

THE PROMISE OF UBIQUITY

MOBILE AS MEDIA PLATFORM IN THE GLOBAL SOUTH

Credits

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1 Executive Summary

Mobile telephony will be the world's first ubiquitous communications platform and is getting there faster than anyone expected. Its major path of growth is now in the global South where the mobile is not just a phone but a global address, a transaction device, and an identity marker for hundreds of millions of poor people. It holds unprecedented opportunity for media in developing countries to engage their core audiences more deeply, reach new audiences on the edge of their current footprint, and provide interactive and customised information services that are both profitable and life-improving. But the opportunity is also a threat to traditional media, just as the Internet has been – and on a larger scale in developing countries. If media don't address the mobile as a viable information platform others will, and within the space of a few years media players there will have lost a large measure of their market share, 'mind share', and standing in society at large.

Sometime in 2007 or 2008, the half way mark was reached – estimates for the number of mobile phones in the world now vary between 3 and 3.8 billion. The rich world led the way from the 1980s on, and markets are now saturated in Europe and North America, as they are among Third World elites. But most of the growth is now in the developing world, well down the social scale and stretching into the informal economy. And the rate of expansion is speeding up. It took 15 years for the first quarter of the world to get mobile phones, by 2003, and about four years for the second quarter. The next billion mobile phone owners, predicted by 2011, will be over 90% in the global South.

Mobile has long since surpassed the Internet in terms of numbers of users. And unlike the Internet, subject of fierce Digital Divide debates among enthusiasts and sceptics for a decade, it has been spontaneously adopted by billions of people and embedded deep in social consciousness. African peasants paint their mobile phone number over their front doors. Indian slum dwellers buy SIM cards to use on friends' handsets. Chinese students spend three months allowance to buy a handset they can surf the web with.

But across significant sections of the global South the mobile phone now rivals television in reach. This mobile-led space is currently masked from view, partly by a lag in compilation of statistics, and partly by 'the decision makers bubble'. It's hard to imagine from business districts and leafy suburbs, where the mobile vies with so many other channels and has only ever played catch up, that 15 million people in Africa now individually own mobile phones but do not have access to a TV at home. And that mobile-led space is set to grow. Across the 50 poorest countries of the world, mobile ownership has grown by over 70% a year, every year, since the turn of the century.

If growth was spontaneous, there are now powerful global forces amplifying it. The mobile industry has become perhaps the best paradigm of a Bottom of the Pyramid business, with multi-billion dollar corporations targeting the poor as central, rather than peripheral, to their future. Operators like Vodafone, who could once command \$100 a month per subscriber, now aggressively target markets like India, where the average is more like \$5 and dropping. Phone manufacturers like Nokia and Ericsson send designers to India and China and compete to produce handsets to retail at under \$25. All over the developing world the argument for liberalisation of telecoms has been largely won, as governments have bought the 'mobile for development' argument over the vested interest of incumbent operators and the short-term prospect of high tax revenues from a limited base. Global tech titans like Google and Microsoft are looking at the mobile as the next platform for software and

information services of all kinds, and are eager to grab a piece of it.

The resulting competition creates relentless downward pressure on prices and accelerates the move by operators into 'Value Added Services', foremost among which is information services. Pockets of technology leapfrog are already appearing. A higher percentage of Kenyans use Mcommerce than Americans or Finns. Pakistan boasts the world's first nationwide Wimax deployment. More Jamaicans access the web from mobiles than from desktop computers. The three quarters of the world who have yet to access the Internet or experience digital multimedia will mostly do both through mobiles.

In terms of ubiquity, it is no longer a case of if, but when. A world in which nearly everyone owns a mobile linked into networks advanced enough to offer video and location-based services is years, not decades, away.

The question this report seeks to address is, what role will media play in this unfolding story?

We hope to help decision makers reflect on these issues, particularly as they affect media in the developing world, where the relative weight of the mobile explosion is and will be far greater in its impact on the media landscape as a whole. While the information space on mobile platforms is necessarily constrained – 'keyhole media' – compared to traditional formats like a newspaper or a TV channel, it offers tremendous potential to serve current and new audiences in a profitable way. New tools are bringing the ability to launch and manage phone-based services within reach of small and medium size institutions for the first time, and open source is democratising telephony as it already has Internet publishing.

But the opportunity is open to all, and the boundaries between telecom, tech and media companies are being blurred, just as they were for the Internet. If media do not move into the space with useful applications and services, others will and the role of the professional media sector will be diminished.

Chapter 2 examines the current and future reach of the mobile in the developing world and the factors driving it. **Chapter 3** explores how the landscape looks from different vantage points through a series of interviews with leaders in the mobile field – software engineers and designers, journalists, businessmen, representatives of large companies and small involved with everything from multinational news agencies, to community radio in Africa, to mobile start-ups, to activist groups in the Philippines. **Chapter 4** draws some general conclusions out of individual experiences and seeks points of departure into the mobile space for different kinds of media, broadcast and print.

Chapter 5 starts from where phone networks are now in the developing world and what is possible across AHAN – Any Handset, Any Network – to the three billion plus handsets in circulation now. Although geeks have predicted the demise of the low-tech SMS texting service for years, it continues to thrive and is predicted to keep growing everywhere around the world. Most texts are sent person to person but there are wide uses for 'application-to-person' services, especially when built on top of basic user profiles which allow the precise targeting of information snippets that best suits the simple format of 160 characters. Issues such as literacy, localisation, and business models are complex, as is the question of how to negotiate revenue share with network operators.

Conventional wisdom has been that media companies need network operators to run any kind of mobile service and generate revenues from it. While a good deal with an operator can certainly bring scale and promotion, we question the assumption that it is the only possible route. SMS server programs enable fluid management of user groups, user histories and customer service within such applications, requiring only the same degree of technical savvy it takes to run a simple spreadsheet program. Bulk SMS gateways now deliver messaging reliably into hundreds of networks all over the world. Mcommerce is opening all kinds of revenue-gathering possibilities for media, as for all other sectors in developing countries. Look hard at the institutional capacity and the audiences of any given media house and it may be possible to find

a viable service it can run itself. This strengthens its position in negotiations with operators, which then become a parallel track, as well as preparing for the near future, when the availability of mobile web will put the emphasis on self-managed mobile information services.

Voice-driven services are also discussed at length. Although the phone is, after all, a device for talking and listening, voice-driven services have played a surprisingly small role in information services offered so far. There are several possible reasons for this, among them the high cost of voice calls relative to texts and the failure of speech-interface technologies to evolve to a stage where they can be easily and cheaply deployed in developing country contexts. But that is changing fast. We see voice services as an area of hidden potential, and particularly recommend close consideration of Asterisk, the emerging standard in open source telephony software, which can bring a wide range of voice-driven information services within reach of media houses in the South.

In-house use of such structured communication by voice and text may be a first step for many outlets, particularly those which struggle with institutional management: editorial conferences summarised by SMS, micro-payments to keep freelance reporters in faraway locations in orbit, the mobile as the poor man's outside broadcast unit.

Above and beyond individual services and technologies, we consider the implications of the digital nature of the phone. This suggests some crucial aspects of the Internet economy – the laws of network effects, viral marketing, the dominance of user generated content and social networking – will apply to mobile also, working hypotheses which are borne out by early data.

In **Chapter 6**, we lay out the different structures of emerging Mcommerce, the fact that in developing countries the mobile is fast emerging as a tool for 'financial inclusion'. How will this affect its potential as a media platform? Do micropayments offer revenue generation possibilities for high-end services that media can launch and maintain directly?

Mobile web may be mostly in the future as far as the global South is concerned but it is the near future, which we explore in **Chapter 7**. While fully aware of the potential differences, we borrow from the experience of mobile web developers in Europe. What are the generic issues facing development of mobile web, what are the standing business models and what are the factors which affect adoption and use? Location-based services are an obvious holy grail of mobile media, but we consider a broader framework in which location is simply one element of context, and how it may become an implicit and ubiquitous feature of mobile applications rather than the point-to feature it is now, when it exists at all. We also define a 'watch list' of technologies under development of specific relevance to the developing world – although they may currently be too fragile or expensive for large-scale deployment, technologies such as voice recognition, GPS services, or two-dimensional bar codes could have far-reaching implications across the South. They could fall within range of viable use at any time.

In **Chapter 9**, we discuss the potential role of media development organisations in all this. What role can media NGOs play in the integration of mobiles into media offerings in the developing world? To a large extent, trial and error and the market will drive adoption and experimentation by media players. Nevertheless, there are small but crucial market gaps, such as free access research which focuses on the specifics of mobile telephony in the developing world. In some cases, too, media development organisations can act as the 'friendly solutions provider', offering at- or below-cost training and incubation of text, voice, and other telephony services across a media sector until individual outlets gain the confidence to manage their own services. This could be particularly useful in the case of smaller and community-level media, as could the convening power of NGOs in negotiations between media players and operators, tech companies and potential sponsors of social programming over the mobile. As the mobile develops into a fully-fledged computing platform with open source development environments, media NGOs could even evolve blue skies laboratories to evolve applications of potentially generic value for media in the developing world.

Here, pure technology could blend with the long experience traditional media practitioners have on the creative side to evolve programming that answers a real informational need in formats that make intuitive sense for their intended audiences.

Chapter 10 produces summaries of mobile market conditions in 20 countries across the developing world. Reach both in absolute terms and compared with other platforms, as well as relative cost are considered. More data are included on another 40 countries in an appendix, as is a glossary of mobile-related terms used in the report, and links to the full interviews summarised in Chapter 3, available as mp3s online.

There are few right answers in such a complex environment, fewer still when the specificities of each country are considered. The mobile experience of young South Africans drawn to instant messaging over mobile because of high SMS charges differ radically from those of their Filipino counterparts who commonly send 50 texts a day, or of millions of Sri Lankans struggling to use Latin scripts to text in Sinhalese and Tamil. Hundreds of millions of South Asians, where even low-end users talk more on the phone than their counterparts in developed countries, might have trouble relating to subscribers on the Digicel network in Jamaica, where the average length of phone call is estimated at 19 seconds. And that is only use of the mobile itself. To properly understand what role the mobile can play as a media platform in any given place, we need to understand its media context as a whole – print, radio, TV, Internet, local, national, reach, diversity, professionalism, viability. And even within a country, of course, what promises practical results will differ wildly depending on which demographic is being considered: multilingual business users on smart- or smartish phones in urban centres are half a world away from an illiterate smallholder in the back of beyond with her trusty Nokia 1100.

What we aim to do instead is suggest a list of useful questions and issues to be considered, a little bit of best practice as it has emerged from this fledgling field so far, and a broader perspective of how the mobile industry as a whole is evolving, both technically and in business terms.

The stakes are high. The Internet has transformed the lives of the billion people that have come to use it in the last decade. But the transformation that happens through mobile in the next will be both bigger in number and more radical, considering where the bottom half of the planet are starting from in terms of political, social and economic freedoms, and inclusion and participation in global processes.

The role that established media sectors in the developing world play in this will depend on how early and profoundly they grasp the change that is coming.