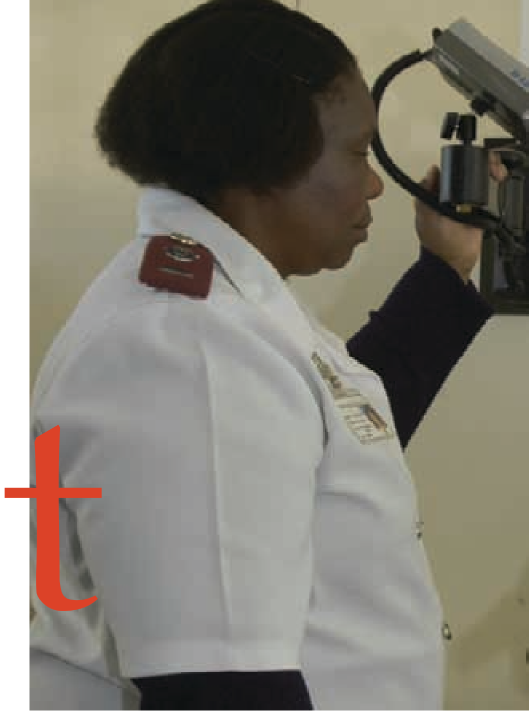
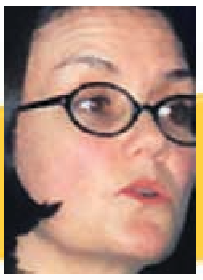
Development by default





Countries that don't take up the challenges posed by global technological trends are increasingly marginalised, not only from the global network economy, but also in their ability to deliver on their own developmental objectives.

By Alison Gillwald

Research in information and communication technologies and development in Africa is limited, fragmented and typically undertaken as isolated and disconnected projects.

Most of the understanding of the information age comes from the theory and experiences gained in the developed world. Africa produces little in the way of independent, primary research feeding into ICT policy and regulatory processes.

Unlike other parts of the world committed to participatory policy formulation processes, there are few independent local agencies contributing to public policy processes in the broader public interest.

Strengthening African institutional capacity for research, analysis and debate in developing countries is an indispensable element in the construction of knowledge societies.

In the absence of innovative organic policies, international models become the default development strategies for developing countries, with serious consequences.

Though it has been argued that trying to reform African national policies is futile or will take too long without the development of informed, integrated and appropriate national policies, the role that ICT can play in development will be limited.

This is evident in the initiatives that have deployed ICTs to alleviate poverty to date. In most cases these have been small-scale projects or pilots that are often not scalable or sustainable and have often only been made possible by donor intervention. The outcomes of these endeavours tend to be localised and at best can only be ameliorative.

While the connecting of a project or institution that would not have been connected otherwise must be viewed as a positive development, such initiatives need to acknowledge that they are dealing with symptoms rather than causes.

Where such projects are conducted within the context of broader efforts to deal with the more fundamental determinants of circumstances, such as restrictive policy, they are more likely to produce positive developmental outcomes in the longer term.

National and multilateral projects, on the other hand, have been preoccupied with large-scale infrastructure expansion, with little consideration for what will happen at the end of the line, and have generally not been integrated into broader developmental polices. The arising argument however, that access isn't useful without applications and content, while of course correct, can just as easily be turned around. Applications and content aren't very useful without access either.

It is for this reason that the central public policy challenge facing African decision-makers, responsible for ICT, remains ensuring affordable access to services.

This has to be achieved, however, while creating the conditions for the development of the information infrastructure – which includes the seamless integration of networks, services and content – needed to operate a modern economy and participate effectively in global developments.

While there may well be tensions between these objectives at various points in the development of a modern ICT sector, they should not be viewed as contradictory. Without an integrated strategy to achieve both developmental and growth objectives, neither will be achieved.

Countries that are unable to take up the challenges posed by global technological and economic trends are increasingly marginalised, not only from the global network economy, but also in their ability to deliver on their own developmental objectives.

International reform agenda

It was an awareness of this new reality that drove the telecommunications reform process that has swept the globe over the last three decades. Reform mechanisms of privatisation, competition, and independent regulation, often only assessed in research-resourced OECD countries, have been hailed as having resulted in price decreases, improvement in service quality, faster roll-out of infrastructure and new technology, and more choice for consumers.

On this basis telecom reform has been sold to African countries as a mechanism to transform their debilitated communication infrastructures and integrate their countries into the global economy.

The first phases of telecom reform in Africa have had far more mixed outcomes, however, and in some cases have had a negative impact both on affordable access and sector development.

The reform model that emerged for developing countries from multilateral agencies consisted of three integrated components. These included the usually partial privatisation of the incumbent fixed line operator through the extension of the monopoly; the introduction of network competition in the mobile segment of the market and service-based competition in the value-added network services (VANS) and Internet service provider (ISP) market; and finally the establishment of a sector regulator to implement policy.

In practice the reform agenda prioritised privatisation which was perceived as the mechanism that would most rapidly redress the dismal outcomes of grossly inefficient state provision of telecommunications services which had left Africa at the start of the reform process in the 90s with a continental teledensity of around 1%. This meant the critical role of introducing competition, into what are perceived as the elite components of the market, was often sidelined.

More importantly, while inducing the opening up of markets to foreign trade and investment, insufficient emphasis has been placed on the need for strong institutional arrangements to deal effectively either with the regulation of the private monopoly in a partially competitive market and to counter market failure likely to arise in such imperfect markets. This has probably been the most undermining factor of reform efforts in developing countries.

Privatisation, without the regulatory capacity or political will to manage a private monopoly or the competitive framework, can be entirely counterproductive to the achievement of the very goals intended by liberalisation.

Privatisation

Common then to those countries where the gains of reform are not evident, appears to be the privatisation of the incumbent through an extension of the fixed line monopoly. This was the funding model proposed by international financing agencies in the 90s in order to attract investment in light of the generally poor state of infrastructure and the minimal customer base of most developing country operators.

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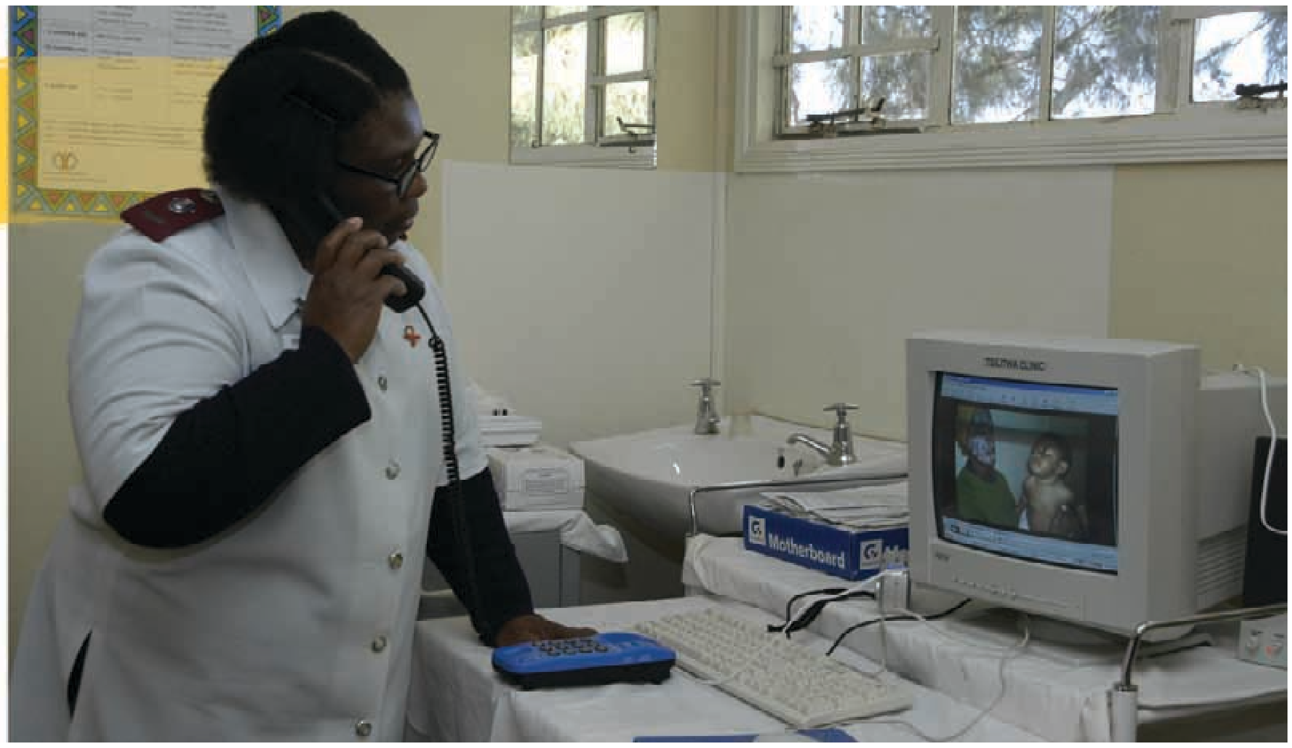
"Communication is what keeps one learning about other people. It is what keeps us together," says Nurse Patricia Madikane who uses a wireless network to provide medical consultation at Salitwa Village 100km north of Umtata.

The system allows Madikane to transmit real time images of the patient to the Nessie Knight Hospital in Solikama and simultaneously have a telephonic discussion with the doctor at the hospital. The doctor can tell Madikane what medicines to prescribe and how to treat the patient. This process takes 20 to 40 minutes. If the patient had to travel to the hospital it would take all day and cost approximately R20 in taxi fees.



The rationale for this was that often indebted monopolies needed the injection of capital and skills and the technology transfer to meet the challenges of expanding and modernising.

While formally concerned with policies to achieve affordable access, these models in themselves represented a compromise between the market access desires of multilateral agencies and the reluctance of developing countries to lose a major source of income generation.

This has often resulted in incumbents securing the rights to the other areas of restricted competition, either mobile, VANS or ISPs. Very often to further protect the revenues of the privatised incumbent – ostensibly to roll out services – players in the competitive market segments have also been required to acquire their facilities from the incumbent.

The resulting vertically-integrated dominant operator model provides the basis for what has become the standard market structure that has accompanied the opening up of markets. It is also at the core of the failure of the reform project in developing countries.

The anti-competitive incentives that arise in a market structured around a vertically-integrated national company are impossible to counter without constant checking of the integrated entity's behaviour.

This problem is compounded where rival firms are required to acquire their non-competitive facilities from it in order to operate as required in many developing countries.

This creates anti-competitive incentives for the incumbent to deny access to its network to rival firms.

Historically, the regulatory response to this market structure, which tends to arise wherever a former public utility enters into a competitive market, is access regulation. All regulatory mechanisms depend on relatively complex costing models that are particularly onerous to enforce.

This resource intensive regulatory approach arising from this market design places an enormous regulatory burden on any country seeking to ensure affordable access through the creation of a fair competitive environment and requires experienced and skilled regulatory staff.

Countries with far more experience in regulation, and with far greater skills and finances than most African countries, continue to struggle to implement access regulation successfully.

Expecting newly-established, under-resourced regulators, often put in place in the absence of political will, to fulfil this task would appear to be setting them up for failure.

The primary mechanism then of sector reform in many developing countries – privatisation of the fixed line incumbent through the extension of its monopoly – has had a demonstrably negative impact both on affordable access and market development.

South Africa is a case in point. The privatised incumbent has indeed become far more efficient, which has allowed it to extract monopoly profits, now repatriated, unconstrained either by competition or effective regulation of the monopoly. It has retrenched over 20 000 workers, cut off two million people who could not afford to pay for services, and benefited from over 160% increase in tariffs in the last five years, way beyond what was anticipated by rate rebalancing.

Far from privatisation resulting in the doubling of the network during the period of exclusivity as anticipated through the licence conditions, with the private monopoly's focus on the corporate market, there are probably fewer residential lines now than in 1997 when Telkom was privatised. South Africa is now one of the few countries in the world with a declining number of fixed line subscribers.

During the same period mobile services have gone much further in expanding universal service in South Africa; with the number of mobile subscribers at 14.5 million – almost triple that of the fixed network.

However, the potential of mobile to close the gap on basic voice communications should not happen at the expense of the continued expansion of the more affordable fixed network, without which the digital divide will increase between those with access to voice communications only and those who are able to participate in the economy and society due to their access to enhanced services.

It is for this reason that an environment conducive to investment needs to be created. Reducing regulatory risk is a critical aspect of this as is demonstrating that investors will receive a decent return on investment, particularly at the time that they are required to reinvest in the expansion of the network.

Stimulating investment in network roll-out, particularly after the heady dot.com days of the 90s and the subsequent recession in the telecom industry, may be one of the greatest challenges facing the African continent.

So, while independent regulation may be a necessary condition therefore of policy success in order to create the transparency and certainty required for sector growth, it may not be a sufficient condition. In order to deal with the extraordinary developmental challenges facing Africa, regulators will need to regulate innovatively, strategically and appropriately to the very different conditions that exist in African markets.

Alison Gillwald is affiliated with the LINK Centre, Graduate School of Public and Development Management, Wits University, South Africa. The Research ICT Africa! Project seeks to strengthen institutional capacity for research, analysis and debate in African countries. She can be reached at gillwald.a@pdm.wits.ac.za

This paper was originally prepared as an input to the ICTs for Poverty Reduction: When, Where and How? meeting hosted by the IDRC in Boston in September 2003.