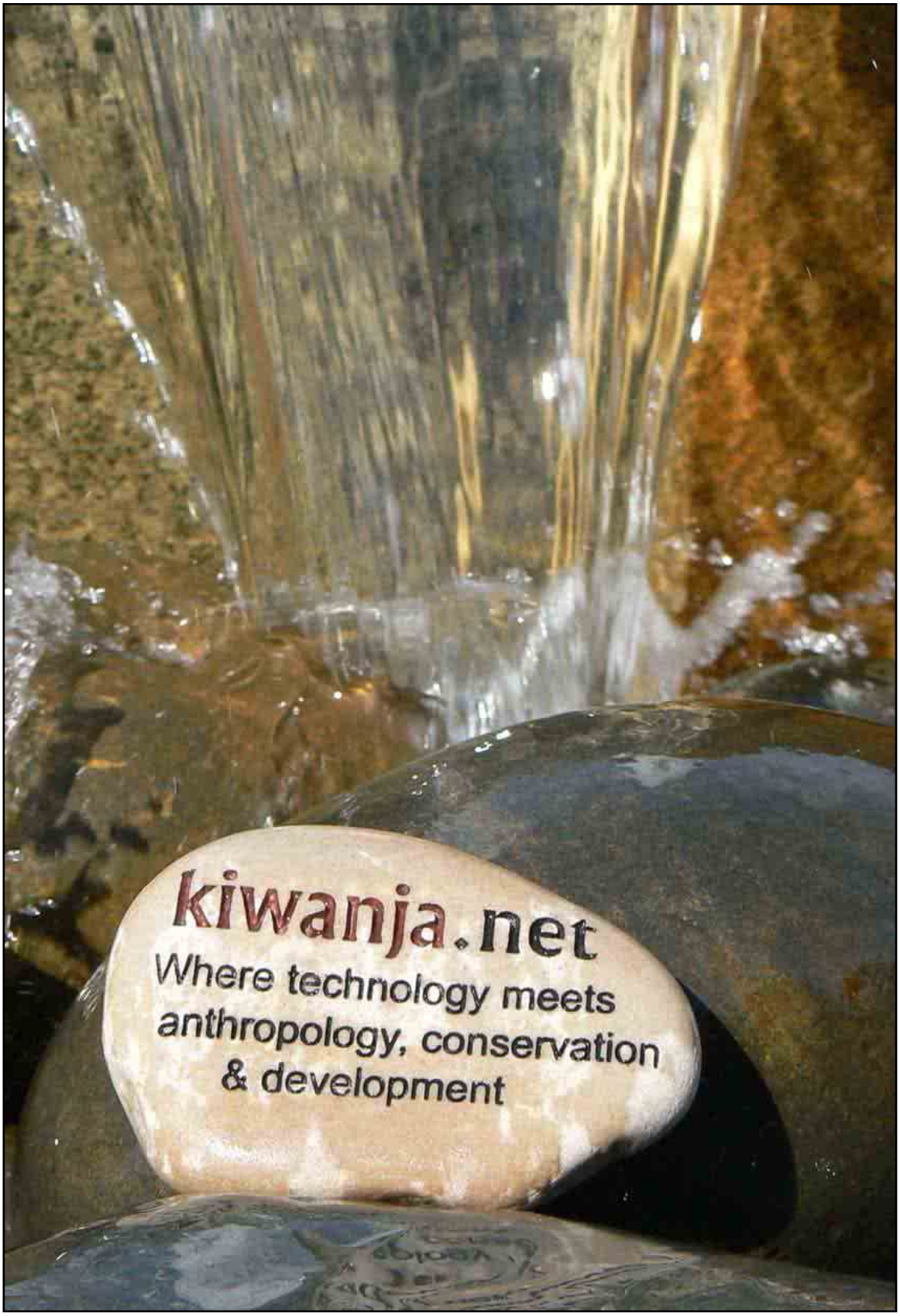
M U S I N G S O N



TECHNOLOGY ■ **ANTHROPOLOGY** ■ CONSERVATION ■ **DEVELOPMENT**

PREFACE

For as long as I can remember I've enjoyed writing. Not writing to the orders of a teacher, but writing on my own terms – as much as I like, when I like and about what I like. Most of my early efforts were poems, and I would regularly wake early in the morning pen in hand. According to my teachers I was quite good. They must have been right - I won a number of competitions. The acquisition of a very old and heavy Imperial typewriter – a gift from my mother from the "Under £5" section of our local newspaper – opened up a new world for me, and one of my early projects was an epic on oil. I still have that masterpiece today, preserved in an A5 plastic folder bought from our local Boots the stationers. I still can't quite believe that I managed to produce something like that at such a young age. I must have been around 11. I was a strange child.

Despite my love of writing and a long career in IT, I was a little late combining the two and didn't start blogging until about eighteen months ago. The original idea was to write anonymously, the logic being that I could rant about anything that frustrated or annoyed me – and there seemed to be much – without somehow being accountable. The joys of the Internet. I even went as far as registering a URL, and was going to blog under "Gazundered.com", which was a play on the word gazumped, or 'let down, tricked, misled'. I never did do much with it. I'm generally quite impulsive, and after thinking it through a little more decided I'd be better off blogging on the kiwanja.net website.

Like most people, I have a wide variety of interests. Unlike most people, I've managed to create a role for myself where I can combine every single one. This is more down to luck than good planning, although I've stubbornly stuck on this path despite everything that's been thrown at me. So, in the context of my blog this means I can write about almost anything I like since it almost always falls into one of the four interest areas. These interests – which are really more like passions – are technology, anthropology, conservation and development – hence the kiwanja.net strap line. The technology comes from well over 20 years in the IT industry, the anthropology from my degree at Sussex University, the conservation from the family gene and the development – and the conservation again, come to think of it – from numerous projects and numerous trips to the African continent over the past 15 years, including a one year spell working with primates in Nigeria. I could never have planned it better than this, so perhaps it's lucky that I didn't.

Fortuitously for me, these four interest areas turn out to be incredibly complimentary from a professional stand point, and if I wasn't so honest I would probably be telling people that it was all part of a big plan. In the mid-1990's, when I started to think how cool it would be to use my IT skills in developing countries, this whole ICT4D thing wasn't really around and there was nowhere obvious to go. I was already building my development experience by then, having been on a couple of school and hospital building projects to Zambia and Uganda before I decided to go to university and study development 'properly'. At Sussex you have to do development studies *with* something, so I settled for anthropology because it looked more interesting than history, French or Spanish. Although I didn't realise it for some time, this was a great decision.

So, one of the end results of all this is *this* - a collection of a few of my favourite blog postings, from my first one hundred entries, which cover a range of topics under this technology, anthropology, conservation and development banner. I'm not necessarily compiling these because I think anyone will be particularly interested in reading them – although I hope at least *some* people do – but because it felt like something of a minor victory to have hit my century. kiwanja.net is also on the verge of its fifth birthday. Another reason to celebrate.

I enjoy having a forum to air my views, and the mobile space is a very interesting one right now. Thanks for listening, and I hope you enjoy reading some of these entries as much as I have enjoyed writing them.

Peets Coffee & Tea, University Avenue, Palo Alto, California

November, 2007

WEDNESDAY, **NOVEMBER 07, 2007**

Let there be light. And water. And education.

At first glance you'd be forgiven for thinking it was another UN Millennium Village, part of the Geoffrey Sachs poverty alleviation experiment. It's not, but it does sound strikingly similar (you know, take a village of poor, impoverished Africans and bring them 'development'). Whether you agree with the approach or not - and there's been plenty of debate - it does seem to be growing in popularity, perhaps as a result of frustration in large, top-heavy, top-down global efforts whose goals are totally unrealistic and where success is much harder to measure than failure is to see. William Easterly's recent book, "The White Man's Burden", covers this well. So, rather than trying to heal the world, the idea is you try to heal a village or two and take it from there.

This latest experiment, or aid project, centres around a village in northeast Uganda called Katine. As you read through the article, many of the project objectives seem worthy enough - access to clean water, healthcare, education and so on - but the headline the newspaper chose doesn't do anybody justice, least of all the inhabitants of Katine. "**Can we, together, help one African village out of the middle ages?**" it reads. For many people this perception is an ongoing frustration. If I wasn't so interested in the topic I'd probably have stopped reading just there, as might many people at Amref (a leading partner in the project), whose staff happens to be 97% African. That level of local ownership though is encouraging, as are the projects aims to *"take advantage of - and build on - existing social and economic networks as well as traditional and indigenous knowledge"*. This is probably why the newspaper decided to throw its weight behind the idea, and why Barclays Bank followed with a couple of million dollars.

It will be interesting to see if the Guardian can hold their readers attention long enough to see this three year project through. Whatever happens, though, the increasing shift towards smaller-scale - and therefore more likely sustainable - initiatives, such as Katine (and maybe even the UN Millennium Villages), does present us with a different model from the one tried and tested with so little success since the 1970's.

All we now need do is work a little harder on those headlines.

WEDNESDAY, **JANUARY 17, 2007**

Five ways to reconnect

SUNDAY, **NOVEMBER 05, 2006**

Thank goodness for the non-American system

It's always a very eye-opening experience when you first arrive in a new country. From driving on the opposite side of the road to experiencing different mannerisms and 'language variation', not to mention coping with the excessive patriotism (proudly displayed in the form of countless American flags and enthusiastic tributes to "The American Worker"), there are more practical actions that need to be taken, such as getting attached to a mobile phone network (sorry, cellphone network).

This has been a particularly eye opening experience. And all I can say is this. In Europe, mobile networks are being squeezed by the consumer and various EU bodies, but here in the States they're having a field day. If the rest of the world, and developing countries in particular, adopted their practices then there would almost ***zero*** growth in mobile use among the poor, and quite probably also ***zero*** initiatives using mobile technology for social good. I'll explain why. There are two reasons...

Firstly, for some crazy reason users here have to pay to receive a text message. The sender pays, and the recipient pays. If poor, rural phone owners in developing countries were forced to maintain credit on their handsets to receive texts, then many wouldn't be able to do it. They might also object, or opt out, of receiving valuable health or other information messages. The use of handsets to help bridge the digital - or information - divide would be nothing more than a dream.

Secondly, pre-pay (or pay-as-you-go) customers on some networks are charged a daily 'connection' or 'service' fee of 99 cents just to keep their number connected. They pay 99 cents each day whether they use their phone or not. It's ironic that this almost equates to the $1 dollar per day used to measure the number of people living in extreme poverty.

In reality it was the adoption of the pre-pay system which truly liberated disconnected rural communities in developing countries. The ability to connect to the network without needing a bank account, credit history or an address was the key which finally unlocked the digital door. A daily service charge of any kind, for many, would have slammed that door right back in their face.

Combine either - or at worst, both - of these in a developing country context and the effect would be disastrous. *Thank goodness we have an alternative to the American system*.

TUESDAY, **APRIL 10, 2007**

Static on the radio

I've been thinking more and more lately about how human behaviour divides neatly into good and bad, positive and negative, constructive and destructive, helpful and unhelpful, kind or evil, and so on. But however you describe it, for every positive there is a negative. For every person fighting *for* something, there are people fighting *against* it. These struggles have existed since the dawn of human-kind, and are still very much alive today.

The problem is that things are rarely black and white. What is good for one person can turn out bad for another, so it all depends on your perspective - which side of the fence you're on, in other words. If you're in the 'fine by me' camp it's easy to forget people in the other 'not so good for me' camp.

When people voluntarily reach across this 'void' we call this charity, and the reaching hand usually does so with a fistful of hard-earned dollar bills. This might solve the problem, but then again it might not.

When people give to good causes they assume their money will be used wisely and that it will tackle the problem in the best possible, most efficient way. But for every few dollars given to solve the problem, infinitely more goes towards keeping things as they are. Maintaining the status quo is big business. Indeed, big business, governments and lobby groups are all guilty to some degree. Their job is to keep things good for their 'fine by me' constituents, and what happens on the other side of the fence doesn't concern them. With this going on, are people effectively pouring their money down the drain?

Take international trade as an example. The global system is heavily weighted against the smallest, poorest and most disadvantaged nations. At World Trade Organisation (WTO) gatherings, developing nations with their four or five delegates are regularly overwhelmed by the several hundreds sent by the European Union and United States. It's not surprising they find it hard to get their voices heard.

Meanwhile, the man and woman on the street are giving their few dollars to 'help' tackle world poverty, wearing their white wristbands or whatever. This might be the easiest and most convenient thing to do, but is it the most effective? Is it really doing any good? The real problem might not be poverty, but the world trade system which perpetuates it.

Fact: *A one percent increase in world trade would generate an extra $70 billion in Africa, five times more than it currently receives in aid*

Isn't it time we re-thought the problem?

FRIDAY, **APRIL 20, 2007**

Citizen journalism or citizen empowerment?

It's been a funny old week. After last weeks Mongabay.com interview, news broke on another subject - the use of my FrontlineSMS system in the monitoring of the Nigerian elections this coming weekend. NMEM, the Nigerian NGO who are running the project, will be using volunteer observers to text in any observations (good or bad) as they go through the voting process.

There has been a lot of talk in recent months (and years) about citizen journalism - people reporting on news in their area - but what is happening now, with software such as FrontlineSMS, is more ***citizen empowerment***. The difference here is that with empowerment they not only report on their surroundings - they are suddenly able to fully engage and influence the outcome.

NMEM, whose mission is to "encourage the Nigerian electorate to participate in the electoral process", are a non-profit group of young professionals in Nigeria advocating for social change through good governance. NMEM had the mission, NMEM had the passion and NMEM had the commitment and vision to drive this forward. NMEM also found FrontlineSMS, and they took the software and ran with it. With the exception of several emails and the odd 3am phone call (!) they have been pretty much alone in this venture. The story is really theirs.

This is just the beginning. The future is not citizen journalism - it's citizen empowerment...

SATURDAY, **MARCH 18, 2006**

It's in the equation, stupid

Everyone has their own particular take on what's happening to our planet. On the one hand some will have good, solid scientific evidence to back up their viewpoint, and on the other people will just 'think what they think'. But how big is the gulf between the two?

Take bushmeat as an example, and in particular the hunting of primates. The bloke down the pub - assuming he has an interest in this kind of thing - may argue that it should simply 'stop', that it's wrong, that these things are endangered and they should be better protected, better respected, and it's awful that such wonderful creatures are being killed at all, and then for good measure throw in something about Dian Fossey. If you're lucky you may hear arguments about providing local people with alternatives, or better engaging local communities in conservation efforts, or the lack of economic opportunity for some of the poorest people in the world. The fact is that very few of us really understand what's going on, and even fewer of us have any answers.

Alarmingly, in 96% of protected areas with primates the populations are in decline. That's very nearly all of them, without stating the obvious. And a lot of money is being spent. But what on? Again, ask most people what they think - if you think their viewpoint matters - and you'd probably get park rangers, education programmes, rehabilitation centres, lobbying and so on.

$$IZ_j = \sum_{ij} [(IZ_c)P_{Tot\,i}] - A_{meiz};$$

where:

IZ_j = Impact Zone given as perpendicular distance away from infrastructure in the future year j;

IZ_c = Current Impact Zone given as perpendicular distance away from infrastructure in the current year (baseline);

$P_{Tot\,i}$ = Annual percent increase in growth predicted of IZ_c for the individual years i;

A_{meiz} = Geographical area/land cover of environmental impact zones that have merged.

Sure, a lot of money is being spent on these things. But it's also being spent on stuff like this. This little beauty apparently helps us calculate the impact of infrastructure development (such as roads) on primate populations. Believe me, I would explain it, but I don't understand it.

The point is, this is the kind of work going on out there. Some very clever person will no doubt shoot my argument down in a matter of seconds, but I struggle with stuff like this. I'm sure the equation has some use, but has *knowing* this actually helped protect any primate populations? The latest population stats don't look good, to be fair. Could the money have been better spent on more 'direct' conservation - the kind of stuff that our mate down the pub talks about? Maybe, but what does **he** know about primate conservation, eh?

I wonder...

SUNDAY, **FEBRUARY 19, 2006**

Standing up for the small guy (Part 1)

Picture this: The writer of a zulu tune written in 1939 dies in poverty 20 years later. His song goes on to become one of the most popular tunes in Africa, and is recognised the world over. Ownership of the copyright ends up in American hands, and finds its way into a film which becomes a worldwide hit. The film makes tens of millions of dollars, and is then turned into a successful stage musical - a few more million in the bank and counting. The song reportedly makes $15 million but the family of the writer get $15,000. As Rolf Harris would say, can you guess what it is yet?

Now, I'm no expert in copyright law, although apparently it should have reverted back to the family of the deceased 25 years after his death, so that would be 1987. Something somewhere seems to have been *overlooked*, but the family eventually sued and won an 'undisclosed' out-of-court settlement. Another case of the multinational/big corporate beating the small guy with a stick?

Ethics are a wonderful thing, and many people don't argue against them particularly. Unless they get in the way of making a few quid, that is. Ask a hundred people on the street what they think and I bet most would side with the small guy, but they don't have their finger in this particular financial pie. Ask a hundred shareholders - of Disney in this case, if you were wondering - and I suspect you'll get slightly different results. The trouble is that exploitation of this kind is probably taking place all the time, but we never get to hear about it. I bet there are a lot of really pissed-off people out there...

But what happens when one of the stars of a film, or book, or song **can't** speak for itself? I'm thinking wildlife - whales, dolphins, gorillas, lions and all manner of worldly creatures. There's also a very compelling ethical/financial issue here. It's ironic that most of the 'wildlife stars' in these productions happen to either sit on, or uncomfortably near, the 'critically endangered' or 'critically threatened' list. How much of the hundreds of millions (even billions?) of dollars made from films such as The Lion King, King Kong and Free Willy been donated to the conservation of these very species? I'd like to do a little more research on that one.

Musically speaking, Michael Jackson's epic 'Earth Song' from 1996 - "What have we done to the world, Look what we've done" - takes us through almost everyone's top 10 favourite animals ("What about elephants, What about crying whales" and so on) and drives home their destruction and death. Not knowing how much money was made globally by this massive hit, again it would be a very interesting exercise to find out how much was donated to causes trying to save those very elephants and whales. I'll happily stand corrected, but again would be very surprised if it were much, if anything at all.

Wouldn't it be great if there was a **law** which made it compulsory to donate a certain percentage of income (and not just a token amount, either) to the preservation of any species which take a central role in your song, film, photograph or book? After all if lions, gorillas, whales, ants and so on didn't exist then we wouldn't be able to enjoy watching films about them, whether they're turned into rampaging 30 foot monsters with attitude, changed into cartoon figures or kept in their natural form.

Unless something gives the only place future generations will be able to see these magnificent creatures will be in dusty film archives - or at best a zoo - and that would not only be a real shame but an ecological and environmental disaster.

MONDAY, **FEBRUARY 20, 2006**

Whatever happened to all the white wristbands?

Let's hope that recent reports of the demise of the Make Poverty History campaign are unfounded. Mobilising the masses last summer (okay, via the biggest free pop concerts ever staged, but does that matter?) was certainly a remarkable achievement. But people - and perhaps more to the point, the press - have very short memories.

Apparently there were 8,000,000 white bands in 2005. With Africa once again off the international agenda - no surprise there, then - now is the time for some of those eight million to show that it's not off theirs.

TUESDAY, **AUGUST 02, 2006**

What not to do on safari: Take a rubbish camera

When you visit one of the only national parks in Africa where you can freely walk - quite literally - among the animals, make sure you have a decent camera with you. After all, it's not every day that a pack of African wild dogs pass through. Here's one looking for breakfast.

As for the lions...

THURSDAY, **DECEMBER 28, 2006**

Reflections on kiwanja: Four years on

Assignments in Nigeria and Zimbabwe, talks at W3C in India, the development of several new projects, work with UNEP, a Fellowship at Stanford, an increasingly popular website, new volunteers... all in a years' work. And at the root of it all - kiwanja.net

Despite all of this, I'm still unsure how to describe kiwanja. Ten years in the making and now almost four years old, to me it remains indefinable. I guess you could argue that it's a company - although it won't be for much longer - run by me, but that definition implies some degree of separation or competitiveness. There isn't in either case. I'm not sure if there is a word to describe a *person* as an *organisation,* or a *movement,* or a *belief* come to that, but if there was then that's probably what I'd use. Marvin, a Jamaican guy at the Digital Vision Program here at Stanford, has got as close as anyone to understanding, although he probably doesn't realise it.

kiwanja is very public but, at the same time, very private. What it does is provide me with the vehicle to do what I've chosen to do with my life. Is it an alter-ego? Perhaps, but I'm a little uncomfortable with the use of that word. I'm a firm believer that the ego is more of a barrier to progress than an enabler. After all, so much more gets done if you don't worry about who gets the credit. People who know me know that I'm slightly uncomfortable describing kiwanja's achievements as my own, which might sound slightly odd. You see, it's no accident that, with the exception of the Blog, you won't find a single reference to 'I' throughout the whole site. I've always believed that it doesn't matter what you've achieved in the past - that time is over - and that you're only as good as the last thing you've done. This is the best way of suppressing that ego, and keeping me on my toes. We should all learn to be a little more humble, I believe.

One of the beauties of kiwanja - and there are many - is that it can never be *taken* away. For as long as I live, work and play, it will always be with me. There's a tendency in life to surround ourselves with physical 'things', all built on the back of a life of labour. Often used as a measure of how successful we've been, these are the very things that we *shouldn't* be building our lives on. We shouldn't forget how fickle life is, how a single twist of fate can send us spiralling downwards, how quickly we could lose what we've worked so hard for. Instead of building our lives around material things, we should put more effort into working hard on the things that *can't* be taken away - drawing, painting, music, passion, belief, mission and religion, to mention just a few. All the money in the world can't buy these things. My effort has gone into kiwanja, *my* thing that can't be taken away. Don't be a slave to the system, and don't live unsustainably or beyond your means, however tempting that system may make it.

People should also not wait until they are effected - or touched - by something before making it their 'mission'. So often we hear of those who, touched by a disease, loss, particular event or near-death experience suddenly dedicate their life to an associated cause, usually via a Foundation created in their own name. Of course many, many others don't experience anything and end up doing nothing, or they only take up charitable or philanthropic activities in their later years when they realise - sometimes too late - that there's more to life than a home full of possessions and a healthy bank balance. Maybe I was fortunate when I found my purpose relatively early on (if you call 27 'early on'), but whether or not that's the case, the vital thing is to stick with it - good times or bad, famine or feast - whenever it comes and whatever it is. We all feel emotive when confronted with images of famine, war, despair, poverty, disease or environmental destruction, and in that brief moment we all *feel* that we ought to do something about it. If you do, don't let

that moment pass, and don't ever forget how it felt. Remember, a few dollars donated yesterday to an African famine won't alleviate African famine. Either you're in it for the long run, or you're not really in it at all.

Also, remember that philanthropy is not just about money and not just the stuff of pop stars, and that we *all* have something to offer planet earth. A million acts of random kindness has far more potential as a force for good than any large-scale multi-million dollar project with all its associated overhead and waste. How are people around the world creating positive change? Often at the grassroots level. This is where so much of the real work gets done, yet ironically we hear least about it. So this is where kiwanja deliberately focuses, supporting those who dedicate their time, and sometimes their lives, to their own particular cause and own particular calling. I've always maintained that I myself am not going to save lives, or a rainforest, or a particular species from extinction. But I *can* support someone who might. Remember how much more gets done if you don't care who gets the credit? Drop that ego and get working...

As 2006 comes to a close and kiwanja enters its fifth year, I'm still no closer to working out where I'm headed than I was back in 2003 when it all began. Maybe it's because of my belief in remaining flexible, maintaining an ability to respond to, and make the most of, opportunities whenever and wherever they arise. I would never have dreamt last Christmas, for example, that a year later I'd be a Fellow at Stanford. So who knows what's next? All I can do is make sure I'm ready to take the challenge whenever it comes, and not become complacent in the meantime. kiwanja - whatever you define it as - has taught me a lot, not least that.

SATURDAY, **MARCH 11, 2006**

The return of the Dark Continent

For centuries Africa was known as the *Dark Continent*. It was place of mystery, exotic animals, vast wilderness, all manner of beasts, evil spirits, disease, cannibals and pretty much anything else you'd care to imagine. You just have to take a look at this 1838 map to see how little was known of the interior. Although of course it wasn't that bad (not in every case, anyway) it's something of a shame that so few places hold such mystery any more. The world has been pretty much explored and explained (and in some cases exploited) and that's the end of that. Shame the wonderfully named *Mountains of the Moon* never existed.

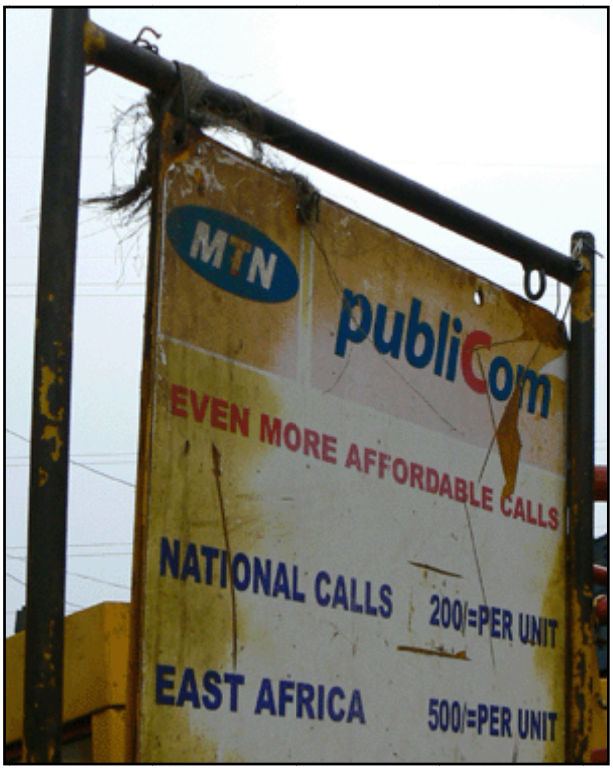
Today the words *Dark Continent* mean something quite different. Over 150 years may have passed since the map was drawn - it's now been pretty-much filled in - but once the sun sets it's time to turn back the clock.

Africa at night. Use a little imagination, and the mystery returns...

FRIDAY, **SEPTEMBER 21, 2007**

Let's not write it off *quite* yet

A couple of months ago a member of the Social Mobile Group on Facebook asked an interesting, and pertinent, question. Commenting on a picture of a payphone attached to a bicycle from the kiwanja Mobile Gallery (this bike is taken around the streets of Kampala for members of the public to use to make calls), they wondered what was going to happen to these kinds of entrepreneurs as more and more people began owning their own phones.



A recent article in Fast Company magazine has set out to answer just that. Looking specifically at decreasing income levels among Grameen's Village Phone Operators, it points the finger of blame squarely at the proliferation of mobile phones (the same finger can be pointed by the fixed payphone network, another victim). On the surface, blaming mobile proliferation seems like a safe bet. After all, if you have your own phone then why pay to use someone elses?

The increase in mobile ownership has certainly had an impact, but any time you mix economics, technology and human behaviour together, some pretty surprising things can happen. And this is where my love for anthropology comes in handy.

I was fortunate to have spent four weeks in Uganda last month, working with Grameen on their Village Phone Program at the same time that Business Week researched their own article on mobiles and economic development in Africa. Nothing beats being on the ground, and I'm very lucky to regularly get the chance to spend time in developing countries where I'm able to get a really good sense of what does and doesn't work.

Many of the blog entries circulating the web in the last week or so - citing the Fast Company magazine and touting the 'end of the Village Phone' - fail to appreciate some of the subtler issues at play. The assumption that people will stop using a Village Phone the minute they own their own is not the open and shut case you might think. During my month in Uganda, I would regularly see people walking up to a Village Phone Operator, mobile in hand, look up a number and read it out to the phone lady to key into her own handset. From my own observations, this seems to happen for a number of reasons.

Firstly, for many owners, mobiles double-up as glorified contact managers, clocks, alarms, torches and, finally, a device which enables them to be contacted any time of day or night for work, or to stay connected with family or friends. Few maintain enough credit to make calls. Many taxi drivers, for example, hold just enough credit to enable them to 'flash' a phone (ring and hang up) to indicate that they are outside and waiting.

The reason for the lack of credit leads onto the **second** point. Few mobile owners want to spend a dollar or more topping up their phone - the amount needed to get enough credit for about 5 minutes of calling - when all they want to do is quickly touch base with a business contact or family member. Instead, a couple of hundred shillings gets them a 40-second call with a Village Phone operator, a smaller amount of money for a small amount of time which is utilised to the full with amazing skill.

And **thirdly**, call rates are actually cheaper through the Village Phones. Whether the caller has a mobile or not, and whether that phone has credit or not, many people still seek out a Village Phone to make their call because it saves them money. That's the bottom line.

Try telling *these* people that the Village Phone is dead.

Mobile ownership may be increasing at a phenomenal rate in the developing world, but more people still **don't** own phones than **do**, and most people earning a dollar-a-day are still a long way off affording one. The Village Phone has been a huge success - there is little dispute about that - but, as with any business, market changes force a period of re-evaluation and adjustment, and the mobile market has moved quicker than most.

Village Phone might well be a victim of its own success, but let's not be too hasty in condemning it to the history books *quite* yet...

TUESDAY, **SEPTEMBER 04, 2007**

Politicians fail, technologies prevail

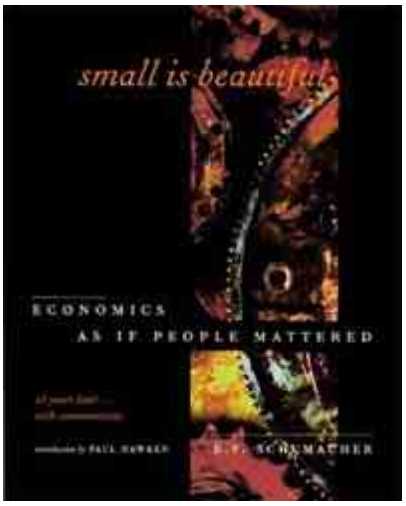
There's been plenty of talk in recent years about a 'United States of Africa'. Fantasy or reality, politically such an entity looks as far off as it ever was. But visions of a continent borderless economically and politically are gradually being replaced by another borderless phenomenon - the mobile phone network. While Europe argues about roaming tariffs and a lack of integration, East Africa silently blazes a trail.

Celtel, MTN and Vodacom are just three of a growing band of African operators tearing down national boundaries to allow their customers seamless mobility as they travel from country-to-country. *"One SIM card. 6 countries"* proclaims Celtel. *"Travel with your Vodacom SIMcard and enjoy Vodacom tariff in Kenya and Uganda"* boasts Vodacom. The speed of change in the mobile industry - more so in developing countries - continues unabated. I'd bet on Africa being the first continent to create a true 'single network'. After all, it's already happening.

Ironically, in the mobile industry at least, it's Europe, and not Africa, looking more like a developing country...

SATURDAY, **APRIL 28, 2007**

Bridging the knowledge divide



A common theme in my work, and in many of my conference talks, centres around a very simple message - appropriate technology. It's nothing new, and as a concept has been around since the 1970's with Fritz Schumacher's defining book, *"Small is Beautiful: Economics as if People Mattered"*. During my recent interview with Nokia's "New Horizons" magazine, however, it was interesting that the conversation was entirely appropriate-technology focussed. I was expecting questions about FrontlineSMS, my work on wildlive! and my developing-country technology experience. Instead, the interview was dominated by my focus on *"needs-based"*, *"human-centred"*, *"grassroots"* and *"appropriate"* technologies. Believe me, I was more than happy to talk about these things - I don't think enough people do.

It still surprises me - sometimes even saddens me - that we live in an era where there's a general tendency to over-engineer solutions. Not only is this a waste of time in my view, but it's a waste of money and effort. It also raises expectations. Believe me, there's plenty of this going on as we speak (sorry, *read*). I come across this at conferences where I meet hugely technically-abled people who spend their time trying to find homes for the very latest technical gadgetry. And because of where I work, and the circles where I mix, the home they are looking for is usually in a developing country. This only serves to exaggerate the problem.

Take the recent use of my FrontlineSMS system in the Nigerian elections. FrontlineSMS is not rocket science. It's so simple, in fact, that it slipped under most people's radars. One comment on Slashdot discussing its use highlights this over-engineering view:

"It's too simple. You guys don't know what you are talking about. Doing it all with one computer and an SMS modem? You can't future proof it that way. I want to see some mention of CORBA and SOAP. How can you have a system without middleware? Can you use dot NET? Everybody uses that these days. And what if I want to use it when I am already on the phone. Can't it have a WAP interface as well? I want to sell a thousand copies of this thing and nobody is going to pay a million bucks for something which doesn't use a single cutting edge technology"

There is certainly no written rule that everything has to be cutting edge. Very little, in essence, is. Is Google cutting edge? There were plenty of other search engines around before they came along. All they did was see the opportunity, do it better and hit the target. Over the coming weeks I'm going to be spending a lot of time discussing mobile phone use, and web access, in developing countries. I'll soon be presenting a paper - the same one presented at W3C in Bangalore last December - at the 16th International World Wide Web Conference in Banff, and sitting on an expert panel at the same event. And my message will be the same as it has always been.

Although it should come as no surprise that there's a gulf between many developers and the realities of life in developing countries, there have been attempts to bring the two together. Some have worked better than others, but at least there's a realisation that a meeting-of-minds is needed. If you want a simple, effective example as to why, take a look at the handsets being used by the majority of rural people in developing countries *(see photo, taken in India this January).* Then have a think about how Java, Flash Lite, WAP and smart-phone applications would go down with these users. Okay, one day these technologies *will* become relevant, but right now I would argue that

they're not. SMS is still the killer application, like it or not. And, on the subject of web access on mobile devices, I would also argue that we haven't quite mastered it ourselves yet. Generally-speaking the user experience still leaves a lot to be desired.

I'm not the only person who thinks this way. Far from it. And I'm looking forward to meeting others, and our technically-minded colleagues, in Canada next month. Time to re-open the debate...

MONDAY, **MARCH 13, 2006**

Sustainability: Who's the Daddy?

No doubt one of the most commonly used words in the non-profit sector (sometimes innocently lumped together with other words to make beauties such as *sustainable development*), *sustainability* is an interesting concept. It's perhaps also not a million miles off holding some kind of 'holy grail' status, too. Built into nearly every project proposal by default, it remains elusive most of the time. So what's the big deal?

Donors like to think that their money - and sometimes effort - are going to last way beyond the project cycle (to coin another phrase). In other words, when the money runs out they like to think that things aren't going to come crashing down. This is kind-of sensible, I'd say. The trouble is, it's proving rather tricky.

For a start, projects are often funded for fairly short periods of time - up to five years if you're lucky but often two or three (many smaller projects, of course, run for much less). This isn't long if you're hoping to create a long-lasting, positive change. Through my own experiences getting muddy on projects, or studying the subject from the comfort of a university campus, this leaves only a limited number of options. Two of the key ones must be:

Create a business model: If you need to make money to keep the project going, then you're open to market forces. People will only buy crap products "because they're ethical" for a while, and before they realise that they're perhaps just that - crap products. Zillions of small businesses around the world fail without having the complexity of being part of a conservation and development project, so achieving financial sustainability is a real challenge. Sadly there aren't that many success stories.

Factor yourself out of the project: Rather controversial for many larger NGOs, although some actively pursue it. Some research would be nice. Anyway, whether or not a project needs to become 'commercial' (see above) keeping costs down is vital if it's to have any chance of survival. This could mean local staff, local salaries, local overheads, little or no 'head office' consultation fees, or people flying left-right-and-centre around the world for no apparent reason, and so on. Maybe the best projects create the desired change, and when the experts have long packed their bags and left it's able to continue running on a shoestring.

Gerald Durrell had the right idea when he said that his dream was to shut down his zoo in Jersey. Of course, he'd then have to go and find something else to do, but that didn't matter. It would have meant he'd succeeded in his mission to save endangered species, and that was all that mattered to him.

Trying to unite *profit* and *social venture* - which I think includes conservation and development projects - doesn't only worry or challenge me. Plenty of other people are already writing and blogging about it. Let's hope the debate reaches a useful conclusion. A few more positive outcomes would certainly help us along.

Just paying lip service to the 's' word doesn't really get us anywhere in the long run.

FRIDAY, **MARCH 09, 2007**

Technology-aided aid

I'm always interested in innovative ways of getting aid directly to those who need it in the most timely and efficient manner possible. Kiva deals beautifully with one aspect of this - linking lenders in the 'developed' world with borrowers in 'developing' countries. But when it comes to financial aid to many of the rural poor - the man or woman on the street, so-to-speak - no mechanism exists (I don't count giving to charity as being a direct donation, by the way). Not only is it a technical challenge to facilitate a direct donation (although mobile payments will soon unlock that particular door) there are other trickier issues, such as what we know about these individuals, or their needs and particular circumstances.

In times of famine or hardship, the typical Western response is to send over plane-loads of food aid. Although this might seem like the most logical thing to do, often it overlooks the chief cause of the famine. Lack of food generally comes below politics, political instability, access to resources and markets, and civil conflict in the famine equation. In other words, it's rarely about a 'simple' lack of food. And flooding a country with food aid creates its own problems, from feeding the militia in conflict situations to destroying what's left of the local and national agricultural market systems.

So, is there an alternative? Well, the UK's Department for International Development (DFID) seem to think so, and they've just started a $3 million pilot project to prove it. They'll be providing cash payments instead of food to tens of thousands of hungry people in northern Malawi. You can't get more direct than that. Although the full impact - and effectiveness - of the program won't be known for some time, the signs look good. As with many microfinance projects in developing countries, women are the main recipients of the cash, and many take their money and head straight to local markets to buy food. This keeps the local economy moving and the agriculture sector buoyant. That's one problem solved, and two avoided, on my count.

(Incidentally, direct payments are nothing new in the conservation world. They've been tried for some years with varying degrees of success. The process is pretty much the same - give the conservation dollars directly to the people living in the conservation area, and encourage them to help preserve their environment through their pockets. I've always quite liked the concept, but appreciate how controversial it is. A PDF paper on conservation direct payments is available here).

Meanwhile, back in Malawi, you may be wondering what this project has to do with technology. Well, administering a system where piles of cash are handed out to tens of thousands of naturally very willing recipients needs to be effectively managed and controlled. So, each of the villagers in the scheme are fingerprinted, and their details held on a smart card which they present at pay-out.

The whole idea of making direct payments is appealing to both the donor and the recipient. If it works it could take hold as an entirely new model for delivering aid, providing it is scalable. The fact that a simple and tested technology has proved to be a key enabler makes it all the more interesting, to me at least.

WEDNESDAY, **FEBRUARY 14, 2007**

Scraping the bottom of the barrel

There are many many good, dedicated, passionate people out there - struggling against the odds - working in developing countries to help improve the lives of some of the poorest and most marginalised people. Let's make no mistake, these odds are regularly stacked against them. Corruption, world trade systems, lack of resources, the impact of global warming, natural disasters, you name it.

This week I read about another. They're called Vulture Funds. And I felt sick.

Vulture Funds work like this. A company 'buys' the debt of a developing country from the original lender, often at a reduced rate (since they're often about to be written off), and then sues the original borrower for the initial sum, plus escalated fees and interest. What's more, it's legal and 'recognised' by the International Monetary Fund, among others.

These Funds came to my attention this week while I was reading a news story from Zambia. A $4 million debt (money lent by the Romanian Government back in 1979, incidentally) had been purchased by one of these Funds, which then won a court case against the Government of Zambia for payment of $42 million by way of settlement. Yes, you heard that right - **$42 million**. A Zambian presidential adviser and consultant to Oxfam pointed out that $42 million was equal to all the debt relief the country received in 2006. "It also means the treatment, the Medicare, the medicines that would have been available to in excess of 100,000 people in the country will not be available".

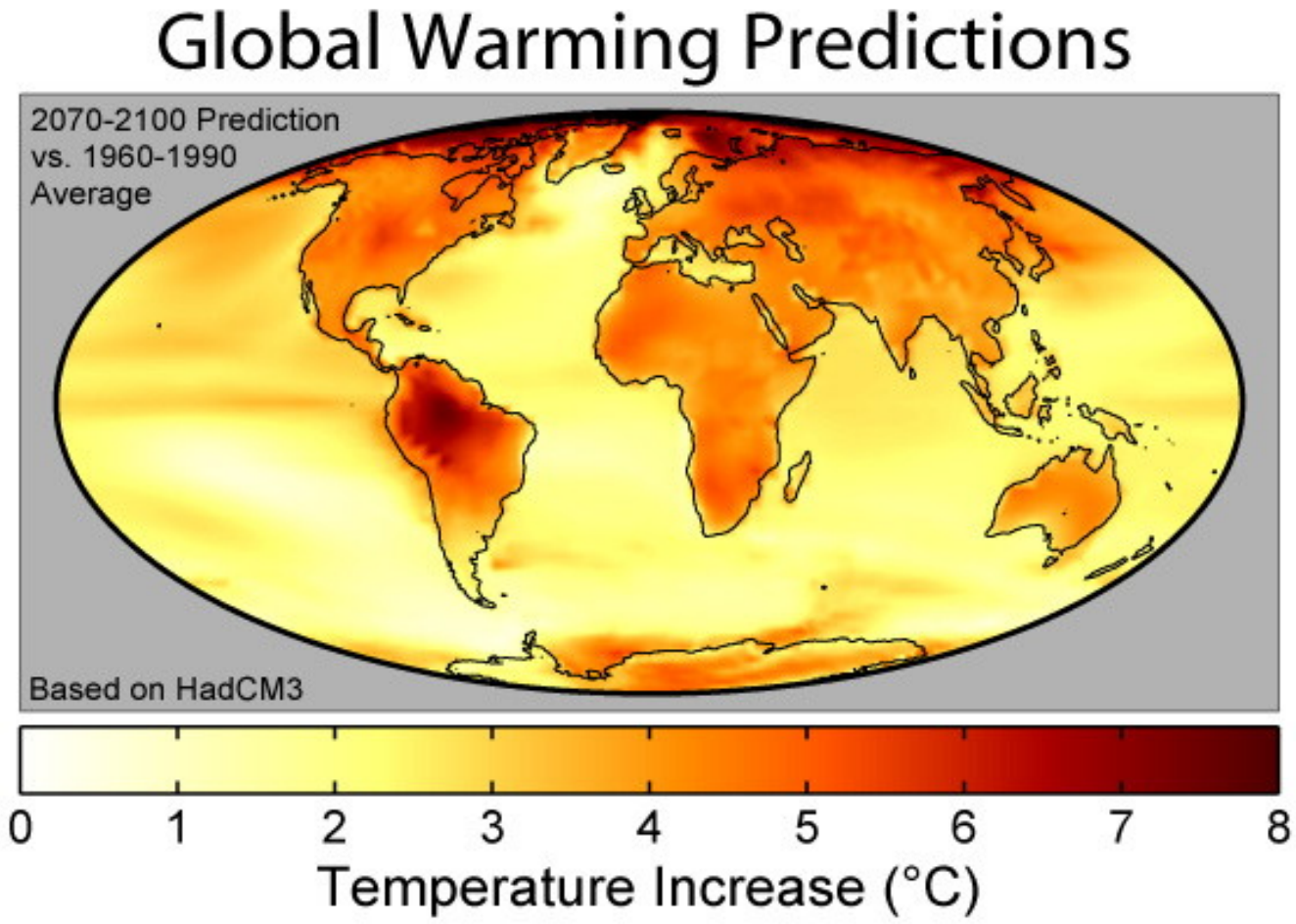
How do these people sleep at night? Sure, if you borrow money then it's only right that it's paid back. But chasing down some of the poorest countries in the world like this, to me, is really scraping the bottom of the barrel.

MONDAY, **JANUARY 08, 2007**

What next for the Inconvenient Truth?

Al Gore has done an amazing job of publicising the global warming phenomenon. Road shows, documentary films and books have all at one time or another been conduits for his environmental message. And powerful it is. But the problem remains little understood, it seems, in the American press. Many of those that bother to take any interest still maintain that global warming is a myth, or some kind of conspiracy by the Greens, or just plain wrong. The truth, inconvenient as it may be, is that there is absolutely *no* dispute among scientists that the planet is warming. Whatever chart or computer model you look at quite clearly shows that the environment is warming, that it started to increase at an unprecedented rate following the industrial revolution, and that last year was the warmest on record (even beating 2005 which, ironically, was previously the warmest).

The dispute is whether or not human activity is the cause of this unprecedented warming, or whether what we're seeing - or should that be feeling? - is just part of a natural cycle. But it makes a complex subject even more difficult for everyday folk to grasp when even the press don't seem to be able to explain the *basis* of the argument properly. Maybe it's another ploy by lobbyists, that strange 'phenomenon' that seems to dominate so much of American politics.



Today the west coast of the United States, around California, was several degrees warmer than it should have been. I had a great time chilling out in my VW camper van. Bees were busy pollinating newly bloomed flowers (not a good sign) and people were busy walking around in t-shirts, eating ice cream, enjoying the sunshine. Ski resorts further inland were shut just like many in Europe, with absolutely zero snow to speak of. And experts interviewed for one of the national TV stations didn't seem to think it had anything to do with global warming. No wonder people on the street are confused. In a nation which more than any needs to take serious action, they aren't even at the point of acceptance, let alone action. By all means *dispute* the causes of global warming, because democratic processes allow that, but don't *deny* that it's happening, please! That doesn't help anyone.

If Al Gore was to write a sequel to his 'Inconvenient Truth' it should probably be called 'Cruel Irony'. Because the cruel irony of the whole global warming saga is that it's going to be those people, and most likely those countries, which have done least to contribute to the problem that will suffer the most. Once again, Africa looks like being particularly hard hit. But in one further twist, Australia - one of the few industrialised countries which sides with the United States and disputes global warming, and refuses to even discuss curbing greenhouse emissions - is right now suffering what many believe to be its most severe drought in a thousand years. Politicians, fuelled by public opinion, increasing concern and a steep rise in farmer suicides, have finally begun facing up to the possibility that something *really is* happening. For many, if this is the future for Australia then something needs to be done, and fast. Better late than never.

The United States has suffered its fair share of adverse weather over the past year or so, with the destruction in New Orleans dominant in most people's minds, and a record hurricane season to boot. But many Americans haven't yet had their 'Australia moment', nothing major enough to cause a big enough shift of opinion. But how major does it have to be - bigger than Hurricane Katrina?

That change *will* come. Americans won't be immune forever. But for all of our sakes, please make it sooner rather than later. The clock is ticking for all of us.

THURSDAY, **APRIL 20, 2006**

Battle at the bottom of the pyramid

You can imagine the headlines.

"Western giants battle over the hearts, minds (and wallets?) of Africa's rural poor"

I'm talking about the battle currently raging right under our noses between MIT and Microsoft, *or* Nicholas Negroponte and Bill Gates, *or* the $100 laptop and a Windows/mobile device (as yet unnamed since it's not even in existence). Or all three if you like.

(For those of you who might not know, the $100 laptop is a product of One Laptop per Child (OLPC), a non-profit association dedicated to researching and developing a laptop to revolutionise ICT access for the 'rural poor' in developing countries. The idea was announced by Nicholas Negroponte at the World Economic Forum in January 2005).

The laptop itself is a rather bright little green thing, its most striking feature being a crank handle which gives it the power it needs to run. As is traditional in such cases, the idea has caused jubilation and alarm in equal measure, not least from Bill Gates himself who, not surprisingly perhaps, is a little miffed that the laptop designers have opted to use open source software, shunning his beloved Windows operating system. Maybe for this reason alone Mr. Gates has gone on the warpath, slamming the $100 laptop and claiming that some Windows-powered mobile device plugged into a keyboard and TV is the answer. All very interesting stuff, even if it doesn't exist yet (or does it?!).

All of this strikes me as yet another example of top-down interventionism. Are these projects (or visions in Bill's case) needs-driven, or big business agenda-driven? And whose needs? If it's the 'rural poor' then are their needs real or perceived? Who's representing the 'rural poor' in all of this? What do **they** think (not that they can all collectively respond, naturally)? I imagine it's like being in a hospital bed with two doctors standing over you arguing about how you're feeling and what's best for you. As the patient, surely you have some say? In a similar way, the 'rural poor' should not be treated as passive recipients of whichever ICT becomes dominant, based on battles of ideas, money and ideologies far, far away. Is it *really* for us to say what **they** *really* need?

"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". How many would agree with that?

Don't get me wrong - I'm not particularly for or against initiatives like the $100 laptop. It's just the process that I'm having a little difficulty with.

FRIDAY, **MAY 19, 2006**

Can we have our island back?

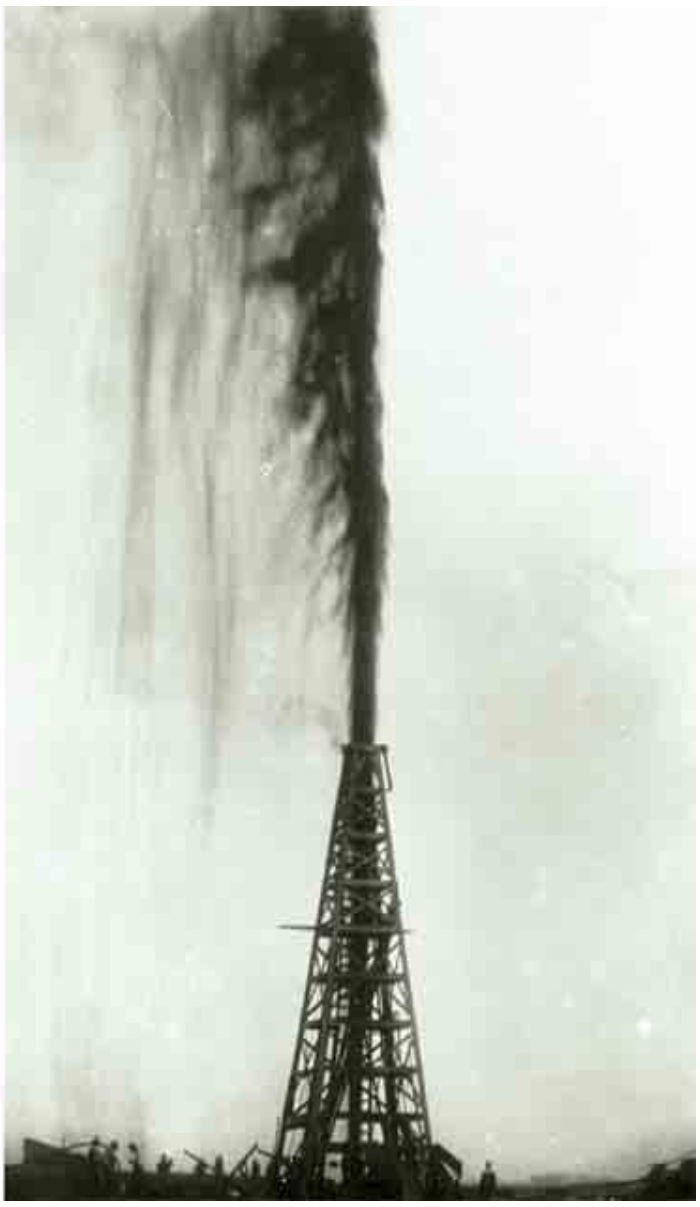
There's something very interesting going on in South America at the moment. It doesn't seem to be getting a huge amount of attention, but if it catches on it could have far and wide implications for all of us.

Indigenous communities there have lived off their tribal lands for generations. While many still do, others lost theirs long ago as natural resources were discovered, large-scale farmers and loggers moved in, and national parks were created. Few, if any, got compensated or received any stake in the financial riches that often followed their expulsion.

Indeed, kicking people off their land has been a bit of a pastime for many governments over the course of the last century or so. There didn't seem to be anything wrong with it at the time. Why, the British government expelled an entire population from an island in order to help out the Americans with Diego Garcia. Doesn't seem right, somehow.

But things seem to be changing. Indigenous and local groups, backed up by a growing band of (brave) new leaders have begun wrestling back what many people see as rightfully theirs. Assets are being transferred back into state control, but not just any old assets. Oil and gas fields, as it happens.

Bolivia recently declared it was nationalising foreign energy companies, and Ecuador recently seized the assets of American giant Occidental (although this was part of a specific dispute - oil companies in general have nothing to fear, or so they're telling them). Hugo Chavez (who seems to hold two jobs - one President of Venezuela and the other to annoy the hell out of George Bush) was behind recent moves to bring Venezuela's oil assets under the control of the state oil company. This hasn't gone down too well with the Bush administration generally, nor Exxon Mobil, Chevron or ConocoPhillips who run some of the fields.



Protests against foreign ownership and control of national assets are nothing new. The key difference here, though, is that they're **government-led**. We're not talking about a bunch of armed rebels such as those working for the Movement for the Emancipation of the Niger Delta in Nigeria (MEND). These guys just blow up the odd pipeline or kidnap the odd oil worker, and then retreat back to the bush. (MEND may be new on the scene, but this battle has been going on for some time).

It's hard to argue why a country shouldn't have control of its natural resources. Maybe the tide is beginning to turn against the global corporate machine, and oil and gas could just be the start.

SUNDAY, **MARCH 25, 2007**

Climate change: It's getting personal

Out of the six billion-or-so people on the planet, two out of three probably aren't in much of a position to do anything about it right now. They're either too busy trying to get their next meal together, or scratching a living off a few dollars or less a day. We're talking climate change, and as citizens of the developed world we're being told more and more that we should take our share of responsibility and act. After all, we're the lucky ones who can.

In the UK, climate change is top of the agenda. I've been back only a week and the newspapers are full of adverts and government advice on how we, as consumers, should be doing our bit. We have an incredibly important role to play, yet many of us still don't yet seem to realise it. Why aren't we getting the message? Is asking people to walk the short distance to a local shop *really* such a problem? Or to not leave things on standby? Or to turn the heating down a notch or two and put a jumper on? On the plus side people at least seem more aware of climate change. But getting them to take that next step and change their habits seems, for many, to be an "ask too far".

In an attempt to speed them along, Christian Aid have recently been running some hard hitting newspaper campaigns in the UK (I'm not sure if they're doing the same in the US). At the same time, interest continues to grow in devices such as "standby savers", which will do what most consumers appear resistant to do and kill the power to their beloved consumer devices when they're not being used. As a recent Economist article explains:

"Strange though it seems, a typical microwave oven consumes more electricity powering its digital clock than it does heating food. For while heating food requires more than 100 times as much power as running the clock, most microwave ovens stand idle - in standby mode - more than 99% of the time. And they are not alone. Many other devices, such as televisions, DVD players, stereos and computers also spend much of their lives in standby mode, collectively consuming a huge amount of energy"

If doing something as simple as unplugging things at the wall at night reduces energy consumption in the home by as much as 20%, why are so few people doing it? Maybe breaking the global population down into

segments may help us understand behaviourally why some people may or may not be interested - or care - about the climate change issue.

Here's a very rough attempt for starters:

We start with a world population of: **6 billion**
We deduct those unable to engage for economic reasons, leaving us with: **2 billion**
We deduct those who don't believe climate change is happening, leaving: **1 billion**
We deduct those who believe in it but don't think it's 'our' doing, leaving: **600 million**
We deduct those who believe it's 'our' doing but not causing problems: **450 million**
Deduct those who think it's 'our' doing and a problem, but don't care: **375 million**
Deduct those who think it's 'our' doing and a problem, but feel helpless: **300 million**

On the basis of these very, very rough figures, it looks as though only 300 million people, or approximately 5% of the total world population, would actually be willing or able to change their behavioural habits based on the climate change issue. For the environmentalists, this segment would be classed as "in the bag", so-to-speak. We have a number of segments above this hardcore group, and these are the ones needing to be targeted by advertising and educational campaigns. Clearly each segment would require a different 'marketing' approach based on a range of unique drivers for their non-engagement, and maybe this is what's been missing.

I wonder if anyone is working on this?

FRIDAY, **JULY 06, 2007**

Pledge...

... because sometimes it's good to remind ourselves

FRIDAY, **MAY 11, 2007**

One of our continents is missing

I've just returned from the 16th International World Wide Web Conference in Banff, Canada. As you'd expect from such a prestigious annual event, no expense was spared in making the experience as productive and pleasurable as possible for the thousands of delegates who attended. With the beautiful Rocky Mountains as a backdrop, what better place to network, make new friends and talk about the future of the web? Life can be hard...

The 16th International World Wide Web Conference was interesting for a number of reasons. For a start, the world wide web isn't really world-wide quite yet, and this was one of the reasons I was invited to attend. On Tuesday I presented a paper on the Mobile Web in Developing Countries, and the day after sat on a panel discussing Web Delivery Models for Developing Regions. I enjoy attending these kinds of events - not only does it give me a chance to see what other people are doing in this emerging 'emerging market' area, but I also get to profile my own work to a wider audience. After many years working alone in darkened rooms, this is new and refreshing. Fortunately my message is always well received, and seems to strike a chord with most people. It still makes me smile seeing *kiwanja.net* ("Who?", I hear all the delegates asking!) muscle in on the big guys - Microsoft, MIT, IIT, IBM and so on. Power to the people!

On the downside, the notable lack of African presenters and delegates at the event - the "missing continent" - was rather disappointing (if not unexpected), particularly considering the amount of interest in emerging markets right now, and the drive to connect the last couple of billion people at the bottom of that pyramid. The reasons for this? Well, I doubt that it's down to a lack of interest from African developers. No doubt they'd jump at the chance to attend something like this. I'd put it down to issues of cost and lack of funding, lack of awareness in both camps, a general lack of focus on the African continent (and why should there be, I guess?) and the fact that not many Africans got invited to this thing. There was, as you'd expect, a strong North American and European contingent, along with plenty of others from Asia. We seem to be creating a continental divide to add to our already well-established digital one.

On a more positive note, over the past few months I've come into contact with many people with professional and personal interest in the uses of technology in Africa for positive social and environmental change. Many have been from Africa.

Change is in the air...

WEDNESDAY, **SEPTEMBER 12, 2007**

The Digital Divider

People tend to get pretty excited around mobile technology. In developing countries most of this excitement has centred around their proliferation into poorer rural, communication- starved areas, and their new-found potential in helping close the digital divide. Handset giants such as Nokia and Motorola believe that mobile devices will *"close the digital divide in a way the PC never could"*, industry bodies such as the GSM Association run their own "Bridging the Digital Divide" initiative, and international development agencies such as USAID pump hundreds of millions dollars into economic, health and educational initiatives based around mobiles and mobile technology.

But what do we really mean when we talk about the mobile helping close the digital divide? Clearly, mobiles are a relatively cheap device - when compared to personal or laptop computers, anyway. They are small and portable, have good battery life, provide instant voice communications, have SMS functionality and they have the *potential* to provide access to the internet.

Even the poorest members of society find ways to own one. But Houston, we have a problem.

I've been lucky over the past few years to have spoken at numerous conferences, workshops and companies about the uses of mobile technology in international conservation and development, and it's something I truly enjoy doing. However, I've slowly noticed a knowledge gap, or should we say an *awareness* gap. In the West, when we talk of mobiles helping close the digital divide, many people make a **huge** assumption about the technologies available to users in developing countries. We look at the mobile through rose-tinted glasses, from the top of our ivory towers, through a Western prism. Call it what you like. Think about it. Most of us have fancy phones and are gifted with pretty good network coverage to drive them. Not only can we make calls, we can take good quality photos, we can make and edit little movies and upload them to the web, we can surf the web, we can play neat games, and we can download neat bits of software. Our overall experience is generally a pleasant one. Why else would we want a phone? So, with mobiles able to do all of this, their potential in developing countries is clear, right? Well, maybe...

Let's start by looking at the worlds best selling phone - the Nokia 1100 *(pictured)*. Anyone who's spent any time in a developing country recently would not have failed to notice the number of these around. The reason? They're Nokia (and people just seem to *love* Nokia), they're sturdy, have good battery life, the user interface is easy and they're cheap (selling for around $40 new in Uganda, for example). They do everything the user wants – they can make and receive calls, they can send and receive SMS and the built-in alarm is very popular (only last month in Kampala my taxi driver was telling me with great excitement how his alarm still sounds, even when his phone is switched off). These are the kinds of phones in the hands of many people in the very rural areas where we see the mobile as the tool to help close the digital divide.

The problem here is that the Nokia 1100 - as with many of the low-end handsets found in the markets and shops in developing countries - has no browser of any kind, and doesn't support GPRS (or any other form of data transmission). Accessing the internet? Dream on. But this is not the only problem. Network coverage in many rural areas lacks data support even if the phones did have it, although this is admittedly changing. There are also issues of language and content, but more importantly cost. Someone with little spare income doesn't want to spend a large chunk of it scratching around the web to find what he or she is looking for. In many countries GPRS pricing models are at best confusing. While an SMS carries a fixed cost, calculating how many kilobytes of data make up a WAP page is anybody's guess.

The opportunity at the bottom of the pyramid is huge, and handset manufacturers and network providers alike are working hard to fill it with phones. For them, the most important issue is cost because that's what's

most important to their customer. And if this means providing trimmed-down handsets at the lowest possible prices then so be it. This current reality sees many of these phones with no GPRS, no browser, no Java, no camera, no colour screen - the very technologies which form the lynchpin of our plans to promote the mobile phone as the tool to help close the digital divide.

So, if we're serious about using mobile to help close the digital divide, how about diverting international development funding towards providing a subsidised, fully-internet ready handset for developing markets? Aid donors are already providing funds to the network operators, after all. In the DRC, Madagascar, Malawi, Sierra Leone and Uganda for example, the IFC (an arm of the World Bank) recently provided US$320 to five operations of Celtel to help expand and upgrade its mobile networks (you can read more about that here). Network coverage, important as it is, is only part of the equation. From the perspective of the digital divide, who's addressing the handset issue?

During a recent interview with the BBC I commented that *"Voice is still the killer app in many developing countries. Data is going to be playing catch-up for a long time to come"*. I've received many comments of support - and a few in disagreement - since this was published. This is a very important debate, and I hope it is one which finally starts to get some serious discussion.

TUESDAY, **JULY 18, 2006**

Time for specialisation?

If you cast your mind back a few years you'd remember whole batches of small IT start-ups developing and marketing bunches of IT-based tools and diagnostics utilities. Looking back now some of these seem a little silly - a utility to compress data or defrag your system, another to help undelete files, others to search for files across your hard drives. Now, of course, pretty much all of these have been swallowed up into Windows. The lucky companies got bought out. Others just went under.

The PC market is certainly big enough to support many, many companies of different shapes and sizes. It's sad to think, then, that so many of these pioneers have fallen by the wayside (although replaced, naturally, by newer outfits). If Microsoft hadn't liked their products so much and hadn't either made them an offer they couldn't refuse, or integrated their ideas into the continuing development of Windows, then quite possibly many more would still be around today. It would make for a healthier environment, I'm sure.

Now we hear that Apple may be under pressure (again) from the Seattle giant. Picture it. A couple of decades or so ago you develop a home computer, and the operating system, only for someone else to come in and steal your thunder (I won't go into any of the legal issues or court cases here). So, after a period of great uncertainty you decide to move into a new area - portable music devices - and make a huge success of that. Then what happens? Another giant - the same one as before, as a matter of fact - comes in and announces that they will also be entering the market.

Dubbed the "iPod killer" by some, Microsoft's 'Zune' portable media player will certainly be one to watch. But why does a company with the biggest pile of money ever assembled need to go and enter another market like this? Isn't the PC market enough to be getting on with?

Competition may be healthy, sure. Survival of the fittest, sure. But let's be careful how we go forward. I, for one, would rather see companies specialise and stick to what they do best. And leave the others to do the same.

THURSDAY, **NOVEMBER 01, 2007**

The community conundrum. Continued...

Last week I was called up by a Researcher at Berkeley wanting me to take part in a survey. After a conference in February this year, intriguingly entitled "The UN Meets Silicon Valley", a number of initiatives were now beginning to emerge (I was invited to the conference, but it didn't really seem like *my* kind of thing, despite having had the pleasure of working with the organisation recently). Yes, the gathering was over eight months ago, but we are talking the UN here (I did say this wasn't my kind of thing, didn't I?). According to the official conference announcement:

The United Nations meets the Silicon Valley to explore how technology and industry can bolster development. Prominent members of industry, academia, and the venture capital community will take the stage alongside members of the Strategy Council of the Global Alliance for ICT and Development to discuss the partnership between the public and private sectors in the field of ICT and development

It turns out that one of the key outputs from the conference was a call for the creation of some kind of community website, where technology companies in the Valley could connect with the ICT4D community 'out there' and become a catalyst for great things. The research taking place now hopes to determine what this community might look like, how it might work, and what it might actually *do*. Although its aims may be admirable, the thought of yet *another* community drives me to despair. I'll happily be proved wrong - I wasn't obstructive and did make a number of suggestions during my 30 minute conversation with the Researcher - but I can't help but wonder where our continued obsession with community lies and why it continues to be something we find so hard to crack.

I'm no expert, but I guess you can put online communities into at least two categories - those built around small, *micro-specific* interest areas - such as a ban on a particular product or company, or the running of a local sports club - and those at the opposite end of the spectrum, the *macro-non-specific* areas. There are probably millions of examples of the first category, but far fewer of the second. Facebook and MySpace are the two obvious global gorillas that spring to mind (interestingly, the Groups feature in Facebook quite likely provides the platform for many of the newer *micro-specific* groups, many of which are humorous in nature and seem to serve no specific purpose other than to be funny). When we look at building communities for the more serious ICT4D, or mobile-related communities, it does no harm to look at how the Facebook ecosystem works. Why, for example, has it proved relatively painless for me to attract over 850 members to the Social Mobile Group, a group I set up to tap into the wider interest in mobile phones beyond the activist and professional communities? What motivates people to join that group, rather than some of the others outside of Facebook (or even *within* Facebook, for that matter)? Tough questions.

For me, one of the key issues has always been one of motivation. You know, the *"Why should I make the effort to register myself on this site?"* conundrum. Very few sites have really cracked this because few have been able to effectively deconstruct this motivational puzzle. And even when people are convinced that it's worth their while registering on a site, getting them active is another thing. After all, you may be able to lead someone to a community, but you can't make them post. Maybe one key advantage of Facebook is that once you're registered you can show your support for multiple causes or interest groups with a couple of simple

mouse clicks. If the act of registering is the problem, how to we get around *that*? No registration equals no idea who the members are, and what kind of community is that? Or, is knowing who's *in* a community a defining factor of that community?

My Facebook experiment has expanded recently with the creation of the FrontlineSMS Supporters Group. Within the next few months the main FrontlineSMS website will be re-launched with a range of new features for the growing family of FrontlineSMS users, and others interested in mobile use in developing countries. When it comes to building a true, active community around it though, I remain hesitant. But one thing's for sure - I'll continue watching what's happening on Facebook. I'm sure the answer lies in there somewhere...

(For an earlier Blog posting where I look at the more prominent mobile-based sites - community and otherwise - check out "View from the front row" in the August archive)

MONDAY, **APRIL 02, 2007**

Thomas J. Watson, Sr. - Right after all?

Thomas John Watson, Sr. was the President of International Business Machines (IBM) during its years of spectacular growth in the 1920's, 1930's, 1940's and 1950's. It was during this time that he nurtured IBM's innovative management style which, until recently, kept Big Blue at the top of the global IT league (although, with over 350,000 employees worldwide, IBM is still the world's largest information technology employer. It was finally knocked off top spot by Hewlett Packard, based on total revenue, not profits).


Thomas Watson, Sr.

It was Thomas Watson's son, Thomas J. Watson, Jr., who finally took IBM into the "modern-day" computer business after taking over the reins in 1956, one month before the death of his father. Previously the company concentrated on the building of tabulating machines and cash registers - products which were to later be replaced by mainframes and personal computers. Thomas Watson Sr. was sceptical of the role of these 'new' machines - still very much in their infancy in his time - and was reported to have famously said that "there is a world market for maybe five computers". There is considerable debate as to whether he did or did not actually say this, but looking at the landscape 64 years on, maybe he had a point.

It goes without saying that there was a much larger market for mainframe and personal computers, but had Mr. Watson said that the world could perhaps be ***run*** on five computers, then he might not have looked so out-of-touch. I'm thinking Google here, with its plans for on-line domination. First search, and more recently on-line tools and applications which many believe will rival and eventually replace Microsoft Office as our main productivity tool. Google has had such an astronomical impact since floating only three years ago, and, as with IBM in its day, it is blazing a trail with its innovative work and management practices.

Imagine the on-line landscape by the end of the decade. Is it really so unbelievable to think that everything we do could be run from five solar powered mega-servers in Mountain View, home of Google? Thomas Watson, Sr. could have been a lot closer to the truth than he ever imagined.

If, of course, he ever said it in the first place...

THURSDAY, **OCTOBER 25, 2007**

Overwhelming. Perspective.

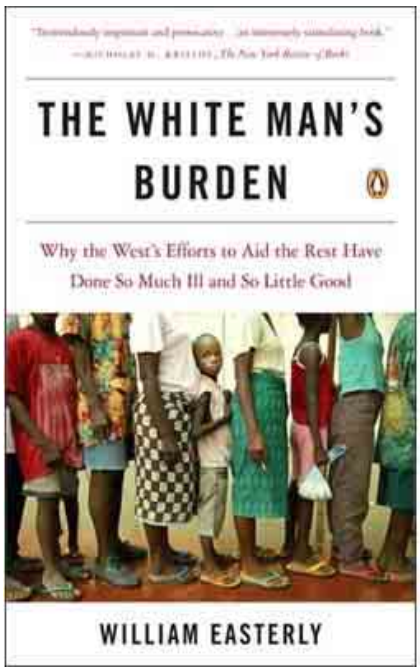
I'm just back from the first night of the Stanford leg of the United Nations Association Film Festival (UNAFF). From the opening documentary about the atrocities, lies, deceit and mystery surrounding the Chernobyl nuclear disaster, where respect for individual human life was almost non-existent, to the incredible work of a team of dedicated doctors and nurses in a Lesotho HIV/AIDS clinic where respect for individual human life could not have been greater, the immense diversity of the worlds problems were really driven home. Sandwiched between these two incredible films was a third, made up of 5-minute snapshots of six ordinary people who fought - and won - environmental battles in their communities armed with just passion, commitment, drive and a sense of injustice.

If there are two things that I came away with tonight from the festival, they're this. When you're overdosed with visual images of suffering, despair and corruption like many of the audience tonight, the problems of the world seem totally **overwhelming**. But this can also help put things in **perspective**, and force us to look more closely at ourselves, how *we* live our lives, how effectively *we* focus our own individual efforts, and why so many people turn a blind eye to everything happening around them. Each and every life has value, yet we sometimes lose this in a world where scalability and sustainability rule and the shear numbers of *real* people suffering is lost in the huge numbers thrown at us by the statisticians. For the young boy who was told at the Tsepong Clinic in Lesotho that his father was dying *(captured in the photo above)*, only one thing mattered. And it wasn't statistics.

It was Margaret Mead who once famously said that we should *"never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has"*. It is with that comforting thought that I drift off to sleep tonight.

MONDAY, **OCTOBER 01, 2007**

In search of The Searchers



In my quest for a holiday read last week, I picked up a copy of The White Man's Burden by William Easterly, a book about *"why the West's efforts to aid the Rest have done so much ill and so little good"*. Reading this feels like a throw-back to my days at Sussex University where, during the Development Studies portion of my degree, I seemed to spend half my time reading books about how woefully inefficient international development-spending was. On the whole, most of the evidence then seemed to fit that view. So here I am, a decade later, reading much of the same in the form of an updated condemnation, reinforced by a further ten years of (generally-speaking) failure. The White Man's Burden does a good job of unpicking much of what I - and many people - believe is wrong with the development industry (and yes, it is an industry, employing - it seems - as many people *here* as we're trying to help *there*). And I find it particularly refreshing because, for once, small-scale efforts are appreciated for what they are, and not condemned as 'irrelevant' or 'unscalable'. The problem, as William Easterly puts it, is that donors and governments like big impact, and this leads many people to only think in terms of "Big Plans". Few Big Plans work. Many more smaller ones do.

Much may be wrong with international development, but the industry is still blessed with talented people who deeply care, and are truly passionate, about their cause. Many work for the Big Planners, while others choose an alternative path. The two approaches could not be more different, and there are many reasons why people choose one over the other - job security, money, opportunity, 'big is beautiful' and status are perhaps just a few. After all, how could billions of dollars funnelled through massive aid projects ***not*** make a difference? One problem with the Big Plan approach is that no-one ever seems to be accountable. Wait for the next set of global health targets to be missed - better still, the Millennium Development Goals - and see who gets fired. Go it alone, however, and the situation is very different.

Planners prefer big budget big scope big impact plans designed to fix big problems, while Searchers look more closely at specific (smaller) problems and tailor a more appropriate response based on cost, local issues and understanding, need, relevance and opportunity. Microcredit began life this way. It was never meant to fix everything, although going by the number of Microfinance Institutions (MFI's) around today you'd have thought it was. As William Easterly puts it:

Microcredit is not a panacea for poverty reduction that some made it out to be after Yunus's discovery. Some disillusionment with microcredit has already come in response to these blown-up expectations. Microcredit didn't solve everything - it just solved one particular problem under one particular set of circumstances - the poor's lack of access to credit except at usurious rates from moneylenders

Although William Easterley's book only occasionally touches on technology, ICT projects are far from exempt from the Planner/Searcher scenario. Mobile phones are regularly touted as *"the device to close the digital divide"*, a magic tool to help lift people out of poverty or a quick-fix solution for activists. As with microfinance, this is also only true in some instances, not all. Mohammad Yunus took a commodity as 'available' as money and improved people's access to it. Mobile phones are now the new currency, and there are myriad examples of how this handy little device is empowering people the world over. But we need to be careful that the mobile doesn't fall foul of the same trap. We need to realise, too, that many of the mobile-based solutions prevalent in the developing world are the result of local initiatives, local people identifying local needs and acting on them. These people had no Big Plan - they simply searched, found and did. As William Easterly puts it, *"poor people have accomplished far more for themselves than the Planners have accomplished for them"*.

So often we find that the answers lie with the people themselves, but all-too-often solutions are imposed from the outside - the West - or from above through a distant, centralised government. William Easterly continues: *"The best chance for the poor is for them to be their own Searchers, borrowing ideas and technology from the West when it suits them to do so"*.

A few months ago I gave an interview about my work, and FrontlineSMS, to the Corporate Council of Africa for their forthcoming *Africa Journal*. This interview more than any captures kiwanja's work ethic, and ends with a quote which could have easily come from William Easterly's book:

... But what excites Banks most about FrontlineSMS is the role he doesn't play. "FrontlineSMS provides the tools necessary for people to create their own projects that make a difference. It empowers innovators and organizers in the developing world to achieve their full potential through their own ingenuity"

Whether it's measured in the uptake of FrontlineSMS, or interest in my latest nGOmobile initiative, it will be The Searchers in developing countries who ultimately determine whether my efforts succeed or fail. We all need to be accountable to someone. I'm happy to be accountable to them.

FRIDAY, **JUNE 15, 2007**

And the winner is...

Few would dispute that we're living in an age of tremendous innovation. It's hard to believe that the PC has only been around for 20-odd years, and the mobile phone half-of-that. The personal computer may have blazed the original consumer IT trail, but what is happening today with the mobile phone is potentially hugely more significant. Let me explain.

Successful companies understand their customers better than unsuccessful ones, at least that's what we're led to believe. Back in the early days of the personal computer, customers were medium- to higher-wage earners, or at the top end the early adopters. It was the same with the mobile phone, considered toys for executives in the early days and only more recently essential devices for the masses.

What's different today is, unlike the PC which stalled price-wise at the lower-end of the developed western markets, mobile manufacturers have very quickly begun looking at the very bottom of the pyramid, the emerging markets, the billions living in poverty in the developing world. The rationale behind this is two-fold, at the very least. Firstly, the developed world (if we can call it that) has reached saturation point in terms of mobile ownership, so it is natural to look towards new markets. Secondly, mobile phones are incredibly, and perhaps uniquely, empowering socially and economically, so people don't tend to see the move into emerging markets as an exploitative one.

For me, most significant is the interest that mobile manufacturers (and operators, come to that) are taking in development issues - poverty, gender, health, literacy, infrastructure, economic empowerment and so on. Just take the MOTOPOWER charging kiosk *(pictured, courtesy of the Mobile Gallery)*, rolled out in Uganda earlier this year. Not only does it solve a major charging problem for mobile users (it runs on solar power, by the way), but it creates opportunity for micro-enterprise. Many women now run these kiosks.

This is just one example of how manufacturers and operators have quickly understood that poverty - in all its forms - are barriers to ownership, and as a result they're making significant efforts to understand it. This, I believe, is a potential revolution in how big technology business views the developing world. Think, only recently have there been wide scale (global) attempts to build affordable laptops for the worlds poor - OLPC, for example - but it's taken decades to get there. Mobile manufacturers are already on the ball, in less than ten.

It will be interesting to see how this plays out, but there may well end up being more than one winner. And the world's poor may just be among them.

SUNDAY, **NOVEMBER 19, 2006**

Could this really be "the coolest thing in conservation"?

A new partnership has recently been announced, designed to tackle the age-old problem of how to attach 'value' to the environment, or to 'ecosystem services', however posh you want to make it sound. Stanford University, The Nature Conservancy and the Worldwide Fund for Nature (WWF) are collaborators in what's become known as the Natural Capital Project.

Described by Carter Roberts - President and CEO of WWF - as quite possibly the *coolest thing in conservation today*, the Natural Capital Project, in its own words, aims to "make nature a regular column in our spreadsheets and cost-benefit analyses". It may not sound that cool, but attaching value to a forest, river, mountain range, savannah, swamp, insect or whatever will take some doing.

Take the humble honey bee, for example. Their value to a bee keeper in Tanzania is undisputed - without the bee there's no honey. But for a coffee farmer who relies on the same bees for pollination, a shift in population might instead 'just' effect his crop. It might not destroy it, but 25% less yield could be the difference between feeding or not feeding his family. So, using bees as our example, a healthy bee population, supported by a healthy forest home, is a key issue. For the bee keeper or the coffee grower, it's in their interests for the forests to remain intact. What the Natural Capital Project hopes to do is attach some financial 'value' to this forest. As they readily admit, however, "putting a price tag on ecosystem services won't be easy". Clearly, if it was then someone would have probably managed to do it already.

It's worth remembering at this point that we already have monetary values for the very services that this project seeks to value. A mahogany tree, for example, is worth several tens of thousands of dollars; a chimpanzee as a pet perhaps a couple of hundred dollars. But these are prices with the 'ecosystem service' removed from the ecosystem - not the price to keep it there. This is the key difference.

The problem will be, of course, in convincing as many parties as possible that it's in their interests to keep forests, rivers, swamps or whatever intact, however many dollars or pounds appear in the financial columns. If the coffee grower owns the forest, then that should be relatively straightforward if you can present the sums, aided, of course, by that spreadsheet. But when external, third parties have vested or varied interests then the value could vary dramatically, down to quite literally zero. Attaching ecosystem value could well help at policy level - which is where the Natural Capital Project is pitching - but it won't stop illegal logging from outsiders, or 'travelling bush meat traders', or unscrupulous companies or corrupt government officials. It's in some of these areas where the most pressing barriers to conservation perhaps lie.

This is a brave project which will be quite literally judged on its results. Success - however that is measured - needs to be turned into something tangible, with real results on the ground.

After all, this is where the actual conservation takes place.

THURSDAY, **MAY 24, 2007**

Mobile consumerism: Pixel by pixel

Despite the many incredible things happening around the world with mobile phones, one thing continues to trouble me - the sheer numbers of these things being manufactured, consumed and, in some cases, spat out (dumped, stuffed in drawers, or whatever). Okay, many are finding their way into new homes and markets - developing world or otherwise - which is a good thing all round. But we've been fed news for so long about "several million new subscribers here" and "another few million there" that we've almost become numb to the massive scale of the whole thing. What on earth do several million handsets look like?

I never really thought about it until now. The photo above is from "Running the Numbers: An American Self-Portrait", a series of prints by photographer Chris Jordan that aims to examine modern American culture through the "austere lens of statistics". What you're seeing up there is a photograph of 500,000 mobile phones all piled up. This represents the number of mobiles ditched **daily** in the United States.

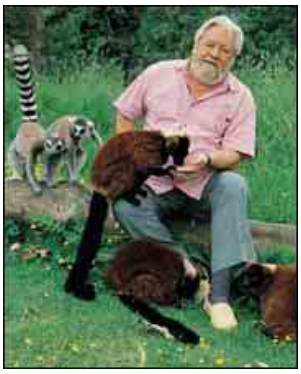
In India alone over 5 million new connections - ten times this number - are made **every month**. Now, maybe not all come with a new handset, but the manufacturers are doing their utmost to make sure they do. That's where the battle is right now, and it's only going to hot up. After all, on a global level more people still don't have phones than do.

The sheer environmental cost of producing such a massive number of devices can't be underestimated. Quite frankly, it's huge. I don't have any answers right now - I wish I did - and sometimes during my various talks I get asked about this. But despite that, I think it's important that we are at least aware of the issues and don't just stick our heads in the sand. Our love affair with the mobile phone is just one of many 'consumptions' taking hold in the world, as Chris Jordan's exhibition so vividly shows. Curbing our demand for newer and newer handsets is just a small part of a much wider problem.

And, right now, no-one has any answers to that either.

THURSDAY, **JUNE 21, 2007**

Where motives dare



I once caused a stir during a regular Friday night pub outing in Cambridge when I dared suggest that some people only worked in international conservation because it meant they got to visit cool places and work with exotic animals. Although some were a little shocked at my suggestion and strongly disagreed (I was, after all, out with a dozen or so conservationists) the very fact that they responded in such a manner proves that I may have just hit a nerve.

There can be little dispute that entire industries are built around the act of 'international conservation and development'. And few are headquartered in developing countries, an irony in itself. I'm not sure if there are any official figures - please get in touch if you know of any - but the international conservation and development communities must be a considerable source of employment in the 'developed' world. Large percentages of allotted funding seem to have the habit of staying in-country and covering items such as head office salaries, rents, vehicles, meetings and other overheads. Why, entire conferences are built around, and funded, on single conservation or development themes. I've even been to a few.

There is much talk of local empowerment, local context and local ownership, but such an approach rarely suits a machine which needs considerable amounts of funding just to keep itself alive. Gerald Durrell *(pictured)*, the late pioneering conservationist based in my home island of Jersey, always maintained that his ultimate aim was to secure the future of endangered species and their habits, and then close down his zoo. Job done.

The global conservation and development movement could have learnt a thing or two from this guy.

THURSDAY, **JULY 12, 2007**

The hidden library

As interest in the phenomenal impact of mobile technology grows, so does the volume of literature on the subject. Reports are now published on an almost weekly basis, although many are commercially-produced and come at (quite) a price. Other more freely available studies are generated through high-level research by Phd candidates or Professors at western universities. Sadly, less seems to come from the developing countries themselves - those who find themselves most directly affected by the mobile revolution. But this may be beginning to change.

Recently I was fortunate to meet Christiana Charles-Iyoha, editor of a fascinating book published in Nigeria late last year. *"Mobile Telephony: Leveraging Strengths and Opportunities for Socio-Economic Transformation in Nigeria"* describes the impact of mobile telephony from an African perspective. Dominated by the voices of women's groups, market traders, businessmen and women, students and members of the public, the book gives a unique insight into the impact of mobiles at the grassroots level of Nigerian society. It's also full of little gems.

Take, for example, a survey on the obstacles to use of mobiles in rural areas among market traders. Some of the replies are particularly enlightening:

87% **had issues with erratic power supply**
75% **were worried about the risk of theft**
75% **highlighted the high cost of re-charging**
52% **were worried about network failure**
47% **were concerned about network congestion**
42% **had difficulty understanding the phone menus**
37% **had issues with the low validity period of top-up vouchers**

Gaining a better understanding of these kinds of issues is critical when planning and designing mobile-related projects in developing countries, but sadly it is also often lacking. For those who have overcome these barriers, however, the book is also full of quotes and nice anecdotes on the huge benefits that mobile telephony is bringing to Nigerian citizens.

"It has helped me to communicate easily with people. Many people would readily confess that they do not have to travel as before to get in touch with others who live far away"

"Given the number of people, especially the youth currently involved in the commercial phone business, there is no denying the fact that GSM is a tool for job creation in the country today. It has reduced the rate of unemployment"

Mobile phones may have made it easier for us to organise our social lives or keep in better touch with our friends, but for people in the developing world the technology is proving to be a real lifeline. Although we hear much about the positive impact it has made on the everyday lives of Africans, it's not until we get to hear the story directly from the horses mouth that we begin to realise how positive this change really is.

WEDNESDAY, **AUGUST 08, 2007**

The value of content in a content-driven world

Text messaging was, and remains, the surprise package for the mobile industry. Now a major income generator, SMS was never intended for mass public consumption - the channel was used mostly by engineers to test connectivity or to report the arrival of voicemail messages to users. Ironically, multimedia messaging - MMS - *was* planned and *was* supposed to signal the beginning of the end for SMS. But despite the massive effort - and marketing bucks - put in by the mobile operators, uptake was slow and remains slow to this day. People rarely want to send photos or short video to each other, and certainly don't want to play around with their MMS compiler to put a simple message together. Why bother with all that when SMS is much cheaper, is usually enough for the job, and much easier to work?

Multimedia messaging was a classic case of a technology looking for a market. Maybe we're seeing it all over again with mobile TV.

A recent report in TechnologyGuardian reveals that only 0.7% of the UK's 45 million mobile phone users watch mobile TV on their phones. Indeed. Why pay to watch content on your phone which you can already get at home on your TV? And why spend that extra money when the user experience often leaves a lot to be desired? I, for one, don't know a single person who watches television on their mobile, either in the US, Europe or the UK.

What mobile TV is lacking is killer content. Mobile operators - as they did with 3G (another relative failure) - were convinced that people would jump at the chance to watch TV on-the-go and didn't seem to spend too much time working out why they would want to do it and what exactly it was that they would want to watch. What they didn't seem to figure out was that it is killer content that drives mobile data usage - the websites, services, blogs, social networks, whatever - not the technology which allows it to happen. And to prove the point, T-Mobile recently announced that sites like Bebo, MySpace and Facebook were driving mobile media usage in the UK. If the content or service is there, then people will happily use the technology at their disposal to access it.

As if things weren't bad enough, another survey taken last month concluded that, despite the continuing emergence of new mobile applications, the address book remains the primary killer app on a mobile phone. Who would have believed it?

TUESDAY, **JULY 10, 2007**

Dispelling the myth?

I spent the best part of spring and summer '99 working on my anthropology dissertation, passionately arguing that anthropologists had been wrongly excluded from much of the earlier global conservation process. The rationale behind my several-thousand word essay was that the view of indigenous peoples as 'outside of nature', or 'a blot on the landscape', with no place in the growing world view of pristine, natural environments was wrong. There seemed to be, after all, plenty of examples of indigenous peoples living in harmony with their environments, and that humans weren't always a destructive force. *But maybe they were.*

My three years at Sussex University studying a blend of development issues and social anthropology allowed me to carefully develop my thinking and combine two of my three passions in life (the third being technology). So, it is with great irony that almost a decade later I find myself reading a book which squarely blames indigenous peoples for many of the mega-fauna extinctions in their environments. And the catalyst for this destruction? None other than *technology* itself.

In "Techno-Cultural Evolution", author William McDonald Wallace highlights the rise of hunter-gatherer kill-offs with the rise in the use of technologies - hunting technologies such as spears, knives and bow-and-arrows, and later guns. He also argues that *"one of the reasons many people resisted the idea of human causes for the disappearance of the mega-fauna was a romantic notion"*. Perhaps there ***was*** a little of this clouding my judgement all those years ago, but is it wrong to think that it's possible for people to live in harmony with their environments? Whatever the case, we certainly seem further away from it today than we ever have been.

William McDonald Wallace also argues that we could be seeing a new environmental awakening underway today. With last weekends global Live Earth event, we could very well see this spearheaded by increased climate change awareness. Once again, the catalyst for our troubles has been a boom in technological innovation. It is quite astonishing how far we have come in just over a hundred years.

But are we now not in a truly ironic situation where new technologies are being rapidly developed to counteract the negative impacts of others? It just goes to show that, whether you are a small community in the 21st century about to lose your island home to rising sea levels, or a buffalo in the 19th century roaming the plains of North America, technology can't *always* be seen a good thing.

FRIDAY, **NOVEMBER 09, 2007**

Battleship Google fires its new gun

The smoke has finally begun to settle. At times it reached almost fever pitch. Rumours that this was going to be the big shake-up the industry needed were followed, as reality set in, by sobering recognition of the challenges that lie ahead (and a scratching of heads as people tried to fill in much of the missing detail). Yes, this week Google decided time was right to officially show its intent, setting its sights squarely at the mobile industry and announcing not the much-hyped GPhone but Android, a new open mobile platform. As mobile continues to hot up, one of the biggest guns of them all has joined the battlefield and fired an early warning shot.

It's been interesting to read through some of the comments over the week, both on international news sites and in the blogosphere. All is not well. Not only are we starved of some crucial detail but this has created a secondary problem of contradiction. On the detail side, for example, the SDK (Software Development Kit) isn't being released until next week, and then it's only an initial tentative sneak of what's to come ("Comments welcome", as the website says). The SDK is going to be rather important since it will dictate the nature of the open development which Android will live or die by. On the confusion side, we have headlines such as "Will GPhone kill off the iPhone?". As far as I can tell, there really isn't going to be a GPhone as such - Android is a software platform, an operating system, and environment. Unless we find out to the contrary (and let's be honest, we don't really know a huge amount yet) Google aren't going to be branding any phones and certainly not designing any. As things currently stand Google will have as much control over the hardware their platform runs on as Microsoft do over the design of PC's and laptops - in other words, not much. I doubt the iPhone has much to worry about quite yet. (Recall: Wasn't Zune meant to be the iPod killer?).

Announcements about Linux-based open mobile initiatives, which Android is, are not new. There have been a number this year already, and Android joins a growing list which includes the likes of LiMo, OpenMoko and Qtopia. Analysts do seem to agree that Linux has a huge role to play in the future of mobile, but whether Google's approach is going to be the breakthrough *they* believe is needed only time will tell. Yes, they may have an impressive list of around 30 partners, but many of these either aren't doing particularly well right now, or are bit-part players in the mobile space. Nokia, the company with the dominant market share, and a vested interest in its own Symbian platform (technically an Android competitor) is conspicuous by its absence.

In the area where I spend most of my time - the use of mobiles for social and environmental benefit in the developing world - I have seen similar excitement at the announcement, with hopes that Android will open up a new world of opportunity for the community. Again, few people are being particularly specific about what this opportunity is, what it might look like and what problems it might end up solving. There is just a general hope that something good might come out of this. I wonder.

What is it, for example, that we can't do now? What is it that we want to do which can't be done with a combination of some of today's tools, such as - say - SMS and Java? (Interestingly, Java is slated to play a key role in the Android platform). They're pretty powerful and, although restrictive to a degree, many of the great things that have been going on in the "mobile for good" space lately have centred around one or the other. They're both widely available, too - every phone out there can handle SMS, and a reasonable number of those can also run Java applications. Text messages are being used for all manner of communication -

health messages, education, job postings and election monitoring among many others - and Java-based applications are enabling data collection and educational game development. Sure, we need to “think out of the box” and, more often than not many of the best ideas emerge that way. But we can think out of the box at any time, and should certainly never do it from a technology perspective. We shouldn’t approach this from the “What can Android do for us?” angle.

As far as I’m concerned, you start with an understanding of a ‘problem’, an understanding of the users and the environment, and consideration of the technology comes at the end. And, if it turns out that there’s not a viable, sustainable, appropriate technology-based solution to that problem then so be it. There won’t always be.

Android is only likely going to run on high-end devices such as smart phones. If we’re thinking about putting socially and economically empowering applications in the hands of the masses - and in this context I mean the couple of billion people at the bottom of the pyramid - then they’re going to need to have one of these phones. That might be a problem for quite some time to come, maybe even years. If, however, you have a nice control group - say fifty nurses who travel to remote clinics on a weekly basis - it’s not going to be *too* much trouble equipping them with a bunch of these handsets and running a neat health-based application on them. This is already being done in a number of countries and in a number of areas outside health, too.

We’re still about a year away from seeing anything running on an Android-powered device, and it may be at least another year or more before people sitting at the bottom of the economic pyramid start to own them in any significantly useful numbers. In the meantime there is plenty we can be getting on with.

Let's face it, we’re only really beginning to scratch the surface with the tools we’ve already got.

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