



INTERNATIONAL TELECOMMUNICATION UNION TELECOMMUNICATION DEVELOPMENT BUREAU

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PLENARY MEETING

Canadian International Development Agency (CIDA)

PUTTING GLOBAL KNOWLEDGE TO WORK

1 Checking the rear-view mirror

In my paper delivered to the first World Telecommunication Development Conference in Buenos Aires, Argentina four years ago, I wrote of the rapid development of information and communication technologies as heralding an explosion of cultural, social and economic opportunities as radical as those which produced the industrial revolution... a new revolution fuelled by information and knowledge.

I do not claim any prophetic vision for that prediction, as the signs were already evident. Many of the world's largest corporations had already developed industrial and marketing strategies to give impetus to and profit from these phenomena.

As the development community has tried to come to grips with the impact of these developments, several scenarios have emerged.

Many have put forward the view that low cost telecommunication and information technology systems may be the developing countries' biggest chance of making major leaps forward in development growth and poverty reduction. Could this be a new golden age in which four billion people of the developing world will have a serious chance of catching up?

Such a "revolution" is centred around telecommunication and informatics. As Jean-Francois Rischard of The World Bank has said eloquently, "it is not about the transformation of matter or energy, but about the transformation of time and distance. It is about information flowing faster and less expensively throughout the planet, and therefore about knowledge becoming more important relative to other factors like labour, raw materials and capital."

There is another, darker view: as knowledge becomes the principal source of wealth, in an increasingly competitive and globalized economy, will the poor be isolated beyond a widened gap, in both developed and industrialized countries.

In searching out the right scenarios, we first need to understand better the role of knowledge and information in economic and social development. If knowledge is the new source of wealth and progress, how do we "grow" it more equitably? How can we increase access to information and

foster the ability to share ideas and perspectives? What are the formulas, through which the market and the state work in harmony, building upon each others strengths?

Great transformations within our societies and their results are often perceived only dimly until they are well underway. The Canadian historian Harold Innis said, "Most forward looking people have their heads turned sideways." By seeing the straws in the following wind, we can gauge some of the likely consequences of this tornado of change. Striking examples of the power of these technologies abound.

In Guatemala, rural women help make ends meet by weaving colourful fabric and fashioning it into purses and belts. They typically received less than ten per cent of the final retail dollar for their crafts, after a series of middlemen absorb the rest. Now, using an inexpensive digital camera linked to a computer and the Internet, they are marketing their products directly, through a US-based non-governmental organization. Now, customers anywhere in the world can admire their crafts and order directly from these grassroots producers.

In the community of Rankin Inlet, in the Canadian Arctic, the Leo Ussak Elementary School, now has what its students call "the hottest web site at the world's coolest school." Their Internet web site, linked by satellite to Canada's SchoolNet, lets them argue the future with Nicholas Negraponte, and surf with Australian school chums on frigid and dark winter mornings.

We have recently seen a striking example of the power of the Internet, the fax machine and the telephone in The Ottawa Process. This was the unique campaign to "fast-track" an international treaty banning the manufacture and use of antipersonnel land mines. A broad, inclusive coalition of non-governmental organizations "worked" the Internet and their fax machines in concert with governments and international organizations to bring the new power of civil society to bear in record time. The land mines ban has been called the world's first Internet treaty.

The International Telecommunication Union and its partners are playing key roles in this high-stakes endeavour to grasp the meaning of this revolution and to realize its benefits for all mankind.

2 Milestones of progress

Our progress along this road has been marked by several milestones.

- The Buenos Aires Action Plan and Declaration established a solid policy foundation for the telecommunication sector by recognizing that telecommunications is an essential component of political, economic, social and cultural development, and that ITU members have a duty to make communications access available to all individuals, groups and peoples. Significant progress has been made by the ITU.
- The ITU Development Sector has been strengthened by the participation of more than 130 private entities and organizations, recognizing that development of national telecommunication policies is a unique partnership, and that the private sector has become the principal means of providing telecom and related services.
- The ITU has provided valuable advice to help ensure equitable benefits from major developments such as the Africa One project to supplement land and satellite infrastructure with a submarine cable system linking the African continent, and increase interconnectivity between African countries. The ITU has also provided important guidance and assistance in the orderly development of Global Mobile Personal Communications Services (GMPCS) so that developing countries may benefit quickly from these systems especially in rural and remote areas.

- Important work has been done to examine how we can move towards universal access. We encourage the work of the ITU in defining what we mean by universal access and in seeking new, flexible service options. To what extent have the unserved and underserved in developing countries benefited as state-owned monopolies transferred service delivery to the private sector? Let us set ourselves the goal, during the next four years, of clarifying our understanding of universal access and finding ways and means of using this know-how and the new, flexible and low-cost technologies to expand service. I refer further to this in my conclusion.
- International agreements in a number of fora, including the WTO and APEC, have laid the groundwork for liberalization of markets, but pose many challenges. The agreement on basic telecommunication services signed by some 69 countries of the World Trade Organization will have significant impacts on developing countries. While these agreements could stimulate increased foreign investment and access to technology, this is an area in which developing countries need the support of the ITU and donors to ease the transition to liberalization of telecommunication markets.
- The Regional Telecommunication Development Conferences, convened in Abidjan for the African states, and Beirut for the Arab States, highlighted the special needs of these regions. They emphasized the need to restructure the sector by shifting the responsibilities of public companies towards policy, legal and regulatory matters, while encouraging market-oriented, autonomous network operators.
- The Information Society and Development Conference in Johannesburg, South Africa, in June, 1996 was a seminal event. Building on the G7 Conference on the Information Society in Brussels, Belgium, it affirmed the importance of access to information and communications for economic growth and poverty reduction and heralded new partnerships and an increased flow of resources.
- Global Knowledge 1997, sponsored by the Government of Canada, the World Bank and numerous others, sharpened our vision of the end purpose of these remarkable technologies. The participants acknowledged that half of humanity has never made a telephone call. But they also realized that for the developing countries to benefit from the information revolution, much more has to be done beyond laying down reliable, affordable, conduits of information. As far back at December, 1984, you will recall that the report of the Independent Commission for WorldWide Telecommunication Development (The Maitland Commission), recognized that "an expanded telecommunications network will make the world a better and safer place."

These milestones have become part of our common experience. The institutions and governments, academics and scientists have now arrived at a broad consensus. We have now come to realize that Sir Donald Maitland's "Missing Link" was not only the absence of telecommunication services in wide areas of our planet but the purposeful use of these conduits of information for the expansion of human knowledge. Above all, this requires new partnerships to match the availability of these technologies to local needs.

How do we put Global Knowledge to work? That is today's missing link. Fortunately, it is being forged into place, daily.

The implications of this revolution are fundamental to the way development programs are identified, constructed and implemented. The success and sustainability of development will turn increasingly on beneficiaries' access to information, knowledge and above all their ability to participate - often through electronic means - in shaping their communities' progress.

3 The road ahead

The ways and means which Canadians are taking to build an information society and to ensure their place in a competitive global society are relevant to this discussion. For Canada this means:

- building a domestic information highway by creating a competitive, consumer driven policy and regulatory environment conducive to innovation and investment by Canadian industry;
- enhancing Canadian content and so strengthening our national cultural dialogue and creating economic growth and jobs;
- allowing all Canadians to participate fully in the emerging information society, and
- getting government right, by ensuring better services and more affordable, accessible and responsive government - making government a model user and a catalyst for Information Highway developments.

Translating this experience into Canada's programme of development cooperation has led us to identify infrastructure as one of our six programming priorities. Its end purpose is to contribute to poverty reduction by improving the poor's quality of life and their ability to participate in and benefit from economic development.

Experience demonstrates that in today's rapidly evolving environment, priorities for action encompass three levels of intervention. These are:

- creating an enabling environment consisting of sectoral reform with the state refocusing its efforts towards policy and regulatory aspects leading to the creation of markets which will attract private sector investment, domestic and foreign, while ensuring equitable distribution of services,
- development of human and institutional capacity, and
- enhancing the physical capital stock.

I suggest there is a sequence to these interventions. Unless the correct fundamental policy framework is in place, the development impact of other interventions will be weakened.

4 Development priorities

What are Canada's development cooperation priorities in these thematic areas? What is our strategic intent?

Firstly, our approach is very much within the framework of the Global Knowledge Partnership (GKP). These are the organizations which are bringing to reality the aspirations which arose from the "milestones" I referred to earlier.

Our goal will be to encourage policies and programs aimed at enhancing universal access to information and knowledge. To do so, we will pursue, with our partner countries, The World Bank, and the ITU and other organizations, three priority streams:

- Sector Reform including Capacity Development,
- Access and Connectivity,
- Use of ICTs in Educational Reform.

With regard to sector reform, Canada's assistance in creating the right enabling environment is based very much on successful domestic experience, in which governments, the private sector, the educational community, the media and non-governmental organizations work together to maintain

Canada's prosperity. This experience has been put to work in regulatory reform and human resource development in South Africa, Viet Nam, The Philippines and Colombia.

Improving access and connectivity is an integral part of policy and regulatory reform. Domestically, we aim to place Canadians squarely on the Information Highway. Canada's SchoolNet Program is working to link all of Canada's 16 500 schools, 3 400 public libraries and 450 Aboriginal schools to the Internet. This high-speed network connecting Canadian schools has been expanded in the last year to link Canadian school children with those in South Africa, allowing electronic learning and distance education. In China, we are working to establish a nation-wide education and research network to link learning institutions to the Internet.

It is unlikely that market forces alone can provide public and community access to less favoured regions. The problem is apparent within industrialized countries; it is compounded in developing societies. Just where the cost of telephone service should be the least, it is the most expensive! We will work with the ITU and our developing country partners to find ways and means of providing access to more advanced services and sources of information through the development of techniques such as community information centres, schools access and other means.

The role of the private sector is pivotal in achieving many of these priorities. We recognize that there are serious constraints for the private sector in investing in infrastructure in developing countries, especially in rural areas. The annual investment required has been estimated at \$US 50 billion, which far exceeds the resources available. The ITU Telecommunication Finance Colloquia have made important suggestions in this regard. As the director of the Telecommunication Development Bureau (BDT), Mr. Ahmed Laouyane, recognized at the Latin American Regional Preparatory Meeting, "The private sector is not used to do development. The private sector is used to do business. And business is not necessarily development."

I agree with Mr. Laouyane that the solution is partly in the development of long-term partnerships in which the private sector will see its way clear to "do well by doing good". As he remarked, this represents a new culture, for both the business sector and the ITU and many of its Member States. The issue is not state-versus-market. It is to find a middle ground that goes beyond the mantras of total deregulation and minimal government interference, to a new balanced, synergistic approach.

Can these new technologies have transformational effect in the developing world, enabling rural and marginalized groups to benefit from their connection to the wider world of information? These issues are being tested out by an innovative project of the International Development Research Centre (IDRC), called Acacia. In sub-Saharan Africa, Acacia will work in particular with women and youth to demonstrate the benefits of a local capacity to use information and communication in solving local development problems.

There is widespread recognition that education must be reformed from kindergarten to lifelong learning, because the Information Society has created radically new learning needs and is in fact changing our understanding of the meaning of education! Appropriate education and training are required to make effective use of new information and knowledge. Wisely used, these new technologies in themselves can contribute to resolving many of the critical problems of education in developing countries.

The world has almost a billion illiterates and more than 30 million school age children do not go to school; many graduate, or drop out, unfit for immediate work needs and poorly placed to improve their knowledge and skills in the future.

Information technologies can do much to enrich traditional education and make it possible for learners to take greater responsibility for their own learning, throughout life.

For this to occur requires fundamental reforms of educational systems, including aspects of educational administration, policy, curriculum and teacher training and use of technology. Canada will continue to share its expertise and resources with partner countries and organizations in this critical area. The World Bank's World Links for Development (WorLD) programme, connecting secondary schools to the Internet, is a positive step in this direction.

The speed of change is itself creating problems in keeping up with who is doing what. Bellanet is a contribution by the IDRC to resolving this problem by creating a web-based inventory of development activities in support of the Global Knowledge Partnership. This will encourage a virtual dialogue among partners. Bellanet is also developing an inventory of Knowledge for Development projects undertaken by members of the Global Knowledge Partnership (GKP).

5 Strategic partnerships for development

Partnerships are the key to progress in these complex fields. Domestically, new partnerships must be forged among the public and private sectors, the educational community, business, and non-governmental organizations. On this latter issue, we believe the ITU should continue to encourage the fuller involvement of international and national non-governmental organizations in their use of telecommunication for social and economic development.

On the occasion of this second World Telecommunication Development Conference, a strategic partnership agreement between Canada and the International Telecommunication Union has been put in place. The thrust will be to enhance universal access in the least developed countries. Working together we will develop pilot projects designed to help national partners identify the principles underlying measures to improve universal access, and ways and means of achieving that goal. One of these principles involves the means of financing universal access, and here the experience of the ITU is unique. Universal access does not mean one telephone to one household. The beauty of these new technologies and the new forms of service delivery they permit is that communities themselves can now determine what universality means for them, and what works for their needs and resources.

Community information access centres are one of the means of providing universal access to a range of services, at low cost. CIDA can bring to the partnership a well developed understanding of and considerable experience in designing sustainable models of community participation for development, in this and other sectors. The use of modern communications to enhance the impact of programs of human resource development, health and population, food security and empowerment of women, is an obvious priority.

The International Telecommunication Union and its partners are playing a key role in the high-stakes endeavour to grasp the meaning of the information and knowledge revolution, and to ensure that its benefits extend to the poorest on our planet. During the past four years, we have become determined to avoid what the visionary Thomas Mbeki has called the "tragic irony" that these very technologies may entrench and even widen the gap between rich and poor. As Canadian writer Frank Feather remarked, "The future is not a spectator sport." We have the means at hand and the know-how and humanity to ensure that does not happen, through the new partnerships that have arisen since Buenos Aires. May they continue.