

W3C

Workshop on the Mobile Web in Developing Countries

P O S I T I O N

P A P E R

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Position Paper submitted to the
Workshop Committee by:

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Background

kiwanja.net

where technology meets anthropology, conservation and development

kiwanja.net is an information and communications technology resource geared to servicing the specific needs of the conservation and development communities. Specialising in the *application* of mobile technology in developing countries, it provides a wide range of ICT-related services drawing on over 20 years experience of its Managing Director, Ken Banks

With a key focus on developing countries, and a particular emphasis on low-cost, grassroots, needs-driven, appropriate, sustainable solutions, kiwanja.net is unique in that it combines a strong business and ICT background with a degree in anthropology/development studies and over 13 years conservation and development experience in countries such as Nigeria, Zambia, South Africa, Uganda, Zimbabwe and Mozambique

The application of mobile phones in global conservation and development is now a key focus of my work. I project managed the UK and European rollout of the first conservation-based mobile portal in 2003/2004 with Vodafone, developed a mobile-based SMS hub in 2005 and have more recently worked with the likes of Microsoft, Fauna & Flora International and the United Nations Environment Program (UNEP-WCMC) on the practical application of technology for social and environmental benefit

Present



Digital Vision Program at Stanford University

This September I joined the Reuters Digital Vision Program at Stanford University as a Collaboration Fellow. Over nine months I will apply my skills and experience to a wide range of geographically and technically distinct grassroots projects, working closely with some of the most dynamic social entrepreneurs working in the field of ICT and development. My mobile phone software and systems development experience will be applied to a number of projects with a wireless (SMS, WAP, Java) element. I also bring with me project management, anthropology, conservation and development experience (particularly my work with NGOs in Africa) and my research and focus on needs-driven, sustainable, human-centred, appropriate technologies

The Digital Vision Program supports individuals who seek to develop technology-based solutions in the interest of humanitarian, educational and sustainable development goals. The Program fosters social entrepreneurship and interdisciplinary projects that address real needs in underserved communities. See www.rdvp.org

The grassroots

Focus and principles

For ICT-based conservation and development initiatives to be truly effective it is essential to take into account, and address, human needs. Ignoring the local context – cultural, social or physical – often leads to reduced project effectiveness and, in some cases, project failure

The work of kiwanja.net is based on the following key principles:

the application of *appropriate* technologies which are primarily *needs-* or *people-*driven rather than *technology-*driven

a belief that we constantly *challenge* ourselves
ask *why* we're doing what we're doing and *who* we're doing it for
not just ask whether or not *a* particular technology is appropriate
but whether technology *itself* is appropriate

that we work *together*, stop re-inventing wheels
and stop *competing* against each other

We must not forget *where* conservation and development work takes place – usually in the field and often under difficult and challenging conditions – and ensure that the needs of local people are not forgotten in the clamour to develop high-end, bandwidth-intensive, hardware-hungry devices and services. We must stop re-inventing wheels, communicate more, realise that our work is not a race to get ‘there’ first, not be afraid to go back to basics, face up to our failures and ensure that our projects are sustainable – financially, yes – but also through the sharing of skills, knowledge and experiences with the people in the countries where we work

Workshop contribution

Highlights of potential contributions to the Workshop include:

- Strong interest in social mobile applications and the digital divide
- Technical development skills (WAP, SMS, Java application-based)
- Experience of living and working in developing countries (Africa)
- Ability to ‘sense-check’ potential solutions with grassroots reality
- International large-scale and small-scale project development experience at the private, corporate, non-profit and community levels
- Help improve communication through shared learning, project scoping, concept development and an intimate understanding of the challenges
- Knowledge and experience in the “mobile-based applications” space

Recent mobile-related projects

wildlive!

In 2002, Vodafone launched their Vodafone live! service in the UK along with a range of live!-enabled high-end handsets with colour screens, cameras, video and polyphonic ringtones. The live! portal provided a range of services to the user within a single, consistent, easy-to-use interface, including sport, news, entertainment, games, ringtones, wallpapers and chat



At around the same time, a visionary team at Fauna & Flora International (FFI) were exploring the potential for these new mobile devices in conservation. The ability to reach a massive audience through what was rapidly becoming a hugely successful consumer device led to an approach for funding, and the creation of a project which began in January 2003. A team of three was assembled to make it happen. I was Project Technical Advisor and responsible for all content creation and WAP delivery systems development, and project management

wildlive! UK was approximately ten months in development, and at launch provided conservation news and information including field diaries, discussion forums and SMS competitions and alerts to Vodafone live! users. In addition, a range of animal ringtones and spectacular wildlife wallpapers (taken from FFI's own archive) were sold on the platform, along with a range of conservation-based Java games

wildlive! was the first conservation-based mobile phone fundraising and awareness-raising portal of its kind, and was launched by Sir David Attenborough at the Natural History Museum on 11th December 2003 – an event which coincided with FFI's centenary celebrations

Outcome

The service was an instant success, raising in the range of £100,000 by the end of December 2004. It received high profile within Vodafone and appeared in their CSR and consumer publications. A number of national mobile phone magazines broke news of its launch, and one of the mobile games (Silverback, based on the life of a gorilla) received rave reviews

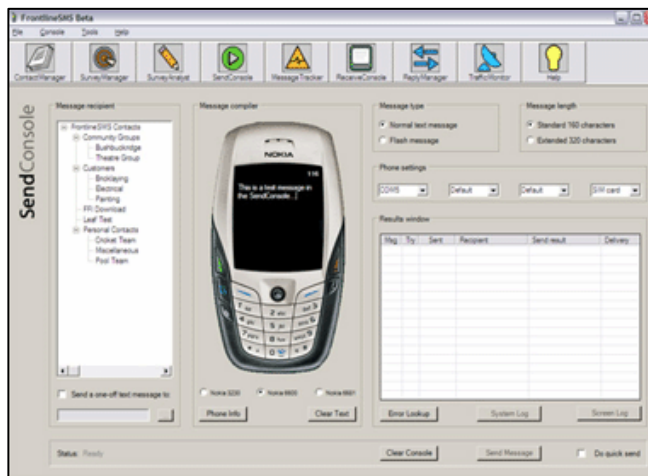
The UK success led to a European rollout into Germany, Hungary, Malta, Spain and the Netherlands throughout 2004 (a process which I also project managed), and local-language homepages and targeted content were provided for each country portal via web and WAP. wildlive! was a finalist at the 2004 Wildscreen Festival, held in Bristol, in the Interactive Award category

For further information see www.kiwanja.net/wildlive!.htm

Recent mobile-related projects

FrontlineSMS

As mobile phone ownership balloons, so does access to, and use of, text messaging. The potential of mobile phones – SMS in particular – to provide some of the poorest people in the world with local, relevant, useful information has not gone un-noticed. Many NGOs are taking a look



However, up until now many of the larger NGOs have been independently implementing SMS systems, some going as far as designing and developing their own applications from scratch. With experiences rarely shared, this is of little use to the wider conservation and development community

FrontlineSMS was launched towards the end of 2005 specifically to bridge a gap – aiming to provide an affordable, standalone turn-key SMS solution to NGOs. FrontlineSMS allows them – many for the first time – to access 'bulk' SMS technology giving the ability to carry out small- to medium-scale trials before embarking on possible larger project proposals. FrontlineSMS is unique in that it works off a laptop, a cable and most standard GSM mobile phones. This makes it a highly portable and replicable – and sustainable – text messaging solution. In addition to standard sending and receiving of texts, the system allows the running of SMS surveys and competitions and has an auto-reply feature allowing for the provision of basic information services (such as prices, jobs and health information)

I developed the concept, business/funding proposal and carried out all programming, technical development and website/project development

Outcome

On release FrontlineSMS was picked up and reported on a large number of ICT-based news sites. Expressions of interest came from organisations ranging from the World Wildlife Fund to Harvard University and over the proceeding months the system was tested in a number of countries including South Africa, Zimbabwe, Ghana and Botswana. The software is available for free download via a dedicated website, which provides full installation instructions and technical advice

For further information see www.kiwanja.net/frontlinesms.htm

Field-based observations

The cultural context

Applying cultural knowledge to projects – ICT or otherwise – should be seen as a necessity and not a luxury. Despite a history of failure by many projects due to a lack of social awareness, mistakes continue to be made

A firewood project encouraging the use of small stoves for cooking and heating in rural villages in Africa failed to see the social significance of communal fires – often in the centre of villages – and was largely ignored

A mobile-based project in southern Africa aiming to provide SMS alerts to villagers has so far failed to collect their numbers, mainly due to suspicion, lack of trust and lack of understanding of the project

Two recent HIV-AIDS projects struggled in the early stages because they failed to recognise the stigma attached to the disease. Despite providing free treatment and brand new modern healthcare centres, none of the local population wanted to be seen going there and they remained empty

Making IT relevant

- People need to accept, and see relevance, in the technology or solution
- Care needs to be taken in how the technologies are described
- We must remember that ICT is a tool, and not a solution in itself
- What problem is being solved? Whose problem is it? Is it a problem?
- “African women who do most of the work in the countryside don't have time to sit with their children and research what crops they should be planting. What is needed is clean water and real schools”
- Are grand, large-scale, top-down solutions such as OLPC appropriate?
- Are there language issues? What are they? How can they be overcome?
- Will there be access or ownership issues over the technology/solution?
- Care is needed when breaking down traditional systems of trading, etc.
- Communities should not be seen only as passive recipients. They are “content generators” in their own right and should be treated as such!
- The internet – mobile or otherwise – will not bridge the digital divide alone. Appropriate, relevant, community-led applications will be key



Women queuing for several hours to collect water

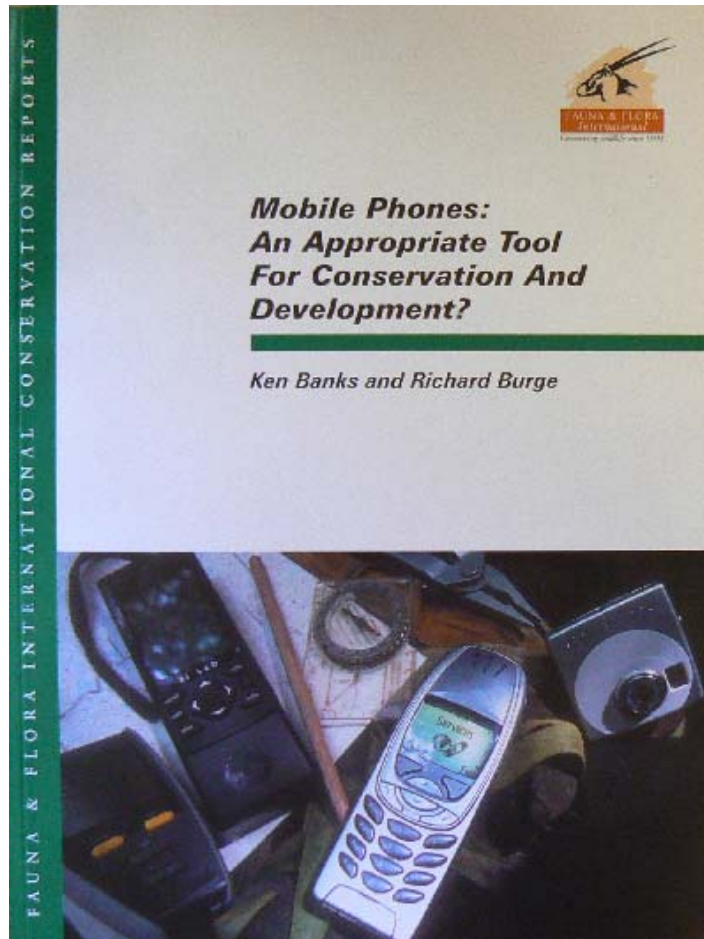


Introduction of technology often spurns small business



Making IT relevant: local people training local people

Report

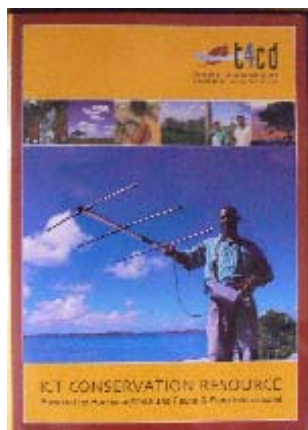
**Mobile Phones: An Appropriate Tool for Conservation and Development?**

Ken Banks and Richard Burge

67 pages, b/w photos, figs, tabs, map. ISBN: 1903703158

Fauna & Flora International, 2004

CD



CD-based Resource launched at the “Technologies for Conservation and Development” (t4cd) Conference in Johannesburg, South Africa, February 2005

The CD contains information on global projects using ICT along with contact information, technologies used, education programmes and grant-giving bodies

Microsoft and FFI are currently working together to web-enable the Resource. This is due for launch autumn 2006

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