

Compendium of ICT Applications on Electronic Government

Volume 3:
Mobile Applications
on Citizen Engagement



Department of Economic and Social Affairs

Compendium of ICT Applications on Electronic Government

Volume 3:
Mobile Applications
on Citizen Engagement



UNITED NATIONS

New York, 2012

DESA

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ST/ESA/PAD/SER.E/147

ISBN: 978-92-1-123191-5

e-ISBN: 978-92-1-055354-4

Sales n° E.12.II.H.3

Printed at the United Nations, New York

Foreword

At the United Nations World Summit in 2005, country leaders outlined a vision for a people-centered and inclusive information society, leveraging the potential of information and communications technology (ICT) for sustainable development. The onus to come up with new initiatives for ICT-led development, which ensure that everybody, regardless of their socio-economic background, has an equitable playing field, lies collectively on national governments, the private sector and civil society, as well as on international organizations, including the donor community. As a catalyst for achieving the Millennium Development Goals (MDGs), ICTs have been recognized and promoted by the United Nations as one of the key elements to increase socio-economic opportunities for all citizens from both developed and developing nations.

E-government and the infusion of ICTs, contribute significantly to the development of a more cost-effective and efficient digital society. However, the real benefit of e-government lies not in the use of technology as such, but in its application to the processes of transformation in the public sector.

The rapid growth in the use of mobile phones demonstrates that they are, and are likely to remain, the primary mode of telecommunication. In addition, the rising demand for multi-sectorial and multi-purpose applications is driving mobile phone developers and manufacturers to design ‘smart’ and highly personalized mobile devices and applications. In return, they have become an important source of information and new channels for the delivery of digital services to citizens.

As the second part in a series of similar publications, the first being “The Compendium of ICT Applications on Electronic Government”, which focused on the use of mobile technology in the areas of health and learning, the Division for Public Administration and Development Management of the United Nations Department of Economic and Social Affairs (DPADM/

UNDESA) has undertaken an initiative to collect a broad array of current ICT applications from all geographic regions of the world on electronic government. The primary goal of this initiative is to provide information that will further stimulate the rapid expansion of electronic government to be more tailor-made to the needs of the citizens. It will focus on the various adaptations of mobile technology, specifically m-technology software products and applications in the areas of human security and business development across both developed and developing countries.

The products and applications published in this Compendium are examples of the adaptation of technology by various groups, including m-government practitioners and researchers, government officials, policy makers and mobile IT solution providers in the areas of e-government, mobile business, mobile Internet and public administration. As has been the case with Volume 1, the cases documented in this volume could serve as useful tools for the Member States at all levels, as well as for the private sector and civil society. Additionally, so as to keep abreast with rapidly changing m-technology, this Compendium will be periodically updated both in print and electronically on the United Nations Public Administration Network (UNPAN). ∞



Haiyan Qian

Director

Division for Public Administration
and Development Management

United Nations Department of Economics
and Social Affairs

New York, September 2012

Acknowledgements

The United Nations Department of Economic and Social Affairs (UNDESA) Compendium of ICT Applications on Electronic Government Volume 3: Mobile Applications on Citizen Engagement has been prepared under the leadership of Ms. Haiyan Qian, Director of DPADM/UNDESA. In this endeavour, the Compendium was prepared and finalized under the guidance and supervision of Mr. Vyacheslav Cherkasov, Senior Governance and Public Administration Officer of the Development Management Branch at the DPADM/UNDESA.

Mr. Varun Vig analyzed and drafted the sections related to citizen engagement.

This publication has been designed by Eliot Sela, a consultant design director.

Mr. Michael E. Mimicopoulos reviewed and edited the text with the assistance of Ms. Michelle Alves de Lima-Miller and Ms. Marketa Jelinkova. 

Millennium Development Goals

The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015 – form

a blueprint agreed to by all the world’s countries and all the world’s leading development institutions. They have galvanized unprecedented efforts to meet the needs of the world’s poorest. 



1. Eradicate Extreme Poverty and Hunger

Pages:

3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 26, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 41, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 57, 58, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 78, 79, 82



2. Achieve Universal Primary Education

Pages:

7, 10, 14, 16, 17, 32, 34, 37, 41, 47, 48, 52, 53, 55, 69, 70, 71, 73, 74



3. Promote Gender Equality and Empower Women

Pages:

13, 16, 23, 32, 37, 47, 52, 53, 70, 73



4. Reduce Child Mortality

Pages:

8, 15, 23, 25, 37, 42, 45, 49, 51, 53, 60



5. Improve Maternal Health

Pages:

8, 15, 23, 25, 42, 45, 49, 51, 60, 74



6. Combat HIV/AIDS, Malaria and Other Diseases

Pages:

8, 15, 23, 25, 31, 32, 42, 45, 48, 49, 51, 56, 60, 73, 74, 76, 77, 80



7. Ensure Environmental Sustainability

Pages:

3, 4, 6, 9, 10, 13, 16, 18, 19, 20, 21, 24, 27, 28, 29, 30, 32, 33, 34, 36, 38, 39, 41, 43, 46, 50, 52, 57, 59, 64, 65, 66, 67, 68, 69, 70, 74, 75, 79, 81



8. Develop a Global Partnership for Development

Pages:

19, 21, 22, 28, 29, 40, 41, 42, 47, 48, 66, 67, 79, 82

Table of Contents – Countries

 Botswana 60	 India 24, 43, 81	 Sudan 27, 30
 Burkina Faso 27	 Italy 6, 19, 22, 40, 41, 53	 Swaziland 27, 60
 Burundi 27, 30	 Kenya 11, 12, 15, 25, 26, 27, 30, 38, 51, 52, 56, 57, 63, 72, 75, 77, 78, 79, 80	 Sweden 48, 65
 Canada 34, 45	 Lesotho 60	 Thailand 65
 China 14, 16, 36, 67, 69, 82	 Madagascar 27, 30	 Uganda 13, 18, 27, 29, 30, 39, 46, 51, 71, 73
 Côte d'Ivoire 27	 Malawi 27, 60	 United Kingdom of Great Britain and Northern Ireland 7, 62, 64
 Democratic Republic of the Congo 30	 Mexico 5	 United Republic of Tanzania 20, 27, 30, 51
 Eritrea 30	 Mozambique 27, 60	 United States of America 8, 9, 21, 33, 35, 42, 44, 45, 47, 49, 54, 55, 58, 68, 74, 76
 Estonia 28, 70	 Namibia 60	 Zambia 27, 60
 Ethiopia 30	 Nigeria 4, 27, 56	 Zimbabwe 27, 31, 60
 Ghana 27	 Republic of Korea 59	
 Germany 17, 50	 Rwanda 27, 30, 46, 60	 European Union 3, 23
 Hungary 10, 37, 66	 South Africa 32, 60	 Worldwide 61

Table of Contents – Cases

Executive Summary	1	Flower SMS	29	National Agriculture Information Service	57
AGROffice Complete	3	FoodNet	30	New York City Hall Digital	58
Agrovision in Nigeria	4	Freedom Fone	31	OPEN System in the Republic of Korea	59
Anti Mordidas (Anti-Corruption)	5	Frontline SMS	32	Phones for Health	60
Atac Mobile	6	Government 2.0	33	PicaroSoft Anti-Corruption	61
BBC Action Network	7	Government of Canada Wireless Portal	34	Project NOMAD	62
Body Mass Index (BMI) Calculator	8	Government Spending	35	Road Safety	63
Boston Citizens Connect	9	Hong Kong Wi-Fi Networks	36	RobyText Alert RT300	64
Budapest SMS Project	10	Hungary Online Forum Project	37	Short Code Number 2888	65
Budget Tracking Tool	11	iCow	38	Siófok City Project	66
Bunge SMS	12	INFOTRADE Mobile	39	Ten Thousand Meter Unit Network in Taiyuan	67
CELAC	13	Inn-Gov Project	40	Texas.gov	68
Cheng Guan Tong in China	14	Istat Mobile	41	The m-Government Laboratory in China	69
ChildCount+	15	iTriage	42	Today I Decide (TOM)	70
China Suzhou Project	16	Kisan SIM Card	43	Tracking School Attendance	71
Citizen-Friendly Trans- European M-Gov. Service	17	Kleptocracy Fighters (K-Fighters)	44	Uchaguzi Anti-Corruption Platform	72
CKW Search	18	Lagan Government Customer Relationship	45	Uganda Refugee Connectivity Project	73
Comunas	19	Marketplace for Information and Services	46	USA.gov	74
Daraja	20	Martus	47	Ushahidi	75
Do-It-Yourself Democracy – California	21	M-City in Stockholm	48	UV Index	76
Economic Trevisosystem.mobi Portal	22	MedlinePlus Mobile	49	VCT Online	77
E-Health Services in Europe	23	Mobile Citizen Services	50	Violence-Prevention Toolkit	78
E-Krishi	24	Mobile Planet	51	Virtual Assembly Point	79
EpiSurveyor	25	Mosoko	52	Weltel	80
E-Service Delivery Project	26	Municipio Partecipato in Italy	53	Wildlife Enforcement Monitoring System	81
eSoko Project	27	MyFood-a-Pedia	54	Xiamen Wireless City	82
E-Voting in Estonia	28	MyGovernment	55		
		MyQuestion	56		

Executive Summary

In response to today's challenging economic conditions, improvements around the evolution of development thinking and practice need to be made. As innovation and technological advances in information and communication technologies (ICTs) have proven to bridge the digital-divide, countries have been integrating the application of ICTs into their development policies and programmes. In addition, government agencies have been adopting ICTs for the purposes of rapid information exchange within as well as between government and non-governmental entities such as citizens, non-profit organizations, and the private sector.

More specifically, governments are increasingly adopting mobile technologies to deliver public services in areas related to specific sectors such as agriculture, education, health, economic empowerment, environmental sustainability and transportation. Mobile technologies have proven to reach places where Internet connectivity ceases to exist. For instance, those in remote rural areas typically have greater access to mobile phones than a desktop computer.

Mobile technologies are being used, therefore, as a catalyst to achieve local and national development goals. Services that would normally be accessed through traditional government buildings and offices are now being offered through mobile technologies on a 24/7 basis and from any place in the world.

Indeed, there is a boom in the amount of mobile devices that are being used in the developing world and the significant growth in mobile device usage has yet to reach its peak. A citizen-centric public service delivery approach, which addresses citizens' needs and is built around existing mobile technologies, has led to self-empowerment, self-sufficiency and increased access to public services. Some of the most under-served communities are being transformed through the use of mobile technology.

When Internet access on mobile phones is limited due to infrastructure and network constraints, the essential functions of mobile phones, such as short messaging services (SMS) are being used to provide public services in a number of key areas, including agriculture, education, health, environmental sustainability, and transportation.

For instance, in rural India, farmers are able to get the latest information on weather updates, best practices and other relevant information pertaining to the production of their crops and ensuring sustainability for their communities. In Kenya, drivers are able to report to the traffic police dangerous drivers by way of text messaging through SMS. Healthcare workers in remote regions of the world are able to receive timely information to help assess and further help patients by way of mobile devices.

The Division for Public Administration and Development Management of the United Nations Department of Economic and Social Affairs (DPADM/UNDESA), through this compendium, aims to provide a prime platform for presenting, exchanging and disseminating recent mobile software developments, ideas, applications and services in the field of e-government among three essential constituents: the public sector, its private sector partners, researchers and academia.

Executive Summary (continue)

This volume of the Compendium is the third in the series. Its focus is on ICT applications on citizen engagement in different parts of the world and consists of a collection of ICT applications that are linked to the Millennium Development Goals. They have all been developed with the participation and assistance of government, private sector organizations and civil society. Such applications support and contribute to the improvement of public administration and public services, while addressing governance challenges and engaging more citizen participation throughout the world.

Methodology and Quality Assurance:

The information presented in this Compendium was acquired and compiled through several sources. Information is mostly garnered through extensive research, mission workshops, and/or provided by UNDESA Partners. Every effort has been made to ensure quality of the information provided through the careful checking of credible sources, as well as related websites and statistics relating to each ICT Application. Most ICT Applications found here have a link to the product for the reader's convenience. 

AGROffice Complete

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **European Union**

Status: **In use**

License: **Proprietary**

Developer: **PROGIS Software GmbH**



Description:

AGROffice Complete is a GIS based agro-software technology that supports e-agricultural work by transmitting information to managing agricultural output. It is a tool that enables for two-way information and knowledge exchange between agro-experts and farmers. It aims to help the farming community solve issues around planning, execution, documentation, inventory control, calculation, nutrient balancing, creation of thematic maps, logistics, evaluation of natural resources, natural disasters, risk and land-management and rebuilding development projects. It provides a holistic approach for rural area management.

AGROffice Complete uses a GIS-based integrated technology for farmers, farm advisors, agro-logisticians, forestry, ecological tasks, rural community management, and risk and land management. It acts to empower the rural agricultural community by providing tips on e-farming, technological integration and land management,

and building capacity in these regions. AGROffice is also meant to help educate farmers on how to economically sustain their enterprises. For instance, some farmers may not be able to access national regulations to export into other regions. Such farmers may also not be aware of their responsibilities within the global economy with regards to food shortages. AGROffice bridges farmers with scientists who understand various practices and useful farming data.

The AGROffice software assists farmers with spatial planning and rural area management. It integrates technologies like GIS, database, real-time management and expert information for:

- **Documentation** – food traceability
- **Nutrient (energy) balance** for field/whole farms
- **Business calculation** for farms
- **(Thematic) mapping** as well as
- **Subsidy management** 

Agrovision in Nigeria

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: **Nigeria**

Status: **In use**

License: **Proprietary**

Developer: **Multiple developers**

URL: <http://www.itrealms.com.ng/2008/03/agrovision-to-boost-agriculture-ekuwem.html>



Description:

The Teledom Group, a leading indigenous ICT solutions provider, along with the National Information Technology Development Agency (NITDA) launched an initiative called 'Agrovision'. Agrovision is an Information and Communication Technology driven program that provides farmers with agro-ecological mappings of crops and soil types through mobile technology. Their aim is to leverage the ongoing ICT revolution in Nigeria to foster more agricultural and food production. Agrovision assists farmers in accessing vital planting, harvesting and storage and transportation information in Nigeria.

Under the Agrovision strategy, every farm is equipped with an automatic weather station. Each station captures meteorological data. Such data entails the intensity of rainfall, soil moisture, radiation, wind direction and atmospheric pressure and temperature. This data is collated and then transmitted into a central system. It is at this location where a super database and server relate and capture the data and then use it for computation. This process is all done in real-time. *∞*

Anti Mordidas (Anti-Corruption)

Millennium Development Goals:



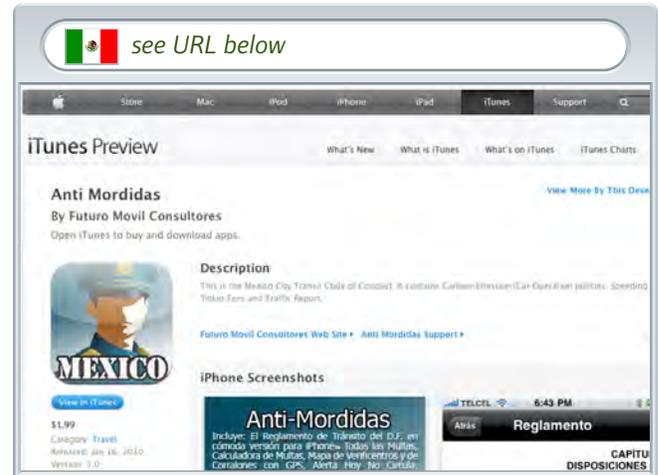
1. Eradicate Extreme Poverty and Hunger

Country: **Mexico**

Status: **In use**

License: **Proprietary**

Developer: **Futuro Movil**



URL: <http://itunes.apple.com/us/app/anti-mordidas/id350056513?mt=8>

Description:

Anti Mordidas is a mobile application that assists drivers in countering bribes made by the police. This application provides drivers with information about their rights and responsibilities during traffic stops. It is a tool for fighting against corruption at the local level. The application offers drivers many features to resist giving bribes to police to avoid penalties. Some of these features include:

- Traffic-fine calculator to avoid being over-charged
- Map with direction to all parking lots in the event of vehicle impoundment
- Compendium for traffic regulations
- Standards for carbon emissions and policies for car operations.

Anti Mordidas is an all in one application for drivers feeling scared, threatened or intimidated during traffic stops. It is available for smartphone users and costs 20 pesos. In addition to fighting corruption, this application also provides traffic reports with up-to-date information on accidents, detours and reopened roads, as well as current temperatures. *∞*

Atac Mobile

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



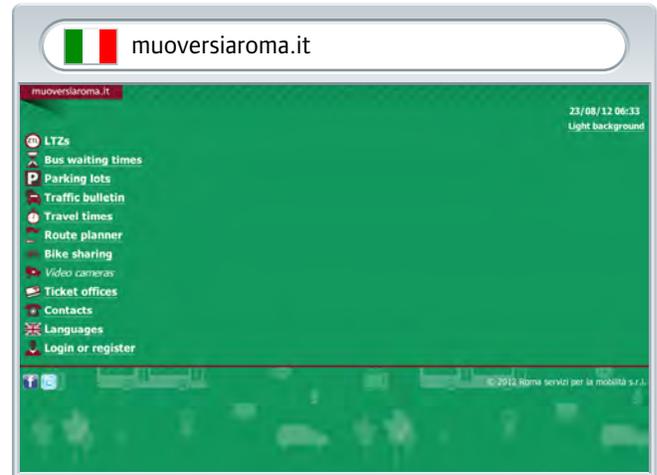
7. Ensure Environmental Sustainability

Country: **Italy**

Status: **In use**

License: **Open source**

Developer: **Multiple developers**



Description:

Atac Mobile is a project that acts as an information hub for mobile phone devices. Established in the city of Rome, it caters to people with smartphones or personal digital assistants (PDAs) and is available in two versions. It offers an XHTML version, which can be accessed through a mobile phone with Internet capabilities and a Flash version, which can be accessed from a Windows Mobile handheld device.

Atac Mobile offers an array of information and services for the people of Rome. The Info-mobility channel is a partnership between the public and private sector. It focuses on bringing information around traveling routes directly to subscribers. More specifically, the journey planner provides real-time recommendations on the most ideal routes to a destination and with details on services and stops for the public transport system.

Waiting times at bus stops are provided by the Automatic Vehicle Monitoring (AVM) system. There are also news and traffic bulletins for major traveling zones. This service is offered through the Atac patented Urban Travel Times (UTT). All information through this service is available in real-time, and private transport routes come equipped with the time of distance, delays, and image streams from Closed Circuit Television (CCTV) cameras. Additionally, Atac Mobile offers information on the bike sharing program, tickets, locations for public parks and general information.

The Atac menu lists icons for each categorical section. Updates can be provided with a single click of a button on the Atac menu. Its search engine also helps users further navigate the application. It can be accessed between the hours of 6:30 AM to 12:00 PM everyday. 

BBC Action Network

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education

Country: **United Kingdom**

Status: **In use**

License: **Open source**

Developer: **Action Network**



Description:

The BBC Action Network is a grassroots civic engagement initiative for online users. Launched by the British Broadcasting Corporation (BBC), it is a space for community activism and enables for the creation of local action groups. It is a tool that helps citizens network around similar issues. It is also a tool for local government officials to help hear from the people and foster new ideas. Most of the content is user-generated. The only section that includes a major editorial contribution from BBC is in the Guides component, which includes a comprehensive library of civic media and ‘how-to’ articles. These articles range from procedures on how to lodge a complaint against police to protecting or changing a public sidewalk.

The biggest part of the BBC Action Network site is its campaign section, which acts as a breeding ground for various social initiatives. It allows users to outline topics that have the most relevance to them and their local

community. The kinds of issues that are raised through this website include things like repairs for potholes to protests that request the destruction of a park comes to a halt. Every campaign-starter is organized and tagged both geographically and by issue (for example, “crime prevention” or “local policy”). That way, people browsing the website without a concrete movement to get behind it can find a campaign associated with their location, or with an issue that concerns them. Once the initial post goes up, campaigns quickly build up steam as others join the effort and use the website to coordinate meetings, marches, petitions or whatever actions are required to advance the cause.

This initiative is part of the BBC’s broad democratic purpose, which is to support informed citizenship. The project grew from a review of political participation that was undertaken by the BBC after the low turnout in the 2001 General Election. 

Body Mass Index (BMI) Calculator

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **National Heart, Lung and Blood Institute (NHLBI)**



Description:

Developed by the National Heart, Lung and Blood Institute (NHLBI), the Body Mass Index (BMI) Calculator is a tool used to measure the fat content and muscle mass of an individual using his/her weight and height. Determining these measurements and inputting them into the BMI Calculator could help to prevent any risk of diseases and/or death.

In addition to the web interface, the BMI Calculator is now accessible from smartphones. The mobile application is available for download. It has served many people from across the world and provides users with results on their mobile devices with additional links to healthy weight resources.

As an extension to the dashboard widget, the BMI Calculator gives results in kilograms, meters, pounds, and feet. Users are required to input their weight and height

using these standard metrics. After inputting this data, users can then click 'Compute BMI' to see what their Body Mass Index reads. The following demonstrates the different ranges of one's BMI according to category:

- Underweight = < 18.5
- Normal weight = 18.5 – 24.9
- Overweight = 25 – 29.9
- Obesity = BMI of 30 or greater

People have a higher risk for heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems and certain cancers if their BMI reads high. Individuals use this application to monitor their health and prevent any risk of diseases and ailments. *ℳ*

Boston Citizens Connect

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: United States of America

Status: In use

License: Open source

Developer: City of Boston



Description:

The Boston Citizens Connect mobile application implements a strategy that enables citizen-to-city communication for the purposes of improving public deliverables. It provides a medium for those living within Boston to share and obtain information about their city. This approach to managing the city has been titled as ‘citizen sourcing’. It empowers citizens by giving them the tools to manage and report the physical state of their city through mobile phones.

The Boston Citizens Connect mobile application enables users to submit pictures that relate to public deliverable concerns. For instance, users in Boston can send pictures of potholes, graffiti and broken city lights directly

to a public works staff, avoiding the need to go through multiple levels of government and staff. The GPS capabilities within smartphones allow city staff to respond quicker to such problems. Users that submit reports have their ‘application map’ marked with a red dot, signaling the need to resolve a public issue. Once city staff attend to the issue that same red dot turns green.

The Boston Citizens Connect iPhone application is an alternative to physically going inside the City Hall to make a complaint. It allows those who actually experience the city on a day-to-day basis to report and consult with City Staff about concerns and issues straight from their phones. 

Budapest SMS Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



7. Ensure Environmental Sustainability

Country: **Hungary**

Status: **In use**

License: **Open source**

Developer: **Nextel**



Description:

This project is located in Budapest, a district better known as Pestszentlőrinc-Pestimre. It uses a platform that enables users to send questions to local government administrators. Questions can be sent either through phone calls or SMS. Such questions are responded to in the form of

regular mail or SMS. Cellphone provider, Nextel, helped initiate this project and is giving rise to new ways of communicating with government officials in this region. 

Budget Tracking Tool

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: Kenya

Status: In use

License: Open source

Developer: Social Development Network



Description:

The Budget Tracking Tool is a web-based system that has adopted an open source technology system for users to access government data. It is meant to assist Kenyans in tracking and monitoring public resources. It acts as a means for managing public funds and holding government officials accountable. This tool can be accessed by logging onto the web or by sending an SMS text to '7002'. All data can be accessed offline as well. The Budget Tracking Tool presents Kenyan budgetary data online, where users can leave comments about the progress, impact, and efficiency of projects. In collaboration with Google.org and Twaweza, the Social Development Fund helped initiate this tool.

In addition to building a searchable web site, the Budget Tracking Tool has established a script for handling SMS queries so that those with mobile phones can delve further into the amount of money spent on certain projects. For example, users can inquire about constituency demographic information pertaining to schools, hospitals, social halls, roads, and markets, devolved funds with summary descriptions, and relevant acts of parliament with attached guidelines. This portal also provides citizens with information pertaining to their Member of

Parliament and Committee, development projects, fund types, status of projects and fund disbursement history, list of organizations/groups monitoring projects at the constituency level, any possibility for monitoring groups and uploading such data through documents, videos and photos, reports on anomalies or instances of malpractices or corruption, a web repository on training materials, guidebooks on social audits, the national budget and budget information and Google apps and SMS integration.

The Budget Tracking tool captures data without any alteration and gives government the opportunity to clean up any inaccuracies in its reporting. The tool comes as a response to the escalating urban and rural poverty in Kenya. It transfers power to the individuals living within such communities instead of NGOs, the private sector or foreign donors who might not be as knowledgeable about the experiences these communities face compared to the people they serve. For instance, the data mining system uncovered a major corruption scandal at the Ministry of Water that led to the firing of a number of public officials. Kenya's Budget Tracking Tool also helped track aid flows that were coming from the international level to local level project implementation. 

Bunge SMS

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: Kenya

Status: In use

License: Open source

Developer: Multiple developers



Description:

Bunge SMS is a mobile phone-based service that combines the Internet and mobile telephony for the purposes of engaging Kenyans with their local government and respective constituencies. It came into existence during 2008 and is the Swahili term for ‘parliament’. Bunge SMS provides a medium for Kenyans to engage with their local Members of Parliament (MP) so that they can take action on issues certain issues. It developed out of a partnership between Ushahidi and the Made in Kenya Network.

Using SMS text messaging, Bunge SMS enables mobile phone users to send concerns directly to their MP. All Members of Parliament can be contacted through the SMS short code ‘3454’. This short code routes all messages to the Bunge SMS website, where it is then mapped using Google Maps. It takes the location of such issues and sends them to the appropriate MP. An MP may also continue to receive updates about particular issues directly from individuals and organizations. The kinds of concerns that are transmitted through Bunge SMS include but are not exclusive to the following:

- Constituency Development Fund (CDF)
- Road Development Levy Fund
- Constituency-based Secondary School Education Bursary Fund (SSEBF)
- Rural Electrification Programme Levy Fund (REPF)
- Local Authority Transfer Fund (LATF)
- Constituency AIDS Fund
- Constituency Youth Enterprise Scheme (C-YES)
- Youth Enterprise Development Fund (YEDF)

Bunge SMS has also assisted in demanding specific development projects within constituencies, helping strengthen citizen-to-government communication. It is working together with development partners and other civil society organizations to increase the accountability and accessibility of Members of Parliament. Bunge SMS is based on the fact that democracy accords every individual the right to speak for himself or herself. 

CELAC

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



3. Promote Gender Equality and Empower Women



7. Ensure Environmental Sustainability

Country: **Uganda**

Status: **In use**

License: **Open source**

Developer: **Hivos**



Description:

Collecting and Exchanging of Local Agriculture Content (CELAC) uses ICT methods and knowledge sharing practices to alleviate poverty and enhance food security in Uganda. CELAC is a sub-group of BROSDI (Busogo Rural Open Source and Development Initiative), which functions in Uganda's 4 major regions. The CELAC project collects and exchanges local content for those who are economically and technologically disadvantaged. CELAC offers services for those who cannot read and write. Their overall objective is to improve the livelihoods and food security of rural farms by engaging with various levels of government and civil society. Considering how most Ugandan women work in the agricultural sector, CELAC is dedicated towards empowering these women through various initiatives.

CELAC uses Short Messaging Service (SMS) to disseminate agricultural information. Such information derives from different local knowledge sharing forums. The information obtained from these forums is then re-packaged in a format that pertains to the needs of those in the agricultural sector. They receive such information through SMS. CELAC also provides the capabilities for farmers to set up voice-conference calls with other farmers. In particular, farmers can schedule their meetings by sending a text message to BROSDI members. This allows farmers to save on traveling costs and time. It also provides a space for farmers to communicate with each other and problem solve agricultural concerns. 

Cheng Guan Tong in China

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education

Country: **China**

Status: **In use**

License: **N/A**

Developer: **Multiple developers**

mobility.grchina.com/transcending_egov.pdf

Mobile Government
<http://mobility.grchina.com>

Transcending e-Government: a Case of Mobile Government in Beijing

Gang SONG
 Department of Information Systems
 London School of Economics and Political Science
 Houghton Street, London WC2A 2AE, United Kingdom.
 e-mail: g.song1@lse.ac.uk, web page: <http://mobility.grchina.com>

Abstract: *The convergence of mobile communication and mobile computing technologies opens up new horizon for mobile interaction and mobile working. The use of mobile technology in government sector not only provides an alternative channel of communication and public service delivery, but more importantly, it can address the mobility of government itself and in this way transcend the traditional e-government service delivery model by bring personalized, localized and context aware services close to its mobile citizens. A number of mobile government initiatives have been proposed globally to take advantage of this opportunity for better public service delivery. In this paper an example of such a mobile government initiative in a district of Beijing is presented. Based on the study this paper argues for a further paradigm shift from e-government to mobile government. With the challenges and opportunities provided by mobile ICT, government should be aware of the potential of mobile government to transcend the traditional e-government models, which pay undue attention to online Internet portals.*

Keywords: mobile government, e-government, mobility, organizational change, Beijing

Description:

Cheng Guan Tong is the Chinese term for ‘city management all in one’. It is an application that has the ability to take pictures, make calls and send multimedia messages. Users can operate this application through their mobile devices. This application is enabling both citizens and public officers to get more involved in addressing the need to solve issues related to public resources.

As a monitoring tool, reports can be sent to two government administrative centers. The first center is called the ‘Supervision Center’. This center deals with monitoring by public officers who are then required to report for the purposes of solving matters of public concern. For

instance, if a public officer finds a damaged or broken public facility, he/she could take pictures of that specific facility and send them directly to the Control Center, which would be the second center. The Control Center would then coordinate with different departments at the local level to solve the issue. Citizens can also get involved by using the cameras on their mobile phones so that they can send information when faced with a problem. Information can be sent to local authorities. The GPS in most phones allows users to send pictures with their exact coordinates.

ChildCount+

Millennium Development Goals:



4. Reduce Child Mortality



5. Improve Maternal Health



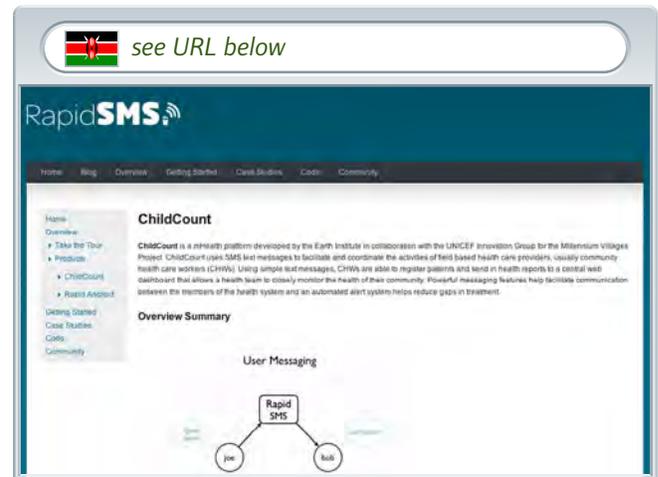
6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Kenya**

Status: **In use**

License: **Open source**

Developer: **Millennium Villages Project**



URL: <http://www.rapidsms.org/overview/projects/childcount>

Description:

ChildCount+ bridges the healthcare community with automated SMS alert systems. It works to improve child survival and maternal wellbeing through real-time facilitation and coordination within the field of health. It is built on an m-Health platform with powerful SMS capabilities.

ChildCount+ uses mobile phones and paper-based informational tools to monitor childhood diseases. The 'living registry' registers children under the age of 5 years old and provides the foundation for understanding the health status of children and pregnant mothers. Registered patients have their health reports sent to a central web dashboard in real-time. The system has demonstrated an ability to integrate with existing information management systems, catalyzing action around community health events. ChildCount+ also has SMS capabilities that enable healthcare providers to screen for malnutrition every 90 days, checking for malaria, tuberculosis, diarrhea and pneumonia while supporting child immunizations and recording all local births and deaths. Its open-source software is free and built around Rapid SMS tools.

Sending health information through SMS enables other stakeholders such as community, clinic and referral centers to participate in providing a full-health assessment of villages. It allows such stakeholders to bring different pieces of information together. Some of the accomplishments attained by ChildCount+ include the following:

- The establishment of community health events reporting and a verbal autopsy system for Community Health Workers
- A system for developing and implementing two-way mobile phone-based community health events reporting
- A feedback and illness alert system
- Improved tools and reporting formats to enable the use of data for active case management, decision-making and performance monitoring of health workers. *☞*

China Suzhou Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



7. Ensure Environmental Sustainability

Country: **China**

Status: **In use**

License: **N/A**

Developer: **The Suzhou Municipal Office of Information Infrastructure**



Description:

The China Suzhou Project was established in 2009 and uses a Wireless Application Protocol (WAP) platform. It is a landmark for m-government development. Users who call into the platform receive information related to politics and economics. They also have the option of emailing

government officials about obtaining additional information and services affecting local communities. Government officials use the WAP in responding to such emails. More specifically, a dedicated WAP button allows government officials to respond quicker and directly to citizens. *☞*

Citizen-Friendly Trans-European M-Gov. Service

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education

Country: **Germany**
 Status: **Prototype**
 License: **Open source**
 Developer: **Multiple developers**



URL: http://ec.europa.eu/information_society/activities/eten/cf/opdb/cf/project/index.cfm?mode=detail&project_ref=ETEN-046276

Description:

The Citizen-Friendly Trans-European M-Gov. Service (CIDRE) provides public service deliveries through wireless technology. It is an extension of the Mobile Citizen Services initiative. Essentially, it makes government stationary more accessible through the use of mobile equipment and wireless networks. CIDRE aims to reduce accessibility barriers, as well as some of the administrative setbacks associated with public administration. It can be found in locations such as neighborhood

centers, libraries, hospitals or shopping malls, providing basic functions of the civil servant. The range of services found at these terminals includes information and consulting, recording applications, payments and handing out documents. This initiative was developed through a partnership that involved the German Mobile Citizen Services, Fraunhofer Institute for Telecommunications Heinrich-Hertz-Institute, and the Senate of the Interior of Berlin. 

CKW Search

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **Uganda**

Status: **In use**

License: **Open source**

Developer: **AppLab and MTN Uganda**



Description:

The Community Knowledge Worker (CKW) Search improves information flows and knowledge dissemination for small farmers. It is made up of a series of forms, presented in Java, which are meant to guide users through its menu and search engine. Users can access the search engine for information on the agronomic techniques in banana and coffee production. They can also access information on the best farming practices and market prices for crops.

As an alternative to the key word search offered through SMS, the CKW Search allows users to pick keywords from a menu. It also guides users through a number of menus and each time a topic is selected, the system adds it to the keyword phrase. After the keyword phrase is selected and sent, the database system replies through SMS with an answer to the problem. This system also gives users the option of receiving detailed information on particular crops and farm inputs. It outlines various topics using a drop-down menu with keywords that are

pre-coded. Users can also choose to raise their concerns directly to a CKW, where the CKW responds by summarizing user concerns into one short message, and then sending it out for a solution. The CKW receives solutions almost immediately.

There are other functionalities offered through this search engine including the ability to store results onto a local inbox, allowing users to access older emails while offline, accessing information pertaining to the location of each request and a range of statistics. Users are required to log onto the Internet if they need downloadable content.

In Uganda, it is a struggle to access critical information about which crops to plant and when, how to prevent and treat crop diseases and locating spaces that earn the most produce. At the same time, organizations that seek to improve agricultural practices do not have the means to learn about building such capacities. The Community Knowledge Worker Search program addresses these needs and helps solve agricultural concerns. *∞*

Comunas

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



8. Develop a Global Partnership for Development

Country: **Italy**

Status: **In use**

License: **Proprietary**

Developer: **e-Participation Project**



Description:

Comunas allows citizens to participate in local politics through an online platform. Its purpose is to put the issues that are on the municipal agenda online so that opinions can be collected for town council meetings. This is a service that is provided by the municipal government in partnership with the Innovations and Technologies

Ministry. It allows citizens to participate in local politics through online forums where opinions undergo further review and analysis during town council meetings. The website also caters to those who are physically challenged by inviting them to help participate from the comforts of their home. 

Daraja

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **United Republic of Tanzania**

Status: **In use**

License: **Proprietary**

Developer: **Daraja Development Ltd**



Description:

Daraja is a non-profit organization that works together with citizens and government for the purposes of improving water-point functionality in parts of Tanzania. It enables users to send SMS text messages directly to a database with water-point mapping information. Their overall aim is to empower communities and local institutions by building capacities around poverty, giving citizens a voice to address their concerns directly to government. Its name means ‘bridge’ in the Swahili language.

In 2010, Daraja partnered with a company called Twaweza. Together they developed and tested a model that; a) shared information about water-point functionality with the public in accessible formats, primarily through the media; b) enabled citizens to update functionality information in real-time via SMS; and c) analyzed and publicized the responsiveness of government to citizen notification. The project was piloted in the Southern

Highlands of Tanzania. The project helped establish a local newspaper, a football team and regular blogging about water, health and education issues. The pilot project also led to an initiative called ‘Majo Matone’.

Majo Matone provides Tanzanians the tools to report water-point failures in their regions. It is a means for raising awareness about low water pressures. Through Majo Matone, users can send SMS text messages directly to government officials about water-point failures. As a result of this initiative, government has fixed broken water-points and other related concerns. Majo Matone has given citizens the tools to hold their government officials accountable in delivering effective public services. Users can access Majo Matone through the short SMS phone number ‘15440’. Daraja is helping to answer the challenges of local governance in rural Tanzania by bridging decision making between government and citizens. 

Do-It-Yourself Democracy – California

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



8. Develop a Global Partnership for Development

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Prometheus Institute Inc.**



Description:

The Do-It-Yourself Democracy (DIYD) is a mobile application that was launched in the state of California. It acts as a tool for civic engagement in that users can connect to all three levels of government. DIYD provides a medium for users to report on things that matter to them the most through their mobile devices. It was developed by the Prometheus Institute Inc. When DIYD first opens, it requests that the user input his/her ZIP Code. This application can also choose to automatically find the user as well.

Better known as a ‘reference map app’, DIYD provides its users with tools to change their communities and address the effects of state and federal laws. DIYD provides a link that allows users to report on things like

potholes, police misconduct and graffiti. Information on complaints and campaigns can also be shared with other subscribers through the DIYD public forum. Some of the other features include accessing Rights and Laws, which is essentially an overview of state and federal Constitutional rights. It lists any unique laws, sale tax rates and budget information. DIYD also has the ability to find contact information for political representatives at all levels of government.

The DIYD platform has gained momentum in places like Arizona, Colorado, Florida, Georgia, Illinois, Massachusetts, Michigan, Nevada, North Carolina, New York, South Carolina, Tennessee, Texas, and Virginia. Users can download this application at no cost. 

Economic Trevisosystem.mobi Portal

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



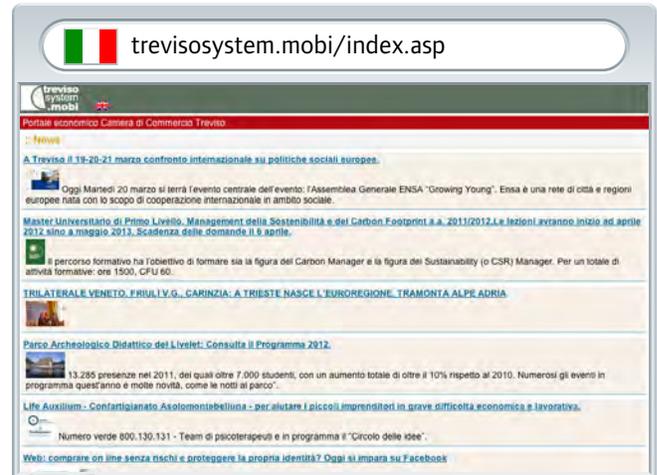
8. Develop a Global Partnership for Development

Country: **Italy**

Status: **In use**

License: **Open source**

Developer: **Special Agency for Technological Innovation**



Description:

For the purposes of enhancing business investments in Italy, the Chamber of Commerce of Treviso has created the economic trevisosystem.mobi portal. It acts as a central function for searching companies and products. The Economic trevisosystem.mobi portal organizes various websites and sources to deliver its services. It also acts as a tool to publicize information and the economic status of Treviso, a province located in Italy. This portal also allows readers to view issues around education, infrastructure, investments and sports.

The Economic trevisosystem.mobi portal informs and promotes Treviso for single traders, industrial clusters and the economy as a whole. It also highlights the services of international companies through constantly updated news.

This portal aims to provide information for those interested in establishing a business relationship, professional development or for those wishing to travel to Treviso. The mobile version of this website is available in Italian and English.

The Economic trevisosystem.mobi portal is supported by the Chamber of Commerce of Treviso and was developed by the Special Agency for Technological Innovation. This agency has the ability to promote innovative technologies, certify products and corporate systems diffuse know-how and competence, also through lifelong training and with particular attention to the recent, new professional positions that are emerging all over Europe. It also provides different viewpoints about the province with regards to its economics. 

E-Health Services in Europe

Millennium Development Goals:



3. Promote Gender Equality and Empower Women



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **European Union**

Status: **In use**

License: **N/A**

Developer: **Multiple developers**



URL: http://ec.europa.eu/information_society/activities/health/index_en.htm

Description:

The publication of a strategy entitled ‘Accelerating the Development of the e-Health market in Europe’ aimed at improving the health market while reducing costs. This initiative enables patients to access health services at any time from anywhere as part of an e-Health initiative. For example, patients with heart problems are able to carry their monitors outside of the hospital and perform their day-to-day activities. If conditions change then doctors are alerted immediately. The e-Health framework enables doctors and other medical staff to access medical records much more quickly and efficiently. For instance, doctors

can communicate directly with pharmacists to prescribe medication, reducing waiting times. E-Health is becoming global in that it is breaking down barriers and enabling health service providers such as public authorities and staff within hospitals to work more closely together. If a particular treatment can be provided to a patient more effectively in another country, e-Health systems make it simpler to organize and carry out treatment abroad. Doctors also have the ability to communicate from different hospitals and countries. E-Health is growing into an international community. 

E-Krishi

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



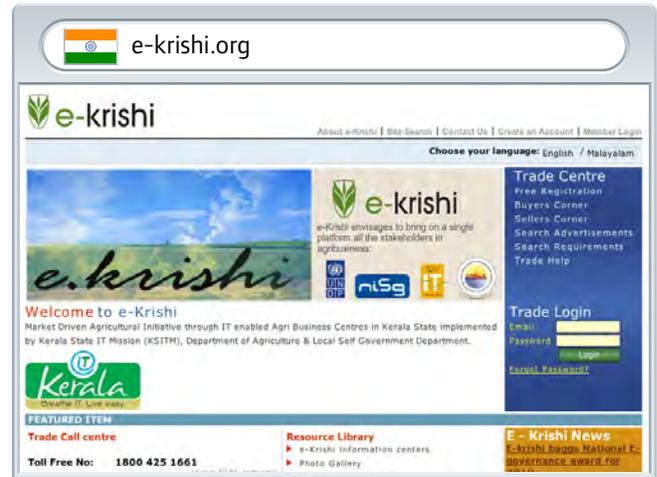
7. Ensure Environmental Sustainability

Country: **India**

Status: **In use**

License: **Open source**

Developer: **Multiple developers**



Description:

E-Krishi supports the farming community with enhanced information on agriculture, seeds, high-end crops, fertilizers and pesticides. It utilizes ICTs in the disbursement of agricultural and farmland information, connecting farming communities all throughout Kerala while simultaneously building capacity around accessible market demand, prices and good agricultural practices. Sellers (farmers) and buyers (merchants) can register to receive such information through their local community markets. The project provides web-based solutions for small and medium size farmers, as well as owners of large landholdings.

The e-Krishi project supports the agricultural sector in Kerala during times of adversities. It assists in fostering networking opportunities between farmers and traders. It enables both farmers and merchants to post their requirements, view advertisements and arrange for

virtual meetings with other parties. It addresses the existing gap in agriculture information flow and transaction management. It also plays a part in transforming under-performing and non-performing agricultural farms into high yielding farms with quality products. Farmers with trade related doubts also have the ability to request support from qualified agricultural specialists. Farmers can also request to receive support about agricultural practices in weather specific regions. The e-Krishi platform helps foster information, communication, and transaction and payment services for all citizens.

In the Malappuram District, the e-Krishi initiative has set-up computers, printers, scanners and cameras, all with internet/intranet connectivity. The project was piloted in the Malappuram district as well as in Kasaragod, Kannur, Kozhikode and Kollam. 

EpiSurveyor

Millennium Development Goals:



4. Reduce Child Mortality



5. Improve Maternal Health



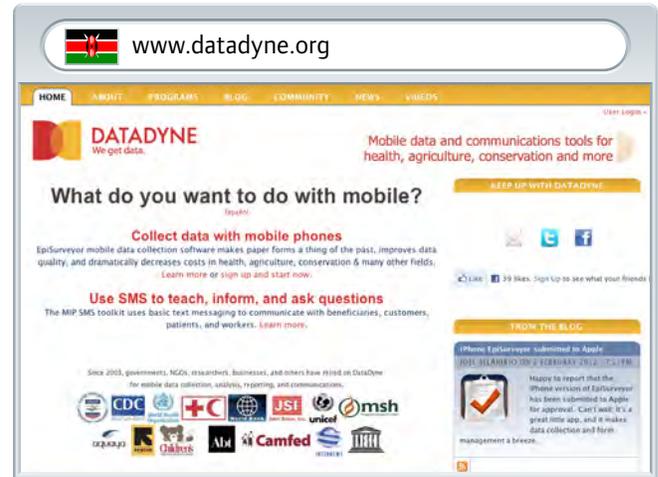
6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Kenya**

Status: **In use**

License: **Open access**

Developer: **Multiple developers**



Description:

EpiSurveyor is a mobile software system that enables users to collect and monitor public health data. It is being used to tackle and prevent diseases in developing parts of the world. Users can create handheld data entry forms, capture data on their mobile devices and transfer it onto their desktop or web server for further analysis. EpiSurveyor also uses an open access system that bypasses foreign aid agencies and governments that may potentially act as intermediaries. This system was created through the partnership between the African Ministries of Health and DataDyne.

EpiSurveyor is made readily available for organizations that seek to reduce the need for acquiring a professional programmer to manage their information. It can be accessed from all across the globe and downloaded onto regular phones without the need for an Internet connection. It offers the ability to synchronize data for back-up storage. Data can also be accessed while offline. Kenya's Ministry of Health adopted EpiSurveyor for the purposes of collecting data on vaccine programmes. Healthcare field workers are also using EpiSurveyor to collect data onto their mobile phones. 

E-Service Delivery Project

Millennium Development Goals:



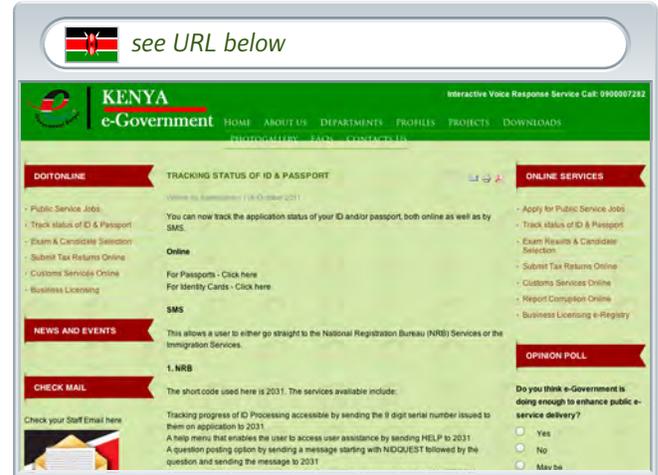
1. Eradicate Extreme Poverty and Hunger

Country: Kenya

Status: In use

License: Proprietary

Developer: Multiple developers



URL: http://www.e-government.go.ke/index.php?option=com_content&view=article&id=61&Itemid=12

Description:

The e-Service Delivery Project enables Kenyans to check the status of their Passports and Identity Card (ID) applications through SMS technology. It was established by a public-private partnership and is made up of different departments in immigration, e-government and public sector reforms. Applicants can check the status of their IDs and passports by sending a text message to '2031' and '2032' respectively. Through an intranet connection, the immigration office is able to track all applications, enabling staff to process passports within 10 days. This

is a significant reduction from what used to be about 3 weeks. An SMS tracking number is provided to citizens to track their applications. All applicants are still required to appear before officers for confirmation of identification during application and issuance. This current system is helping save time on what could potentially be a lengthy process of public service delivery. The project grew out of a partnership between the Departments of National Registration Bureau/Immigration and the Transparency Communication Infrastructure Project (TCIP). 

eSoko Project

Millennium Development Goals:



7. Ensure Environmental Sustainability

Countries: Burkina Faso, Burundi, Ghana, Côte d'Ivoire, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Rwanda, Sudan, Swaziland, United Republic of Tanzania, Uganda, Zambia and Zimbabwe.

Status: In use

License: Open source

Developer: BusyLab



Description:

eSoko is an SMS platform that enables users to collect and distribute agricultural market price information in Rwanda. It uses mobile technology to disseminate local information, improve incomes and build healthy and efficient markets. It launched the eRwanda Project during 2010 and came equipped with a suite of tools that enabled farmers in Rwanda to trade and receive targeted, scheduled text messages about prices for commodities, offers and weather. The eRwanda Project also distributed mobile phones to farmers across the region. They were pre-registered to receive such SMS alerts.

Farmers have the option of signing up for SMS alerts through pre-registration or request to receive one-time price quotes on particular items. This allows eSoko users to identify the sellers and their items. It also provides information pertaining to the sellers' respective

locations. eSoko came as a response to exploitation of middle men who provided services in farming. Farmers are now capable of maximizing value from their produce with the most up to date market prices available.

Scout, which is a newer feature of eSoko, comes equipped with an automated polling system to track and monitor the crop activities of suppliers and inventory distributors. This monitoring and tracking system uses SMS to send responses on a displayed GIS map. eSoko is also capable of facilitating direct marketing campaigns that publish messages through SMS to thousands of users all at one time.

In addition to Rwanda, eSoko is currently active in Ghana, Sudan, Burkina Faso, Nigeria, Ivory Coast, Mozambique Swaziland, Madagascar, Malawi, Burundi, Tanzania, Zambia, Kenya, Uganda and Zimbabwe. 

E-Voting in Estonia

Millennium Development Goals:



7. Ensure Environmental Sustainability



8. Develop a Global Partnership for Development

Country: **Estonia**

Status: **In use**

License: **Proprietary**

Developer: **Cybernetica Ltd.**



URL: http://en.wikipedia.org/wiki/Electronic_voting_in_Estonia

Description:

Through the use of smartcards and electronic signatures, Estonia began to legally hold elections over the Internet in what has been called ‘e-voting’. The first test of this e-voting system took place during a consultative referendum in the capital city of Tallinn. It acted as a pilot project for its municipal elections and has been growing. This system has been used in in the 2005, 2007, 2009

and 2011 elections. It works by opening up an early election period prior to the actual Election Day. E voting allows citizens to change their vote an unlimited amount of times during the early voting period. Online voters also have the option of going in-person to a polling station and casting their vote, which would invalidate any online submission. *ℳ*

Flower SMS

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



8. Develop a Global Partnership for Development

Country: **Uganda**

Status: **In use**

License: **Proprietary**

Developer: **Multiple developers**



Description:

The Uganda Flowers Exporters Association (UFEA) is a non-profit organization that brings flower growers and exporters together in Uganda. Established as an umbrella organization in 1993, UFEA provides business development services and assists in influencing industry-related government policies. They manage a Fresh Flowers Handling Facility, which oversees the flower exports of all the UFEA members while maintaining data on flower export agencies.

In an effort to assist small businesses in the developing world, the International Trade Centre (ITC) provides trade development solutions to the private sector, trade

support institutions and policy-makers. Together they have established an application that enables flower exporters to identify hot spots along the supply chain management route. After identifying the hot spots, temperature measurements are taken and sent to a database through SMS. Uganda's flower industry uses ICT to overcome logistical and transportation challenges along the chain, from incorporating electronic systems, to schedule deliveries, to pooling resources for shared cooling space. Monitoring the temperature of products at different steps of the supply chain management system is essential in preventing losses, especially during extreme weather conditions. 

FoodNet

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Countries: Burundi, Democratic Republic of Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Uganda and United Republic of Tanzania.

Status: In use

License: Proprietary

Developer: Multiple developers Network



Description:

FoodNet was created to address post harvest marketing needs in East and Central Africa. It was first launched in 1999 and has since focused on strengthening market led research and implementing commercial oriented projects with both the public and private sector. As a regional agricultural development network, it has introduced three low-cost services for farmers, traders, and consumers. Such services have provided accurate market information through agricultural value chain analyses, market studies, market and marketing information services, agro collective enterprise development, and related business development support services.

FoodNet is changing the dynamics of marketplace information in Uganda. It acts as a resource to counter traders who sell their produce at a high cost. More

specifically, traders were able to push down prices while farmers had little knowledge about such price movements and market trends. This allowed the middlemen to collect excessive commissions while exploiting large price differences. As a result, farmers paid lower prices while consumers paid higher prices. This network offers information to help farmers negotiate with traders. The information also enables farmer association groups to bulk commodities and grade their produce. Farmers in East and Central Africa are able to purchase products while accessing market price information on commodities through their mobile phones. This initiative grew out of the work developed by the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) Research & Development Network. ∞

Freedom Fone

Millennium Development Goals:



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Zimbabwe**
 Status: **In use**
 License: **Open Source**
 Developer: **Kubatana**



Description:

Freedom Fone is a do-it-yourself mobile application that enables users of mobile phones to share information through an audio format. This application provides important information to people living within developing communities through its Interactive Voice Response (IVR). Located in Zimbabwe, they are owned by a group called Kubatana and focus on building easy-to-use voice menus, running SMS polls, receiving SMS text messages and managing voice messages. Freedom Fone has been adopted by activists, service organizations and non-governmental organization (NGOs).

Freedom Fone is built on an open source software platform. Users are required to purchase a SIM card to activate the application and sharing services. After purchasing the SIM card, users can then download the application, which takes approximately 20-minutes. The application can be accessed from ordinary mobile phones, as it does not require Internet access.

Freedom Fone delivers an interface that makes it easier for users to upload audio files and voice menus. Freedom Fone also updates users with new content.

They also provide users with the ability to engage past the 160-character limitation of SMS. This audio platform delivers information to those individuals experiencing barriers in literacy and language. It offers content in various other languages as well. Depending on the location, some services are offered on a 24/7 basis. An example of this would be First Aid. Freedom Fone has also established a platform for improving the monitoring of elections and natural disasters through its two-way enhanced communication medium. Citizens also have the ability to provide feedback on matters such as the constitutional reform.

Other examples of services offered by Freedom Fone include, providing critical information during emergencies such as measles or typhoid epidemics, establishing a discreet medium for those seeking information on HIV/AIDS, assisting pre-and-post natal mothers with First Aid and expert advice, accessing information on seasonal agro-extension services relating to market prices, counseling and support for victims of abuse and a job recruitment helpline providing hands-on entrepreneurial advice. 

Frontline SMS

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



6. Combat HIV/AIDS, Malaria and Other Diseases



7. Ensure Environmental Sustainability

Country: **South Africa**

Status: **In use**

License: **Open Source**

Developer: **The Frontline SMS Developers**



Description:

Frontline SMS is an open source software platform that allows for two-way text messaging through mobile phones, laptops or GSM modems. It acts as an SMS gateway in that it is used to collect, coordinate and monitor data. Users have the capability of sending and receiving SMS texts from mobile phones to large groups of people. Grassroots and non-governmental organizations (NGOs) use Frontline SMS to tackle some of the barriers they experience in communication.

Frontline SMS assists international based NGO's by delivering their services to remote regions. Frontline SMS has provided support with blood donor recruitment, mobilizing human rights workers, promoting government

accountability, informing medical students about education options, providing security alerts to field workers, election monitoring, vegetable and coffee price information, weather forecasts, coordination of healthcare workers, organization of political demonstrations, developing surveys and monitoring of disease outbreaks. Frontline SMS also manages and helps contacts to send and receive messages through on-screen consoles, distributes surveys and competitions to contact groups, runs independent text-based information services and exports data programmes such as Excel so that work can be performed offline. With the exception of service provider fees for text messaging, this software is free at no cost, making it accessible to more users. 

Government 2.0

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

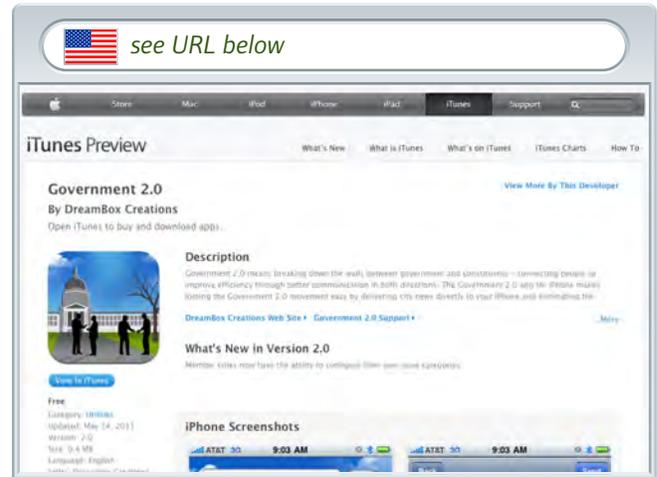
Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **DreamBox Creations**

URL: <http://itunes.apple.com/us/app/government-2.0/id359431624?mt=8>



Description:

Government 2.0 is a mobile application that breaks down the communication barriers between government and constituents. It allows citizens to manage their own communities. Subscribing to Government 2.0 allows citizens to monitor how public funding and tax dollars are being spent. Citizens can directly view whether their tax dollars are going towards services such as public repairs, graffiti and landscaping. Users also have the option of

receiving local news directly to their smartphones with links to specific city websites for further information. The Government 2.0 mobile application comes equipped with functions that allow for photo-delivery and location stamping. Hence, users have the ability to submit their issues with photographs and GPS coordinates. Attachments can be accompanied with descriptions and suggestions about the particular issue. 

Government of Canada Wireless Portal

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



7. Ensure Environmental Sustainability

Country: **Canada**

Status: **In use**

License: **Proprietary**

Developer: **Federal Government of Canada**



Description:

The Government of Canada Wireless Portal provides individuals with access to government information and services through web-enabled devices. Launched by the Federal government, this portal currently entails information and services around Border Wait Times, Canadian Company Capabilities, Currency Converter, Economic Indicators, Exchange Rates, Government

of Canada Employee Phone Numbers, Member of Parliament Contact Information, Passport Offices, National Parks, 1-800 O-Canada International Toll-Free Numbers and Weather Information. This wireless portal is designed to complement the existing service channels i.e. web browser, hotline, Service Canada Access Centres. *~*

Government Spending

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Cascade Software Corporation**

URL: <http://www.cascadesoft.net/GovernmentSpending.aspx>



Description:

Released in 2009, this iPhone application provides detailed information about 'Government Spending'. It helps build transparency by tracking every dollar that is spent on U.S. federal government contracts. This application also goes into detail about spending data, providing number trends, pie charts, contractors, line graphs and purchases. It also outlines spending data for specific departments according to state. Additionally, the Government Spending

application also allows users to access data on specific products along with historical overviews of available data. It offers detailed information on government spending over the past 10 years. Subscribers have the ability to view spending habits of the Defense Department, Education Department and NASA to name a few. Users are required to have an Internet connection to query federal government servers and access up to date spending data. 

Hong Kong Wi-Fi Networks

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



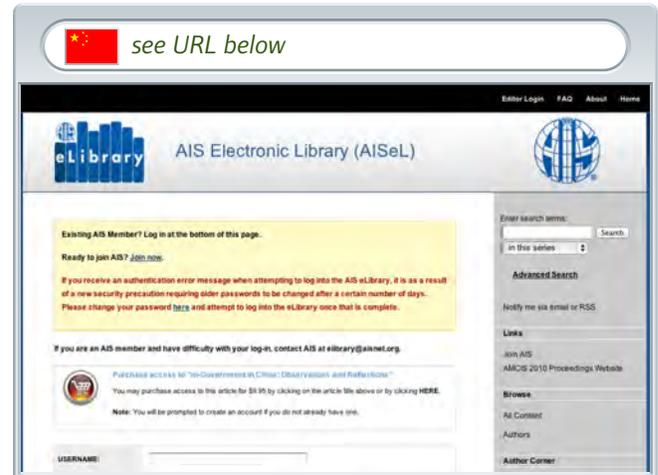
7. Ensure Environmental Sustainability

Country: **China**

Status: **In use**

License: **Open source**

Developer: **Hong Kong Wireless Technology Industry Association**



URL: aisel.aisnet.org/cgi/viewcontent.cgi?article=1197&context=amcis2010

Description:

The city of Hong Kong is supported with technology that enables live traffic updates to mobile devices. It also provides real-time weather updates and information on the environment with regards to air pollution in the form of government news and press releases. With support from the government, the Hong Kong Wireless Technology Industry Association established a wireless development center. This center was responsible for innovative application and service development, testing and market. It is

the first of its kind in this region as the government provided funding towards building Wi-Fi networks, which have now become a hallmark in Hong Kong. The public is able to access these Wi-Fi networks for free. The Wi-Fi networks were first installed in public libraries, major cultural and recreational centers, community halls, and large parks as well as government offices that were frequently visited by the citizenry. *~*

Hungary Online Forum Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



4. Reduce Child Mortality

Country: **Hungary**

Status: **In use**

License: **Open source**

Developer: **N/A**



URL: http://www.zalaegerszeg.hu/tart/forum?target=browse_forum&id=1

Description:

The Hungary Online Forum Project has three major components, with the first being an online forum. This online forum allows citizens to interact and discuss issues that are of most significance to them. Municipalities and other levels of government encourage such forums so that it can enhance communication with its citizens. It is being used as a tool to inform decision-making.

The second component of this project entails a forum that is monitored by the local government which either pulls ideas from the discussion or participates directly by answering some of the questions posed by citizens. This medium for communication uses open-source technology. Two examples of such forums include those

in the Szentes and Zalaegerszeg municipalities. The former is a rural, industrial municipality in southeastern Hungary whose forum is monitored by local officials. The latter is a medium-sized city, whose economy depends largely on textiles and oil, in southwestern Hungary where the issues discussed in the forum are actually discussed by the city's elected leaders during council meetings.

The final component deals with a dialogue between citizens and the mayor. Such an initiative provides a means to participate in an online live chat forum. Users are required to register beforehand. This event takes place every third month. 

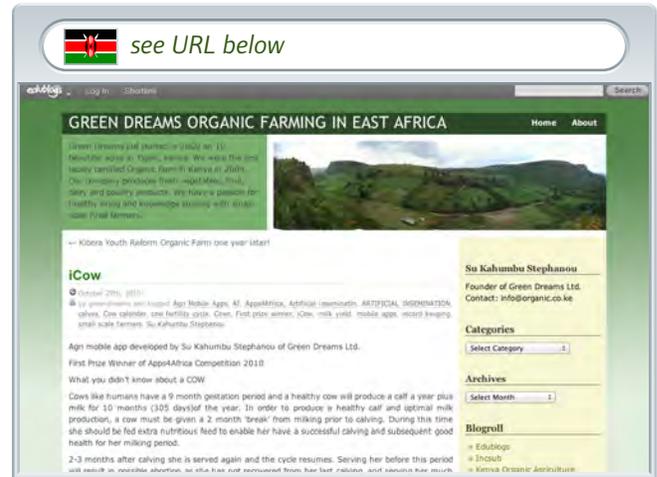
iCow

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: **Kenya**
 Status: **In use**
 License: **Proprietary**
 Developer: **Green Dreams Ltd.**



URL: <http://greendreams.edublogs.org/2010/10/27/icow>

Description:

iCow is a voice-based mobile application that enables farmers to track the estrus stages of their cows. Notifications are sent to farmers through SMS and voice prompts to help manage the breeding cycles and nutrition of their cows, leading up to the calving day. This application comes as a response to Kenya’s small-scale farming and inability to afford industrialized practices of livestock production.

After creating an ID and registering each cow, iCow requires farmers to input the confirmed/known ‘cow’ dates. Cow dates are meant to store information pertaining

to the last date each cow was served and calved. Updating the iCow calendar with definite dates enables farmers to receive callbacks, voice and SMS alerts all throughout the year. As an example, iCow’s voice-based software application assists in providing information around symptoms of mastitis or when they cow is due to give birth. Any mobile handset can be used to access this application. This application is helping farmers in Kenya generate higher quality produce while keeping their cows healthy. It has also helped farmers optimize their lands, farmyard manure and manpower, all at a reduced cost. 

INFOTRADE Mobile

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **Uganda**

Status: **In use**

License: **Proprietary**

Developer: **FIT Uganda Limited**

The screenshot shows the website interface for infotradeuganda.com. At the top, there is a navigation bar with links for Home, About Us, Services, Market Information, Resources, Products, Business Directory, and Adverts. The main content area is divided into several sections:

- Market Report Overview:** Features a report titled "Agricultural Market Report Vol.7, No.12 Feb 27, 2012 (7.801 kB)". The text mentions that milk is still scarce in Mbarara market, Matooke is getting scarce in some markets, Irish potatoes are scarce in Kabale market, and Yellow, Agwede, and Nambale beans prices are volatile. A "Read more" link is provided.
- Agricultural News:** Features a news item titled "Uganda Agricultural News and Research Digest – February 21". The text discusses an increase in demand for milk, leading to higher prices, and advises Ugandans to prepare for extra money to buy a litre of milk. It also mentions that prices for some products have increased due to demand. A "Read more" link is provided.
- Current Commodity Prices:** A table showing prices as of Feb 27, 2012. The table has columns for Commodity, Wholesale Price, and Retail Price. The only row shown is for Beef, with a Wholesale Price of 6,850 and a Retail Price of 10,500.
- Current Fuel Prices:** A table showing prices as of Feb 29, 2012. The table has columns for Fuel Type and Price. The only row shown is for Diesel, with a Price of 3,140.
- Commodity Prices:** A section with a "SUBSCRIBE" button and a "Trends" section showing a line graph for various commodities like Groundnuts, Kaviro Rice, Maize Flour, Nambale Beans, and Super Rice.

Description:

INFOTRADE Mobile is an SMS service that sends users up-to-date information about agricultural prices. It was established in 2008 as part of a partnership with FIT Uganda Ltd and ASPS Danida. Their aim is to implement agricultural market information services to the people of Uganda. INFOTRADE Mobile is a powerful proprietary server/client application that provides real-time financial news pertaining to live quotes and trading. Through their mobile devices, users are able to view agricultural market prices for 23 markets across Uganda. These prices

are verified, published and disseminated through the INFOTRADE website with farmers receiving information in the form of SMS.

There is no cost to subscribe to INFOTRADE Mobile. To access their information, users are required to send a text to the SMS short phone number '8555'. Mobile phone users are required to specify the market name and commodity in the header of the text. For example, by inputting 'price, beans, Jinja', the system responds with 'dried beans, yellow, Jinja: retail = 1500, wholesale = 1400'. 

Inn-Gov Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



8. Develop a Global Partnership for Development

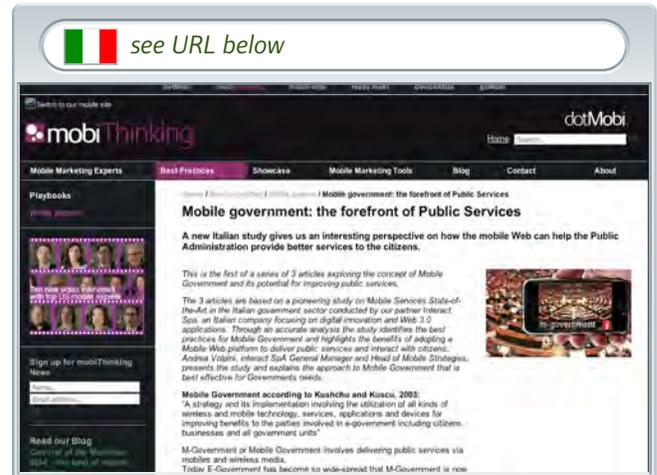
Country: **Italy**

Status: **Prototype**

License: **Open source**

Developer: **Interact SpA**

URL: <http://mobithinking.com/white-papers/mobile-government-forefront-public-services>



Description:

The Inn-Gov Project is an Italian study that demonstrates how the mobile web can assist in providing better services to citizens. The University of Salerno launched the Inn-Gov Project in partnership with Interact SpA, which is an Italian based company that focuses on digital innovation and Web 3.0 applications. This project identified the best practices for Mobile Government (M-government) and outlined the advantages of adopting a mobile web platform to deliver public services.

In an effort to improve public service delivery, the Inn-Gov Project emphasizes utilizing various kinds of mobile and wireless technology, which would in-turn help deliver services to citizens, businesses and government.

Mobile and wireless technology provides a medium for citizens and government to interact with each other while creating new services and cutting costs.

The Inn-Gov project supplied guidelines for establishing mobile services and developed a prototype application. It came out of an analysis of mobile services, which led to the ‘best practices’ report. The prototype focused on providing methods and techniques to acquire and mold existing data sets into Linked Data. The Linked Data is used for Web 3.0 after being structured and made machine-readable. The prototype adjusts its information according to its user’s behavior. *∞*

Istat Mobile

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



7. Ensure Environmental Sustainability



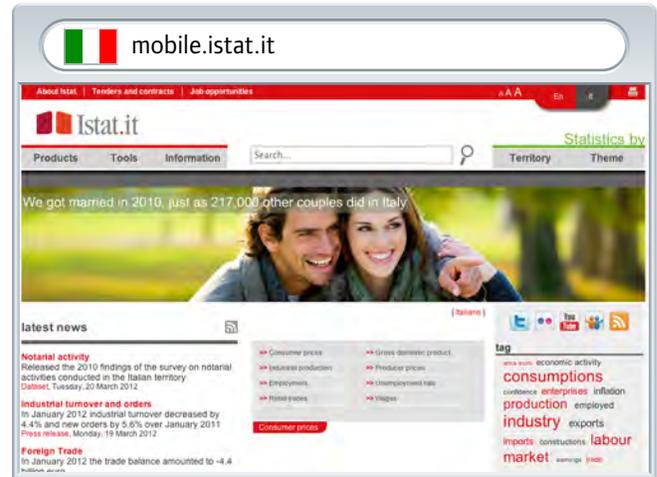
8. Develop a Global Partnership for Development

Country: **Italy**

Status: **In use**

License: **Open source**

Developer: **Italian Institute of Statistics**



Description:

The Chamber of Commerce in Treviso, Italy developed Istat, a statistical site that features information on national and regional economics, demographics and percent changes in different sectors. It also acts as a platform for travel, business and educational purposes. Mobile.istat.it can be accessed through mobile phone and smartphones as the main content of the official website adjusts its pages to meet the requirements of different mobile handsets. Some of the site's main features include:

- Offering key indicators of changes in trends, i.e. GDP, prices, production, sales, employment and earnings
- Updated summaries of spreads
- Consumer Price Index for families of workers and employees
- Demographic data of all Italian municipalities
- Historical data
- Search engine 

iTriage

Millennium Development Goals:



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases



8. Develop a Global Partnership for Development

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Healthagen**



Description:

iTriage is a mobile and web application that enables users to make informative decisions about their health. It offers information on various diseases, treatment options, available physicians and facilities. iTriage is a source for patients who require health information and locations for treatment while on the go. It bridges both healthcare providers and users through mobile technology. iTriage is geared towards smartphone users and comes at no cost.

Patients use iTriage for answers to their health concerns. It enables them to research symptoms, learn about possible causes, receive guidance on treatment options and identify the best healthcare providers according to location. Hence patients have the ability to access thousands of symptoms, diseases and medical procedures, physicians, outpatient clinics, specific directions to all

provider facilities, information on nurse advice lines, Hospital Emergency Room wait times and a pre-registration features in certain parts of the country. Furthermore, iTriage provides users with a nationwide directory of Hospital Emergency Rooms and multimedia images and video to help confirm treatment. Multimedia images and videos help inform users on whether others have experienced similar symptoms.

iTriage serves to help users in need of medical information in addition to those healthcare providers who wish to market their facilities. The featured listings page provides details about pharmacies, retail clinics, urgent care and hospitals. It acts as an extension to websites that contain basic information about their healthcare services. The iTriage application is being used across the world and connects patients to healthcare deliveries. 

Kisan SIM Card

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: **India**

Status: **In use**

License: **Proprietary**

Developer: **Multiple developers**



Description:

The Kisan Sanchar Yojana initiative was developed through a partnership between the Rajasthan State Cooperative Department and the Indian Farmers Fertiliser Cooperative Limited (IFFCO). Bharti Airtel, India's largest integrated and private telecom service provider also played a major role in this project. This collaborative effort ensured connectivity to all rural areas of the state through a communication network. It helped mobilize the rural community with the rest of the country. IFFCO realized that it could build on its extended distribution network to provide access to expert information through mobile telephony services, while promoting access to ICT in rural India. IFFCO Kisan Sanchar Ltd (IKSL) manages the distribution of mobile phones, SIM cards, and information services to small farmers.

Through a pre-paid mobile phone package that contains a SIM card, which is otherwise known as a Kisan SIM card or 'Green Card', rural regions have access to an array of information and services around agriculture. The green card records content and sends information to farmers through voicemail. Users also receive free SMS and voice messages in the national language of Hindi in addition to making calls at 50-paisa per-minute. More specifically, farmers receive

five daily messages with crop and area specific information, a help line and interactive information services. Package subscribers also receive updates on weather forecasts, farming, new technologies, fertilizers, new e-agricultural ventures, livestock rearing, crop infection, commodity prices and arrivals, electricity timings, early warning systems on disasters, best farming practices, education, local crops, training opportunities, plant and veterinary disease prevention, financing and insurance services and various policies and initiatives launched by the state government. Hence, the Kisan SIM card movement aims to empower farmers and all those living within rural areas by enabling them to participate and communicate with government.

This partnership comes as a response to the need for improving the knowledge around farming practices and engaging people living within this region by increasing agricultural services and crop and land management. The company has also created direct employment at the national level. Such jobs entail employment in sectors such as marketers, retailers and extension workers. Mobile phones are helping this rural community become self-sufficient while enhancing their day-to-day practices around agriculture. 

Kleptocracy Fighters (K-Fighters)

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **United States of America**

Status: **In development**

License: **Proprietary**

Developer: **N/A**



Description:

Kleptocracy Fighters (K-Fighters) is an application that enables users to record and report real-time information about government corruption. It is a term used to describe government authorities that extract public funds and goods through corruption, impunity and political power for the purposes of gaining personal wealth. It singles out government officials who abuse their powers. Reports can be made through audio, video, and text file formats. All reports do not have to be negative as they can also include positive interactions. K-Fighters is a medium for citizens to report on government corruption where they can also be forwarded to legal and media outlets.

Although located in Delaware, K-Fighters is building trust, accountability and transparency all around the world. It blends the crowd source potential of Web 2.0 with social activism in the developing world. K-Fighters manages services such as data aggregation, encryption, analysis, GPS warnings, prosecution and publishing of incidents. Depending on the quality and amount of evidence, companies are working with legal and media partners to publish and prosecute incidents around corruption through K-Fighters, holding individual government officials and institutions accountable to citizens. K-Fighters has piloted in both Latin America and parts of Africa. 

Lagan Government Customer Relationship

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Canada and United States of America**

Status: **In use**

License: **Open source**

Developer: **KANA Software**

URL: <http://www.kana.com/lagan/government-to-citizen-g2c-software.php>



Description:

The Lagan Government Customer Relationship Management (CRM) is designed to connect citizens and government through high-performing, secure, and flexible channels. It provides technological support for governments wishing to enhance service deliveries. Through its open government initiative, clients are able to shape service deliveries while addressing the unique needs of local communities. It offers real-time case status notifications, customizable reports and fields, intelligent case routing based on report fields and location and 24/7 accessibility from the web or mobile connected devices.

The Lagan Government CRM has been adopted in various cities across North America. The City of San Francisco adopted the concept of the '311 Contact Centre' by establishing 'Open311', which enables users to access and use government services from phone, email, text and social media, reducing the costs that would normally be incurred with call-in centers or physical government offices and enables users to access all non-emergency service requests by dialing numbers such as '311', '211' or

'1-800'. It captures and routes all service requests and information to the appropriate department for resolution.

Another example of the CRM approach is the Lagan Government's 'Citizen Self Service' initiative, which enables citizens to engage with their local governments by managing their own towns and countries. One of its main features allows citizens to report public issues in the form of a service in their municipality through their mobile phones. Requests can also be monitored from the web.

The Lagan Government CRM platform helps to minimize the difficulties in accessing public information and services. Both the Contact Center and Citizen Self Service application offer increased accessibility to information and integrated services. The Lagan Government CRM also minimizes waste by reducing resource consumption across all sectors. Its platform allows for a better understanding of how funding and resources are being spent on public service deliveries. It uses a citizen centric approach that allows users to access information and services at anytime from a device. 

Marketplace for Information and Services

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Countries: **Rwanda, Uganda**

Status: **In use**

License: **N/A**

Developer: **SourceKM, Nkoola Institutional Development Associates Limited**



URL: <http://www.researchintouse.com/nrk/RIUinfo/PF/CPH43.htm>

Description:

Marketplace for Information and Services (MPAIS) is an online arena that enables consumers to purchase and trade agricultural products and services through mobile devices. It has helped bridge the demand and supply of information and services in both Uganda and Rwanda. It acts as an online agricultural information service market consisting of publicly funded partners and privately operated managers. It has established itself as a virtual trading environment for agricultural information and market service providers.

MPAIS initially began as an online knowledge bank for advisory services. Agricultural advisors and extension workers use MPAIS to express their demands in capacity development services, which are geared towards agricultural researchers and intermediary service providers. SourceKM developed the MPAIS portal for commercial application, which eventually led to its adoption by the Nkoola Institutional Development Associates Limited (NIDA). The MPAIS portal is providing insight into:

- The use of electronic credits to stimulate demand for information via a web portal in an effective, less costly, and attainable.
- The credit mechanism stimulates private investment in and supply of training, business development services and improved market institutions.
- The participants' capacities to engage with the market are varied, signifying a need for investments in capacity development and other initiatives to level the playing field for all participants. 

Martus

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



8. Develop a Global Partnership for Development

Country: **United States of America**

Status: **In use**

License: **Open Source**

Developer: **Benetech**



Description:

Martus is a technological reporting tool for human rights and social justice advocates. It provides a secure means to accessing sensitive data. Its tools are built on very basic platforms and systems, enabling users to easily store and retrieve raw data. Non-profit organizations and disadvantaged groups are relieved from any costs associated with its software and training. Technical support services are also on-demand.

Martus comprises three main components. First is the ability to post text-based bulletins that relate to human rights abuses. To post such bulletins, users are required to input keywords, the date and a short summary of the incident. This is then followed by a detailed description of the actions that occurred. After inputting such information, users are then able to save it in the form of data and upload it to an online bulletin. The online bulletin automatically backs-up information to the server, ensuring secure access even during the event of computer loss and/or

theft. Its built-in encryption further safeguards the online bulletins and securely replicates it to multiple servers.

Users have the ability to back-up data to different servers that are hosted by leading non-profit organizations throughout the world. Server operators do not have the ability to decrypt data that is backed-up to the servers. Martus and Benetech support staff are also prohibited from accessing data stored on servers. Their inability to access such data ensures protection for the identities of victims and/or witnesses to human rights abuses.

Martus has been introduced and used in Colombia, Egypt, Guatemala, Iraq, Kenya, Mexico, Nepal, Nigeria, Peru, the Philippines, the Russian Federation, Somalia, Sri Lanka, Thailand and the United States. There are about a hundred Martus users and over ten thousand human rights bulletins being backed-up to Martus servers. Social justice groups worldwide are bringing greater attention to human rights violations, assisting in the prosecution of perpetrators. 

M-City in Stockholm

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



6. Combat HIV/AIDS, Malaria and Other Diseases



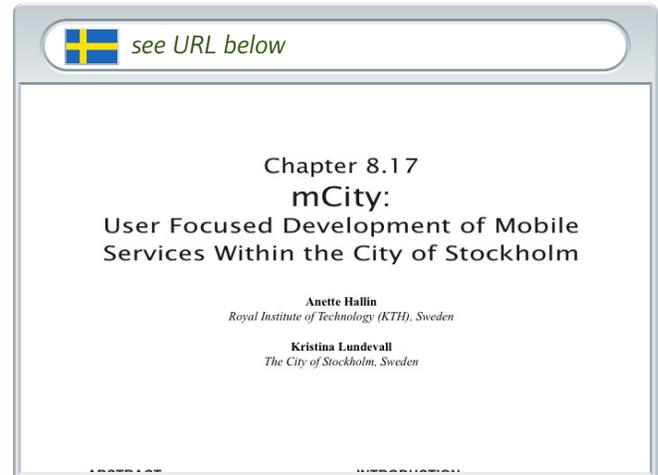
8. Develop a Global Partnership for Development

Country: **Sweden**

Status: **In development**

License: **Open source**

Developer: **City of Stockholm**



URL: <http://www.igi-global.com/viewtitlesample.aspx?id=26735>

Description:

The M-City (Mobile City) project was initiated in the City of Stockholm. Through a collaborative effort with universities and businesses, it strives to provide mobile services that are user-friendly. The M-City project builds upon the idea that mobile services can be used to simplify routines and minimize administration while saving both money and time for local level governments. Through test pilots, the M-City project focused on satisfying the needs within different areas of government. These needs spanned in areas such as education and health care to tourism and business. After completing these test pilots it was determined that user focus involvement leads to the development of sustainable systems at the local level.

The M-City initiative consists of several small pilot projects that identify the needs within the community

while creating solutions for them as well. M-City also acts as a frontrunner for e-solutions. There have been additional M projects that coincide with this one. Some of these projects include mobile parking, mobile tourist guides and PDA solutions within elderly care. The City of Stockholm has also experienced other systems that allow public sector employees to do their work seamlessly. For instance, the ability for managers to send SMS texts to a group of staff instead of using phone calls eliminates the need for having to call various different employees individually. Students can also benefit from the M project in that they have the ability to check whether a lecture has been cancelled or if their exam results have been released. Focusing on user needs allows for problems to be determined and public services to be delivered more effectively. 

MedlinePlus Mobile

Millennium Development Goals:



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **National Library of Medicine**



Description:

MedlinePlus Mobile is a mobile website offered by the U.S. National Library of Medicine along with the National Institutes of Health (NIH). Established in 2010, it enables users to access health information from their smartphone devices. The health information and services that this application offers includes drug content, side effects, prescription refills and information before visiting a doctor. It assists those in need of medical information while on the go.

While researching health related content, users have the option of exploring topics in either English or Spanish. It also lists summaries for over 900 diseases, conditions and wellness topics. MedlinePlus Mobile provides its

users with updated health news content in addition to its medical encyclopedia and dictionary. The latter comes equipped with audio capabilities and information about over-the-counter prescriptions. Subscribers also have the option of engaging with the ‘Talking with your Doctor’ page that enables users to ask questions in real time.

MedlinePlus Mobile receives visitors from all across the United States and other regions of the world. MedlinePlus ensures that its content is trustworthy, instant and consumer-friendly. For instance, upon connection, the application automatically recognizes the user’s device and optimizes the display according to the particular mobile phone. 

Mobile Citizen Services

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **Germany**

Status: **Prototype**

License: **Open source**

Developer: **German Mobile Citizen Services**



Description:

Mobile Citizen Services is a wireless system that offers the same government services provided in government offices. It performs the same workflow and delivers public services directly to the citizen through its mobile wireless networks and terminals. It can be set-up in various different settings.

Mobile Citizen Services has established wireless networks and terminals in hospitals, shopping malls and residential homes for the elderly. It is a means for providing efficient services reducing costs and time, as it requires minimal maintenance and fast processing. It reduces the

dependency of a physical government office as it performs the same functions. This service enables governments to provide services without the need to rent facilities. It is becoming a one-stop-shop for passports, wage tax cards and driving licenses. Through wireless technology, Mobile Citizen Services transmits sensitive, personal information with privacy and trust. The Mobile Citizen Services initiative has also created employment in less populated rural regions that have little to no telecommunications network. Additionally, citizens can receive updated SMS text messages about line ups and queues. 

Mobile Planet

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Countries: **Kenya, Uganda and
United Republic of Tanzania**

Status: **In use**

License: **Proprietary**

Developer: **Mobile Planet**



Description:

Dedicated short SMS phone numbers have gained popularity throughout Africa. They have demonstrated the ability to reach many users, especially those living in regions without Internet connections. Short SMS phone numbers are a medium for accessing key resources. Some of the public services that are offered through short SMS phone numbers provide direct access to police, fire departments and ambulances. In Kenya, Tanzania and Uganda, generic short SMS phone numbers are shared. For instance users can access the following:

- The police/emergency/SOS services – dial ‘112’
- The fire department – dial ‘114’
- Ambulances – dial ‘115’

There are other specific short SMS phone numbers that have been established in each region. For instance, Kenyans can dial ‘111’ to reach crime stoppers and

Tanzanians can dial ‘113’ to access the Anti-corruption bureau. Uganda has also set-up a special hotline for citizens wishing to make anonymous complaints. More specifically, users can dial ‘347387’ to get in-touch with the Inspector General of the Government (IGG). A similar system has been set-up in Kenya with the Anti-Corruption Commission (KACC), which provides up-to-the-minute election results through text messages.

These dedicated short numbers have adopted voice and data applications for mobile devices enabling networks and corporate clients to entertain, interact and transact through SMS, MMS and WAP. Mobile technology is being used to address some of the social disparities within Africa. Mobile technology is being used in areas of health, agriculture, education, e-governance and commerce. 

Mosoko

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



7. Ensure Environmental Sustainability

Country: **Kenya**

Status: **In use**

License: **Proprietary**

Developer: **Mosoko Development Team/Nokia**



Description:

Mosoko is a cellphone application that provides Kenyans with market-based information about the availability of goods, jobs, properties and vehicles. Its aim is to increase the convenience of buying and selling products and services by establishing an expanded social network. Mosoko is also an inclusive system in that it caters to those who cannot read and/or write. It understands both English and Swahili and is accessible through mobile devices via SMS and voice recognition.

The interactive speech-to-text system provides Kenyans with the ability to call into Mosoko and search for various products. To ensure all information is accurate, users are required to confirm the information they input into the speech-to-text system each step of the way. When prompted, the SMS service identifies commonly used key words and phrases to help make searching and posting easier.

Ads that are posted through voice recording or text messages are done so in real-time and are converted into database entries that also become searchable by voice and text. Users are able to post three times a month for free. Anything beyond three entries a month requires a fee of 10 Kenyan Schillings. These posts expire after one month where users are required to pay 10 Schillings to recover it. If purchasers wish to flag posts and obtain contact information from the seller, they would also be required to pay 10 Schillings.

The name Mosoko derives from a combination of English and Swahili words. ‘Mo’ is the short term for ‘mobile’ while ‘soko’ translates into the Swahili term for ‘marketplace’. Hence, the term ‘Mobile Marketplace’ or ‘Mosoko’ when put together. 

Municipio Partecipato in Italy

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



4. Reduce Child Mortality

Country: **Italy**

Status: **In use**

License: **Open source**

Developer: **e-Participation Project**



Description:

The people of Italy can provide their opinions about their city's budget through the Municipio Partecipato in Italy platform. It engages citizens with local issues such as the municipal budget. The website offers a forum for individuals to vent their concerns. There are also mailing lists and surveys available so that citizens can fill out and make informed decisions as a whole. The website is operated by citizens. It acts as a form of advocacy in

that it is self-controlled and self-financed. Citizens come together to make social change together instead of individually. It is a place for citizens to gather and form organized groups. Surveys are also collected by the website and assist in making the necessary changes to the initial budget. Citizens are encouraged to be free in their opinions so that they can better inform local officials about the budget. *∞*

MyFood-a-Pedia

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **United States General Services Administration (GSA)**



Description:

MyFood-a-Pedia is a mobile site that provides users with information to make healthy food decisions. It was established by the United States Department of Agriculture (USDA) and uses mobile technology to educate and empower consumers about the different kinds of foods they consume. It acts as a database with nutritional information for over 1,000 foods. Users can check the amount of caloric in-take each food item contains through their mobile handheld devices. The mobile site provides information on the number of ‘extra’ calories present in food items from solid fats, added sugars and alcohol.

MyFood-a-Pedia has a search engine that allows users to research more about their foods. After inputting a particular food item into this search engine, a full list of results with potential matches begin to appear. Such results break down each item according to its recipe and ingredients. The MyFood-a-Pedia search

engine also allows users to input the amount of food consumed along with any condiments. After inputting this data, statistics relating to that particular consumption appear enabling users to make conscious decisions about the food they consume.

The United States Department of Agriculture (USDA) developed MyFood-a-Pedia to help people find information about food content while on the go. Its interface does not require users to be detailed in their inputs. MyFood-a-Pedia provides a quick response for those requiring nutritional content on particular food items. It uses mobile technology to bring health information that would normally be accessed from a desktop computer or laptop. It is useful in providing information on dietary guidelines and weight management goals regardless of location. Users can understand how calories are consumed all through a mobile handheld device. 

MyGovernment

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Multiple developers**



URL: <http://www.appstorehq.com/mygovernment-iphone-49099/app>

Description:

MyGovernment is a mobile application that allows users to access US government data. Users can navigate through information pertaining to the legislator, congressional bill/resolution and US government contracts. It also allows its subscribers to contact the legislator about the data and communicate with other users. It provides a comprehensive guide to all members belonging to the US House of Representatives. The MyGovernment application comes equipped with dedicated buttons that direct users straight to their representative's emails and phone numbers. There is also the option of connecting with representatives and their offices through Twitter.

The MyGovernment application lists the names, district numbers, party affiliation and contact information of Congressional members. Users have the ability to

monitor how members spend public resources as well as access every Bill introduced to the House Floor through the Bill Tracker. Users can also participate in community discussions using a Google account.

Some of the other features of MyGovernment include:

- House/Senate legislator information
- House/Senate committee data
- Legislator fuzzy search
- Legislator search by ZIP code
- Legislation search/browse
- US Government contract information by District/State/Contractor)
- Community Comments
- Twitter integration 

MyQuestion

Millennium Development Goals:



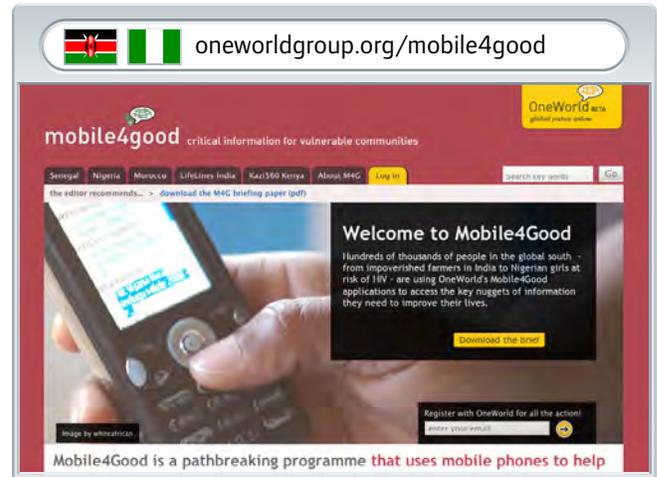
6. Combat HIV/AIDS, Malaria and Other Diseases

Countries: Kenya, Nigeria

Status: In use

License: Open source

Developer: Multiple developers



Description:

MyQuestion (MyQ) is a tool that educates children and youth about Sexual and Reproductive Health (SRH) including HIV/AIDS and breast cancer. It is based in Kenya and can be accessed through SMS, phone calls or the web. Children and youth can inquire about SRH by sending a text message to '38120' or dialing '0802719278'. Users are required to pay Ksh. 7 for each question and answer. Examples of such questions include:

- What are the most popular contraceptives to avoid pregnancy?
- Can a mother with HIV still breastfeed her baby without infecting him/her?
- At around what age do girls start menstruating?

All inquiries about SRH issues are replied to within 24-hours. MyQ has hired trained professionals in the area of SRH to answer questions accurately. They offer a medium for children and youth to ask questions about SRH without feeling intimidated, scared or embarrassed.

A similar system has been put into place in Nigeria where youth are engaged with issues around SRH. This system is called 'MyAnswer' and it enables youth to learn more about SRH through monthly competitions. Such competitions require youth to answer questions about SRH correctly where they gain the opportunity to win free 'airtime' for their mobile phones.

This project developed out of the collaboration with Oxfam Novib, MacArthur Foundation, One World UK, Learning about Living, Nigerian and international partners, ActionAid International Nigeria, Action Health Incorporated, Education as a Vaccine Against AIDS (EVA), Butterfly Works Netherlands, MTN Foundation, Federal Ministry of Education, and Federal Ministry of Health. ∞

National Agriculture Information Service

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: **Kenya**

Status: **In use**

License: **Proprietary**

Developer: **Teknobyte**



Description:

The National Agriculture Information Service (NAFIS) is a dynamic system developed to expand mobile telephone and Internet technologies through an interactive voice-based service that converts text-to-voice. NAFIS provides agricultural information to farmers living in rural areas in both the English and Swahili languages. Information for its website is entered locally by extension officers. The site is loaded with information pertaining to enterprises such as:

- Dairy Cattle
- French Beans
- Tomatoes
- Broilers Chicken
- Layers Chicken
- Indigenous Chicken
- Dairy Goats
- Grain Amaranth
- Maize
- Mangoes
- Napier Grass
- Bee keeping
- Ostrich
- Sweet potatoes

Each enterprise covers information relating to the types and uses, sources, caring, handling, pests, diseases and value addition of agriculture. All content is presented in a summarized format for mobile phone users. Farmers can access such information from their mobile phones through the voice-based-service. It is intended to serve the needs of farmers in rural settings where Internet access is limited. Farmers can access NAFIS by dialing '0204762300'. They can then navigate through NAFIS by pressing the appropriate keys when prompted. Each enterprise group also has its own access number and can be reached from the homepage.

Farmers with minimal resources are taking on most of the agricultural responsibilities in Kenya and other surrounding countries. Technical support provided by NAFIS improves output for these farmers. Except for the normal charges by telephones companies, NAFIS does not collect any extra fees. 

New York City Hall Digital

Millennium Development Goals:



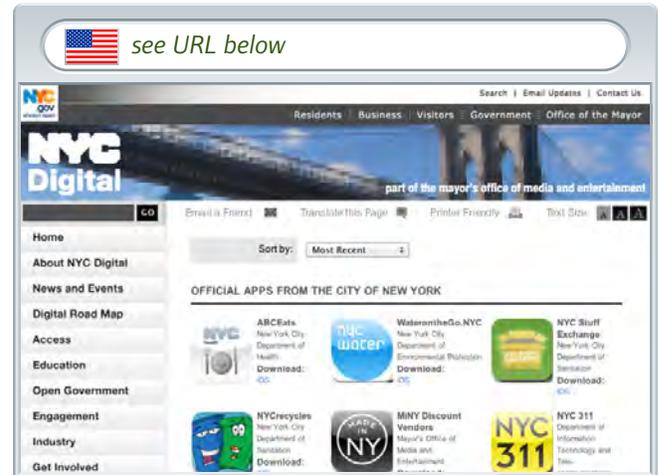
1. Eradicate Extreme Poverty and Hunger

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Department of Information Technology and Telecomm**



URL: <http://www.nyc.gov/html/digital/html/apps/apps.shtml>

Description:

The New York City Hall 1.0 application sends information about news and events directly from the Mayor's office to smartphone users. It allows users to read the latest news from the Mayor of New York City. Users can also view photos and stream videos of press conferences.

Established by the NYC Department of Information Technology and Telecommunication (DoITT), the NYC City Hall application provides a different medium for

accessing City Hall. Through this mobile application, users can also connect to other relevant services offered by the city. For instance, the NYC City Hall application makes it easier to connect to 'NYC 311', which is a phone number for reporting conditions around the city. The NYC 311 Call Center acts as a one-stop-shop for all government inquiries and non-emergency services. 

OPEN System in the Republic of Korea

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: **Republic of Korea**

vStatus: **In use**

License: **Open source**

Developer: **Seoul Municipal Government**



URL: <http://corporate.bangthetable.com/2010/03/10/e-participation-and-government-transparency>

Description:

In an effort to combat corruption, the Seoul Metropolitan Government created the Online Procedures Enhancement for Civil Application (OPEN). Established in the Republic of Korea, this system acts as a web-based Internet service used to transact civil applications for permits, procurements, registrations, contracts and approvals. It uses an open source system that pushes government to become more accessible, accountable and transparent in areas where the potential for corruption is high, i.e. housing and construction projects, environmental regulation and urban planning. Before the development of this system,

applicants for government permits were unable to understand how their applications were being processed. Now citizens can choose to file their application and monitor the review and approval process in real-time. Users can access this system by going online. It is available until a decision is rendered. The OPEN system has passed national policies that intentionally used Information and Communication Technologies as tools to achieve policy goals. It is the first step in implementing the OPEN system for the people of Korea. 

Phones for Health

Millennium Development Goals:



4. Reduce Child Mortality



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases

Countries: Botswana, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Zambia, and Zimbabwe

Status: In use

License: Open source

Developer: Multiple developers

URL: <http://mobileactive.org/mobile-phone-platform-africa-erik-hersman>



Description:

Phones for Health developed out of a partnership between the public and private sectors. It uses a national electronic reporting system to deliver healthcare services to villages. Phones for Health is demonstrative of how cellular technology fosters social change in the area of healthcare for not only patients but program managers and service providers as well. It is providing essential healthcare services to help tackle the HIV/AIDS pandemic.

Phones for Health is a system that gives healthcare workers the means to report data directly from the field through their mobile phones, PCs and PDAs. All data is recorded onto the national electronic reporting system.

Soon after, the data is then mapped, analyzed and immediately made available to health authorities at multiple levels. Field workers can submit critical health information onto the national electronic reporting system so that other health officials and service providers can view, analyze and respond to it immediately.

Phones for Health is working together with its partners to leverage technology and connect health systems in 10 countries. They have recognized that cellular technologies provide a cost-effective means for data collection and information dissemination at the local level. 

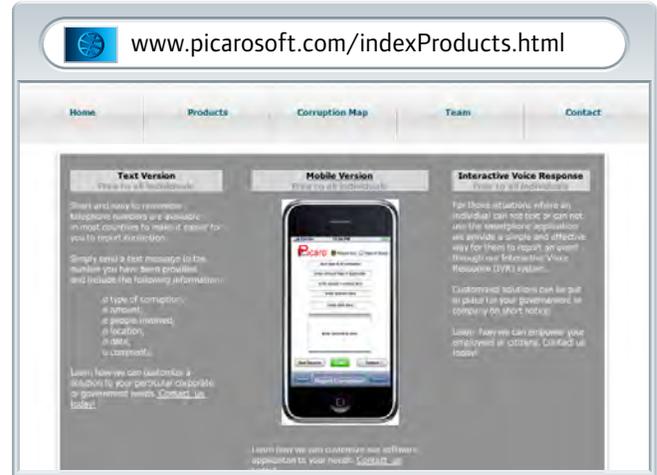
PicaroSoft Anti-Corruption

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **Worldwide**
 Status: **In use**
 License: **Proprietary**
 Developer: **N/A**



Description:

PicaroSoft is a mobile software application for reporting acts of dishonesty and corruption among government officials. It provides users with three different mediums for reporting, which includes SMS, mobile, and interactive voice response. This application also comes equipped with an Interactive Voice Response (IVR) system for difficult physical situations around reporting. The text version of this application offers a short SMS phone number, which is available in most countries. It requires users to input the type of corruption, amount, people involved, location, date and comments.

The PicaroSoft Anti-corruption software creates files, which can be shared with journalists, newspapers, television stations and other interested parties. It also acts as a source for those companies seeking solutions to combat internal corruption. It is a source for governments wishing to be more transparent with their electoral processes. With regards to institutions, PicaroSoft offers an enhanced infrastructure for isolating efficiencies caused by internal corruption. Schools have also adopted PicaroSoft for the purposes of maintaining honest staff and students. ∞

Project NOMAD

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

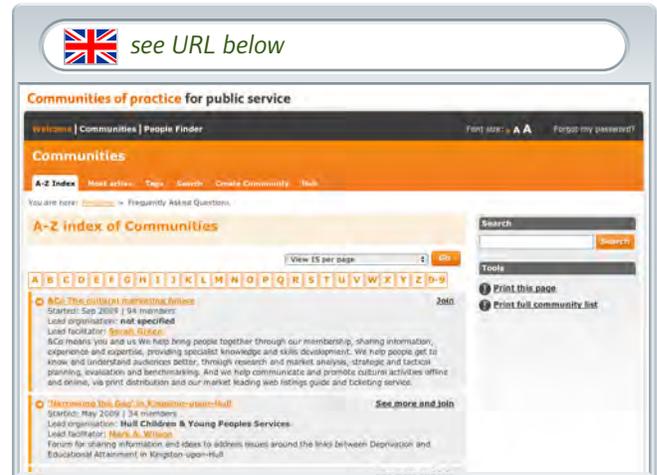
Country: **United Kingdom**

Status: **In use**

License: **N/A**

Developer: **Multiple developers**

URL: <http://www.communities.idea.gov.uk/comm/a-z-index.do>



Description:

Project NOMAD is one of 22 national projects for e-government implementation in the United Kingdom of Great Britain and Northern Ireland. It equips local government staff with mobile computing devices for the purposes of improving customer service, reducing costs and increasing turn-around times for various tasks. The project aims to establish mobile networks within local governments. It assists governments in designing innovative ways for communication with various clients. It is owned by council and promotes mobile and flexible work through championed best practices. Project NOMAD delivers different tools to assist council members in making practical decisions through mobile computing.

The NOMAD project also acts as a community of practice, a source of advice and a provider of training events, conferences, seminars and road shows. The development of this initiative was set-up by the AIMTech Research and Consultancy Group and Cambridgeshire County Council.

NOMAD's objectives include:

- Exchange ideas and information about the uses and ways to promote mobile, wireless and flexible working
- Develop initiatives across public sector to achieve performance and efficiency gains
- Share development, implementation experiences and issues
- Investigate ways of working to identify best practice within both the public and private sector

Some of the benefits of implementing NOMAD include:

- Delivering services in the field
- Increasing accessibility of services outside council offices
- Enabling service professionals to spend more time with clients
- Allowing councilors faster access to information for themselves and to provide to constituents

Road Safety

Millennium Development Goals:



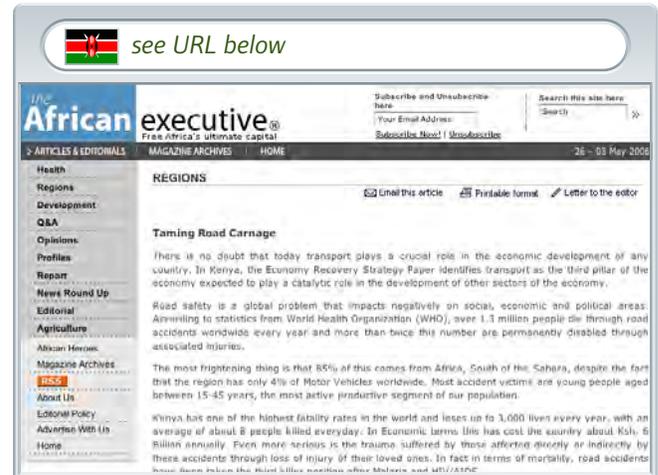
1. Eradicate Extreme Poverty and Hunger

Country: **Kenya**

Status: **In use**

License: **Proprietary**

Developer: **Transport Ministry/
Automobile Association of Kenya**



URL: <http://www.africanexecutive.com/modules/magazine/articles.php?article=648>

Description:

Short SMS phone numbers are being used as a medium to report suspected traffic offenders in Kenya. The dedicated short SMS phone number used to apprehend such offenders is '2333'. Reports can be submitted from any mobile phone and in real-time. This medium for reporting comes as a response to many road-safety concerns and is a part of the Kenyan government's proactive strategy for handling drivers who are speeding, under the influence of alcohol or drugs, overloading, reckless and un-qualified. It is available to all mobile phone users. Road-related incidents are being reported more actively to not only ensure safety but to also prevent road blockages.

In Kenya, the Economic Recovery Strategy Paper recognizes transport as the third pillar of its economy.

Other sectors rely on transportation for their development. Transportation plays a crucial role in the economic development of this region. Additionally, the World Health Organization (WHO) reports that over 1.3 million people die annually from road-related accidents worldwide and more than double are permanently disabled through associated injuries. Africa accounts for more than 2/3 of these accidents despite carrying 4% of the world's motor vehicles. Most of the victims are between the ages of 15-45 years old and such accidents cost the country about 6 Billion Shillings (KSh) a year. It is also the third highest cause for deaths in Africa behind Malaria and HIV/AIDS. Hence, this medium for reporting driving offenders is helping build capacity in parts of Kenya. ∞

RobyText Alert RT300

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



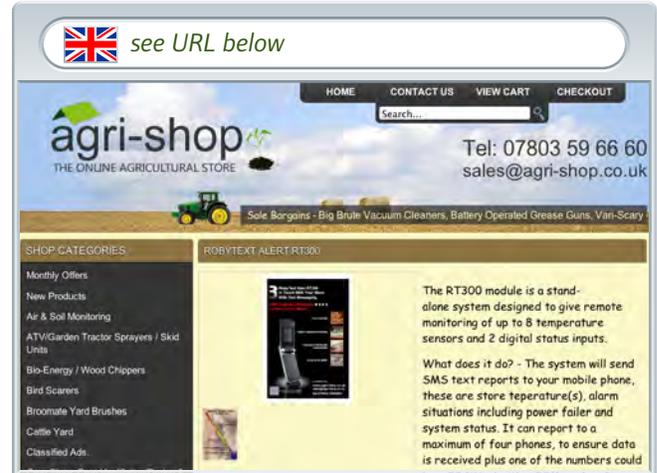
7. Ensure Environmental Sustainability

Country: **United Kingdom**

Status: **In use**

License: **Proprietary**

Developer: **Multiple developers**



URL: <http://www.agri-shop.co.uk/robytext-alert-rt300-962-p.asp>

Description:

RobyText Alert RT300 is a mobile system that enables store managers and farmers to send and receive real-time information on the status of stored crop through a temperature-monitoring device that can be accessed at anytime. Through text reports, farmers and store managers are able to monitor vegetables from a distance with their mobile devices. It is geared towards in-crop storage situations and designed to give remote monitoring of up to 8 temperature sensors and 2 digital status inputs. It also comes equipped with an alarm system for power failure and system status updates. To activate this software, users are required to purchase a SIM card along with a 'Pay As You Go' plan for text messages.

Constant monitoring of storage conditions is crucial to prevent and identify problems at an early stage. Stores or farms can be miles away from their central base. This mobile telephone technology enables vegetable growers to record crucial information from remote storage facilities and substantially reduce the amount of visits, which are costly and timely. Hence any changes in crop temperatures can be quickly identified and rectified, before stored crops become damaged. This software has been adopted in the United Kingdom and is used by those unmanned stores, located in remote locations. *∞*

Short Code Number 2888

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability

Country: Sweden and Thailand

Status: In use

License: Proprietary

Developer: Multiple developers

URL: <http://www.scribd.com/doc/33418025/35/Appendix-2-List-of-key-m-applications-for-development>

see URL below

Appendix 2: List of key m-applications for development

Appendix 2 show the availability of relevant social applications and information services in the East African market. Most of the m-applications listed can be characterised as consumption applications (end-user relevant) while other are more for orientation purposes. Services like BungeSMS, M-Pesa and Google SMS are for direct consumption and more relevant for mobile end-users. Ushahidi and FrontlineSMS are not for direct consumption but rather describe a tool that can be used and implemented for a specific service. To list all these implementations, e.g. every single instance where FrontlineSMS has been used in East Africa, would be next to impossible.

Some applications can fit under many different categories.

Sector	Application area	Location	Project	What?
Agriculture	Commodity Prices and Market Information	Kenya	DrumNet	Transaction platform linking small holder farmers to markets, finance and information. DrumNet partners with buyers and sellers (farmers) of produce. Stockists of farm inputs, farmer intermediary organisations, banks to provide finance. Run by Pride Africa since 2003. www.drumnet.org , ina@drumnet.org

Description:

Kenyans have the capability of texting information, suggestions and complaints directly to the Office of Public Communications by using the short code ‘2888’. The concept of 2888 was established during 2005 through a partnership between Zain and Safaricom. It provides citizens the ability to send their concerns directly to government. All concerns are prioritized through a centralized database. This short code acts as a medium for communication to public spokespersons and ensures that citizens are able to voice their concerns and be a part of the decision-making related to development plans at national and district levels. Citizens have the ability to prevent, rehabilitate and mitigate government decision-making.

2888 is building capacity in the field of mobile network infrastructures to strengthen early warning systems and natural disasters. Initially, it was used to mobilize efforts in solving the food crisis during 2009 and as well as apprehending corrupt government officials. It has since expanded into other areas of need. For instance, short codes have been used to communicate early warning systems in times of natural disasters. During the devastating tsunami in Asia, the Swedish government used SMS to determine the status of their citizens in Thailand. They were able to get in touch with their citizens immediately after the disaster. Hence, this kind of e-mobile technology bridges the gap between large cellphone users and disproportionate Internet users, promoting citizen-to-government (C2G) communication. ∞

Siófok City Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



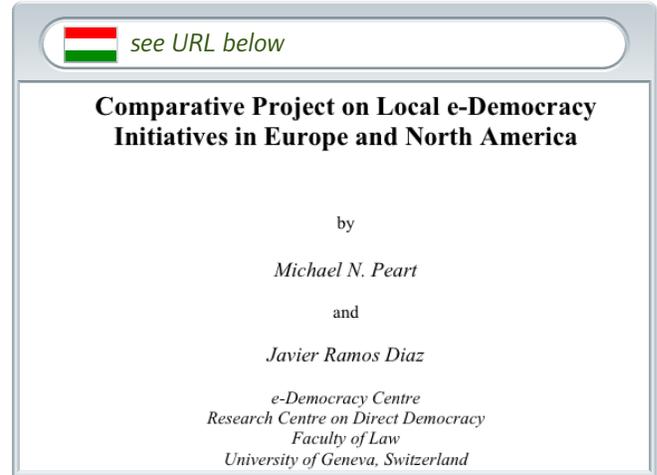
8. Develop a Global Partnership for Development

Country: **Hungary**

Status: **In use**

License: **Open source**

Developer: **N/A**



URL: <http://www.ict-21.ch/com-ict/IMG/pdf/comparativeprojectsonlocaledemocracy.pdf>

Description:

The Siófok City Project was initiated by year round residents who often visited a popular vacation spot called Siófok, a town located on Lake Balaton. It registers approximately 22,255 individuals during the year. The aim of this project is to provide a forum for citizens to raise concerns about local issues through its website. It provides a space for individuals to communicate concerns pertaining to the noise and traffic from the construction

of new public pathways to other more local issues. The purpose of providing such a space for mobile users is to help them raise concerns for the overall improvement of Siófok in terms of the experience of all visitors. The kind of recommendations provided by visitors requires a further discussion at the council level. The site is operated through open source technology. ∞

Ten Thousand Meter Unit Network in Taiyuan

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



8. Develop a Global Partnership for Development

Country: **China**

Status: **In use**

License: **Open source**

Developer: **Multiple developers**



URL: en.cnki.com.cn/Article_en/CJFDTOTAL-CXJS200510003.htm

Description:

The Ten Thousand Meter Unit Network covers 107 square meters in Taiyuan. This area is aligned with grids of 20 to 30 cells. The technology used for this initiative provides an efficient means for operating government functions. This project equips government staff with handheld mobile and wireless devices that enable them to monitor and report urban management dilemmas. Digital urban management is just one example of how e-mobile

technology is used for projects that require much attention and resources in China. In cases where there are public celebrations, the sanitation sector equips itself with mobile video, monitoring the surrounding environment. The network also allows citizens to submit comments or pictures through their mobile devices. This project acts as an extension of public space and was initiated by the City of Taiyuan. *∞*

Texas.gov

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



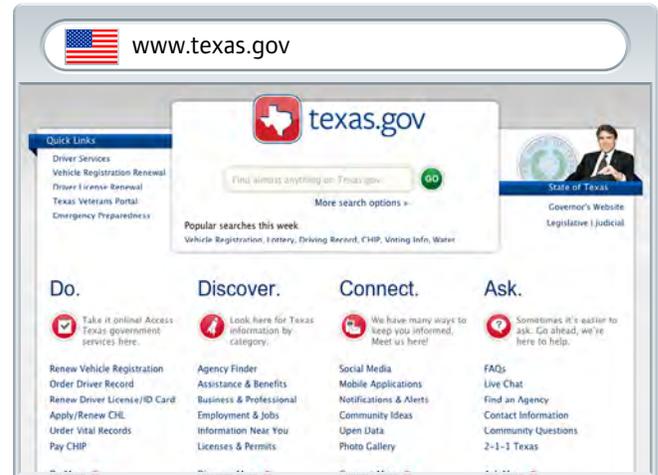
7. Ensure Environmental Sustainability

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **NICUSA**



Description:

Texas.gov is a service for mobile users to access Texas state government information and online services. It is the official website for the state of Texas and is overseen by the Texas Department of Information Resources. Its enhanced search functionality enables users to find relevant information. Users can also locate the nearest government offices with map directions. The Texas.gov mobile site enables users to share ideas about how their

state can deliver better services and where improvements need to be made. It is available for download on mobile devices such as the Android and iPhone. Its web 2.0 technology and plain language features make it accessible for many Americans. This application also offers online Vehicle Registration Renewal, Birth Certificate Orders and Driver License Renewal in addition to many other services. *∞*

The m-Government Laboratory in China

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



7. Ensure Environmental Sustainability

Country: **China**

Status: **In use**

License: **Open source**

Developer: **Multiple developers**



Description:

The m-Government Laboratory aims to set up a platform for researchers and industrial experts for the purposes of promoting mobile government practices and innovation in China. It is the first mobile government group in

China. This initiative established a platform for research and reinventing the public sector and is one of the first projects to explore the use of mobile ICT in the context of government functions. *∞*

Today I Decide (TOM)

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



7. Ensure Environmental Sustainability

Country: **Estonia**

Status: **In use**

License: **Open source**

Developer: **TID+ Project**

URL: http://www.ebaltics.com/doc_upl/Leosk.pdf?PHPSESSID=49f49143871d79ecac776e1790f83fd5



Description:

Initiated by the State Chancellery, Today I Decide (TOM) gives citizens the tools to express themselves about government matters on public policies. It is a national direct democracy portal in that it allows citizens to propose, discuss and refine issues for government attention before actual submission. It acts as an online petitioning forum that enables citizens to deliberate and negotiate in advance of formal responses by government's officials. The entire process is performed online, requiring users to respond to an idea or proposal within 14 days before it is refined. State agencies have one month to publish their own responses to the system with the aim of enhancing public participation and decision-making. Until an idea is actually implemented, the process for submission is divided into 5 steps including:

- Submission of an idea – the submitter gives a title to the idea, provides the names of the authors, a resume and the content of the idea.
- After the submission of the idea, registered users of the portal have 14 days to comment on the idea by submitting their proposals and thoughts.
- This is followed by the editing period – the originator of the idea takes into consideration proposals of others and makes amendments if necessary.
- The idea is voted on – everybody can vote for or against and is approved by a majority.
- After a positive voting result, the state agency has one month to submit a reasonable answer after which it is published in the portal and also sent via e-mail to the originator of the idea. ∞

Tracking School Attendance

Millennium Development Goals:



2. Achieve Universal Primary Education

Country: **Uganda**

Status: **In use**

License: **Open source**

Developer: **Twaweza**



Description:

Twaweza in collaboration with SNV Uganda (Netherlands Development Organization) monitors teacher-pupil attendance. It uses SMS based information to report and act on the high teacher-pupil absenteeism in Uganda. The information obtained from this partnership helps to inform the decision making of district and sub-district government officials. Despite free universal education, drop-out rates are on the rise and the lack of engagement for youth has devastated the region. High pupil-teacher absenteeism has been costly for the Ugandan government.

Since the establishment of the CU@SCHOOL pilot project, there have been ongoing reviews of teacher and student attendance in 100 primary schools. All schools are spread out between two districts. In collaboration

with the Makerere University Department for Computer and Information Technology, the pilot project monitors weekly teacher-pupil absenteeism through mobile phones. Before this initiative, data pertaining to student and teacher attendance in Uganda was unavailable. School staff are now required to type-in attendance figures of both students and teachers using a simple pre-loaded form on their mobile phones. The forms are sent to the teachers every Friday and once entered, the numbers are automatically collected into a digital database. After receiving the data, it is then visualized through graphs, tables, and geographical maps. Once the data is analyzed, it is then sent to newspapers and radio broadcasts, allowing for society to mobilize and take-action as a whole. 

Uchaguzi Anti-Corruption Platform

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **Kenya**

Status: **In use**

License: **Proprietary**

Developer: **Constitution and Reform Education Consortium (CRECO)**



Description:

Uchaguzi is a technological platform that allows civil society to monitor and report incidents during the electoral process in Kenya. It means ‘decision’ in Swahili. It is also an extension of Ushahidi, which was developed and launched during the 2007 – 2008 post-election violence in Kenya. The goal of Ushahidi was to monitor Kenya’s August 2010 constitutional referendum. Uchaguzi builds on the ideas of Ushahidi in that it understands the need for preserving the democracy of citizens while enforcing accountability and transparency for a fair electoral process. It provides web and mobile-based channels to report on electoral offences such as intimidation, hate speech, vote-buying, polling clerk bias and misinformation.

Uchaguzi received many text messages about election offences during the constitutional referendum in 2010.

Uchaguzi sent those text messages to the Independent Electoral and Boundaries Commission (IEEC) for further action and review. For instance, Uchaguzi received a photo of a campaign poster that highlighted ‘yes’ in the color green and ‘no’ in the color red. Because of its ability to sway elections unfairly, the authorities were notified and the posters were removed immediately. Those monitoring the elections were trained to use SMS software for the purposes of sending reports. A partnership with the Uwiano platform enabled Uchaguzi to flag reports related to violence. Uchaguzi and Uwiano were able to identify the exact location of violence events with help from the Constitutional and Reform Education Consortium (CRECO). They worked together in preventing and diverting various cases. 

Uganda Refugee Connectivity Project

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



3. Promote Gender Equality and Empower Women



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Uganda**

Status: **In use**

License: **Proprietary**

Developer: **Multiple developers**



Description:

The Uganda Refugee Connectivity Project is a joint initiative that connects refugee camps in Northern West Nile Uganda to mobile and Internet networks. Through affordable voice and data services, the project aims to provide phones and Internet services to refugees living within camps. Local entrepreneurs are supported with the ability to provide Internet access to their communities. People living within camps are able to access computers that are set-up in fixed booths.

The project contains four Inveneo Computing Stations, each equipped with a printer, scanner, and photocopier that uses a solar charger. Each station also comes

equipped with networking activity that can provide the means to accessing resources for education, healthcare and family reunification. Shared GSM telecommunication devices are distributed by local entrepreneurs who in-turn earn wages through mobile usage fees. Such a system helps establish sustainable economic vitality in this space.

The Uganda Refugee Connectivity Project was launched during 2007. Its partners include Ericsson, the United Nations Commissioner for Refugees (UNHCR), the MTN Group, GSMA (Groupe Spéciale Mobile) Development Fund and Inveneo. All parties came together for this initiative during 2007. 

USA.gov

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



2. Achieve Universal Primary Education



5. Improve Maternal Health



6. Combat HIV/AIDS, Malaria and Other Diseases



7. Ensure Environmental Sustainability

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **United States General Services Administration (GSA)**



Description:

USA.gov is a service that enables individuals to browse and search through different levels of government from mobile devices. It allows users to pick and choose from an array of public service deliveries. USA.gov was developed by the United States General Services Administration (GSA) after being legislatively mandated through Section 204 of the E-Government Act in 2002.

USA.gov allows users to access government information and services through its mobile site. It consists of many interactive applications for smartphones users. It also provides a space for users to blog and communicate with other site visitors for the purposes of mobilizing and networking. USA.gov is meant to bring public information and services directly from the Internet to mobile devices regardless of location. The kinds of services and information offered through USA.gov include topics around:

- Traumatic Brain Injuries (TBI)
- HIV and AIDS

- National History Museum
- PTSD Coach
- SAMHSA Treatment Locator that provides access to mental health facilities
- TBI (pocket guide)
- MedlinePlus
- National Resource Directory for wounded warriors and veterans
- FEMA
- Finding a Health Center
- GobiernoUSA.gov
- Health Hotlines from the National Library of Medicine.

The USA.gov homepage contains a section for featured applications, which are highlighted on a periodic basis. It is also used to check on government recalls, calculating BMI or viewing the FBI 'Most Wanted List'. USA.gov is offered in both the English and Spanish languages. 

Ushahidi

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



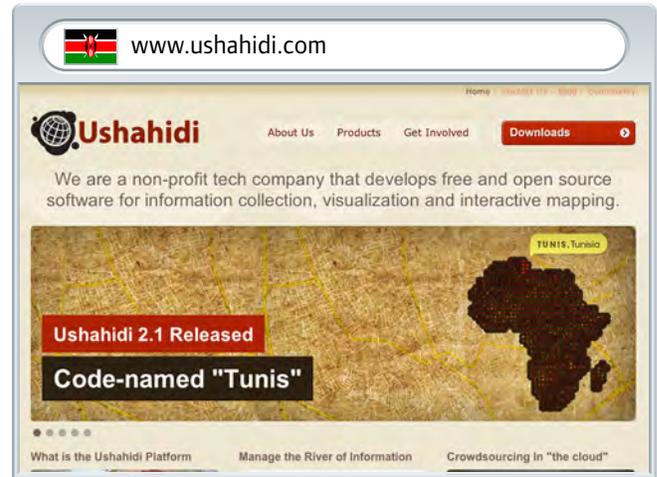
7. Ensure Environmental Sustainability

Country: **Kenya**

Status: **In use**

License: **Open Source**

Developer: **Ushahidi**



Description:

Ushahidi is a crowdsourcing tool that distributes and exchanges information pertaining to social and political crises. It developed as a response to the post election violence in Kenya during 2007.

Crowdsourcing is a part of ‘activist mapping’, which refers to a combination of social activism, citizen journalism and geospatial information. The roots of Ushahidi are based in Kenyan journalism where the original website was used to map incidents of violence and peace efforts throughout Kenya. Such mappings were based on reports that were submitted through the web and mobile phones.

Ushahidi currently acts as a form of social activism and public accountability in that it enables users to share their stories and experiences without any barriers or constraints. It provides a means for users to collect data through SMS, email or the web. This tool provides the users with the ability to visualize their data through Google Maps. Reports can be sent directly from mobile phones, contributing to the archive of temporal and geospatial events.

During the aftermath of the Chilean and Haitian earthquakes, Ushahidi was able to gather cellphone

reports of riots, stranded refugees, rapes and deaths. They plotted all such reports on a map, which assisted local authorities in taking further action. In Haiti, Ushahidi was also able to provide an emergency texting number through broadcasted radio. As a result, they received thousands of messages pinpointing the exact location of trapped survivors. Such messages were translated and plotted onto a ‘crises map’.

In the Swahili language, Ushahidi is understood as ‘testimony’. It is an alternative to foreign journalists and aid workers who can potentially report inaccurate stories. Through Ushahidi, victims empower themselves by reporting their own stories with on-the-ground-data. It is available to all text message users.

The Ushahidi open source platform allows other users to remix it for newer projects. For instance, it is being used to monitor elections in India, report medicine shortages in Africa, collect reports on wartime violence in the Middle East and to map road blockages in Washington, D.C. Ushahidi acts as a new medium for doing humanitarian work. 

UV Index

Millennium Development Goals:



6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **United States of America**

Status: **In use**

License: **Open source**

Developer: **Environmental Protection Agency (EPA)**



Description:

The Ultraviolet (UV) Index is a mobile application that helps individuals safely plan and prepare for their outdoor activities. Some exposure to sunlight may be enjoyable but too much could be dangerous hence the UV Index helps prevent overexposure to the sun's rays, which can cause immediate or long-term health effects. The UV Index predicts UV intensity levels on a scale from 1 to 11+, where 1 refers to a low risk of overexposure and 11+ signals for an extreme risk.

Users can access the UV Index application from their mobile devices. Offered by the USA Government, the UV Index requires individuals to input the ZIP code for their desired location. Individuals can then check the

UV Index and air quality ratings for that particular area. The UV Index requires that mobile devices be equipped with Internet capabilities. Individuals can then view the latest UV levels for specified regions. As a convenience for its users, the display also presents recorded UV levels for major capital cities.

The UV levels relating to ultraviolet radiation exposure are as follows:

- 2 or less = Low Exposure Risk
- 3 to 5 = Moderate Exposure Risk
- 6 to 7 = High Exposure Risk
- 8 to 10 = Very High Exposure Risk
- 11 or Higher = Extreme Exposure Risk

VCT Online

Millennium Development Goals:



6. Combat HIV/AIDS, Malaria and Other Diseases

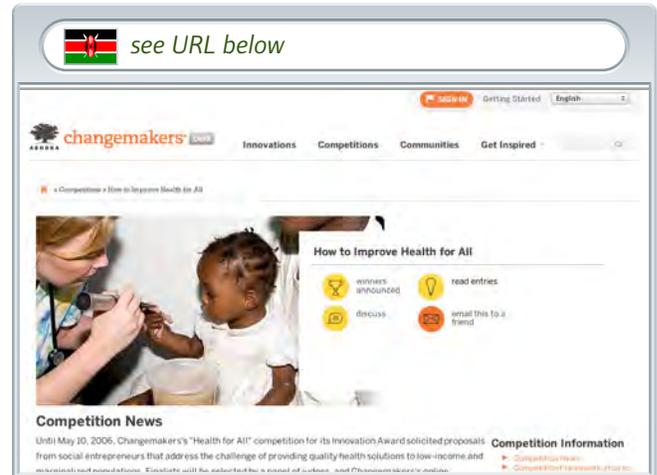
Country: **Kenya**

Status: **In use**

License: **Open source**

Developer: **Kenya Institute for Capacity Development Research Limited**

URL: <http://www.changemakers.com/competition/healthforall/entries>



Description:

Voluntary Counseling and Testing (VCT) Online is a mobile resource aimed at preventing HIV infections in Kenya. It enables users to check whether or not they share the same HIV status as their partners. It came as a response to the lack of rapid HIV testing in Kenya.

VCT online enables its users to make informed decisions about their sexual pairings. It allows individuals to authorize the comparisons of HIV statuses with their partners. It does not reveal whether an individual is HIV positive or not. Instead, it aims to ensure safer sex through equal pairings. Users can authorize the comparison of HIV statuses with their partners by sending an SMS text to VCT Online. The system then replies to both parties notifying them on whether or not they share the same statuses.

To join the VCT Online database, users are required to complete a physical or purchase an e-Mteja card. After sending an SMS text message with the card number and password of choice, users are then required to submit a blood sample. Test results are uploaded onto the VCT Online database with the date it was completed. The information pertaining to HIV statuses is kept in a secure database. To ensure accuracy, users are also required to do retesting every three months.

VCT online was set up in part by the Kenya Institute for Capacity Development Research Limited and operates in the Nyanza Province, which has the highest occurrence of HIV infections in Kenya. VCT Online is the first service of its kind and allows individuals to engage in safer sex. 

Violence-Prevention Toolkit

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger

Country: **Kenya**

Status: **In use**

License: **Proprietary**

Developer: **PeaceNet**



Description:

Initiated by Oxfam Great Britain (Oxfam-GB), the violence prevention toolkit serves as a hub for up-to-date information during times of crisis. It was created as a response to the political and ethnic violence in Kenya after allegations of vote rigging during the 2007 presidential elections.

The violence-prevention toolkit acts as an ‘SMS Nerve Center’ by transferring messages to local peace committees about planned or actual attacks between ethnic and political groups. After verifying information

users send to the nerve center, it is then distributed to local peace committees. Local peace committees act on such information by going inside those affected communities to mitigate and prevent further violence. Users of this tool are also not required to pay extra-ordinary costs for messages that they are transmitting and receiving that go through the text message nerve center. Human rights advocates and religious leaders are just some of the users who have utilized this toolkit. 

Virtual Assembly Point

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



7. Ensure Environmental Sustainability



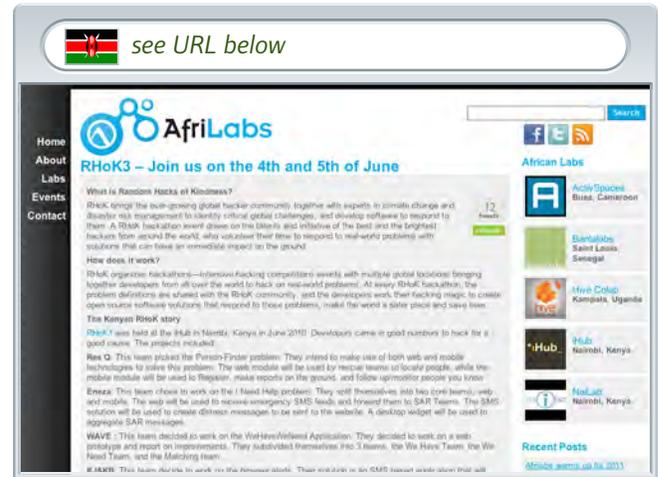
8. Develop a Global Partnership for Development

Country: Kenya

Status: Prototype

License: Open source

Developer: Multiple developers



URL: <http://afrilabs.com/posts/rhok3-%E2%80%93-join-us-4th-and-5th-june>

Description:

The Kenyan Virtual Assembly Point (VAP) is a crises management system that assists in evaluating a tragedy before arriving on the scene. It alerts the Emergency Response Department by sending them background information pertaining to the physical environment and needs of those involved. It also uses on-the-ground data to help set a list of priorities, display records of individuals and manage the available resources accordingly.

The VAP SMS module is designed to assist in responding to crises by enhancing the communication between the emergency response departments and the

incidence victims. Users can register themselves through SMS/USSD. Through SMS, users can also update their status to indicate their needs and health condition. Users are required to send a text message to the system dashboard. The system receives the text message and archives it. Administrators are also capable of sending SMS texts from the dashboard to registered individuals and groups of people. Using the Virtual Assembly Point, people are able to report their status at anytime and anywhere. The information is used by the Emergency Response Department to help locate those who need rescuing. 

WelTel

Millennium Development Goals:



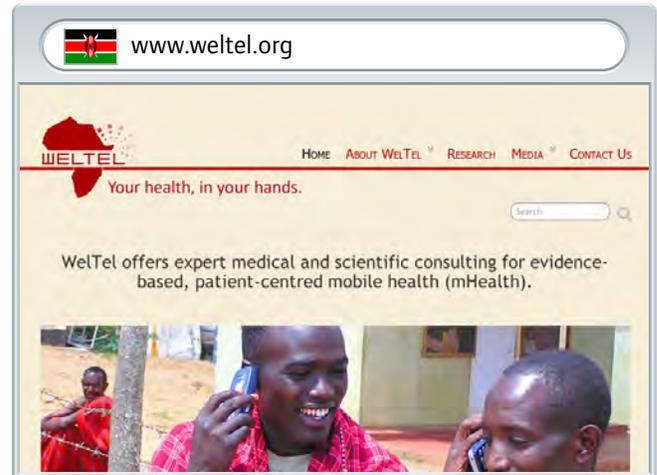
6. Combat HIV/AIDS, Malaria and Other Diseases

Country: **Kenya**

Status: **In use**

License: **Open source**

Developer: **US Centers for Disease Control and Prevention and Dimagi**



Description:

WelTel is an international organization that supports the clinical management of patients who are located in areas with scarce resources. It operates in both Nairobi and in the Kajiado District. It uses SMS to increase patient adherence and response to highly active antiretroviral therapy (HAART). WelTel consists of a specialized team of medical, technological, clinical and scientific experts. They are better known for performing a highly popularized clinical trial that used SMS texts to check the status of patients with HIV/AIDS.

The clinical trial performed by WelTel consisted of two groups. The first group received notifications through SMS while the other group received none. The former received text messages that read ‘Mambo’, which means ‘How are you?’ in Swahili. Patients responded by indicating ‘sawa’, which means ‘ok’, or ‘shida’, which signals for

help and further assistance. Patients who failed to respond received visits by clinicians.

The WelTel clinical trial reported that the number of patients who achieved 100% adherence during their regimen was 12% higher than the group that received none. Also, this first group was also able to achieve the suppression of HIV to below detectable levels in their blood, 9% higher than the standard-care group.

Mobile cellphone communication is being used to improve the delivery of health services. Mobile technology has become a common tool in global health initiatives. Poor infrastructure around roads and electricity has made access to healthcare scarce in some regions of the world. Mobile phones are being used to avert this theme in the most remote areas. *∞*

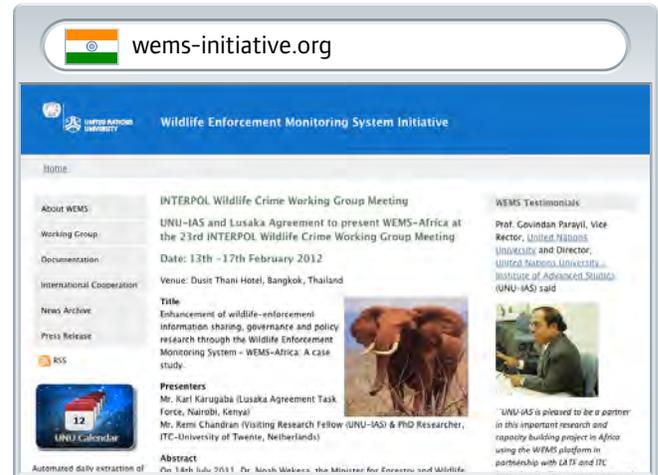
Wildlife Enforcement Monitoring System

Millennium Development Goals:



7. Ensure Environmental Sustainability

Country: **India**
 Status: **In use**
 License: **Open Source**
 Developer: **National Wildlife Federation (NWF)**



Description:

The Wildlife Enforcement Monitoring System (WEMS) is a technological support tool for the monitoring of wildlife trafficking, wildlife crime patterns and the effectiveness of wildlife law enforcement and compliance at the regional level. WEMS is based on a GIS and environmental governance model. They work to improve the reporting processes of wildlife crime and compliance of environmental law. Through its partnership with various grass roots organizations, WEMS is able to assemble and collect data pertaining to violations in wildlife law. The data is then used for a spatial and temporal analysis, which identifies key themes and trends on trans-boundary illegal wildlife trade activity. Its GIS technology also determines vulnerabilities and potential threats in specific regions. Upon completing its analysis, the data is then organized and distributed through an online national repository. It is at this stage where partnering research institutions further analyze the data for policy makers. The information developed by research institutions is also made available to public and national enforcement agencies.

The systematic recordings of incidents relating to illegal wildlife trade within national borders are supported by

the technological infrastructure and governance structures developed by WEMS. It provides a foundation for documenting the volume of illegal wildlife trade in addition to the criminal networks involved. Sharing sensitive information through telephones, emails and paper documents has grown to be vulnerable amid increasing sophistication of illegal trade in wild flora and fauna. WEMS has also developed a Global Wildlife Law Enforcement Governance Map that pinpoints illegal removals at the range-state and apprehensions of perpetrators at the country of destination.

WEMS acts as a catalyst for the production of useful findings and reports by mobilizing various stakeholders to a common information-sharing platform. For instance, 'WEMS India' has been able to build capacity throughout the country while simultaneously managing knowledge on wildlife crime trends and threat assessments. Through this process WEMS India has also mobilized various agencies for the purposes of enhancing the collection and sharing of information on environmental crime. Police, forest authorities and customs officers are working together with WEMS to help prevent crimes in wildlife reserves and deliver essential public services. 

Xiamen Wireless City

Millennium Development Goals:



1. Eradicate Extreme Poverty and Hunger



8. Develop a Global Partnership for Development

Country: **China**

Status: **In use**

License: **Open source**

Developer: **China Mobile and the Fujian Strong Software Company**



Description:

The Wireless City Program is an advanced technology that covers the public sector and helps provide services to individuals and organizations in various settings. Using combined GPS, the Transportation Department in Xiamen is able to manage traffic with short message services. Through mobile phones, citizens can also access the WAP site of Price Bureau and receive real-time information regarding product prices at anytime from anywhere worldwide.

Near field communication technology has made payments through mobile phones a reality in Xiamen. Mobile and wireless technologies are also being employed to reform work processes while improving work effectiveness

and efficiency in the public sector. An example would be the Xiamen Water Company, which adopts a wireless meter-reading system (WMRS). Developed by China Mobile and the Fujian Strong Software Company this system allows individuals to collect water consumption levels using a GPS-enabled phone. After collecting this data users can then upload it onto a secure server that prepares a receipt. The Wireless City can also be used to measure and record noise in any given environment. More specifically, it sends an SMS indicating whether noise has reached above normal levels or not. Although this system can be used anywhere it is prevalent in settings with high occurrences of sirens, construction and factories. 

This *Compendium of ICT Applications on Electronic Government* is a unique collection of current ICT applications being used directly by or in partnership with governments, governmental institutions and the private sector around the world to support administration and public service, while addressing governance challenges. The Compendium also presents private sector ICT applications that are available in the marketplace.

Volume 3 of the Compendium, the third in the series, focuses on m-technology software products and applications in the areas of citizen engagement that are being used in both developed and developing countries. It is important to note that m-technology is evolving extremely fast. Some of the software applications presented may have already been modified and newer versions been released.



Printed at the United Nations, New York
12-49921 – September 2012 – 450

USD 35.00
ISBN: 978-92-1-123191-5

