

Fashion and foreign aid:

A realistic look at the “digital divide”



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From radio to television to wireless broadband, the information economy has taken unprecedented steps forward in the past century. The rate of newly designed innovative and creative products and services that make the lives of millions, if not billions, more enjoyable and more efficient continues to break new ground.

But technology is not just a fad that produces neat little gadgets: by some estimates, well over 70 per cent of the wealth of the world's richest economies is now held in the form of intangible, knowledge-based assets. The development of higher quality, lower cost products and associated improve-

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ments in productivity have always resulted from increases in human knowledge; the term ‘information economy’ not only makes this explicit, but also emphasizes the degree to which we are now dependent on this stock of human-created capital.

Without the tools of the information economy and the infrastructure that supports them, however, some argue that the poor, who do not share the fruits of this considerable growth are held back by a so-called ‘digital divide’. Based on this logic, the promise of digital technologies can and will correct decades of stagnant economic growth and leapfrog poorer countries into the digital economy.

One of the proposed ways to close this so-called divide is to create and legislate mandatory foreign aid transfers from wealthy nations to poorer ones. The funds, administered by a UN body and aimed at hastening the achievement of the vaunted Millennium Development Goals, would then be invested in information and communications technology (ICT) infra-

structure development projects. One such plan involves the bulk purchase of specific technology, such as the recently unveiled \$100 laptop, developed by the Massachusetts Institute of Technology Media Lab (although it has still not been produced at this price, despite its creator's insistence that this is what it will cost).

Yet despite high-level meetings, new funds ventured, new task forces created and the new promises made, progress towards bridging the gap between the haves and have-nots of the digital world has been lacklustre. Using data developed by the United Nations Conference on Trade and Development (UNCTAD) to measure the rate of ICT use across countries, the most recent figures portray a distinct inequality of access to technology that now forms the backbone of the information economy across countries. In sub-Saharan Africa, for example, only 20 per cent of the population has a fixed phone line connection. Furthermore, because of the extent of their poverty, the poor typically invest less



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than US\$10 annually on ICTs per family member. By contrast, there is such extensive coverage of this 'basic' technology in Western countries that it is usually taken for granted.

Although it is true that ICTs remain inaccessible for the vast majority of the poor, other revealing development indicators show how clean water, air quality, energy reliability, educational and employment opportunities, and the quality and reliability of other basic amenities are lacking in these same countries as well.

With this more comprehensive view of all of the genuinely important separators that divide rich and poor, the real 'digital divide' might better be defined as the 'development divide' between countries.

Aid to improve ICTs?

Talk of bridging the 'digital divide' may be new, but the call for massive intervention in order to correct disparities of one kind or another has been a persistent feature of development theories since the 1950s. Then, economists argued that, in poor countries, rates of savings, and hence rates of investment, were too low for these countries to escape from poverty. Such countries were said to be caught in a 'low-level equilibrium trap', where increases in income led to population growth rather

than investment and productivity growth. It was claimed that, with a large enough injection of foreign aid, the gap would be filled and thus the cycle of poverty broken.

Following this theory, billions of dollars were provided in grants and soft loans to the governments of poor countries. But this 'aid' has singularly failed to contribute to sustainable economic growth.

Africa, by far the largest recipient of foreign 'assistance', with US\$450 billion in the past forty years alone, is a continent where such investments in 'infrastructure projects' were deemed fundamental to kick-starting its course of development. Dogging its landscape are vacant steel mills, run-down aluminium smelters and dams that still do not provide a reliable electricity supply to a continent that currently has a lower per capita average income than it did before such grandiose schemes were implemented through aid agencies and local governments.

Yet policymakers—dazzled by the allure of new 'out of the box' innovations such as the iPod and by buzzwords such as e-commerce—are poised to commit the same errors as previous proponents of foreign 'aid'.

The end of the line

These projects fail for a number of reasons. In part, they fail because they do not reach the intended target groups. Government officials ensure that foreign aid primarily goes to politically friendly groups. Even where aid projects are not directly controlled by the government, programmes targeted at low-income groups are frequently captured by these cliques, who are more articulate, influential and wealthy—and who have the means to establish local 'NGOs' that can carry out the projects.

In part, such projects fail because they also crowd out private funding. If, for example, governments heed the lofty call to connect the world's population to the Internet by 2015 and assume the responsibility for Internet service provision and subsequently charge no fees, private operators can only respond to this clear signal by exiting the market. Without competitive market conditions, however, government-supported monopolies are less likely to improve quality and/or reduce the costs associated with expansion and the required infrastructure maintenance.

Evidence shows that in countries where competition between private providers of high-speed broadband is fiercest, there are higher rates of investment in infrastructure, higher access rates and lower costs, as compared to countries where market entry for potential competitors is constrained by state-supported firms.

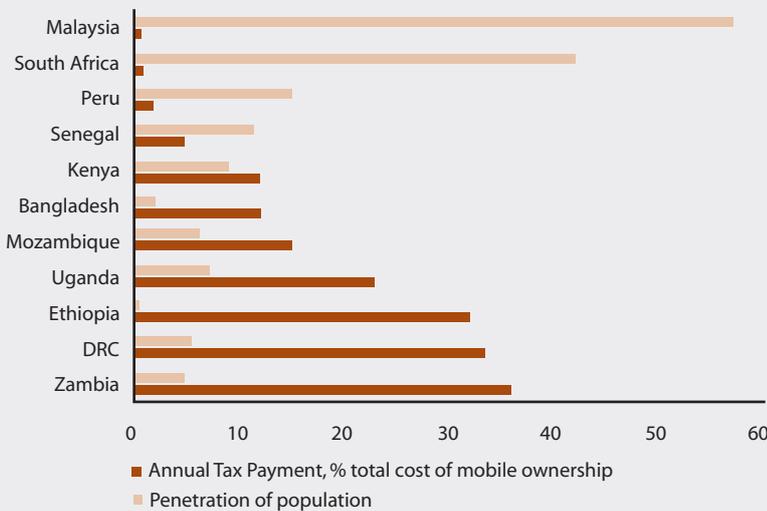
The benefits of privatization and increased competition can increase the access to and the spread of ICTs almost immediately, bringing great benefits to the poorest. Soon after India's international calls monopoly, VSNL, was privatized in 2002, national and international call charges fell by as much as 50 per cent. In addition, the speed of obtaining a new line went from many weeks to a few days, with direct impacts both on the general population and on those seeking to do business.

The lower costs of calls, the higher availability of broadband Internet (which can now be used for Internet protocol-telephony) and more responsive private-sector provision are among the most important determinants driving investments into call-centres in India. In this respect, ICTs can bring fabulous levels of wealth to poorer communities. But it is because of competitive firms that challenged the incumbent monopolist in an open market, without protection from the government, that outsourcing centres have been able to offer cost-effective al-

Tax and the Digital Divide

In Turkey, for instance, there is a ‘special communication tax’ of US\$16.52 and an annual ‘wireless licence fee’ of US\$7.39 on consumers. There is a one-time activation charge of US\$13.80 in Bangladesh, where market penetration remains well below 10 per cent (see chart below). Syrians must pay a 20 per cent VAT on all phones even though firms importing handsets into the country are already faced with customs-related charges of more than 45 per cent of the original export price.

The Pakistani authorities impose a 40 per cent tariff on all telecommunications equipment and an additional tax on SIM cards of US\$8.36. Although mobile telephony in the country does attract a significant amount of investment, the level is surely smaller than would be the case in the absence of taxes that make access to phones prohibitive for the poor.



Source: GSMA, *Tax and the Digital Divide*, 2005

The chart above shows the level of taxation as a percentage of total cost of mobile ownership in a selection of less-developed countries. Although tariffs are relatively low in many countries, there are some notable exceptions, such as Uganda, Zambia and Ethiopia. The prospect of reducing tariffs in these (and indeed in all) countries presents a real opportunity for policymakers positively to influence development outcomes.

alternatives to companies in higher-cost countries.

For the Internet, countries with more open telecommunication sectors also have more hosts and providers, lower monthly charges and high rates of Internet penetration. Highly liberalized telecommunications networks charge African Internet users eight times less than state-protected monopolies and it

takes as little as three telecom competitors to bring prices downward while maintaining sufficient profit levels to finance the investments required to improve and maintain infrastructure.

At the other end of the scale, Internet use among Ethiopians is small and concentrated among the elite—98 per cent of Internet users have university degrees, whereas 65 per cent of the

country’s population are illiterate—the annual subscription plan charged by the state-owned monopoly Internet service provider is US\$200. This is roughly twice as much as the average Ethiopian’s annual income.

With that being said, it is difficult to imagine that the Internet alone could be of much practical use in a country that suffers from wide-spread famine almost annually. Even if connections were somehow granted to every household in poorer countries, there are clearly other elements that contribute to the wealth and utility of the Internet—the existence of, and the ability to create, relevant content in local languages, for instance—that are still absent and have not been given enough consideration for those connections to become meaningful.

Can ICTs contribute to development?

Nevertheless, there have been some success stories, with ICTs having positive impacts on local communities, helping them chart their own way out of poverty.

The radio is perhaps the best example. In Nepal, one of the world’s poorest countries, 71 per cent of the population finds the radio a reliable source of information—far higher than in areas where the state is strongly involved, such as schools, newspapers and television. Independent radio broadcasting services have been found to be positively and significantly correlated with a range of development outcomes, including life expectancy, lower infant mortality, schooling outcomes and better functioning markets. Furthermore, radio equipment is cheap and not difficult to repair.

A more contemporary example is mobile telephony. Farmers now receive information about current market prices for their produce through their mobile phones, which empowers them to negotiate better deals with traders. Additionally, it is now commonplace

for immigrant workers in wealthy countries to transfer a portion of their salaries back home through mobile telephone ‘texts’, which often avoid the transaction costs with remittances (higher than 11 per cent of the total value in some cases).

Eager to provide their services to more markets, private operators are embracing the challenge to expand mobile telephony to poorer countries. Investments in telecommunications alone between 1993 and 2003 totalled US\$230 billion in poor countries, according to the World Bank.

Dirigiste Divide

These success stories, however, also illustrate how increased access to meaningful technologies is again hampered by governments. As investments increase and mobile telephony firms become more established in poorer countries, they have also become bigger targets for governments who are eager to expand budgets. These firms and other technology-based entrepreneurs are subjected to exorbitant taxes and tariffs that exacerbate an environment that is already hostile to investment and expansion of ICTs.

Whereas it is nigh-on impossible to collect taxes in the informal ‘black’ markets that predominate in most poor countries, it is relatively easy to collect taxes from large, well-defined companies, especially when they are not based domestically and have no political power.

In addition, ruling cliques see opportunities for private gain through the imposition of regulations on ICTs, which may be circumnavigated by the payment of an appropriate-sized bribe to a relevant official. For instance, the construction and maintenance of base stations, including negotiating property rights and determining signal strength and mast sizes, is a heavily regulated process by governments, which only serves to drive up the cost of expanding network coverage.

Furthermore, regulations and taxes drive up the cost of handsets and con-

nections. Private handset producers have managed to develop and export durable hand-held devices for as little as US\$30. But the full cost of owning a mobile phone is considerably greater because of one-off levies, import duties and restrictions on imports of possibly even cheaper second-hand phones (see box).

Economic freedom for development

Government impediments to wider use of ICTs—in the form of regulations and taxes—are symptomatic of a wider problem of excessive government interference in economic activity.

A precondition of sustainable development is the strength of the institutions of the free society: property rights, the rule of law, free markets and limited government. Most if not all poor countries lack the rule of law. Most have inadequately defined and poorly enforceable property rights. Most have markets that are either rigged by the state or otherwise unfree. Most have governments that are anything but limited. That is why they are poor.

ICTs may help in some measure to improve the chances for these institutions to be established. Radios can facilitate the distribution of information about the role of property rights, the rule of law and so on, educating the poor so that they can become demanders of change. The Internet, likewise, can facilitate information exchange among the intellectual elite, perhaps leading some to realize that the way to improve the welfare of the poor is through reducing the regulatory burdens imposed on entrepreneurs, even though this may reduce their own ability to exact bribes. Whether they actually care about the poor is, of course, another matter.

But ICTs can also be a means to communicate ideas that are antithetical to the free society. So, while one may hope that their uptake leads to improvements in the institutional framework of poor societies, there is no guarantee.

On balance, it is more likely that causality will go in the other direction. When a state improves its institutions, enabling people to own property and engage in free exchange; when it upholds contracts and applies the law in a non-discriminatory manner to all; when it removes its rapacious taxes and regulations, then it will experience growth and then it will find entrepreneurs from within and without who want to invest in the development of its ICT sector—along with the rest of the economy.

Countries that adopt free institutions are more developed and also enjoy higher growth rates and continually improving standards of living—along with greater access to ICTs—than countries that do not.

It is because of economic freedom that wealthy countries are now experiencing unprecedented levels of innovation and creativity, which brings us back to where we began. For economic progress to occur, people need to be able to own and trade in property. As progress occurs, so there is a shift towards property that is intangible—because there is a shift towards knowledge-based economic activities. Ensuring that these intangible assets may be owned and exchanged therefore becomes increasingly important. Underlying all of this is the rule of law, without which no progress can be made.

The hype and the attention devoted to the digital divide risks diverting scarce resources away from efforts that really matter to improving the lot of the poor. By helping foster the institutions of the free society—in order to bring down the barriers to creativity and innovation in the world’s most repressed countries—they too can have access to ICTs, as a result of better development through greater freedom.

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