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The Participatory Web –
New Potentials of ICT in Rural Areas

Potential of Mobile:
Cambodian Farmers Turn to their Phones

by Ken Banks and Christian Kreutz

FrontlineSMS is the "Swiss Army Knife" of SMS applications. In other words, as a tool, it allows a wide variety of messages to be sent and received through a central hub using an attached mobile device, while providing additional functionality. The main idea of FrontlineSMS, originally developed back in 2005, was to fill a growing need for a plug-and-play texting solution for NGOs, which required them to have little or no technical expertise. It was never promoted as a single solution to any particular problem. The message to grassroots NGOs was simply this: "if you've read about mobiles and all the great things they're doing, and you want to do something yourself, then try this. It's free, and it's easy, and other people are managing to do some quite interesting stuff with it".

In the first three years since its release, FrontlineSMS has been used by NGOs in over fifty countries for a wide range of activities including blood donor recruitment and assisting human rights workers, to promoting government accountability, keeping medical students informed about education options, providing security alerts to field workers, election monitoring, the capture and exchange of vegetable (and coffee) price information, the distribution of weather forecasts, the co-ordination of healthcare workers, the organising of political demonstrations, the carrying out of surveys and the reporting and monitoring of disease outbreaks.
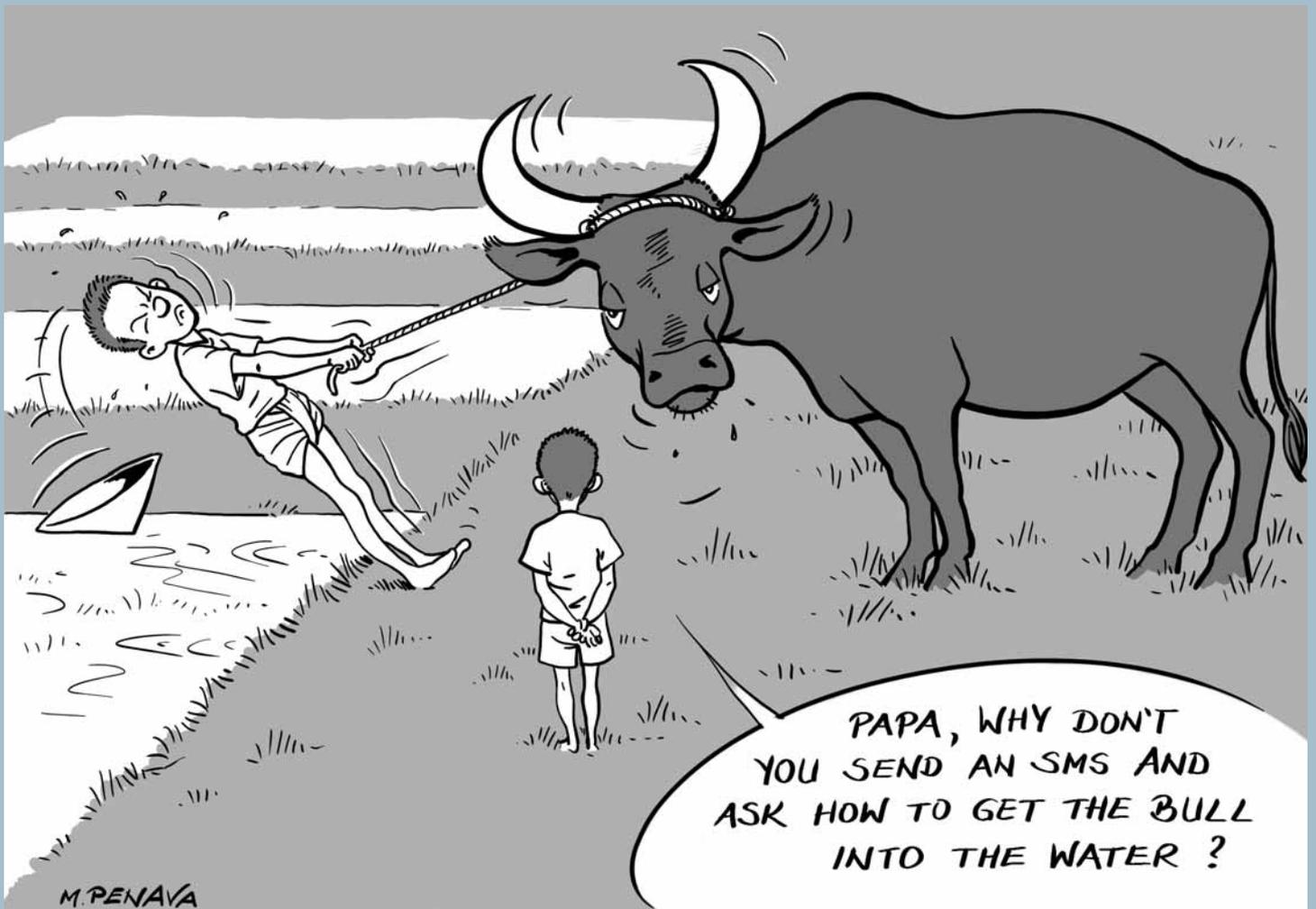
At the University of Canberra, Senior Research Fellow Dr Robert Fitzgerald has been evaluating FrontlineSMS as a replacement for a commercial application previously implemented in their Cambodia Crop Production and Marketing Project (CCPMP). Since 2006, Robert and his team have been developing an SMS-based market information service for maize and soybean farmers and traders in western Cambodia.

CCPMP research had already highlighted poor communications between the different levels of the supply chain as a major challenge to the agriculture sector in the region. According to Fitzgerald, "We explored various options for the development of an improved marketing communication system and proposed to local stakeholders the development of an Electronic Marketing Communication System (EMCS) based on the use of SMS technology. We undertook a pilot project in which daily grain market information was collected by the Ministry of Commerce and entered into a data-base that was accessible by mobile phone in Cambodia using SMS."

The pilot project proved highly successful and its impact stimulated further work in a follow-up project funded by the Australian Centre for International Agricultural Research (ACIAR). It was at this point that Robert and his team began to explore alternative messaging systems.
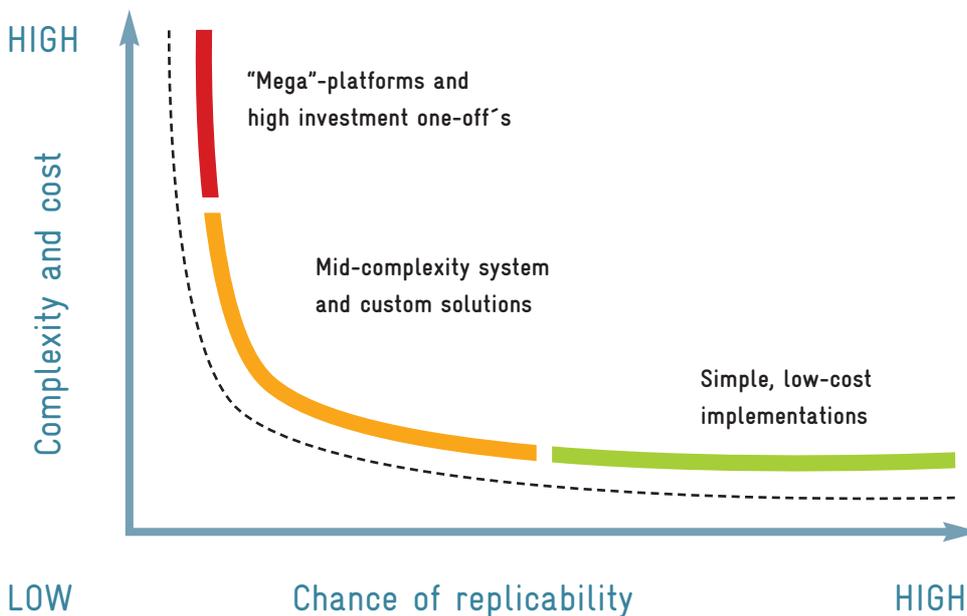
"One of the most encouraging aspects of our early work was the excitement generated amongst farmers, traders, ministry officials, silo owners and potential development partners. The SMS concept was very appealing but we faced a real challenge - we wanted to use this excitement to move from a trial project to a fully fledged operating model but we needed a software application that would ensure the long term sustainability of community-based communication systems. Because the project is working with two NGOs based in western Cambodia, it was imperative that we imple- mented a cost-effective solution that could be managed by local staff. As it turned out, FrontlineSMS had it all. Not only is it open source but it is simple to install and maintain, and has more functionality than our previous software, all combined with a much better user-friendly interface".

The plan is to install two FrontlineSMS systems in the Pailin and Samlaut regions of western Cambodia. Once these are installed a series of stakeholder workshops will be conducted to better understand the communication aspects of the maize and soybean production and marketing supply chain. Price, weather updates, handy hints will all figure on these systems in addition to standard SMS-based communications.

FrontlineSMS is just one example of how the use of the mobile phone for good causes is on the rise. Today there are more reports on the topic than you could throw a mobile at, and conferences on the subject are being held left, right and centre. The problem is, despite the excitement, in implementation terms at least. We're struggling to scratch the surface, meaning the majority of NGOs, particularly those in developing countries, can all but sit back in awe at the incredible things these little devices are doing. Solutions are tantalisingly close, but without the tools and a practical helping hand most of these NGOs remain passive observers. It's these that interest me the most. They also happen to be in the majority. Let's take a look at the graph below.

SOCIAL MOBILE´S LONG TAIL >>> www.kiwanja.net

HIGH

Complexity and cost

"Mega"-platforms and
high investment one-off´s

Mid-complexity system
and custom solutions

Simple, low-cost
implementations

LOW   Chance of replicability   HIGH

The breakdown of the mobile applications space has three categories. Firstly, there are high-end high-cost solutions running SMS services across national or international borders, with little chance of replicability for your average grassroots NGO. These are represented by the red part of the curve and they generally get the highest amount of press exposure. Then we have lower-cost custom solutions, developed by individual (often mid-level) non-profit organisations to solve a particular problem in a particular country or region, or to run a specific campaign. These have a slightly better chance of replicability for grassroots NGOs; they are represented here by the amber curve, and generally get a medium to high level of publicity.

Finally, we're left with the simple, low-tech, appropriate technology solutions with the highest opportunity for rapid, hassle-free replicability among grassroots NGOs, represented in green (even better, take out the need to replicate altogether and actually give them the tools to do the work, a gap FrontlineSMS is working hard to fill). These projects generally get the lowest level of publicity, if any, since few have an international profile of any kind. Notoriously hard to communicate with, and with little or no money, it's perhaps no surprise that most of the attention on the long tail is elsewhere.

In order for the mobile revolution to truly become a revolution, we need to be inviting infinitely more non-profit organisations to the party. So much can be done, but so few are active in this space. Going by my thinking, that means we need to be working on the green, because that's where most grassroots NGOs sit, and that's where help is needed the most.