From the Editors

Moving Beyond "The Real Digital Divide"

A recent cover story published by one of the most influential magazines in the world, the *Economist* (March 12–18, 2005), revealed for its readers the "Real Digital Divide." The lead essay (written primarily by technology editor Tom Standage) pointed to an unexpected shift in the world's attention from computers as the main technology defining the digital divide to the cell phone. The tone of the article, characteristically, was that of a scold pointing to old shibboleths that have been proven false. First, readers were warned that one proposal to resolve the digital divide—creating a global infrastructure fund focused on computers and the Internet—was especially misguided. According to the authors, markets work better. Second, readers were admonished to shift their attention from the Internet to the increasingly ubiquitous cell phone.

The *Economist* is right in insisting that ICT for development policies need to be constantly reevaluated in light of the current best research findings. For example, it takes a justifiably critical look at an overreliance on telecenters as the once-favored answer to digital divides.

At the same time, the *Economist* commits similar errors of oversimplification of which it accuses others. It creates a straw man (in the form of an Internet-for-development evangelist), which it then easily knocks down. It accomplishes this by substituting one kind of new technology, mobile phones, for another kind of new technology. It may well be that the mobile phone is an easy answer to some parts of the digital divide; but probably not. More likely, no single technology will be an answer to the digital divide however it is defined. There are no silver bullets, whether wired or wireless, state- or market-driven, mobile or fixed. And these technologies need to be seen in the wider communication and informational environment in which they operate.

Secondly, the essay fails to admit that there has been a steady growth and evolution in our understanding of the tougher issues, both about technology and about the interactions between technologies and society. For instance, the authors easily knock down top-down technology-driven approaches to technology diffusion. The only hitch is that this argument has already long been dismissed by the majority of ICT4D scholars and practitioners. The article hits at what many of us hope is passé anyway.

The above notwithstanding, we note our agreement with an underlying argument of the essay— that mobile phone use has exploded in the global South and that these phones are having, in many cases, profound development benefits. Indeed, this result has been shown by a number of researchers in various contexts.[1] The *Economist* article relies extensively on a recent report from Vodafone, which

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1. See, for example Jonathan Donner's article, "Microentrepreneurs and Mobiles: An Exploration of the Uses of Mobile Phones by Small Business Owners in Rwanda" which appeared in ITID *2:1*. Donner shows that cell phones diffuse quickly in poor countries and demonstrates that the uses of technology are socially shaped and to a degree unpredictable.

argues strongly that cell phones are good for the development of the South. Admittedly, Vodafone is not an unbiased source on mobile telephony; but we are nonetheless impressed by its study. However, what the *Economist* does that the underlying Vodafone research never did is use the success of mobile phones as evidence for the failures and demise of computers and the Internet in development. If there is any broad lesson learned in modern communications research, it is that different media do not displace, but instead, complement each other. Linking the rise of mobile voice telephony to the death of the "telecentre" is unsupported by the available evidence.

Information Technologies and International Development continues to provide a forum for debate on these important matters, and in this issue we carry on the effort. Neto and her co-authors (including one of *ITID*'s editors) review their own detailed research on wireless technologies in Africa. Their paper criticizes the lack of regulatory clarity and conformity for license-exempt broadcast by technologies, such as Wi-Fi networks. They argue that this hinders entrepreneurship and innovation in the sector. Thus, they echo the current orthodoxy in ICT4D literature, which proposes complementary roles for the state and the market.

Keeping with the wireless theme, Galperin examines wireless Internet technologies in Latin America, making a similar point: institutions and policies need to be reformed to accelerate the diffusion of these networks in developing countries. He argues against direct top-down universal service planning, and instead, suggests a more indirect role for the state: improving regulation of unlicensed spectrum and introducing microlending schemes to allow more bottom-up solutions.

Galperin and Neto both believe in the positive value of Internet-based wireless networks in Africa and Latin America. Of course, that would entail newer services such as nomadic VoIP telephone services. In other words, these networks might provide the exact capability for mobile voice services that the *Economist* is celebrating.

From wireless IP networks we turn to wired mainlines and their impact on public health promotion. The complexity of technology-society interaction is also shaped by the sector in which it is embedded, as we see in the paper by Micevska. Presenting findings from macrolevel analysis and household surveys in Bangladesh and Laos, she shows how technology, in this case basic telecommunication services, can help meet a households' need for timely health information. With the aim of better health provision, Micevska argues not for one technology (basic telephone service) against the other (Internet) but recognizes complementarities.

While these three papers have a stronger technology focus, our other two contributors explore more institutional, political, and social components. Lewis' treatment of the politics of the Internet Service Provider market in South Africa, the continent's largest, is a case in point. He shows that differences in ideology, institutional strategies, and personal self-interest ensured that the growth of locally-owned ISPs was anything but simple.

Finally, drawing our attention to gender as a fundamental social dimension that shapes technology diffusion and empowerment, Patel and Parmentier's contribution demonstrates how carefully the relationship between technology and society has to be conceptualized. Far from the technological determinism of some early (and hopefully bygone) ICT4D literature, they analyze the way the ICT "revolution" in India fails to benefit female workers in India's IT industries to the same degree as their male counterparts.

It is partly true, as the *Economist* claims, that "firms and customers, on their own and even in the poorest countries, will close the divide themselves." That has been a huge surprise to the

entrenched civil servants of Africa and Latin America who felt they had to protect the consumers from themselves. Yet, there are more stakeholders than firms and customers, as our papers demonstrate, and they all seek a role to play in ICT diffusion in developing countries. It is the responsibility of scholarly journals, such as ours, to provide careful analyses and balanced judgments of complicated ICT matters, and then reach for summary judgments; but we also must insist that pertinent complexities and ambiguities be retained in full sight.

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