMS, desktop, web) software solutions across all provinces of Mozambique. They are quite familiar with JavaRosa-based technology.
- Mega Six Solutions - Has experience designing forms. Contact Paul for more information.
- Group Complete - Will design and implement survey collection forms for users of Group Complete (and ODK-based tool) for free.
- ULevel - A company based in Brazil doing customizations on Collect for Android.
- WebFirst - Well versed in the development of data collection systems like JavaRosa and ODK in low-resource and standard environments.
- EarlySail - Have customized ODK Collect for a few pilot projects as well as assisted in form development. They will soon be porting ODK to BlackBerry.
- Seeing Swans - A company focusing on data collection and complex analytics. They have customized ODK to be suitable for administering household surveys as well as construction management and stock control.

The turn key solution for mobile data collection

WHAT WE DO

ViewWorld provides a cloud-based data collection platform, that enables organizations as well as businesses to collect data and information using smart phones.

Whether for monitoring, documentation or reporting. Our system can be adapted to fit your standardized reporting format as required.

ViewWorld enables timely, effective and reliable transfer of information from the field to decision-makers in your organisation.

VIEW REPORTS ON MAP

CREATING VISIBILITY

SEE HOW THEY DO IT

HOW WE MAY HELP YOU

Almost any large organization can benefit form collecting fast and reliable information from the field.

Better and faster data offers better basis for decisions in the organization.

Try out a demo. Use 'demo' as login and password here.

try it yourself

LOG IN HERE

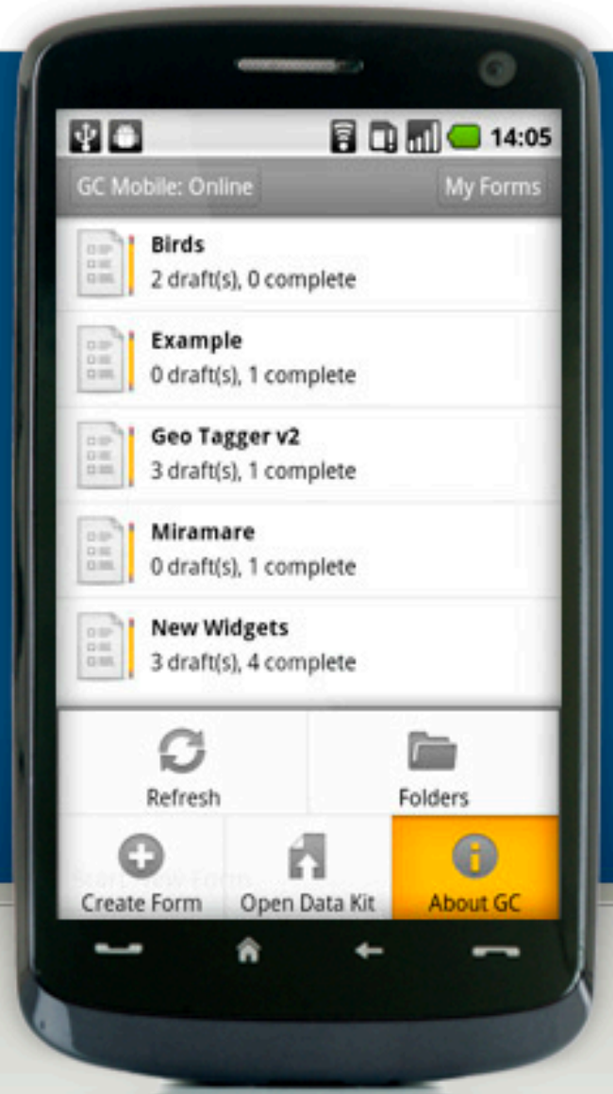
GroupComplete

Tour Help / Support Blog Plans & Pricing

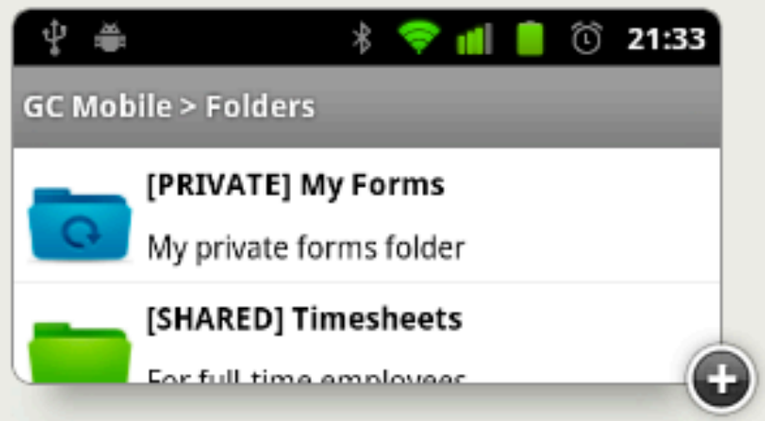
Bring Data To Your Doorstep

Group Complete is smart forms & remote data collection for your Android smartphone and tablet. Use it to put knowledge in the hands of your mobile team, improve productivity, and get the complete picture.

Try it now for free!



Power For People On The Go



nafundi

Building the next generation
data collection platform

Using paper to collect data is difficult and inefficient.

ODK uses phones and servers to digitize data collection.

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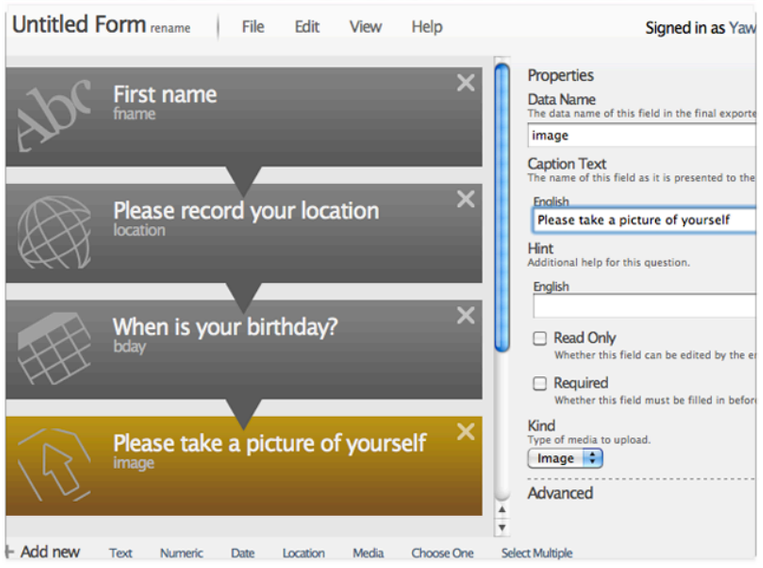
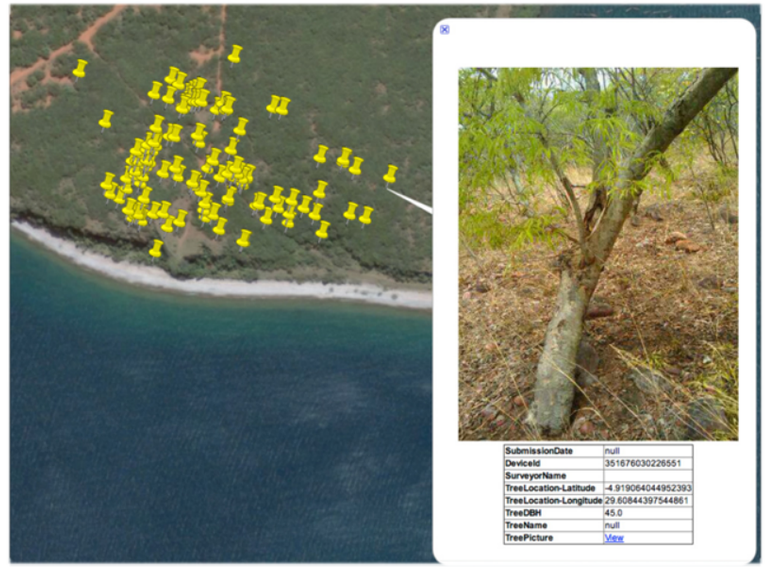


2. Collect data

3. Aggregate results



http://cs.washington.edu/homes/yanokwa (@yanokwa)

http://opendatakit.org (@opendatakit)

http://nafundi.com (@nafundi)