

## **Reality check: Will cellphones really solve Africa's problems?**

by Patrick Kavanagh

**The rapid growth of mobile telephony in Africa is encouraging, but whether this technology will hasten the continent's development remains an open question.**

In less than a generation, information and communication technologies (ICTs) have revolutionized the planet. Innovations like personal computers, the Internet, electronic mail, personal digital assistants (PDAs), and mobile telephones have changed lives the world over, and mostly for the better. These extraordinary advances have happened even in regions where other kinds of social and economic development have lagged behind.

Africa is one such region. While it is true that relatively few Africans own computers or can access the Internet, some types of ICTs have flourished on the continent. Thanks in part to Very Small Aperture Terminal (VSAT) technology, for example, mobile telephony is becoming widely available, even in sparsely populated rural areas. Furthermore, mobile phones are being applied to innovative tasks, such as health research, medical diagnosis, commodity price monitoring, weather forecasting, and cash transfers. Often, such adaptations of the intended functions have been conceived by low-income users themselves, to meet their everyday needs.

Some observers have seized on the proliferation of mobile phones and predicted that they will play a key role in solving the continent's economic and social problems. These experts applaud the technological leapfrogging — Africa still has relatively few land lines — and the potential for mobile telephony to bring Africa's widely dispersed people in closer contact with one another.

### **Four challenges**

But is this optimism justified? Are cheap and portable devices like mobile phones and PDAs enough to make a real social and economic difference? Will these technologies draw Africa to and beyond the tipping point where development becomes self-sustainable? Or does more work need to be done?

Alison Gillwald welcomes the huge strides made in African telecommunications, but warns that the extension of networks and services in recent years has been “sub-optimal.” Gillwald directs Research ICT Africa (RIA), a continent-wide partnership of specialists dedicated to building ICT policy and regulatory research capacity. The network, launched with seed funding from IDRC, is hosted by The EDGE Institute in Johannesburg.

African telecommunications, says Gillwald, have been undermined by many countries' own policies, governance arrangements, and market structures, and by the absence of institutional capacity and regulatory competence. The continent lags behind the rest of the globe in four key

areas: access, quality of services, pricing, and regulatory environment. Africans, in other words, remain disconnected from one another and from the wider world. As Gillwald puts it, “I don’t think we can talk about the ‘democratization of technology’ because we don’t have the essential ingredients.”

**Access.** Africa enjoys the world’s highest growth rate in mobile telephony, but, Gillwald cautions, this statistic is misleading, because it comes “off a very low base; there are still more people without phones than with phones.” And even if they do carry mobile phones, many low-income subscribers — especially women — often can’t use services like text-based Short Message Service (SMS) because they are illiterate or they haven’t learned the technology. The result is that mobile telephony has yet to make a significant impact on African development.

**Services.** The continent’s drive toward mobility has given more people access to basic “first generation” voice services, but many Africans still lack the advanced wireless options that subscribers elsewhere take for granted, for example, the sophisticated capabilities of “smartphones” like BlackBerry or iPhone. For those who do possess enabled handsets, the cost of access to such services is prohibitive.

Whereas the global trend runs toward integration of services and functions — allowing the “bundled” subscriber to move seamlessly among voice, data, broadcasting, and telecommunication networks — in Africa most markets remain structured around vertically integrated, stand-alone incumbents, leaving Africans trapped within their narrow networks. According to an IDRC-funded 2007 report by RIA, “The enhanced ICT services required for effective participation in the economy and society continue to elude the vast majority of the continent’s people.”

**Prices.** Across Africa, communications infrastructure is expensive to deploy, and furthermore the prices charged to subscribers are, as the RIA study concluded, “substantially above cost.” According to Gillwald, service providers are “extracting really exorbitant profits.” These high charges result from over-taxation of equipment and services, weak government regulation of pricing, and the failure to constrain the market dominance of large service providers. These costs inhibit use by consumers and marginalize low-income people in particular.

**Regulation.** The RIA study investigated the “telecommunication regulatory environment” in 16 African countries. The researchers spoke to sector stakeholders such as operators, industry associations, ICT journalists, government officials, financiers, and regulatory agencies, and probed their perceptions of regulations governing issues like market entry for new competitors, the allocation of scarce telecommunication resources (such as bandwidth), policies aimed at achieving universal access to service, pricing, the interconnection of competitors and leasing of facilities, and anticompetitive practices.

In only two of the 16 countries — Côte d’Ivoire and Nigeria — was the regulatory environment perceived to be positive, and only in Nigeria was this positive view supported by an analysis of the facts on the ground. Elsewhere, regulation was inefficient and “not conducive to the investment necessary for network extension and the competition needed to drive down prices and extend services.”

## Competition to benefit all

Gillwald marvels that the telecommunication innovations created by poor Africans happened in spite of the policy framework, not because of it. She believes that reform of the policy and regulatory environment is the starting point in tackling the problems of access, services, and pricing. As the RIA report concludes, countries need to shift from “monopoly regulation,” where the focus is on controlling market domination and reducing prices, to “competition regulation,” where the focus shifts toward encouraging new entrants to the market and ensuring they have a level playing field.

In particular, Gillwald hopes that governments will come to understand that ICT policies should be closely linked with national development policies. She asks them to realize that modern communications are not only for the benefit of the urban elite, but are crucial also to the welfare of rural and poor people. And she calls for genuine liberalization of the telecommunication sector so that competition can be increased.

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Links:

Website of Research ICT Africa <http://researchictafrica.net/>

RIA report *Towards an African e-Index 2007: Telecommunications Sector Performance in 16 African countries*

[http://researchictafrica.net/modules.php?op=modload&name=News&file=article&sid=555&CA\\_MSSID=5e2df9c624fe5d5b587a9f5f950f6612](http://researchictafrica.net/modules.php?op=modload&name=News&file=article&sid=555&CA_MSSID=5e2df9c624fe5d5b587a9f5f950f6612)

Research That Matters *Capetown to Cairo: Connecting Africa* [http://www.idrc.ca/en/ev-113485-201-1-DO\\_TOPIC.html](http://www.idrc.ca/en/ev-113485-201-1-DO_TOPIC.html)

Research That Matters *The Future of Africa is Mobile* [http://www.idrc.ca/en/ev-93967-201-1-DO\\_TOPIC.html](http://www.idrc.ca/en/ev-93967-201-1-DO_TOPIC.html)