

RELEASE IN PART B6

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**From:** Mills, Cheryl D <MillsCD@state.gov>  
**Sent:** Thursday, November 17, 2011 11:43 AM  
**To:** H  
**Subject:** FW: CSM piece on iCow

See below

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**From:** Ross, Alec J  
**Sent:** Thursday, November 17, 2011 10:55 AM  
**To:** Mills, Cheryl D; 'Caitlin Klevorick' ([REDACTED])  
**Subject:** FW: CSM piece on iCow

B6

Thought you'd enjoy. Winner of our AppsForAfrica competition

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**From:** Dowd, Katie W  
**Sent:** Thursday, November 17, 2011 10:52 AM  
**To:** Innovation  
**Subject:** CSM piece on iCow

Great shout out piece for iCOW, winner of the Apps Competition!

<http://www.csmonitor.com/World/Africa/2011/1111/iCow-Kenyans-now-manage-their-herds-via-mobile-phone>

The Christian Science Monitor - CSMonitor.com

## iCow: Kenyans now manage their herds via mobile phone

The iCow mobile-phone app, invented by an organic farmer outside of Nairobi, Kenya, is just one example of the country's growing high-tech entrepreneurial culture.



Mobileapp developer Sammy Njoroge works at iHub, a creative space for technology incubation in Nairobi, Kenya. (Brendan Bannon)

By Scott Baldauf, Staff writer  
 posted November 11, 2011 at 10:21 am EST

Nairobi, Kenya

As an organic farmer outside of Nairobi, Su Kahumbu could see the challenge that her cattle-herding neighbors had in handling the expenses of their most precious assets, the female cow.

If the cattle owner didn't pay attention, he might miss the very brief window of time when his cow went into heat, missing a chance at expanding his herd. Some cattle men wasted their money on the wrong kind of feed, others were selling their cattle off at below the market rate, and yet all of them had the tool in their hands to get information: a cell phone.

So, Ms. Kahumbu came up with iCow, a mobile-phone application that allows herders to register each individual cow, and to receive individualized text messages on their mobile phones, including advice for veterinary care and feeding schedules, a database of experts, and updated market rates on cattle prices. It's an example of how high technology can help out even in the low-tech business of agriculture, in which 80 percent of Kenyans make a living.

IN PICTURES: Monitor photographers in Africa

"Eighty percent of Kenyans are farmers, and by that I mean people who make a living off of the land, and 80 percent of the food people eat comes from people who sell in the rural marketplace," says Kahumbu. "So, even though I'm not an expert in technology or development, I thought, why not take the gestation calendar of a cow and send it to agriculturalists, and that can help them increase their productivity, and also increase their savings."

Kahumbu's iCow may not be the latest sensation on Wall Street, but experts say it is just the latest example of an innovative high-tech entrepreneurial culture that has started to take hold in Kenya. Following in the footsteps of major commercial successes such as MPESA – a mobile-phone banking application that now rivals Western Union – other Kenyan software developers are setting up shop in Nairobi, creating high-tech solutions for an African market that has long been ignored; universities and private companies are setting up labs and business incubators; and government officials are plotting strategies to transform Kenya into a high-tech hub for the continent.

"We have a large number of Kenyans doing software development, and because of successes like MPESA, a lot of them are developing mobile applications," says Bitange Ndemo, the permanent secretary for Kenya's Ministry of Information and Communication Technology. "So what we are doing on the government side, we are developing incubators so that an idea can be developed, and we can provide an environment where someone can taken their idea to market. For every 100 startups, maybe one will succeed, but that one company may change the lives of a lot of people."

## A techie paradise

Walk through the iHub, Nairobi's most famous high-tech incubator, and you'll feel the buzz of a collaborative competition. Software developers in faded jeans sidle up to website designers to ask for advice on how to make their mobile-phone applications more user-friendly, or to another coder for tips on how to work the bugs out of their system. When a developer feels ready to take his product to market, he or she can receive advice on how to create a business plan, or how to attract investors.

iHub is a techie paradise, filled with the kinds of young smart African men and women that tech-blogger Curt Hopkins likes to call Afro-Nerd Superstars. In one corner of iHub, a hissing machine makes cappuccinos. A gaggle of young men crowd around a foosball table, letting off steam, while a scattering of software developers sit in front of laptops in singles or pairs, typing in computer code. With 10,000 members – half of them accessing iHub services online – this is the Africa that gets forgotten amid the headlines of war and famine, but it's an Africa that is applying the tools of the West with a particularly African sensibility.

"Whenever you put smart people in a room, they start talking, and so at iHub, we want to get innovative thinking, a spirit of entrepreneurship going," says Jessica Colaco, manager of iHub. "We launched in June 2011, and now this is the physical nexus for the tech community."

Fun and coffee aside, iHub is serious about fostering businesses, and seven new companies created at iHub have already been selected (out of 100 candidates) as the first crop of graduates into a nearby business incubator called M-Lab. The M stands for mobile, and all

seven of the new companies have created mobile-phone applications aimed at Kenyan consumers, everything from mobile-phone banking to health care to commodity prices for farmers. IHub has also paired up its member “hackers” with local aid groups to come up with mobile-phone applications for social problems like access to clean drinking water.

“In three to five years, we want to stop talking about MPESA, because we want to have more innovation to showcase,” says Ms. Colaco. “Ultimately, we need to stop looking just for the next killer application. Let’s look at what is going to be the impact on the community, and what kinds of problem has this application solved. Has it brought down mortality rates. Has it brought the GNP of the country up? Has it created jobs?”

## Technology at African prices

IHub is not alone. Across town, at the University of Nairobi’s FabLab, professor Kamau Gachigi and his team of scientists are helping young engineering students and designers develop their inventions, test them, and take them to market. Some of the most creative ideas at FabLab are not technically inventions, but rather a re-engineering of existing technology for an African market, at African prices.

One group of students, for instance, has started a company that supplies wireless broadband services to a middle class Nairobi suburb, beaming wireless signals throughout the neighborhood.

“The idea we work with, modeled on MIT’s FabLab idea, is first, how to make almost anything, and then how to make machines that can make almost anything,” says Mr. Gachigi, showing off a prototype of the wood and chicken-wire transmission dish.

Kenyans are early adapters of technology, a fact made clear by everything from MPESA’s mobile-money transfers to the brilliant inventions of “jua kali” metal workers on Nairobi’s side streets, says Gachigi. But the high price of Western-made machinery often puts technology out of the reach of common Kenyans, and that’s where FabLab aims to make a difference. “By making the dishes themselves, these students can provide the service cheaper than these people could get it from outside.”

Charging a few shillings (a Kenyan shilling is worth about one cent) per SMS for iCow’s services, or a few hundred shillings per month for a jerry-rigged wireless network may not seem, at first appearance, to be the way to make a typical African fortune. But on a continent with nearly a billion people, nearly half of whom have at least a basic form of technology in the form of a cell phone, small-scale low-cost technology solutions may become a huge area of growth for a large number of individual innovators.

“If we can only do what I’m trying to do with iCow, riding on the back of technology, we can make a huge impact on ordinary people’s lives,” says Kahumbu.

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