Mobile and Development Intelligence

FrontlineSMS

FrontlineSMS builds and distributes free open-source software, helping organisations in both economically developed and under-developed countries to overcome communication barriers they face. Their users have interests spanning healthcare to election monitoring, with a bottom line to drive transformative social change. In each case the software allows users to send, manage and receive text message interactions with communities of people.

Year launched
2006

Business model
Donor funded, Business

Targeted Device
Basic phone

Technology delivery
SMS

Products & Services
Push content

Markets deployed in
Africa, Asia, Latin America, Middle East

Estimated number of users
Over 2,500 users (mainly organisations – not end users)

Background and opportunity:

What opportunity existed and how was it filled by the organisation?

In 2004 the founder of FrontlineSMS, Ken Banks, was travelling in South Africa and Tanzania. While working in Kruger National Park he observed that SMS would be a great way to engage communities in reporting poaching activity on the park's border. However, there was no tool that allowed users do this cheaply and easily. He envisaged a program that could run on a personal computer and connect to a phone or a modem, letting users send and receive SMS a bit like e-mail. A little while later he built the first prototype, which went online in October 2005. The first user – the Kubatana Trust in Zimbabwe – got in touch very quickly afterwards. Kubatana started using the system for their work which supported civil society rights monitoring and campaigning.

One of the things Ken was clear about from the beginning was that the system would have to run completely without the internet. "This is still a core system requirement for our desktop version, particularly as internet and 3G penetration in these areas remains very low. The desktop version of FrontlineSMS will always support use in places without internet access." More broadly, FrontlineSMS aims to make professionalized usage of SMS available for anybody, regardless of the project size. "If they're a small project just starting out, then we want the tool to meet their needs. We also make sure that for larger organisations – working across multiple contexts and with a number of teams using FrontlineSMS – the tool will work for them too." From the very beginning, the intention underlying FrontlineSMS was to enable users across sectors. "We see working across sectors, providing a tool for others who specialise, as being very important civil society infrastructure."

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[1] http://www.frontlinesms.com/about-us/
[2] http://credit.frontlinesms.com/blog/2012/02/the-frontlinesmscredit-story/

Progress since launch:

How have things gone so far?

Since their first user, FrontlineSMS has seen steady growth. By 2010 it had been downloaded around 6000 times. "What really pushed it from the several hundred to the several thousand though, was increased visibility." The organisation's increased visibility was facilitated by an interesting expansion in their team and their product range. Here the addition of FrontlineSMS:Medic to the FrontlineSMS label meant that there was a very specific use case in the public domain that people could identify with. "That use case now had a face, a voice, and a name; namely Josh Nesbit who was on the conference circuit talking about FrontlineSMS, as well as publishing a paper talking about our work." This, along with other factors, helped the product appeal to people, secure additional funding, and generally be adopted as something less abstract. There are now seven projects like this, spanning from Medic, Legal, Credit, and Radio. Each project speaks to a specific sector, either by providing specific functionality that adds moving value to the sector, or by having a sector specific advocate (for example with legal service provision).

Another key point arose when the organisation looked at what the sector specific projects were providing. These were beta versions of products built on the core software. In the case of Medic, for example, a service called PatientView was proposed which utilised a SMS-based Client Record Management System (CRMS). "We wanted to genericize this system, making it available to all of our users. However, with this in mind, we realised the software build wasn't fit for purpose. We therefore decided to redesign it for usability, scalability, and so it would run in the cloud." The redesign was completed this year, and since launching the new software in August of 2012, FrontlineSMS has been downloaded more than 15,000 times with registrations in 135 countries – more than in its first five years.

Scalability:

How is the service being scaled to reach a larger audience?

The organisation's theory of change is a bit different to many other mobile organisations. This is because the node of change they think is significant is organisational, and starts at team level. They see service provision as delivered by small teams working in an office somewhere, interacting with their local community; with data collection needs, staff and information management needs, and so on. All of these things happen at a relatively small scale, and FrontlineSMS think this is important to remember. "While a lot of similar services focus on the magnitude of SMS deliveries (in the hundreds of thousands perhaps), we focus on making a tool that enables *teams* to use SMS in those ways. We have a theory of scale that is horizontal rather than vertical: instead of one to many hundreds of thousands, it's more like many hundreds of *nodes of use* for FrontlineSMS across a country." Vertical scale is achieved, in their model, when large organizations manage and aggregate data from many nodes at higher levels, which will be enabled by FrontlineSMS's cloud based service.

User centric attitudes:

How does the organisation build itself around the end user?

In 2008 Ken Banks wrote a blog post, 'focus on the user, and all else will follow'. This idea has become one of the organisation's core values. "Ken's approach was to build the software, get it out there – pull not push, i.e., don't force it on people but let them come to you – listen to what they're saying, and give them impeccable customer service. That way, users will feel supported, they'll use your product, and you're basically giving them a tool that they want." FrontlineSMS always had the option of simply putting the software they developed for download on their website, without continuing to develop it further. Taking this route would have left the software as a static offering for users to download. While the route would have afforded the team time to work on completely new software products, their decision was to try and make something sustainable out of their existing software. This was partly because of donor support and partly because of interest. At that point the organisation started trying to identify gaps in its support to users.

One area of concern was that the system needed more active development, which itself helped spur the software's redesign. FrontlineSMS is also explicit about how the user features in its broader strategy: "user centricity isn't just about design for us – it's our whole business model. For example, we have a consultancy service where we do training, modification of the platform, hands on tech support, systems design and evaluation. This is all because the users asked for it, not because we thought it was simply a good idea." Users ask the organisation about their knowledge of the platform, what other users have done with it, as well as best practice SMS use. In the same way, development of the cloud

version of the software was in response user requests. "I think user centricity has always been at the heart of our organisation, and this has been one of our huge strengths."

Challenges:

What are the internal and external challenges currently faced?

Externally one of the biggest challenges for the organisation is fragmentation of the SMS market. One of the problems that FrontlineSMS helps resolve for users is the difficulty of delivering SMS projects with any kind of speed. "The fact is that web based SMS services are not cheap in the developing world." For example, in contrast to the developed world, buying SMS through professional-grade service providers in some developing markets can – bizarrely – elevate the cost per unit. Part of the challenge FrontlineSMS face , and the service they provide, is to navigate users through this, getting them to understand the trade-offs between volumes, time, and complexity of project set-ups. Part of their work to alleviate this problem is identifying web based service providers that don't raise these issues.

The regulatory environment for SMS presents further challenges. For example, in Kenya, a recent regulatory change prohibits against sending unsolicited SMS without a licence. Given that FrontlineSMS operates in numerous countries, being sufficiently up-to-date on the regulatory environment in each one may prove to be something they need to aware of, while steering clear of appearing to give advice. Internally the organisation has had some challenges hiring finance staff – other organisations in the sector have also struggled with the same issue. "Accountants just seem to be twice the price of everybody else. We've managed to get around this by having an exceptional finance officer and great relationships with our professional service providers." Aside from this, the major preoccupation of the organisation is core funding. "We're very close now to having a sustainable business. Yet, in the meantime, getting core funding is a challenge. This is due to being a relatively 'un-sexy' piece of the NGO infrastructure, being a generalist, as opposed to sector-specific platform, and being around a long time, and – by virtue of this – not being seen as new and innovative." In this context, FrontlineSMS suffers from a tendency of donors to fund new mobile services over old existing ones, or to fund sector-specific tools over generalist ones, even when the latter could be built on to deliver the same results, "arguably with a bigger user base and more chance of being sustainable".

Partnerships:

What is the value of partnerships, particularly with MNOs?

FrontlineSMS identifies its users as its most important partners. "We put that first all the time." In terms of donors, the organisation's situation has evolved from an initial donor-recipient type relationship to something more organic whereby both parties bring something to the table. For example, in addition to its traditional donor-recipient relationship with its institutional supporters, FrontlineSMS recognises that it also lends its brand and achievements to the institution's roster. "Increasingly there's a sense of being in it together for all the actors currently playing in the mobile for development space. We all see ourselves as parts of the puzzle, we all fit differently, and we have our niche. The organisations working in this particular mobile for development space right now (e.g., Praekelt Foundation, Ushahidi, etc) aren't concerned about doing the same things better, but rather how we complement one another." Interestingly, FrontlineSMS hasn't typically dealt directly with Mobile Network Operators, but works through SMS aggregators, although this may vary depending on user needs and in-country markets.

Looking back, looking forward:

What key lessons have been learnt, and what are the organisation's future objectives?

FrontlineSMS underscores the value of the team itself, "once you get that right, there's nothing you can't do." However, the organisation has also learnt a lesson about the importance of efficient operations. "You can't underestimate this. In our case, we've been in somewhat of an organisational debt, spending the first few years as a relatively small organisation, but then rapidly expanding. This involved a degree of retrospectively sorting out systems from a couple of years ago. Though we've overcome this hurdle now, I think if we'd had the trajectory of scale from the start we would have redesigned the platform earlier, moved to Kenya earlier, and hired an accountant earlier. We had to do all this within a year, and in quite a rush. However, I don't think we'd have gotten to where we are today without taking this path."

Plans for the next few years include moving into the cloud, transferring from a donor funded model to a revenue funded model, and also switching from a services funded model to a product funded model. At the moment consulting is a significant revenue stream, but the intention for the future is that the product itself will drive revenue. FrontlineSMS will also need to expand its developer team, which is currently quite small. "Ultimately, getting the cloud version out there and getting it the best it can be, is the most powerful thing we can do right now. This is the next big leap, and will open doors to some exciting new opportunities.

About the GSMA Association

The GSMA represents the interests of mobile operators worldwide. Spanning 220 countries, the GSMA unites nearly 800 of the world's mobile operators, as well as more than 200 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers, Internet companies, and media and entertainment organisations. The GSMA also produces industry-leading events such as the Mobile World Congress and Mobile Asia Congress.

About Mobile for Development - Serving the underserved through mobile

Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social, economic impact and stimulate the development of scalable, life-enhancing mobile services.

About Mobile and Development Intelligence

MDI is a freely available, online platform of market and impact data, analysis and access to an active community of practice. The mobile phone's ubiquity is uniquely well-placed to drive economic and social development in emerging markets. Investments in the mobile and development sectors are rising yet there is limited data on which to base these decisions. MDI is designed to bridge this information gap

Mobile for Development