

## Glimpsing into a mobile future

Ken Banks, IDG News

Few companies innovate with the intensity and frequency of those working in mobile, and today's present is a future that only a handful of people would have predicted just a few short years ago. While most of us happily soak up rampant innovation as mere consumers, a handful of people in the hallowed corridors of mobile R&D labs are already working on the next big thing – the phones we'll be carrying around in our back pockets in 2012 and beyond.

Very occasionally we get a glimpse of this future. Nokia recently went public with their “morph concept” phone – an idea which seems so crazy and off-the-wall it might actually be possible. Who knows, maybe it's being field tested right now, although we wouldn't know it. A morphing phone could disguise itself as anything from a watch to a handbag, making spotting one incredibly difficult.

As Alan Kay once famously said, “the best way to predict the future is to invent it”. While a handful of people do precisely that, the rest of us are left to speculate. Ask a man, woman or child on the street what that mobile future might look like, and we'll likely get answers that take us in one of two directions. Adults will probably be constrained by the parameters of what they see around them today, so predictions on what a mobile phone might look like in, say, ten years, would most likely centre around smaller, lighter and faster. Children, on the other hand, would probably let their imaginations run riot and talk about phones that are invisible, implanted in our brains, or both. Maybe it was a children's focus group that came up with Nokia's morphing phone idea. Regardless, I'd go with the kids' instinct over an adult any day.

Technology doesn't evolve in a vacuum, of course, and it's only when it finds its way into the hands of people that it really gets interesting. In order to understand what users need and want from their next mobile device, we need to get out in the field and ask, as some mobile manufacturers do. Anthropology, with its human-centred approach to research, has become quite a trendy discipline in the mobile world, particularly when it's done in exotic emerging markets.

The irony of this approach is that, perhaps for the first time, the needs of the consumer in the developing world are beginning to drive innovation and thinking at home. With concerns about global warming, energy dependence and the environment rising up the political agenda, not to mention the consciousness of the London and New York shopper, mobile manufacturers find themselves tackling the very same problems as they “design for the developing world”. Markets that by their very nature demand greener, recyclable, longer-lasting, energy-efficient mobile phones, in other words. Today technology transfer works both ways, and it's increasingly heading in *our* direction.

The future isn't all about hardware, of course. Some of the most exciting innovations we've seen in recent years have come in the shape of mobile services. Innovation for many is centred more around what you can *do* with a mobile device, rather than what you can *make* out of one. Financial services, for example, promise to “bank the unbanked” and provide unprecedented access for some of the

poorest members of society in many developing countries. Mobile banking in places like the UK and USA lags some way behind. Expect more of the same in our mobile future.

Because of the focus of my work, my belief is that many future mobile innovations will be borne out of the realities of the user in the developing world. In my 'developed' world, where friends leave household appliances on standby for weeks on end, energy efficient mobile devices are seen as something of a luxury. For a mobile phone owner in, say, Uganda – with little access to mains electricity – it's more of a necessity.

I also believe – along with many others – that as devices get smarter, faster and more powerful, the challenges of power consumption will continue to consume large chunks of R&D effort. The recent announcement from the Chinese Academy of Sciences of a highly-efficient solar cell which can effectively be embedded in plastic could give us a glimpse of a future where the housing of mobile phones become one large solar panel. Advances in harnessing kinetic energy could also give us self-charging mobiles, akin to our already-present self-winding watches. Perhaps the challenges of keeping mobile devices powered up will lead us to a new kind of convergence, where a number of charging technologies are present in a single device.

Looking even further ahead, mobile devices may also be chargeable wirelessly. I don't mean the short-range wireless charging solutions already being developed, but a method of charging via the same wireless networks which carry our mobile signal today. I'd hate to think about the health implications of this, or how inefficient these charging networks might be, but it's not out-of-the-question that they might some day be a reality. Again, this technology would most likely emerge from the realities of life in many developing countries, where vast numbers of potential customers are excluded from phone ownership because of a lack of access to mains power to charge them. Whether this 'wireless charging' future happens before the 'converged renewable' option discussed a little earlier remains to be seen. I know which one I prefer.

Winding the clock back thirty-odd years to my childhood, and returning to the original question of what the future might look like, a young Ken Banks might draw a picture of a single device which seamlessly docks, morphs or switches between fixed desktop and portable wireless device.

Despite the march of the integrated mobile device, we're still some way off making them as easy and convenient to use as our old friend the computer. The fact that I choose to write this on my laptop is a case in point. Once I leave my laptop at home –assuming I own one – and start writing regularly on my phone, maybe I'll finally know that my future has arrived.

*Ken Banks, founder of [kiwanja.net](http://kiwanja.net), devotes himself to the application of mobile technology for positive social and environmental change in the developing world, and has spent the last 15 years working on projects in Africa. Recently, his research resulted in the development of FrontlineSMS, a field communication system designed to empower grassroots non-profit organisations. Ken graduated from Sussex University with honours in Social Anthropology with Development Studies and is currently working on a number of mobile projects funded by the Hewlett Foundation. Ken was awarded a Reuters Digital Vision Fellowship in 2006, and named a Pop!Tech Social Innovation Fellow in 2008. Further details of Ken's wider work are available on his website at [www.kiwanja.net](http://www.kiwanja.net)*