



# **Making inroads into the community**

Business models for equitable access<sup>1</sup>

Alan Finlay

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<sup>1</sup> This is a summary article reflecting papers and commentaries on the issue of business models for equitable access to ICT infrastructure. It is part of a series commissioned by APC for an event on equitable access which took place in Rio de Janeiro in November 2007. The papers and commentaries can be found at: [www.apc.org/en/pubs/research](http://www.apc.org/en/pubs/research)

Grassroots communities need to get their hands dirty in shaping how information and communications technologies (ICTs) affect their lives, rather than passively leaving it up to governments and big business to decide.

This is the view of Kenyan-based ICT consultant Muriuki Mureithi, whose issue paper, *Business models for equitable access*, looks at ways of making ICT for development projects sustainable. A “win-win” situation is needed, argues Mureithi, where communities see government as a facilitator, and actively begin to form partnerships with the private sector to foster local entrepreneurship.

Mureithi’s paper is one of a series on aspects of equitable access to ICT infrastructure commissioned by the Association for Progressive Communications (APC).

But how easy is it to do this? Is a “win-win” situation really attainable?

For example, when it comes to internet penetration, conventional market models do not appear to be sufficient to cross the digital divide. According to Mureithi, only 2.5% of Africans are online, compared to a world average of 16%.

He says key reasons for a lack of penetration involve operators and vendors (the supply side), the community or consumers (the demand side), and the management of access to infrastructure, such as fibre optic cable. Sustainable equitable access, Mureithi argues, involves managing the sometimes complex relationship between these three.

While there are any number of business models that can be implemented to achieve equitable access, he says that they have at least three characteristics in common. Firstly, they “innovate on cost structure”, through, for instance, choice of technology, securing donor or government support, and even community contributions.

On this score Mureithi envisages the potential for a kind of barter system where the community contributes skills and resources in order to secure a sense of ownership of an ICT network. Sometimes these in-kind contributions may be as simple as offering security services. Local networks can be shaped by the community according to local needs, as has happened in other sectors: “This is the framework that rural communities have used to build farmer cooperatives to sell their farm produce and handicrafts, secure supplies, and even build roads,” he says.

The second key characteristic, for Mureithi, is securing multi-sector partnerships. “All partners can bring their core capabilities and benefits to the synergy. The benefit need not be financial,” he says.

Thirdly, local stakeholders need to take responsibility for the sustainability of the ICT project.

Responding to Mureithi's paper, ICT practitioner Seán Ó Siochrú takes a more cautious view of the business approach to sustainable development: "Introducing 'business-speak' tries to shift the focus away from development as subsidy, towards the idea of self-sustaining enterprise," he says.

He is sceptical of what Mureithi refers to as the "bottom of the pyramid" approach – or the purely commercial model. "[This sees] poor people as potential customers, as opportunities to sell products tailored to their need... A belief that the market is sufficient to resolve the access issue is fundamental," he argues.

For Ó Siochrú "grafting... objectives such as empowerment or poverty alleviation" onto conventional business models is not that easy. "Perhaps the gurus of this [pure business] approach are motivated by concern for the poor, but their solution is based on conventional market thinking. As such, the implicit understanding of the causes of poverty is simplistic and the impact, if any, is likely to be felt among the wealthier end of the poor," he says.

But focusing on profit has its benefits, adds Ó Siochrú. Simplicity is one of them: "The conventional business model is to be envied for its simplicity and directness. A bottom line comprising just one homogenous substance – profit – greatly eases the complexities of harnessing multiple operations in a single direction. It focuses the mind and self-interest of all those involved on that goal, unequivocally relegating everything else to the status of means to get there, and it offers an indisputable gauge of failure and success."

Echoing a common criticism of ICT for development initiatives – that they sometimes lose focus on what it is they are trying to achieve – Ó Siochrú emphasises that any ICT intervention at the community level should have a clear understanding of the causes of poverty or exclusion in any given context. The developmental model – when market orientated or not – then needs to address these. At the same time, he says, a key problem is that business-orientated ICT projects are sometimes run by people without business experience, in itself a major invitation to failure.

Mureithi argues that it is important to clearly understand the concept of a business model. What he calls the "business logic" has four key elements: infrastructure, what he calls "the offering" (i.e., product or service), the customer, and finance. "Businesses manipulate various aspects [of these elements] to transform technical inputs to economic advantages," he says.

He explains that when it comes to equitable access to ICTs, infrastructure can be understood to involve leveraging national networks to create value for a target community, and then developing local skills that help to extend the infrastructure further into rural areas. Wireless technologies – including cellular – are currently offering the potential of attractive business models for network extension, he says.

Products and services that are initiated by the end-user or the supplier include “single services”, such as internet connectivity or telephone access, or “advanced services”, such as education or health. As in most business models, profitability is ensured by market need: “The customer’s perspective should shape the service, and the most appropriate channels to deliver the service,” argues Mureithi.

While it costs more to bring ICTs to communities in rural areas, for the operator the revenue generated by the investment is likely to be low. In this respect, innovating on cost structure means optimising revenue streams in ways that do not make them unaffordable.

Financing the business model means working out whether the customer pays – and if so how much – or whether “external agents” such as government or donors fund the community ICT initiative. “For consumers, on the demand side, capacity to pay for services is a major challenge,” Mureithi says.

Ó Siochrú appears in favour of the “external agents” approach – even if it does not entail direct funding. What he calls a “decisive step” involves building capacity amongst the target community, whether in operating small businesses, as micro-entrepreneurs, or in delivering e-services. Still further along the spectrum, a structural intervention might involve using wealthy communities to subsidise poor, rural communities, as is sometimes done with property rates and taxes.

Ó Siochrú argues that the best business model might be a mixture of these, and other, approaches. At its best, he says, an enterprise can be a hub of development in a poor rural community, stimulating a wide range of development activities.

Some innovative models suggested by Mureithi include those implemented by the Arid Lands Information Network-East Africa (ALIN), a non-governmental organisation which has started a commercial arm, Baobab Communications (BaoCom). “BaoCom seeks to fulfil the ICT needs of development organisations by supplying affordable products and services. At the end of each year, profit generated by BaoCom is transferred to ALIN to support its social mission,” says Mureithi. In Nepal, the Nepal Wireless Networking Project has managed to connect fourteen villages, in part due to discounts on tariffs and licence fees negotiated with local providers and the government. Capital costs were also secured through donations.

In the end, Mureithi’s approach is forward-looking, and potentially challenging for policy-makers: “Community radio has now been entrenched in ICT regulatory regimes, and it is appropriate to offer similar regulatory provision for community networks,” he says.

“Any policy framework should also address and create linkages with other non-telecommunications challenges like the provision of power, water, security and roads. Cellular operators... could build extensions to the electricity grid to serve new base stations,” he adds.

Ó Siochrú agrees: "Designing a business model for social change is not a simple matter of tweaking or re-gearing a conventional business model. There is a different agenda at work, even a separate set of principles, one that is seldom made explicit." He says business models for equitable access need to ask practical questions, such as: Is it simply access to ICT infrastructure that is lacking? If ICT services were available and affordable, would their use bring few benefits? What are the resources of the area, and the obstacles to and enablers of ICT services? "The answers to such questions would point to the types of regulatory, investment or other supports and subsidies that might be needed," he says.