

Final Draft DPA Report

Rich Fuchs
Director,
Information and Communication Technologies for Development
International Development Research Centre

Table of Contents

Executive Summary

List of Acronyms

- 1.0 Program Area and Background
 - 1.1 Regional Programming
 - 1.2 Global Linkages and Networks
 - 1.3 Evaluative Thinking, Listening and Acting
 - 1.4 Cross Program Area Linkages
- 2.0 Current Program Activities
 - 2.1 Acacia-Program Initiative
 - 2.2 PAN Asia-Program Initiative
 - 2.3 Institute for Connectivity in the Americas-Corporate Project
 - 2.4 PAN Americas-Corporate Project
 - 2.5 Connectivity Africa-Corporate Project
 - 2.6 Bellanet-Secretariat
- 3.0 Building Capacity with Developing World Partners
- 4.0 Conclusion - The Way Forward
- 5.0 Annexes

List of ACRONYMS

AMIC	Asian Media Information Research Centre
APDIP	Asia Pacific Development Information Program
APNIC	Asian Internet Service Providers Industry Association
ASEAN	Association of Southeast Asian Nations
ASRO	Regional Office for Southeast and East Asia
BoG	Board of Governor
CA	Connectivity Africa
CAF	Corporate Assessment Framework
CAP	Centre Administered Project
CIDA	Canadian International Development Agency
CCIM	Centre's Committee for Information Management
CCIMC	Centre Communications and Information Management Committee
COMESA	Common Market for Eastern and Southern Africa
CTL	Closing the Loop
CSPF	Corporate Strategy and Programming Framework
DANIDA	Royal Danish Ministry of Foreign Affairs
DFAIT	Department of Foreign Affairs and International Trade
DFID	Department for International Development
DGIS	Director General for International Cooperation (The Netherlands)
D-Group	Discussion Group
DotForce	Digital Opportunity Task Force
DPA	Director of Program Area
ECA	Economic Commission for Africa
ECLAC	Economic Commission for Latin America and the Caribbean
ENRAP	Regional Office for Eastern and Southern Africa
ERNWACA	Educational Research Network for West and Central Africa
EU	European Union
G8	Group of Eight
GATS	General Agreement on Trade in Services
GKP	Global Knowledge Partnership
GPS	Geographical Positioning Systems
GSM	Global System for Mobile Communication
HAB	Hemispheric Advisory Board
HIPC	Heavily Indebted Poor Countries
HQ	Headquarter
IADB	Inter-American Development Bank
ICA	Institute for Connectivity in the Americas
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technology
ICT4D	Information and Communication Technologies for Development
IDRC	International Development Research Centre
IFAD	International Fund for Agricultural Development
InfoDev	Information for Development Program
IPR	Intellectual Property Rights
ISP	Internet Service Providers
IT	Information Technology
ITMD	Information Technology Management Division
ITU	International Telecommunication Union
LACRO	Regional Office for Latin America and the Caribbean

LACNIC	Latin America Network Internet Centre
LINK CENTRE	Learning Information Networking Knowledge Centre
LIRNE	Learning Initiatives on Reforms for Network Economies
MENA	Middle East and North Africa
MERO	Regional Office for the Middle East and North Africa
MIMAP	Micro Impacts of Macroeconomic and Adjustment Policies
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
OAS	Organization of American States
OS	Open Source
OSILA	Observatorio para la Sociedad de la Informacion en Latinoamerica
PAs	Program Areas
PBDD	Partnership and Business Development Division
PBR	Peace Building and Reconstruction
PCR	Project Completion Report
PDA's	Personal Digital Assistants
PI	Program Initiative
PO	Program Officer
PRSP	Poverty Reduction Strategy Papers
PPB	Program and Partnership Branch
R&D	Research and Development
RAF	Regional Activity Fund
RO	Research Officer
RX	Resource Expansion
SARO	Regional Office for South Asia
SDC	Swedish Development Cooperation
SEE	Social and Economic Equity
SID	Special Initiatives Division
SIDA	Swedish International Development Cooperation Agency
SMC	Senior Management Committee
SMEs	Small and Medium Enterprises
TL	Team Leader
UNB	Université Nationale du Bénin
UNDP	United Nations Development Programme
UNF	United Nations Foundation
VOIP	Voice Over Internet Protocol
VSAT	Very Small Aperture Terminal
WAP	Wireless Area Protocol
WARO	Regional Office for Western Africa
WB	World Bank
WBI	World Bank Institute
WDR	World Dialogue on Regulation
WiFi	Wireless Fidelity
WSIS	World Summit on the Information Society
ZERI	Zero Emissions Research Institute

Executive Summary

The Information and Communication Technologies for Development (ICT4D) Program Area is one of the three (3) principal program lines at the International Development Research Centre (IDRC). The programming includes elements all of which are at or near their mid-point of current tenure.

Within the Corporate Strategic Program Framework, the ICT4D Program Area is to principally address issues relating to *connectivity* and *information economy* in the developing world. Subsequent research themes approved by the Board of Governors include *poverty reduction, people development, networks, learning and development and partnerships*. The issue of *gender* is also a cross-cutting theme within the Program Area.

The report which follows describes how the program elements are performing, the nature of their activities and what new undertakings have been generated. As well, the report addresses the complex, but crucial, objective of Capacity Building. A vision of what steps lie ahead for this programming at IDRC is also offered.

This report has received careful and constructive contributions from staff in the Program Area, Regional Directors and other colleagues at IDRC.

1.0 Program Area and Background

The Information and Communication Technologies for Development Program Area builds on a longstanding history and tradition of innovation at the International Development Research Centre (IDRC). While information and communications technologies have only recently been incorporated into development programming in many international organizations¹, IDRC has been involved with the integration of information and networks in its programming since its onset as an organization in 1971.

IDRC re-engineered its history of ICT programming by establishing the Information and Communications Technologies for Development (ICT4D) program area in 2000. Since that time the activities within ICT4D have grown and expanded by more than double its original dimensions. This is due, in large measure, to the fact the IDRC's programming in this area continues to be widely respected and, as international policy incorporates this type of programming, IDRC is often at "top of mind" when new initiatives are considered. This was certainly the case at the time of the Summit of the Americas (April 2001) when the Prime Minister established the Institute of Connectivity in the Americas. The same was true when Canada hosted the G8 Summit and the Canada Fund for Africa included a new initiative, Connectivity Africa, which was a direct outcome of IDRC's participation and leadership in the DotForce.

Despite the growth within the ICT4D Program Area, all of the activities, both existing and new, are programmed within research and program objectives that have been approved by the Board of Governors. In March 2001, the Board of Governors approved the six (6) principal research themes for the ICT4D Program Area and later that same year the Board approved the Acacia and PAN Asia prospectuses. Both of these are second-generation programs at IDRC and continue as flagship ICT initiatives. Since that time several new Corporate Projects have received external financing. These include the Institute for Connectivity in the Americas, Connectivity Africa and Electronic Networking for Rural Asia Pacific and all have been integrated within the ICT4D Program Area and the research themes originally approved by the Board.

¹ This has been accelerated by international initiatives such as the Summit of the Americas, the Digital Opportunities Task Force (DotForce), the UN ICT Task Force and the World Summit on the Information Society.

The ICT4D Program Area now includes the following:

Program Type	Program Calendar	Total Staff ²	Annual Budget
*Acacia - <i>Program Initiative</i>	Oct. 2001-March 2006 ³	6	5,500,000
*PAN Asia - <i>Program Initiative</i>	Oct. 2001-March 2006	4	3,400,000
*PAN Americas - <i>Corporate Project</i>	Oct. 2001-March 2006	1.8	1,200,000
*Institute for Connectivity in the Americas - <i>Corporate Project</i>	Jan. 2002-March 2006 ⁴	6	4,000,000
*Connectivity Africa - <i>Corporate Project</i>	Nov. 2002-March 2006	4	3,000,000
*Bellanet - <i>Secretariat</i>	Aug. 2003-July 2007	15.75	2,100,000 ⁵
*ENRAP II - IFAD Contract	April 2002-March 2006	1	500,000
Totals		38.45	19,700,000

Just as the international community began to embrace Information and Communications Technologies as an element in development programming, the technology sector that had boomed and created such economic growth in the North subsided and contracted. The cultural lag between these two sets of institutional trends is striking. When the G8 First Ministers were receiving the DotForce report in Kananaskis in late June 2002, the tech markets had tumbled precipitously in all major northern economies. Some of the hubris of northern technology promise, with room enough for some Southern participation, dissipated. And a good thing too! The Information Economy in the developing world will not be just a derivative of what the North has experienced. Its dimensions, scale and architecture will be very different from what has happened in “developed” parts of the world.

The decline of the Western technology sector has only modestly affected the business of development in the developing world. Indeed, telecoms have become much cheaper with existing inter-continental networks selling for less than 10% of their originally capitalized value. The Information Revolution in Africa and Asia continues to build momentum and to widen its affect on businesses, civil society institutions and governments. Indeed the quieting of the tech sector has relatively elevated ICT growth in the developing world to a level that is more noticeable and prominent.

² Refers to Program Officer and Research Officer positions only.

³ These Program Initiatives would ordinarily achieve their current program term in October 2005. Given that the World Summit on the Information Society concludes in Tunisia in December 2005 a formal request has been made to Senior Management to extend these to March 31, 2006, allowing time for IDRC participation in the WSIS to conclude as well as integrating issues arising from the Summit in proposed ICT4D programming and prospectuses.

⁴ ICA has sufficient funds to continue programming until this date. Its future status will be affected by discussions arising from the Summit of the Americas in Buenos Aires, Argentina in 2005.

⁵ Includes circa \$2,000,000 in co-funding.

A South African Internet millionaire, Mark Shuttleworth, becomes an astronaut and personally finances his own space travel. In just 10 years Brazil transforms itself into a relative telecoms giant and is faced for the first time by an overcapacity in the sector. The issue of how the Vietnamese relate to Intellectual Property Rights is seen as an important economic issue as established technology firms begin to observe another Asian Tiger in the making.

Along with these dramatic changes in the circumstances of the developed and developing world's information economies, the ICT landscape has been affected by other major events. The events of September 11th at the World Trade Centre in New York have dramatically increased the demands of some to seek more direct influence the over Internet for national and military purposes. It has also raised the issue of who governs the Internet, and how, within many developing world contexts. The greater ubiquity of the Internet in both the developed and developing world has come to undermine the currency of existing definitions of intellectual property. At the same time it has generated new regional discussions about alternative forms for the ownership of what is known and how it can be used. The growth of the Open Source movement is but one expression of this.

While there still remains a great deal to accomplish for much of the developing world to meet IDRC's "connectivity" objective in the existing Corporate Strategic Program Framework (CSPF), the second pillar of [ICT4D@IDRC's](#) programming on issues relating to the Information Economy are fast rising on the agenda. How will jobs and economic opportunities play-out in the nascent developing world Information Economy? What will the growing Asian dominance in the Internet world mean for Internet Governance? Whose interests will be served by regional reconsiderations of what intellectual property constitutes and how will it be owned and shared? Will the proprietary software giants have their way in the developing world or will open source and standards establish themselves in the new developing world markets? Will women's role in the economy be transformed in Asia, Africa and the Americas as it has been in the post-industrial knowledge economy of the late 20th century in the North? In a post 9/11 northern world preoccupied with homeland security how will people's rights to privacy, personal security and information be played out as the division of labour among nations becomes altered?

1.1 Regional Programming

The IDRC programming in ICTs for Development remains remarkably relevant in a dynamic sector where WiFi⁶, Personal Digital Assistants (PDAs) and VOIP (Voice Over Internet Protocol) had hardly been invented when the Board of Governor's approved the current prospectuses. For example, since the Board approved the Acacia prospectus the number of "official" Internet users in Africa has more than doubled!⁷

The ICT4D programming is fundamentally **regional**. When the prospectuses were authorized by the Board of Governors in October 2001, ICT4D programming had a presence in only three (3) of IDRC's regional offices. Two (2) years later ICT4D Program Officers are present in all six (6) regional offices. This has been accomplished through redeployment of HQ based positions and integrating the functioning of new positions associated with the new regional programming that emanates from Connectivity Africa and the Institute for Connectivity in the Americas.

In Africa our approach builds on the "pre-e-market" circumstances that animate policy, content and technological interest and capacity in both advanced and later adopting sectors of our long established country programs in Mozambique, Uganda, Senegal and South Africa. With the regional intelligence and leadership of the IDRC regional offices we have been quick to respond. The liberalizing ICT policy circumstances in Kenya required a special response from ESARO and ICT4D. The 2005 World Summit on the Information Society in Tunisia presented a special opportunity for MERO and ICT4D to launch new programming in that increasingly important region.

PAN Asia's principal strategy of addressing the Asian "split-e-market" continues to express itself in our programming. The publishing and network strengthening of the Asian Digital Review, which includes ICT policy activists from all the Asian countries, responds to this. So does the outsourcing of the PAN Asian Collaboratory to the ASEAN Foundation, representing all of the ASEAN countries but with a special emphasis on Cambodia, Vietnam, and Laos. The redeployment of an Ottawa-based Program Officer position to the South Asian office in New Delhi now provides an additional bridge to network the technological capacity in Bangalore with other later-adopting countries in the region.

In the Americas, our emphasis continues to reflect the "dual e-market" of that region with both PAN Americas and the Institute for Connectivity in the Americas principally focusing on rural and urban poor ICT possibilities and needs. In the favelas of Rio de Janeiro, the Institute for Connectivity in the Americas collaborates with the Universidad Federale de Rio de Janeiro to use line-of-sight transmission to bring the university's broadband capacity to the poorest slums in the hemisphere. Researchers from the Universidad de Buenos Aires complete strategic research on how ICTs can be optimally

⁶ WiFi is a sector acronym for Wireless Fidelity, or wireless access to data networks.

⁷ In 2000 there were 990,000 registered Internet users in Africa. In 2003 the number of "official" users had increased to 2.2 million. This figure considerably underestimates the "actual" number of users as one internet account is customarily used by a "rule of thumb" average of 3 people in Africa.

deployed to promote pro-poor ICT policies. At the same time an NGO from Ecuador builds a hemisphere-wide network of telecentre practitioners in the region. Again, an Ottawa based PO position is redeployed to the LACRO to buttress the regional nature of our programming.

1.2 Global Linkages and Networks

With well-developed regional roots, the ICT4D programming is also becoming increasingly global. IDRC's President, Maureen O'Neil, co-Chaired the Canadian Digital Opportunities Task Force (DotForce) of the G8 and ICT4D staff supported working groups in five (5) of the eight (8) task areas. IDRC is an official Canadian delegate to the World Summit on the Information Society (WSIS), which will be convened in Geneva (2003), and Tunisia (2005). This past July IDRC hosted the United Nation's Development Program (UNDP) Global ICT Practices Conference <http://sdnhq.undp.org/it4dev> with delegates from every region of the world, including the Middle East, Eastern Europe and Central Asia, places where ICT4D programming is not active. ICT4D also serves on the Advisory Committee of Microsoft's "Unlimited Potential" program to provide a Telecentre Support Network worldwide for telecentre operators. As well ICT4D was elected to serve on the Executive of the Global Knowledge Partnership for 2003/2004.

Even more than these institutional arrangements, many of the issues associated with ICTs in development are taking on a global dimension. Internet governance through ICANN, which was formerly seen as a "global" governance mechanism, is increasingly perceived as an element of Western regional hegemony. The Indonesian liberation-technologist and sabbaticant with ICT4D, Dr. Onno Purbo, who challenges telecoms in Jakarta with his activist "people's connectivity" programming, is as well received in Johannesburg and Rio de Janeiro as he is among his own people. The tremendous development of Internet content in Brazil has a ready-made audience among educators and telecentre practitioners in the Lusophone countries of Mozambique and Angola.

The ICT4D program's strength is in its regional roots. It's future is in fusing these with global and south-to-south institutional and network development among our longstanding and increasingly new collaborators throughout the developing world.

1.3 Evaluative Thinking, Listening and Acting

2003 has been a watershed year for much of the ICT4D programming areas. Major regional conferences were hosted by PAN Asia in March in Vientiane, Laos (<http://www.panasia.org.sg/conf>) and Acacia (April 2003) in Kwa Maritane, South Africa (<http://www.acacia.org.za>). The Vientiane event was the first time that PAN Asia partners had been assembled together in more than five (5) years. The Acacia conference included all regions of Africa and was the first time that such an event had been held. Both events were evaluated and rated very high by participants. The applied research networks that both PAN Asia and Acacia had established were strengthened. They were

also expanded by the participation of new activists within the sector regionally and internationally.

These events represent very important formative evaluation processes for ICT4D. They help to provide a mid-term “check-up” with our research partners as to how our programming is being received and offer indications of new directions that our programming might adopt. They are also important dissemination mechanisms for the applied research which has been supported. In both cases these significant regional events helped to fine-tune our regional programming.

1.4 Cross Program Area Linkages

ICT4D has been active in working with other Program Areas at IDRC to undertake new collaborations. In the same way that ICTs are both an enabler and a sector unto themselves in the general economy, we see ICTs as an important element in all of IDRC’s programming areas as well as being a special area of program specialization. Accordingly we have entered into two (2) major programming collaborations with other Program Areas at IDRC.

The first is with Peace Building and Reconstruction in the hosting of a Ford Foundation Scholar at IDRC. This collaboration led, in large measure, to the successful UNDP conference that IDRC hosted and has also generated a new collaboration having to do with ICTs in Post-Conflict jurisdictions. ICT4D has extensive experience in these types of environments with programming in Mozambique, Angola, Colombia, Vietnam, Cambodia, East Timor and Laos but our activities in these jurisdictions has never before been through a “PBR lens”.

Another example of this is a major “ICTs and Poverty Reduction” forum that was held at Harvard University in September. This included a mix of celebrated economists, including Nobel laureates Amartya Sen and Michael Spence, along with wise and experienced ICT Development Technologists. This session was co-sponsored by the Social and Economic Equity PI, MIMAP and ICT4D, again underscoring the fusion of relevant areas of programming from both program areas.

These collaborations extend into the Resources Branch of IDRC as well. Increasingly the technologies that IDRC’s collaborators in the developing world deploy have relevance for the IT services that are adopted at the Centre. As well, the Information Technology Management Division of IDRC has special skills and knowledge that is of considerable value to our Program Officers and research partners. Accordingly, both parts of the organization have collaborated to create a “Digital Convergence” program to facilitate the testing and adoption of applied, low-cost technologies both among our applied research partners and within the Centre itself.

2.0 Current Program Activities

2.1 Acacia - Program Initiative

African Capacity in Telecoms Regulation

The African ICT Policy Research Network ICT Policy Africa is an initiative of the LINK Centre to establish a network of institutions and individuals who have capacity, or who will build capacity in the area of ICT policy research. The IDRC supported LINK Centre, at Wits University in Johannesburg, South Africa for a major research project on ICT issues that will enable LINK to facilitate both African research networks, and African participation in global networks. As part of this initiative, the project will support LINK participation as a full research partner in this year's World Dialogue on Regulation (WDR) Theme, Stimulating Investment in Network Development: Roles for Regulators. This will permit much greater participation for Africa in this year's WDR activities. An Expert Forum is being planned at LINK later in the year.

The Acacia program is in its second generation as a major IDRC program relating to information and communications technologies in Africa. The program has successfully transitioned its first generation status as a Special Initiative to that of one among

IDRC's internally integrated Program Initiatives. As forecast in the prospectus, Acacia has successfully devolved SchoolNet South Africa, has assisted in the transformation of National Acacia Advisory Committees in South Africa, Uganda and Mozambique and has focused on dissemination and learning from the numerous projects in which it has been involved.

Acacia finalized and published three (3) Pan African studies based on the evaluation of the majority of its action research projects. The first volume, "ICTs and Community Based Development" has been printed and the other two ("Networking Institutions of Learning: Schoolnets" and "The experience with Community Telecentres") are currently in print. These publications are expected to play an important role in ensuring that Acacia is at the forefront of research on ICT4D in Africa. As well, Acacia published a systematic annotated bibliography on research relating to ICTs and poverty in Africa.

Acacia projects were the subject of an extensive assessment, managed by the IDRC Evaluation Unit, on how the program influenced policy outcomes in Senegal, Uganda, Mozambique and South Africa. The assessment concluded that Acacia had a significant role in informing and developing policy. The policy process was different in each of these countries and so was the Acacia influence. In the case of Mozambique, where the policy process was most direct and significant, the South African researcher stated:

*"Acacia played a pioneering role by entering this high-risk arena at a time when few were prepared to do so. The Acacia timing was impeccable; its timely involvement contributed greatly to the significant IDRC influence in this field in Mozambique."*⁸

⁸ Ofir, Zenda. *Strategic Evaluation: Research Influence on Policy. The Case of Mozambique*, International Development Research Centre, Jan 2003, p.3

Consistent with the focus on dissemination, Acacia co-produced digital video documentaries on the development challenges of telecentres in Senegal, Uganda and South Africa. This helped to both inform and contextualize the early ICT development experience in these three (3) Acacia countries as well as to help demonstrate the power of new media to convey messages.⁹

As previously indicated the Pan-African Acacia Conference was a tremendous success. More than 200 participants from civil society, academia, government and the private sector converged on Kwa Maritane, South Africa, to learn about Acacia's research and share their own findings and ideas. The conference rated as very successful (the evaluation rating was an 8.7 rating out of 10).

Acacia has three main program themes: ICT policy research, Technology R&D and Knowledge generation and enhanced ICT appropriation. Acacia is already supporting projects in the three areas. Acacia has entered into a long-term partnership with Wits University in South Africa to build capacity among African researchers in the area of telecoms regulation (see foregoing text box). As well, a research project on the integration of ICTs in schools in West Africa is jointly coordinated by ERNWACA (Educational Research Network for West and Central Africa) and the University of Montreal and aims to produce research that will have a direct linkage with educational policies in the region.

In response to the prospect of progressive telecoms policy changes in Kenya, with the election of a reform oriented government there, Acacia has also developed a special focus on progressive telecoms policy transition in that country. Using both RAF and Acacia resources, the ESARO office and Acacia are assisting the new Government of Kenya to develop policies that will “auction” bids for a third mobile cellular license in the country. In a break with the past where market mechanisms were seldom applied to the telecoms sector, IDRC is helping a new, reform-minded government to develop and apply policies that will reduce costs and extend connectivity to more, and greater numbers of poor, people.

In the area of technology related R&D, Acacia supported a small company in Senegal, Manobi, to pilot the use of WAP¹⁰ over GSM cellular to transmit commodity prices from the main market in Dakar to farmers in their fields. This has directly increased farmers' incomes¹¹ and generated new employment for women in Dakar. The company is now seeking equity financing to expand its operations into other African countries.

⁹ These videos are available by streaming media at:
<http://stream.cfog.net/ramfiles/nakaseke.ram>
<http://stream.cfog.net/ramfiles/barakaenglish.ram>

¹⁰ Wide Area Protocol

¹¹ There was an average revenue increase of 30% for farmers who participated in the successful pilot.

Acacia has also assisted cattle herders to identify where their cattle had moved to feed using mobile phones and GPS. This helped nomadic herders save time in locating their ruminant herds.

Expanding West African VSAT Technology Capacity: The Songhai VSAT and Distance Education Project

The Acacia initiative through its project with the Songhai telecentre system in Benin, West Africa has built the capacity of the telecentre staff to set up and install VSATs. The VSATs set up during this project have provided a hands-on experience for the Songhai telecentre staff, who have now begun to help other organizations in the sub region set up their own VSATs. The project has also strengthened the telecentre staff skill in the development of distance education and multimedia modules, which they are currently using to disseminate the Centre's research work to educate young farmers on viable and cost-effective agricultural techniques.

From its early days in 1996, the Acacia program has stabilized very considerably in terms of its operations and management. This is despite frequent changes in the Team Leadership¹². The degree of innovation which Acacia has exhibited and its recognized leadership in ICTs for development, both regionally and internationally, has continued to grow. In 2004, Acacia will be “twinned” with Connectivity Africa. Accordingly a new Program Officer position will be established in MERO, as indicated in the original Acacia prospectus, and all Acacia Program Officers will have a “joint appointment” with Connectivity Africa. In advance of this, Acacia and MERO have collaborated to complete a scooping assessment of ICTs in North Africa by a researcher from the region.

2.2 PAN Asia - Program Initiative

The PAN Asia Program Initiative is IDRC's longest-standing ICT program. Beginning in 1994, it assisted with the development of the first-ever Internet services in Vietnam, Laos, Cambodia, Bhutan and Sri Lanka. With its second-generation programming authorized by the Board of Governors, it continues as an important regional force in support of applied ICT for development researchers in Asia.

Although PAN Asia is relatively small, its long history of service and networking gives it a very broad reach within the region. With a seasoned Program Officer with 27 years experience in Singapore, a new Program Officer position recently redeployed from Ottawa to New Delhi and a half-time position Program Officer supporting the veteran Team Leader in Ottawa, the PI has considerable capacity to continue to contribute and to grow.

In 2003, PAN Asia accomplished several significant milestones. The PAN Asia Collaboratory has been outsourced to the ASEAN Foundation in Jakarta, Indonesia. As a Centre-administered-project (CAP), the Collaboratory had provided web hosting,

¹² The initial Team Leader of the second generation Acacia, Edith Adera, had complications associated with a very successful delivery of health twins which resulted in her serving less than a year of her term. The DPA served as Acting Team Leader for 3 months and Laurent Elder in WARO served as Acting Team Leader for 17 months.

e-commerce start-up and electronic conferencing services for development partners in Southeast and South Asia. These services were being provided from the ASRO office in Singapore.

As access to the Internet became more available and normative, and e-commerce tools more affordable, the Collaboratory services were considered for devolution and a renewed strategic direction. Several Asian institutions were approached and the ASEAN Foundation, a special initiative of the ASEAN Secretariat, indicated an interest to adopt the devolved service from IDRC.

Building Digital Capacity in a Regional Institution:

The Collaboratory

Devolving the Collaboratory to the ASEAN Foundation involves much more than the simple transfer of servers from Singapore to Jakarta. The ASEAN Foundation has never before had a robust web presence or digital culture. It also wants to move the established Collaboratory service from its current service lines to become much more of a broker and catalyst for human resource development involving digital skills, especially in the later-adopting countries of Vietnam, Laos and Cambodia. The devolution of the Collaboratory involves training, strategic planning, coaching and mentoring over a period of at least three (3) years.

Another tremendous accomplishment of PAN Asia in the past year has been the publishing of the Asian Digital Review. Involving 30 of Asia's leading ICT applied researchers and connectivity activists, this volume and its companion website includes analysis and data on ICT and telecoms development in every Asian country. Just as important, the Asian Digital Review is building a tremendous network among Asian researchers and facilitating the transfer and exchange of south-to-south skills and perspectives.

The Asian Digital Review was conceived by PAN Asia and involves a partnership with the Asia Pacific Development Information Program and UNESCO's Orbicom. The next Information Revolution will be led by Asia and the contributors to the Asian Digital Review will be in the vanguard of influencing how policies and programs associated with this next transformation take effect.

In March of this year the PAN All Conference was held. This was a tremendously successful event (overall rating of 8.4 out of 10) and it provided clear indications of how PAN Asia's programming should further develop to focus on Internet governance, intellectual property rights and gender and ICTs. Accordingly, PAN Asia co-hosted a major regional conference on Gender in the Information

Age with the Government of Malaysia, the International Telecommunications Union and the Global Knowledge Partnership. The event was held in Kuala Lumpur in August of this year.

The PAN Asia ICT R&D Small Grants Program is now in its ninth year of operations. The Small Grants Program is a very important element to broaden and diversity the network of Asian researchers who participate in PAN Asia's programming. Both the Asia Pacific Development Information Program (APDIP-a UNDP funded regional program) and the Asian Internet Service Providers (ISP) Industry Association (APNIC) contribute financially to the program and participate in the panel which decides on which projects are financed. The program characteristically generates circa 100 submissions with 6-10 awards being made to a maximum grant of \$30,000 (US).

The management and operations of the program has been devolved to the Asian Media Information Research Centre (AMIC). This is the first time that this regional institution has attempted to address digital media issues.

PAN Asia ICT R&D Small Grants Program: *AMIC and the Capacity for What?*

In late 2002, PAN Asia devolved its ICT R&D Small Grants Program to the Asia Media Information Research Centre (AMIC). A member-based regional Organization, AMIC is located at the Nanyang Technological University in Singapore. AMIC had never before engaged in research relating to digital media. The administration of the small grants program had previously been managed by a Canadian organization.

AMIC's interaction with the administration of the program did develop its interest in digital media with the hosting of a special conference on the subject in the Spring of 2003. But the work associated with the new responsibility almost disabled the organization.

When "push came to shove" AMIC indicated that it wanted to continue to try to implement the program. Devolution and capacity building involve a long-term commitment and there are many hurdles to overcome and challenges to be addressed before sustainable capacity is built.

In the immediate future PAN Asia will be building regional capacity for the development of digital fonts in local languages so the poor can have relevant content on the Internet, supporting new initiatives on Open Source development and building programming in South Asia.

2.3 Institute for Connectivity in the Americas - Corporate Project

The Institute for Connectivity in the Americas (ICA) is a Corporate Project that was announced by the Prime Minister at the Summit of the Americas in April 2001. It began operations in January 2002 and in 2003 became fully staffed, programmatically functional and regionally effective.

ICA has made important inroads as a new program at IDRC in a very short period of time. It began its work by conducting regional consultations in the Southern Cone, Caribbean and Central American regions supplemented by online forums, which continue to this day. The principal mission of ICA is to support connectivity projects, which are scalable on a regional level, to lever financing from major development institutions and to provide an environment within which civil society, state, private sector and educational institutions in the region can cooperate on connectivity issues. The Americas is a region where these different sectors of society can be especially polarized.

The Institute has a Hemispheric Advisory Board that meets twice each year and includes regional representatives from the foregoing sectors. The Advisory Board has met three (3) times since ICA was formed. It is chaired by the IDRC President, Maureen O’Neil, and includes representatives of the World Bank, the Inter-American Development Bank and the Organization of American States.

**Caribbean Distance Education Network:
*Regional Capacity to Innovate***

In November of 2002, the Prime Ministers of seven Eastern Caribbean states met with the President of the World Bank in St. Kitts. One of the key issues discussed was the need to diversify the economies of the Caribbean, through the promotion of institutional innovation, new technologies and regional cooperation embodied in the concept of the Center of Excellence. In February 2003, a mission carried out an initial assessment of the needs of the countries and the capacity of tertiary education institutions to participate and to assess local ownership for this initiative. Based on this, a concept paper was presented to key stakeholders on March 17 and 18, 2003 at a workshop in Washington D.C. ICA assisted in this through supporting the participation of an experienced distance education applied researcher in the mission. Subsequent to the mission, ICA is attempting to play its “leverage” role by interesting the World Bank in financing early phases of the project’s implementation.

ICA’s other projects in this year’s pipeline include:

- assisting with the development of an online virtual space among parliamentarians in the Americas.
- lowering the costs of satellite based telecoms in the educational and civil society sectors through a public-private joint venture.
- supporting e-government trials at the municipal level.
- assisting in the integration and provision of second-tier telecentre services in the region.
- building the capacity of national statistical agencies and statisticians in the Americas to measure and monitor growth and development in the Information Economy. This is being done in partnership with the Economic Commission for Latin America and the Caribbean with assistance from Statistics Canada, among the world leaders in this field.

As well, ICA publishes “best practices” case studies in the Americas. Relevant publications in 2003 included examples of Colombia’s Computers for Schools program, the policies for universal access in Costa Rica and the organization of a support network for telecentres in Chile. All of these are available at www.icamericas.net.

La Capacidad para El Observatorio-OSILA

To address the scarcity of comparable statistical data concerning issues related to the information society in the Americas, the Institute for Connectivity in the Americas (ICA) has launched the Observatory for Connectivity in the Americas (OSILA – Observatorio para la Sociedad de la Informacion en Latinoamerica) initiative.

OSILA will help build the capacity of national governments in the region to measure, monitor and report on changes in the Information Economy within their countries. Working with Statistics Canada, arguably the world's leader in this area of national statistics gathering and reporting, ICA will help to build the capacity of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) to sustain, manage and further develop this initiative.

Along with the Hemispheric Advisory Board, ICA interacts with a Canadian Working Group that includes CIDA, DFAIT and Industry Canada and is chaired by the ICT4D DPA. The coordination of these elements of the Canadian foreign policy “family” in this has been educational and, in the long term, will be useful. This is a very new model, which engages IDRC as a “third party” partner in delivering Canadian international development programming.

It engages Canadian partners in the formation of programming directed at developing world beneficiaries where Canada is both a participant, as a jurisdiction in the Americas, and a “donor”. In some cases an extremely seamless and transparent professional relationship of service, and commitment to outcomes, has developed because of this. When combined with the Hemispheric Advisory Board (HAB), involving key stakeholders from throughout the region, a new sense of common cause and common possibility for the role of connectivity in development in the region has emerged.

While ICA is an ICT4D Corporate Project, it is closely integrated with the regional intelligence and networking provided by the LACRO Regional Director, Federico Burone who alternates with the DPA on the Hemispheric Advisory Board. He is also a member of the Canadian Working Group and interacts regularly with the entire ICA Team. As well, one of the three (3) ICA Senior Program Specialist positions is located in the LACRO offices in Montevideo.

ICA will continue to be “twinned”¹³ with the existing ICT4D Corporate Project for the region, PAN Americas. The PAN Americas applied research programming in evaluation, gender, Internet policies and dissemination will become more closely integrated with ICA.

¹³ “twinned” refers to how an IDRC financed and a complementary externally financed program are integrated in management operations while maintaining separate brand and identity.

2.4 PAN Americas - Corporate Project

PAN Americas is a small Corporate Project within ICT4D. It was formerly integrated with PAN Asia but was managerially differentiated to reflect the very different regional contexts facing both programs. With the onset of the Institute for Connectivity in the Americas, the Corporate Project has been “twinned” with ICA.

This “twinning” involves joint strategic and program planning with ICA in a manner that is consistent with the PAN Americas Corporate Project objectives. In 2003 PAN Americas will support applied research on best practices in schoolnets in Chile, Brazil, Argentina and Paraguay, work with Bellanet to identify and expand regional specialization in Open Source and manage an already full pipeline of projects.

In June 2003 a vacant Program Officer position with ICT4D in Ottawa was relocated to Montevideo. Since then a new partnership has developed with the Latin America Network Internet Centre¹⁴, PAN Americas and ICA. The new partnership will offer the first-ever ICT R&D Small Grants program in the region.

2.5 Connectivity Africa - Corporate Project

Connectivity Africa is the newest program element within ICT4D. The Corporate Project is managed by IDRC in partnership with the Economic Commission for Africa. Connectivity Africa was announced by the Prime Minister at the G8 Summit in Kananaskis on June 28, 2002. A Manager was hired for the new program in November 2002 and the final paper-work associated with the initial transfer of funds for the program was received on July 23, 2003.

Connectivity Africa will focus on the Technology Research and Development objective that was approved by the Board of Governors when the Acacia prospectus was reviewed. As already indicated, Connectivity Africa and Acacia will be “twinned” with all Acacia and Connectivity Africa Program Officers having “joint appointments” to both programs.

2.6 Bellanet - Secretariat

Bellanet has just completed its third generation as an IDRC Secretariat. It has an international steering committee consisting of representatives from Danish International Development Agency (DANIDA), the Swedish International Development Agency (SIDA), Swiss Development Cooperation, the Canadian International Development Agency and IDRC. DANIDA currently serves as Chair of the Steering Committee.

Bellanet’s mission is to promote and provide the tools of cooperation among northern international development organizations and southern partners. With the hiring of a new Executive Director in 2003, Bellanet has placed even greater emphasis on providing services in the South, has completed an evaluation of its previous program operations and

¹⁴ LACNIC is the industry association for Internet Service Providers and the management mechanism for Internet domain names in the region.

had a new strategic plan developed and approved. Bellanet is currently exploring adding Open Source support to its suite of service lines along with its existing knowledge management, D-Group and training programming.

3.0 Building Capacity with Developing World Partners

As is the case in the other Program Areas at IDRC, building capacity is a mainstreamed activity in ICTs for Development. Of all the outcomes that we can attribute to our work, and there are many, it is capacity development that is arguably the most observable and the most sustainable outcome of what we do. Of all the positive outcomes for which IDRC is known, it is the growth and development of people with whom we collaborate that is our most enduring contribution to social and economic development.

When mixed in the “brew” of other CAF indicators, capacity development can occasionally compete or even conflict with other CAF objectives. For example, the Acacia program was extremely successful in “closing the loop” in the ICT policy process in Mozambique. The President and Prime Minister were both interested to learn about progressive ICT related policies. Many people participated in the 4-year process leading to the adoption of these policies. There was no question that Acacia had helped to “close the loop” in Mozambique.

But the policy process was a fast one! Given the interest and commitment of senior elites in the government, it wasn’t necessary to take the time to inform and engage all of the processes surrounding them to first get their attention, and then to bring them on side. Because the “closing the loop” opportunity was so available and there was an understandable interest to seize the opportunity, sufficient time wasn’t taken to build the capacity of related institutions and people. In such a circumstance, the opportunity to succeed in influencing policy affected the time that could be taken to build broader capacity.

In another circumstance, PAN Asia pursued the CAF indicator of devolution and capacity building at the same time. A Canadian NGO had been administering the PAN Asia ICT R&D Small Grants program. In order to devolve this administration to an Asian institution, the Asia Media Information Research Centre (AMIC) was identified as a possible devolution host. They were located and partially supported by Nanyang Technological University in Singapore, had a diverse regional membership and had engaged in Asia-wide research and publishing for more than a decade.

AMIC didn’t, however, have any experience with research involving digital media and, as such, presented a very interesting capacity-building and devolution opportunity. Their work had formerly been focused solely on research relating to television, radio and mass media impacts in Asian developing societies.

The PAN Asia experience with this devolution and capacity-building prospect was challenging. Despite financing AMIC’s participation in the administration of the program, PAN Asia was doing more work in training, mentoring and fixing miscues than

they had before. Right in mid-stream of the devolution process, senior management at AMIC changed and most of the staff who had been working on the administration of the grants program for AMIC quit their jobs. All of the time that the SARO office had taken to train and coach the AMIC staff departed with them.

True, AMIC had decided to host a regional conference on digital media later that Spring and this was a sign that they had moved to incorporate this sector within their conventional media research. And, yes, IDRC was all about capacity-building so we'd have to take the time to work with the new regime and essentially start from scratch with them. In close consultation with the ASRO Regional Director, the Team Leader for PAN Asia asked another Program Officer to manage the relationship with AMIC and continued the capacity building process with the organization. But the process has been a lengthy, tedious and arduous one.

The foregoing examples speak to how capacity-building can be challenged by a commitment to achieve other CAF indicators. In the ICT for Development program area we can often see changes and even transformations in individual and organizational capacity very quickly, even within the life of a particular project.

In West Africa, working with a mature and well-established sustainable agriculture NGO, Centre Songhai, assistance with the deployment of VSAT¹⁵ and online distance education which was provided in 2002 has already transformed their services in Benin. Given the more reliable and higher speed transmission of data to the Internet that the new VSAT service provided, there are many more people using and paying to use Songhai's training, computer and Internet based services.

Having built its capacity to manage the VSAT technology, Songhai has moved to help other NGOs adopt this approach to accessing the Internet in Benin and neighbouring Nigeria. And, as this Zero Emissions Research Institute (ZERI) migrates its existing curriculum in sustainable agriculture to the Internet, it will be able to engage in continuing learning with the 500 students each year who come to its three (3) plantation campuses as well as offer this important training to other Africans via the Internet.

Down the road a piece, we might expect that, with the growth of these VSAT services in Benin, the telecoms regulations may become progressively more liberalized to lower the cost and expand the access to telephony. Champions for this type of progressive change inside the state owned telephone company may come to be heard more clearly. They may move into more senior decision-making roles. The relationship between connectivity and the information economy, that is clear in the IDRC strategic direction, may similarly become clear within Benin's economic policy.

The young African librarian who now manages the system of three (3) telecentres for Centre Songhai had never touched a computer until 1999. His first experience in using digital tools was with an old Kodak digital camera when a visiting Canadian consultant sent him out to practice taking pictures around the plantation. He had never learned about computers in his Library Science training at the Université Nationale du Bénin

¹⁵ VSAT is a sector acronym for Very Small Aperture Transmission or satellite transmission.

(UNB). He now manages a telecentre with a network of 50 computers, has learned how to use and manage Voice Over the Internet Protocol telephony, and understands how VSAT can be deployed. His capacity has been observably enlarged in a very short period of time. Within the ICT4D Program Area, there are many people like this young librarian whose career's, world-views and sense of what they can and should accomplish are transformed.

4.0 Conclusion - The Way Forward

The ICT4D program area is now fully engaged. Its internal processes are functioning well and its linkages to relevant international fora associated with its programming are well established and, in fact, continue to grow. The positioning of ICT4D within the Canadian and international context provides an extremely useful set of arrangements and networks within which the results of the applied research of our developing world collaborators can have an effect. Equally, their engagement with ICT4D programming assists them to elevate their influence and policy impact in their own national jurisdictions.

The current range of programs within ICT4D are almost all in their mid-term of operations. They are subject for review at roughly the same time as the second phase of the World Summit on the Information Society concludes in Tunisia in December 2005. ICT4D will use its interaction with the institutions and partners involved with these processes to continue to refine the nature of the contribution it can make to the development. Indeed, our participation in these processes represents an important element in the strategic thinking and planning we will do for our next generation of proposed programming.

While the direction of our programming continues to remain relevant, our recent regional consultations have taught us that new issues are emerging which merit greater time, attention and applied research focus. These include how the approach to Intellectual Property Rights might be mediated within a developing world context as well as what role the developing world might best play in Internet Governance. Along with this we have learned that generating a better understanding of how the developing world can benefit from the Information or New Economy. As well, the important role of women and gender in its development are increasingly important applied research areas.

Along with the foregoing, ICT4D will seek more and greater cooperation with the other program areas at IDRC. We will also continue to seek opportunities for ICTs to become "[embedded@IDRC](#)" in all of our programming. As well, we will also continue to pursue major resource expansion opportunities as well as partnerships with developing and developed world organizations. The ICT4D program area will also remain engaged in operational development issues at IDRC as it has in serving as the Chair of the Open Program Meeting in June 2002, participating on the Centre Communications and Information Management Committee, the Senior Management Committee, the "Rolling" PCR Working Group and the management of the Digital Convergence program at the Centre.