



## Chapter 4

*When the only tool you have  
is a hammer, you tend to see  
every problem as a nail.*

*Abraham Maslow*

### THE WAY FORWARD

#### *Guiding Principles*

Adopting a more measured approach to ICTs for development, and subordinating our ICT strategies to broader strategies and priorities for development and poverty reduction, in no way signifies a diminished appreciation of the value of ICTs as tools for development and poverty reduction. In fact, one could argue that the only hope for success in using ICTs for development is to “put them in their place,” to understand them as tools, and to analyze more clearly how they relate to, and often depend on, other tools, resources and policies in order to be effective.

To say that ICTs are tools sounds self-evident, but it is a point that has often been obscured in ICT-for-development discourse and projects in recent years. It means simply that ICTs are means to other ends. Specifying those ends (sustained economic growth; reduction of poverty, hunger and disease; improved economic and educational opportunities for the poor, greater gender equality) leads, or should lead, first of all to asking why those ends have not yet been achieved, and what the impediments to their realization are in a specific country. This leads then to ask what changes in resources, capacities, institutions, markets, social structures are necessary in order to remove those impediments and achieve the desired ends. Development and poverty reduction, in short, are complex

processes of economic, social, political and institutional change through which more people gain greater access to their desired ends.

The way forward, then, in harnessing the benefits of ICTs for development and poverty reduction and the realization of the Millennium Development Goals is to be more realistic about the broader changes required in developing countries in order to foster sustained growth and poverty reduction, as well as the sometimes modest role of ICTs in effecting those broader changes; to recognize that the poor, developing country governments and their international partners all face constraints in resources, time, attention and capacity; and thus to be much more selective and strategic about the attention and resources devoted to ICT. This, of course, will lead to different strategies and priorities in different countries and regions, since the potential for ICTs to promote development and combat poverty will obviously vary considerably by country and region.

Several general principles can, however, be discerned as guideposts for these efforts.

**1. Poverty and uneven development have complex, interdependent causes. Addressing those underlying causes is the only way to combat poverty.** This, too, may seem obvious, but the history of development assistance is full of examples of uncausal approaches to the understanding of the plight of developing countries (“the financing gap,” “the infrastructure gap,” etc.) that often have led to failed efforts to “fix” the identified problem without adequate attention to the deeper and more complex causes of which the identified problem was a manifestation.

**2. The digital divide is a symptom (among many), not a diagnosis, and “bridging” or “closing” it is a slogan, not a strategy.** Metrics of the digital divide tell us only about what ICTs people and countries *have* (and often only in aggregate terms). They tell us nothing about what they are able *to do* with those ICTs, which depends heavily on a variety of other factors. Positive changes in those metrics are, in certain cases, indicators of other desirable changes, such as improved markets for telecommunications, successful innovation, higher levels of private sector activity and foreign investment, but a change in those metrics by itself tells us almost nothing about deeper, more important changes in the resources and capacities of a community or nation, the effectiveness of its institutions and markets, or its broader economic prospects. Even in those few cases where ICT metrics might seem directly and significantly relevant to a desired

change (e.g., improvements in ICT infrastructure as a lure to foreign direct investment), that desired change is fundamentally dependent on a variety of other factors that are, in most cases, more important, such as enabling environments and government capacity. For these reasons, indicative goals for ICT growth abstracted from a broader development strategy, such as calls for connectivity in every village by date X, are probably of limited use.

**3. ICTs enable change; they do not create it.** Pro-poor change in developing countries occurs through some combination of increased resources and capacities of individuals and institutions; greater efficiency and transparency of firms, markets and government institutions; an easing of national or global structural constraints; and concerted action on the part of key individuals and groups. ICTs can contribute to, or create the conditions for, many of these aspects of change, but they do not automatically cause change to happen. Furthermore, ICT-enabled change can be both good and bad. ICTs can open markets and increase competition, but that competition will not automatically be beneficial to developing-country producers. ICTs can further the advantages of already-powerful individuals and groups.

**4. ICT strategies are effective, sustainable, and worth the effort only if they are integrally linked to broader and more comprehensive development and poverty-reduction strategies.** By themselves, ICT strategies or “e-strategies” are often of little use and can even be counterproductive, both by obscuring the importance of the broader strategic priorities upon which any ICT strategy depends and by diverting scarce resources, including the time, attention and capacity of government decision makers, away from those broader priorities. As a tool for mobilizing enthusiasm and support for those more fundamental and often more difficult choices by highlighting the opportunities for economic growth and poverty reduction afforded by ICTs if those more fundamental choices are properly addressed, an emphasis on ICTs can be of value. Yet the considerable recent attention given to “e-strategies,” and the disturbing fact that some developing countries have several different “e-strategy” documents emerging from different donor projects, raises concern about the value of these exercises and their potential to divert resources, energies, and political will away from other more pressing issues.

**5. “Mainstreaming” ICTs in donor programs means subordinating them as tools of other, more fundamental objectives, not inserting them everywhere.** The concern with “mainstreaming” arises in part from the widespread perception that ICT-for-development programs were often set apart from, and not

well-coordinated with, core sectoral activities of donors in education, health, private sector development, etc. At the same time, many sectoral projects had ICT components embedded in them, but often without benefit of lessons from broader experience with ICTs and the challenges of adapting them to specific environments and conditions. The challenge, then, is both to link ICTs to core development goals and projects and to ensure that the full range of those involved in development programs understand where and how ICTs can be useful tools, and where they are not.

**6. Newer is not necessarily better.** The best tool for any job is the one that does the desired work most efficiently, in a form appropriate to the user, given available resources and other constraints on the use of the tool. The enthusiasm in the late 1990s for the Internet, and the digital divide logic that portrayed any technological gap as a disadvantage and therefore undesirable, led to a technology escalation in ICT-for-development programs. Simpler and older technologies such as radio, television and even print materials were often viewed as *a priori* inferior tools because they lacked some of the functionality (particularly the interactivity) of the Internet. The same prejudice applied to process technologies for improving the efficiency of firms and other institutions. Yet it is increasingly clear that even in the richest countries, the full range of ICTs remains relevant to the daily needs and desires of individuals and the functioning of markets and institutions.

**7. ICTs are, to some extent, social constructs. Therefore, they need to be adapted to different social contexts.** Personal computers are very much a product of the economic and social forms of organization typical of rich countries, as are most of the software applications written for use on them. They are, in effect, an answer to specific needs and preferences typical of firms, institutions and individuals in developed countries. They will not necessarily be equally well-suited to the needs of, or the forms of social and economic organization common to, users in other countries, particularly poor countries. Promoting innovation in hardware and software, creating ICTs that are specific to the needs and conditions of developing countries, is a key element in ensuring that ICTs truly address the needs of developing country users.

**8. Priority-setting is crucial to successful development and poverty reduction.** Developing countries, and the international partners who seek to help them, including public donors, the private sector and the NGO community have limited resources of time, money and capacity. Any development strategy requires

difficult choices, and priorities need to be chosen on the basis of an understanding of the most urgent needs of a given country and the actions most likely to have a positive impact on those needs. In some cases, ICTs will simply not be a priority, and an abstract sense of urgency about falling behind in the digital divide should never trump a clear strategy based on a detailed assessment of where the greatest levers for positive change exist in a specific country.

**9. Learning new lessons is good, but fully absorbing old lessons is just as important.**

There is a strong and welcome emphasis in ICT-for-development circles on learning from experience and finding best practices. Yet often this learning is focused on “what works” in the use of ICTs in specific contexts rather than on the broader enabling conditions for successful ICT use, without which the successful use of ICT cannot possibly be replicated elsewhere; it is impossible to understand what worked in a given context without exploring more deeply *why* it worked. Furthermore, this learning rarely includes an effort to absorb lessons from earlier, sometimes unsuccessful efforts to introduce technologies into developing countries (e.g., automation of government ministries, television for education, radio for rural extension). Since the success or failure of these earlier efforts most probably had similar underlying causes, such as the enabling environment, appropriateness of the technology, human and institutional capacity, the structure of local and global markets, etc., there is much to learn from these earlier efforts. There is, furthermore, much that could be learned from studying the history of development theories and practices that focused attention on one factor (finance, infrastructure, human capital) presumed to weigh heavily on the success or failure of economic growth, since ICT-for-development thinking is prone to some of the pitfalls encountered in these earlier approaches. Finally, we need to learn from the failures of past international calls for measurable increases in ICT access by given dates, such as the Maitland Commission's call in December 1984 for universal access to telephone service by the year 2000.

### *Priorities for Action*

The above analysis suggests certain priorities for ICT-for-development efforts. This is by no means an exhaustive list; it is meant simply to point to some particularly important priorities, particularly for the international donor community.

## **1. Deeper, more rigorous analysis of the ICT-related dimensions of poverty and low growth and of the possibilities and limits of ICTs as tools to address poverty and promote development.**

As this report has suggested, there is an urgent need to imbed ICT initiatives in a more rigorous understanding of the complex causes of poverty and low growth, the dimensions and drivers of pro-poor change in developing countries, and the broader enabling factors that determine whether and how ICT can make a difference. Any diagnosis of a country's development challenges that begins from, and focuses on, the relative absence of ICT is bound to be incomplete and risks being misleading and the source of misguided policy priorities. There is a scarcity of rigorous and context-specific analysis of the ways in which, and the circumstances under which, ICT can and should be a priority tool of poverty reduction and economic and social opportunity.

## **2. More extensive and honest assessment of experience thus far with ICT-for-development programs.**

There is abundant anecdotal evidence of successes and failures in ICT-for-development projects, and some spotty data on the scope of such efforts. There is a serious shortage of rigorous impact evaluations of these projects, however, and an equally serious shortage of analysis of the underlying conditions for success and failure of these projects. This leads to a tendency to want to replicate and scale up putatively successful projects without an adequate understanding of *why* they worked in a given context, and to avoid repeating experiments that are deemed to have failed without understanding whether the failure had anything to do with the specific ICT initiative or was based on other factors. The problem is exacerbated by the fact that many ICT applications are imbedded in larger sectoral projects, and the contribution of the ICT component to the success or failure of that project is often not independently evaluated.

Improving our collective knowledge of these matters requires not only a greater commitment to evaluate past experience frankly, but also a much greater attention to information-sharing among the large number of organizations involved in these efforts — multilateral, governmental, private sector, and NGO.

### **3. A greater strategic focus, in ICT programs, on levers of change and agents of change.**

If the fundamental objective of ICT-for-development programs is to foster pro-poor change and sustainable development in poor countries, then there is an urgent need to understand better the key levers of (and impediments to) desired change in a given country and the key groups and institutions that can serve as agents of change. This would permit a more effective targeting and prioritization of ICT-for-development programs, since they would be then be based on a context-specific model of how to bring about desired deeper changes, not just on observed disparities of levels of ICT access.

### **4. A priority focus on development and poverty-reduction, and on the MDGs, not on ICTs.**

The focus on the absence of ICTs as the problem leads all too easily to the presumption that the supply of ICTs is the solution. Mainstreaming ICTs into broader development and poverty-reduction strategies means seeing ICTs as one of many important tools (along with policies, money, institutions, human capacity, and political will, among others) in fostering pro-poor change in developing countries. The measure of such change is progress on the MDGs and broader, sustainable growth, not the increased presence of ICTs.

This means that ICT strategies and “e-strategies” should be strictly subordinated to, and designed to be instrumental to, national development and poverty reduction strategies. While this may seem simplistic, it is all too often the case that e-strategy exercises skew the analysis of a developing country's fundamental challenges and opportunities both by seeing them primarily through the lens of ICTs and by largely bypassing a deeper analysis of the structural, institutional, political, and resource-related impediments to growth in a given country.

### **5. More rigorous priority-setting both in ICT programs and between them and other interventions.**

Any development and poverty-reduction strategy involves difficult choices, since the resources, time and capacity of relevant actors and institutions are finite. It is not enough to posit that a given ICT intervention will create benefits for the poor or will help economic growth. In fact, the ability of ICT projects to show certain tangible results (more teachers trained, more farmers informed of current prices)

sometimes serves as a way to avoid the tougher questions of whether those first-order changes lead to the desired deeper changes (better education results, more sustainable agricultural livelihoods) in ways that justify giving priority to them relative to other interventions and relative to their cost. More broadly, the difficult, frustrating, and often bewildering job of combating poverty and promoting sustainable growth often understandably leads to the temptation to look for “quick wins,” visible results that we can measure and that have some arguable connection to the larger changes we hope to effect. The ability of ICT interventions to create, in certain cases, these kinds of “quick wins” (often of the photo opportunity variety) should make us especially careful about focusing first on core objectives, and only then on tools and strategies to meet those objectives.

## **6. Greater cooperation and information sharing among donors and others involved in ICT-for-development programs.**

While general information-sharing and dialogue on ICT-for-development programs has improved somewhat in recent years, there is still considerable duplication of effort and failure of coordination among donors and other key actors in this area, as evidenced by the blizzard of competing “e-strategy” initiatives in the past few years. While everyone agrees in principle on the need for better information-sharing and joint learning, key participants need to make that cooperation a priority and take concrete actions to advance cooperation, perhaps by focusing first on a small group of priority areas for information-sharing, such as evaluation of telecenters and other common-access models.

## **7. Stronger support for pro-poor innovation and innovators.**

ICTs have the greatest potential to effect positive change in developing countries and create opportunity for the poor when they are specifically adapted to local needs, priorities and circumstances. Pro-poor innovation entails designing not only ICT appliances and applications relevant to the needs of the poor but also ICT-related or enabled services for the poor, as well as new financing and business models for provision of ICT access and services to the poor. A wide range of organizations — public, private and nongovernmental — are involved in this innovation. Yet they are often constrained either by lack of adequate resources for scaling up their innovations or the inability to find partners, and the international private sector, particularly in the current global economic context, is wary of investing in such innovation, since the short-term risks seem to outweigh

substantially the long-term hope for profits (and since long-term is an increasingly unattractive time horizon for many investors.) Without either seeking to replace or second-guess private sector innovation and investment, the development community should look for ways to increase the resources and partnerships available to pro-poor innovators.

### *Taking Advantage of the World Summit for the Information Society (WSIS) Two-Stage Process*

The roughly two-year period between Phase 1 and Phase 2 of WSIS provides a good opportunity for the international community to set concrete, phased targets for improved cooperation, better priority-setting, and enhanced evaluation, analysis and information-sharing in ICT-for-development programs. Rather than setting indicative ICT targets that are not meaningfully attainable through direct action (as long experience has shown), the donor community should make concrete commitments for progress in cooperation, information-sharing, monitoring and evaluation, and more coherent division of labor in ICT programs. Programs would be reviewed at the second phase of WSIS in Tunis in late 2005.

Such an approach might be viewed by some as a retreat from the more ambitious approach of adopting ICT targets in Geneva. However, one can argue that it is ultimately not only a more realistic strategy, but one more likely to produce results. Changes in the penetration and use of ICTs in developing countries and in their impact on the MDGs can only be meaningfully achieved as part of a broader and more comprehensive approach to poverty reduction and sustainable development. The best contribution that the ICT-for-development community can make to these broader efforts is to make the case for ICTs as tools of poverty reduction and economic growth, and of pro-poor change, in a more rigorous and evidence-based fashion, and to cooperate more effectively in applying ICTs to specific development challenges. The measure of success, however, will and must remain progress toward the MDGs and concrete improvements in the lives of the poor.