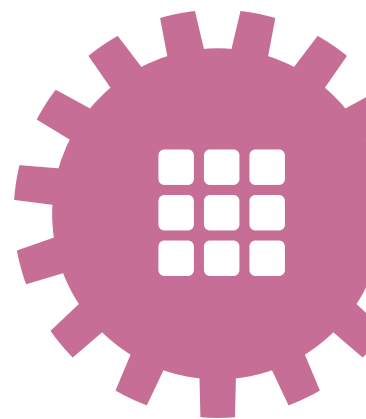
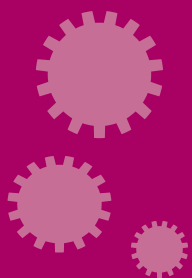


FACING THE POLICY CHALLENGES
RAOUL ZAMBRANO





A new technological revolution, propelled by the rapid development and deployment of Information and Communications Technologies (ICT), is transforming the global economy by changing its core dynamics. The emerging global networked economy is deepening the interdependence among countries while promoting new opportunities for developing nations to reinsert themselves in the world economy.

I. THE CONTEXT

To confront this global challenge, developing countries, working together with the international community and development partners, need to be proactive and harness these opportunities in the short-run. Otherwise, their ability to compete and participate in the global economy will be further reduced, thus exacerbating existing social and economic inequalities, and global marginalization.

The diffusion of ICT remains highly uneven both between and within nations. The so-called “digital divide”, in large part a reflection of existing economic and social inequalities, is the result of the unequal access to and diffusion of ICT on a local, national, and global scale. Is it thus not a mere technological issue. Although the expansion of the market has played a critical role in fostering both access to and use of these technologies, as in the case of infrastructure and enterprise development, market forces alone will not close these gaps.

This is certainly the case for most developing nations, particularly in least develop countries (LDCs), where “market failures” are pervasive and impede the flow of new investments. Moreover, as new competitive opportunities emerge, traditional comparative advantages and niches are, at the same time, becoming obsolete or reaching the end of their cycle. For example, the terms of trade of traditional exports from developing countries such as coffee and sugar, to mention a few, have been declining for at least the last ten years - a trend that has had substantial negative impact on foreign exchange and national living standards.

The risks are indeed great, but so are the rewards. In addition to generating new mechanisms for economic growth, ICT can also serve as a critical enabler to achieve many of the development goals agreed to by world leaders at the UN Millennium Summit. Emerging empirical evidence strongly suggests that ICT has the potential to generate income opportunities and jobs, improve the delivery of and access to health and education, facilitate information sharing and knowledge creation, and increase the transparency, accountability and effectiveness of government, business and non-profits.

By making ICT an integral part of development assistance, developing countries and their partners have the opportunity of addressing the economic, social and digital divides in far more innovative and effective ways than in the past. Developing countries and the international developing agencies and institutions must take on this policy challenge to successfully harness the dig-

ital opportunities and address development issues related to poverty alleviation and democratic governance among others.

Without doubt, the use and diffusion of ICT in developing countries has taken off in the last 5 years. Back in 1995 only three nations in the African continent had access to the Internet. Today, all of them have some sort of connectivity to the global network. Perhaps a more critical revolution in developing countries has been the rapid spread of cellular/wireless technologies which have allowed millions of citizens to use a telephone for the first time and use the technology to promote their products and businesses. This certainly has overshadowed the so-called “Internet revolution” where access costs and skills required are higher. However, the upcoming convergence of these technologies will undoubtedly provide a critical boost to the faster diffusion of ICT in poor countries at affordable costs and localized use.

The bi-lateral and multi-lateral agencies and institutions has also been active in the field since the mid 90s. Although most of them were caught by surprise by the rapid evolution of ICT, today all of them are supporting the use of ICT in developing nations. This in contrast with 1995 when very few development agencies were working in ICT related initiatives. Today, it is not difficult to find multiple ICT related initiatives in any given country.

The issues at stake here are a) the apparent lack of coordination among development agencies in national and regional ICT initiatives -thus leading to some duplication and b) the lack of a comprehensive framework on the part of decision makers in developing nations to prioritize the interventions proposed by the agencies and instead promote their own in a systematic way that also addresses key development priorities.

To address several of the issues mentioned above, the international community in close collaboration with developing countries has launched a series of initiatives which are described below.

II. THE DIGITAL OPPORTUNITY TASK FORCE (DOTFORCE)

Created by the G-8 heads of state at the Kyushu-Okinawa Summit in July 2000, the dotforce brought together 43 teams from government, the private sector, non-profit organizations, and international organizations from both developed and developing countries to address the “digital divide”. To facilitate its operation and provide expert input in the process, the dotforce established a Secretariat which was co-hosted by the United Nations Development Programme (UNDP) and the World Bank. By means of an open and participatory

process which included consultations with various other networks and players in the ICT field, the dotforce prepared a final report which included the Genoa Plan of Action and was submitted and endorsed by to the G-8 leaders at the Genoa Summit.

The Genoa Plan of Action has nine main action points which can be summarized as follows:

1. Help Establish and Support Developing Country and Emerging Economy National e-strategies
2. Improve connectivity, Increase Access and Lower Costs
3. Enhance Human Capacity Development, Knowledge Creation and Sharing
4. Foster Enterprise and Entrepreneurship for Sustainable Economic Development
5. Establish and Support Universal Participation in Addressing New International Policy and Technical Issues Raised by the Internet and ICT
6. Establish and Support Dedicated Initiatives for the ICT Inclusion of the Least Develop Countries
7. Promote ICT for Health Care and in Support Against HIV/AIDS and Other Infectious and Communicable Diseases
8. National and International Efforts to Support Local Content and Applications Creation
9. Prioritize ICT in G-8 and other Development Assistance Policies and Programmes and Enhance Coordination of Multilateral Initiatives

III. THE DIGITAL OPPORTUNITY INITIATIVE (DOI)

The Digital Opportunity Initiative (DOI), an innovative public partnership among the UNDP, the Markle Foundation and Accenture, was also launched at the G-8 Okinawa Summit in July 2000 to provide substantive support to the work of the dotforce. The DOI set up to fill three specific goals: 1) provide a conceptual framework for ICT for Development; 2) promote national and global awareness of the role of ICT in the development process; and 3) based on 1) and 2) above, launch “exemplar initiatives” in selected developing nations as proof of concept and replicability

The conceptual framework is presented in the final report of the DOI entitled *Creating a Development Dynamic* which was submitted to both the dotforce and the G-8 leaders before the Genoa Summit. The objective of the DOI report is to provide a framework that will enable developing countries, com-

munities, and supporting organizations leverage the benefits of ICT to further sustainable development.

Today, strong skepticism still persists in many quarters on the relevance of ICT in the development process. The issue here has two different angles: on the one hand, the “either/or” argument where a few development organizations and developing countries perceive the investment on ICT as an alternative and not as a complement to ongoing development funding. This view was reinforced by the apparent systematic failure of “first generation ICT” for Development projects and programmes in several nations -particularly true for telecenter and distance learning efforts. On the other hand, and also based on the later, the lack of substantial empirical evidence that demonstrated that ICT, when properly use and applied, can have a positive impact in helping to achieve specific development goals set by the various sector and/or countries.

In this context, Creating a Development Dynamic reviewed more that three hundred ICT for Development initiatives and gathered the relevant empirical evidence that showed that ICT, under certain conditions, does have a positive impact in facilitating new economic opportunities, promoting a sustainable environment, delivering improved health and education to the people, and fostering democratic governance by empowering citizens and organizations, and rationalizing government functions with modern technologies and processes.

This is certainly not an automatic process and care should be given to design and implementation details. For starters, the end goal of any of these initiatives should not be technological. On the contrary, initiatives should have clear development objectives and be demand-driven, owned by its beneficiaries. Furthermore, initiatives need to have a built-in sustainable mechanisms and not die once donor funding or related is exhausted. The creation of partnerships among the various players or sectors involved in any of the initiatives should facilitate this process by fostering a more “holistic” approach to the programmes or projects.

Perhaps less know to the public is the fact that indeed a selected group of developing countries have already embarked in establishing and implementing national ICT for development strategies. Although this process certainly started before the “Internet revolution” in the early 1990s -a process pioneered by Brazil, India and Korea, the country examples studied in the DOI report provide new and critical material for making the case for ICT as an enabler for development. Based on country studies of Brazil, Costa Rica, Estonia, India, Malaysia, South Africa and Tanzania, the report suggests a typology for nation-

al ICT strategies which can be used in different contexts.

From the early 1980s, a few developing countries began adopting national ICT policies, particularly to promote the development of a national ICT sector. This process was propelled, to a large extent, by the advent of the personal computer and increasing demand for related hardware and software applications. The emergence of the global network economy in the 1990s, fueled by the digitalization of telecommunications and later on by the rapid expansion of the Internet, offered new opportunities for a wider variety and number of developing countries to adopt national ICT policy frameworks.

But, while the strategies pursued by each country have unique features, the role assigned to ICT can be broadly characterized as follows:

- ICT as a production sector which involves policies focusing on the development and/or strengthening of ICT-related industries such as computer hardware, software, telecommunications equipment and ICT-enabled services. This can be accomplished through either a) an export-based focus (Costa Rica) or b) a national capacity focus (Brazil)
- ICT as enabler of socio-economic development which involves the adoption of holistic, cross-sector policies and strategies which aim to harness the uniqueness of ICT to accelerate a wider development process. This in turn can be accomplished through a) a global positioning focus (Malaysia) or b) a development goals focus (Estonia)

The lessons learned from the various country case studies and the three hundred or so ICT for development initiatives reviewed by the DOI point to five important interrelated areas for strategic intervention at both the policy and implementation levels: policy, infrastructure, enterprise, human capacity, and content and applications. Each of these areas or components, taken in isolation, are well known to ICT for development experts. However, by emphasizing the need to take a comprehensive or “holistic” approach, the DOI suggests that such interventions can create a “development dynamic” by leveraging the synergies and complementarities among the components and triggering “multiplier” and “network” effects across the various sectors.

It should be clear, by the same token, that the development dynamic framework does not suggest that such a dynamic can only be ignited if action is taken in all five areas at once. While acting on any of the components can produce important results, measured and/or strategic interventions taken across sever-

al component areas can have a larger impact than those achieved by a single area focus which, in turn, are more likely to fail. But the key premise here is the policy framework which must define the national priorities and the specific role for any type of intervention at the implementation level.

In any event, the interaction of the various components does not occur in a vacuum. Once again, the evidence from the various ICT for development strategies studied by the DOI strongly suggests that, in order to reap the benefits of ICT for development, it is necessary to involve the full range of actors in the public and private sector in a process that is inclusive, open and participatory - the need for strategic compacts. The key element is the involvement of all sectors not only in the design of strategies, but also, and perhaps more importantly, in their implementation in such a way that each has specific roles and responsibilities.

Strategic partnerships are required to aggregate the capabilities and resources to address the pervasive market failures in developing countries and to create win-win situations for the various sectors and stakeholders involved. Neither the government nor the private or non-profit sectors alone can achieve this objective -each is dependent on the cooperation of others to accomplish its goals and further enhance sustainable development processes.

The DOI framework is currently being employed by countries such as Azerbaijan, Bolivia, Mauritania, Uzbekistan, and Nicaragua among others to develop national ICT for development strategies.

During the first week of February 2002, UNDP and the Markle Foundation launched the Global Digital Opportunity Initiative (GDOI) which follows on the DOI framework and aims at providing direct support to a selected groups of developing countries in the design AND implementation of national ICT for Development Strategies. The GDOI also includes an international partners group from the private and public sectors (SUN, HP, CISCO, ITU, UNECA, etc.) who will be providing resources for country programmes. The GDOI is initially planning to work in Bolivia, Tanzania and Mozambique.

IV. THE UN ICT TASK FORCE

In March 2001, the Economic and Social Council (ECOSOC) requested the UN Secretary-General to establish an Information and Communication Technologies (ICT) Task Force. The Task Force is supported by the Heads of State and Government of all UN Member States who endorsed the ECOSOC Ministerial Declaration at the Millennium Summit in September 2000. This initia-

tive is intended to lend a truly global dimension to the multitude of efforts to bridge the global “digital divide”, promote digital opportunities and thus put ICT at the service of development for all.

The objective of the Task Force is to provide overall leadership to the United Nations role in helping to formulate strategies for the development of ICT and putting those technologies at the service of development. In addition, and, on the basis of consultations with all stakeholders and Member States, the Task Force aims at forging a strategic partnership between the United Nations system, private industry and financing trusts and foundations, donors, programme countries and other relevant stakeholders.

In similar fashion to the dotforce, the UN ICT Task Force comprises representatives from all sectors of society, including governments, private and non-profit sector of both developed and developing countries. The Task Force has thirty seven (37) members distributed as follows: 18 from government, 8 from the private sector, 4 from the non-profit sector, and 6 from multilateral organizations. The president from ECOSOC is an ex-officio member of the Task Force.

The Task Force is expected to meet twice a year. A small secretariat will be created to facilitate the running of the Task Force and provide substantive and administrative support.

One of the goals of the UN Task Force is to complement the efforts initiated by the G-8 dotforce - rather than compete or duplicate. This is indeed reflected in the current draft action plan of the UN ICT Task Force which has essentially adopted the nine action points from the Genoa Plan of Action. In addition to these, the Task Force will also:

1. Launch a Global Leaders Awareness Programme which will also include non-profit and civil society organizations
2. Establish the Task Force Website and Portal based on Open Source Software and accessible for low bandwidth users
3. Promote Stakeholders Networks and Carry out Stakeholder Campaigns at the global, regional and local levels
4. Develop a Media and Communications Strategy
5. Foster Resource Mobilization to Finance the various Action Items

The UN ICT Task Force was officially launched on 20 November 2001 and is now planning to meet once every quarter. It has formed six working groups as follows: ICT Governance, National and Regional e-strategies, Capacity Building

(including health), Resource Mobilization, Low cost access and Connectivity, and Business and Enterprise. These groups are working hand in hand with their equivalents from the dotforce. In addition, the UN ICT taskforce has set up regional networks of expertise in Africa, the Arab States, Asia and Latin America.

V. UNDP'S ICT FOR DEVELOPMENT STRATEGY

Since 1993, UNDP has been directly involved in promoting ICT for development programmes and initiatives. It has developed substantial on the ground expertise and knowledge through global initiatives such as its pioneering Sustainable Development Networking Programme (SDNP), the Small Islands Developing States Network (SIDSNet), and the Cisco-UNDP Network Academies programme for 24 LDCs; regional initiatives such as the Asia Pacific Development Information Programme (APDIP), and the Internet Initiative for Africa (IIA); and national programmes such as Ukraine's FreeNet, Jordan's Community Access Centers and Schoolnet initiatives in Cameroon and Palestine, to mention a few. Through these initiatives UNDP has helped deploy the first Internet nodes in more than 45 developing countries, trained more than 25,000 organizations and institutions, and promote local content dissemination and networking among many civil society organizations.

Based on this extensive work, UNDP's Agenda for Action 2000-2001 has explicitly recognized the key role that ICT can play in the fight against global poverty and effectively addressing the various international development targets. ICT for development has in fact become one of the six main priority areas for UNDP intervention at the country level.

As a cross-cutting issue, ICT has critical relevance and impact on UNDP's thematic areas such as democratic governance, poverty alleviation and the environment. The integration of ICT into all these areas is critical for developing countries to harness the full potential that these technologies can have in promoting targeted development goals and create new synergies and partnerships to increase the effectiveness in addressing economy inequality and social exclusion.

Based on this and on its involvement in the various global forums dealing with ICT for development - such as the dotforce, the Digital Opportunity Initiative and the UN ICT Task Force, UNDP has developed a new ICT for Development strategy that primarily focuses on upstream policy advice that complements and helps realign the current and planned projects and initiatives at the country level to the new policy challenges posed by the emerging global networked economy.

The new strategy places at its core the building of new and innovative partnerships at both the global and local levels, involving in particular the private and non-profit/NGO sectors. Mainstreaming ICT into the various development areas and explicitly addressing the pervasive market failures in the poorer nations requires such an approach as it is clear from the current evidence that no one single player alone will be able to tackle the issues in an effective and expedite fashion.

The DOI is one example of such type of partnerships. In addition, UNDP has also launched the Global Network Readiness and Resource Initiative (GNRRI), a public-private partnership with the Markle Foundation, designed to offer country-level assistance involving key international ICT experts for the development of comprehensive national e-strategies and related e-assessments. A virtual network of experts and resources will be built to support this and other related initiatives.

In this context, UNDP has identified five key areas for interventions at the national level regarding ICT for Development:

1. Design National ICT for Development Strategies (e-strategies)
2. Strategy Implementation and Capacity Development (e-Initiatives)
3. ICT for Democratic Governance (e-governance)
4. Support to Bottom-up Initiatives through Digital Grants (e-grants)
5. Promotion of National Awareness and Launching of Stakeholder Campaigns

To complement these efforts, UNDP will also provide support to regional and global initiatives to promote and enhance North-South and South-South cooperation and Networking. A dedicated ICT for Development Trust Fund has been created by UNDP to leverage resources in support of these key areas.

VI. CONCLUSION

Much is indeed happening. We have seen -and contributed to- the formation of new global partnerships such as the dotforce and the UN ICT Task Force. In addition, substantial efforts have been launched to produce a comprehensive framework that addresses the critical issues of ICT for development and furnish decision makers in both developed and developing nations with a critical tool to advance global and national development objectives. This however does not imply that we have an easy road ahead. Critical challenges remain and

need to be addressed at various levels.

The current global economic slowdown, triggered in part by the “dotcom” crash, is certainly providing new ammunition for those who remain skeptical about the role that ICT can play in promoting sustainable human development. Moreover, the incentives of investing in developing nations are now less attractive. For the poorer countries where market failures are pervasive this will probably not have a large negative impact.

From one vantage point, the current economic recession can indeed be an opportunity to further strengthen the existing global partnerships, design new cooperation and coordination mechanisms among the various national, regional and global players, refine the current conceptual frameworks, create new analytical tools and implementation mechanisms, and develop innovative funding mechanisms and partnerships.

This will undoubtedly benefit ICT for development as the fulfillment of traditional development objectives can in effect be implemented at lower costs and on a wider scale through the use of state of the art technologies that could help poor nations leap-frog well into the 21st century. ICT for Development is not a panacea but it does provide unique opportunities -digital opportunities for e-development- that need to be harnessed immediately through pro-active policies at both the local and global levels. ■

FOOTNOTES

- 1 On average, industrialized countries have roughly 3 users per Internet hosts whereas developing countries have over 100 for every Internet server in their countries -with rates for poorer countries being 1,000 to 1 or more. See for example <http://www.telcordia.com/newsroom/press-releases/01052001.html> . Although Internet growth rates are higher in developing countries, diffusion to large portions of national users remains limited and face the limits imposed by small markets and low effective demand.
- 2 United Nations Millennium Declaration, 2000,
<http://www.un.org/millennium>
- 3 Mansell, R. and When, U (eds.), Knowledge Societies: Information Technologies for Sustainable Development, 1998,
<http://www.susx.ac.uk/spru/ink/knowledge.html>; ILO, World Employment Report 2001: Life at Work in the Information Economy, 2001; Accenture, Markle and UNDP, Creating a Developing Dynamic, 2001,
<http://www.opt-init.org> .
- 4 Recent estimates indicate that in many African nations and LDCs cell phone penetration has already surpassed fixed phone use. In addition, the ration of cell phone users to Internet users is, in a few countries 10 to 1.
- 5 http://www.dotforce.org/members/DOT_Force_membership.doc for full list of members.
- 6 <http://www.dotforce.org/reports/>
- 7 <http://www.opt-init.org/framework.html>
- 8 <http://gdoi.org>.
- 9 <http://srcho.un.org:80/documents/ecosoc/docs/2000/e2000-19.pdf>
- 10 <http://www.unicttaskforce.org>
- 11 <http://www.sdnf.undp.org>
- 12 <http://www.sidsnet.org>
- 13 <http://www.cisco.com/edu/ldci>
- 14 <http://www.apdip.org>