



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

22526



latin american newsletters
conferences



the internet in latin america: investigating the boom

*11 and 12 October 2000
The Conference Forum, London E1 8DX, England*

**realizing the potential of global e-commerce:
challenges and opportunities for latam and
the caribbean**

paper presented by:

danilo piaggese
chief, information technology for development division,
inter-american development bank

Realizing the Potential of Global Electronic Commerce: Challenges and Opportunities for Latin America and the Caribbean

Danilo Piaggese
Chief

Information Technology for Development Division
Inter-American Development Bank
Washington, DC

Introduction

The issue in Latin America and the Caribbean is not so much realizing the potential of global electronic commerce but how the region can realize its potential for efficient, equitable and sustainable development through the deployment of electronic commerce. This subtle shift of emphasis has profound implications for development.

The expansion of a new economy and deployment of information and communication technology, in a variety of contexts, including electronic commerce, will either contribute to exacerbating socio-economic inequities or provide the means for people to improve the quality of their lives with jeopardizing that possibility for others. The crucial factor defining which future actually occurs depends on the degree of political will that public, private and civil societies generate for cooperating today in order to create the conditions for the deployment of technology and the diffusion of electronic commerce. In other words, technology alone will not enable countries to realize their potential but how societies decide to integrate these capabilities into their economic and social strategies.

There is a symbiotic relationship between the expansion of electronic commerce and the capacity of countries in Latin America and the Caribbean to carry out a democratic process of efficient, equitable and sustainable development. Expansion of electronic commerce is crucial for improving the Region's competitiveness and achieving economic expansion. At the same time, creating fair, open and competitive conditions which enable everyone to participate and benefit from the deployment of EC capabilities will require further strengthening of the economic, social and political reforms underway in the Region.

In varying degrees that respond to their respective values, needs, conditions, resources and aspirations, countries throughout Latin America and the Caribbean all have begun to recognize that their future depends in expanding efforts to participate in and benefit from growth of the knowledge economy and the deployment of electronic commerce. At the Inter-American Development Bank, we are working on both aspects of this symbiotic relationship. On the one hand, the Bank is responding to requests for to project funding and technical assistance in the area of electronic commerce. On the other hand, we are working with countries in the Region as they formulate and implement comprehensive

approaches for ensuring that expansion of a knowledge-based economy contributes to domestic prosperity for all and increases competitiveness in the global economy.

In this paper, I will describe our evolving approach at the Inter-American Development Bank in this area and discuss how we have been working with countries to expand their use of information and communication technology to achieve development objectives. At the same time, I want to share information about our evolving institutional response to electronic commerce.

Regional Reforms and Electronic Commerce: Indicators of Development

The expansion of electronic commerce in the region is a barometer of the progress achieved by the economic and political reforms underway in the region. At the same time, deployment of electronic commerce could provide impetus for expanding the reforms.

At the IDB we constantly make the point that the challenges confronting the region are political, not technological. Electronic commerce is not just a technology but a combination of commercial practices, legal and regulatory framework, and degree of competition. The character and rate of its deployment reflect the convergence of economic, social, political and cultural factors. Consequently, efforts to create conditions for expansion of electronic commerce in the region must also be multidimensional.

Electronic commerce and Regional Reforms are linked in many ways. Among them, it is useful to consider the following:

Trust

- Transactions are the basic unit of a market economy. For these transactions to take place at all, a degree of trust must exist among all involved parties: between suppliers and manufacturers, producers and consumer, creditors and debtors, etc. Before individuals and organizations can have confidence in the capabilities of EC, they need to be assured that the necessary combination of technological, institutional and legal safeguards are in place to protect the security of the transaction. Consequently, the results of efforts to achieve transparency and accountability, when combined with other safeguards, will contribute to raising the level of social trust in the society, in general, and for electronic commerce, in particular.

Competition

- Conditions of fair and open competition offer incentives for organizations to seek competitive advantage by doing things differently and doing new things. The rate of diffusion of electronic commerce is significantly determined by the degree of competition. Many of the "early adapters" of electronic commerce in Latin America and the Caribbean are the firms involved in international trade. In order to compete, they must be in a position to take advantage of EC capabilities or lose markets. The fundamental challenge is to create domestic conditions that enhance

access: access to EC among the micro, small and medium size firms – and eventually the organizations in the informal sector - that generate wealth through domestic transactions of goods and services and access among buyers and sellers of local information content, regardless of the and format.

Equity

- Electronic commerce can be advantageous to individuals and organization that have the resources to enter into transactions. Given the level of poverty in developing countries, a major challenge in the area of electronic commerce for multilateral development finance institutions is creating conditions that ensure widespread diffusion of electronic commerce in ways that facilitate the deployment of electronic commerce as a tool for addressing the structural roots of inequality and expediting the integration the entire population in its use. This area of electronic commerce and equity is one of special interest to the Inter-American Development Bank and one that we have begun to consider.

- **Governance**
New forms of dialogue and cooperation among public, private and civil society organizations are necessary to create conditions that facilitate widespread deployment of electronic commerce. All segments of society must work together if each segment is to achieve its objectives with respect to EC deployment. Clearly, deployment will be driven by the private sector, but the rules of a competitive environment, agreements on security and privacy safeguards, efforts to ensure that all segments of the society participate and benefit from EC deployment, underscores a public sector role and requires government understanding of the significant opportunities and threats created by electronic commerce.

There are no simple solutions to either electronic commerce or the reforms in the region. It is our opinion at the IDB that a comprehensive and multidimensional knowledge-based development strategy is crucial and our role is to work with governments to strengthen their capacity to formulate and implement such a strategy for deploying information and communication technology to achieve development objectives.

Latin America and the Caribbean in the Twenty-First Century

The Region is experiencing a major transition involving the use of information and communication technology for development. The increasing demand for information to carry out the economic, social and political reforms of recent years has provided incentives for expanding applications of these technologies. Now comprehensive knowledge-based development strategies are essential to ensure that everyone actually participates in and benefits from the reforms. Clearly, harnessing technology requires both approaches. Nonetheless, subtle shifts of emphasis can have a profound impact on the effectiveness of development strategies.

This transition is being carried out by an expanding number of twenty-first century leaders throughout the Region. These leaders recognize that information technology issues are political issues that relate to, among other things, the character of economic growth, the expansion of human capital and increasing opportunities for a skilled work force, and the strengthening of democratic institutions. An increasing number of heads of states, executives from enterprises of all sizes and non-governmental organizations and community leaders recognize that in order to achieve their specific objectives in the knowledge-based economy, they need to cooperate with each other.

One of our roles at the Bank is to support the efforts of such leaders and provide them with opportunities to benefit from each other's experiences.

The future of the Region depends on strengthening its capacity to shape the knowledge-economy according to its own values, needs, conditions, resources and aspirations. Similarly, the relevance of a multilateral development financial institution like the Inter-American Development Bank also depends on finding new and innovative ways to work under these new conditions with this new set of leaders to create the Americas of the twenty-first century.

An Emerging Regional Vision: The Knowledge Economy in Latin America and the Caribbean

In essence we believe that access to information for people to build and apply knowledge is a common denominator for achieving simultaneously efficient, equitable and sustainable development.

- **Efficient Development**
Access to information is essential to work towards and operate a fair, open and competitive market economy. Information about prices, competition, inputs and markets is the fuel that energizes market transactions. Consequently, a fair, open and competitive information sector with an information industry and information marketplace is crucial to lower costs of access to information and communication products and services.
- **Equitable Development**
Access to information is not enough. People need to constantly develop the skills to use information to build and apply knowledge in all aspects of their lives. The historically important role of lifelong learning in human development is underscored with the emergence of knowledge-based economies. This context, involving what some call the evolution of a learning society, underscores the importance and gives focus to the reforms in primary, secondary and university education.
- **Sustainable Development**
The application of knowledge is essential to change the volume and character of supply and demand for all goods and services. Economic growth that respects

the environment and does not jeopardize possibilities for future generations is made possible through knowledge-based development.

Consequently, the more rapidly and effectively countries understand the interrelated and multidimensional aspects of this phenomenon and integrate this understanding into development strategies, the more likely will the deployment of these technologies respond to their unique set of values, conditions, needs, resources and aspirations.

Advances in information technology force us to recognize something that has always been true: the capacity to find innovative ways to produce, distribute and use information for building and applying knowledge has always been and will continue to differentiate economies. The level of information and knowledge in an economy is not constant as some economists have suggested; governments must work with the private sector and civil society to create conditions that constantly expand the capacity to produce, use, and distribute information. All other development efforts will be weakened in the absence of such efforts.

Bridging the Real "Divide"

There is much justifiable concern about the "digital divide" and gap between the information "rich" and "poor." *Our efforts are based on the belief that the real divide between people, organizations and countries, is the liberty and the capacity to innovate: to experiment and risk, perhaps to fail, but always learn to try again another day.* To harness technology and overcome the real "divide", development policy must ensure that expansion of a fair, open and competitive information marketplace - with appropriate safeguards to ensure access – to provide incentive for innovation throughout the information sector.

Yet marketplace mechanisms may not always work. The solution is not necessarily for government to provide unprofitable services for the "poor" but to think creatively about using the technology to facilitate access to information and the techniques to use it to build and apply knowledge (for example, using electronic commerce to enable people with limited resources to participate in the marketplace.) *The capacity to innovate is emerging as an important development indicator and creating the competitive conditions for innovation a key challenge for politicians.*

IDB President, Enrique V. Iglesias, has stated that in order for countries to effectively address the deeply rooted social problems, economic growth rate will need to double from the current rate of 3.5% to approximately 7%. It is within this context that we are focusing our efforts involving information technology for development. Specifically, *we think that such an increase in economic growth is possible by expanding the Region's efforts to participate in and benefit from the emerging knowledge-based global economy.*

An expanding information sector will enhance the capacity of the economies in the Region to add value to local resources and create distribute new wealth. In other words, the Region does not pursue expansion of a knowledge economy as an end in itself but

rather a means for increasing economic growth, expanding employment and expanding trade.

***America in the 21st Century: The Role of the Bank
“Development” and the IDB in the Emerging Knowledge-Based Economy***

The Inter-American Development Bank is not a “newcomer” to the emergence of the knowledge economy. For years, the Bank has accompanied the countries in the use of information technology for development. This process has had several distinct phases. They are:

- **Evolutionary Phase (1960-1980)**
During the first two decades of the Bank’s operations, the use of information and communication technology proceeded on an ad hoc basis based on sporadic demand from beneficiary countries.
- **Reform Phase (1980 – 1995)**
The economic and political reforms of the 1980s brought about a significant increase in the number and size of information technology components in Bank-funded projects. The demand for information in the operation of market economies and democratic institutions provided the incentive for this increase.
- **Evaluation Phase (1995-1998)**
Between 1995 and 1998, the number of projects had reached a point that it was no longer desirable to address information technology for development issues on an ad hoc basis. The Strategic Planning Department promoted dialogue with beneficiary countries to assess the Bank’s approach to information technology for development.
- **Institutional Phase (1999 to the present)**
During December 1998, the Board approved funds to create what has become an Information Technology for Development Unit. The mission of the Unit is to strengthen the Bank’s efforts to support the information technology component in sectoral projects such as health, education, modernization of the state as well as to refine and implement a Bank-wide strategy on information technology for development. In response to the increasing commitment of the Bank funding for projects, as expressed during the recent Annual Meeting of the Bank in New Orleans, the Unit is being upgrade to a Division. I am pleased to report that this upgrade took place a couple of weeks ago.

As the Region enters the new decade, century and millenium, there is an explosion of activity involving information technology. The magnitude of the challenges in the Region – increasing poverty and inequality, endemic debt and vulnerability to financial crises elsewhere, environmental degradation, increasing skepticism about the potential for markets and democratic process to expand opportunities for more and more people – provides focus and urgency for our work in this area. *In order to respond effectively and in a timely manner, human energies must be mobilized and synergies generated to harness information technology to address these challenges effectively and in a timely manner.*

One of the most significant challenges confronting a multilateral development finance institution such as the Inter-American Development Bank is remaining relevant by ensuring that borrowing member countries participate in and benefit from the knowledge-based global economy.

The emergence of knowledge-based economies offers a major opportunity for the IDB as well as the Region. It is an opportunity more challenging than the conditions from which the IDB and other institutions originally emerged. Much is at stake and this opportunity must be seized as effectively and completely as possible if institutions like the Bank to remain relevant.

The Bank will continue to use its convoking powers to generate synergy among the twenty-first century leaders of the knowledge-economy in Latin America and the Caribbean. We are currently promoting dialogue and exploring our project funding in three major areas mentioned previously; new economy, human capital and digital democracy.

Expanding Hemisphere Dialogue and Action

Information permeates all aspects of society and economy. Consequently, development approaches to information technology for development require intersectoral approaches and inter-institutional cooperation. IDB has unique capabilities and experience in these areas that are being extended to harnessing information technology for development.

Increasingly, we are working intersectorally/horizontally among departments to address issues such as the new economy and development, creating human capital in the knowledge economy and the evolution of digital democracy.

Since early 1999, our efforts in these areas focus around the theme "America XXI." This theme reflects the recognition that the deployment today of information and communication technology will significantly shape what Latin America and Caribbean will be like during the twenty-first century. Much is at stake in the way the Region seizes this new opportunity. More than anything else, at stake is the capacity of the countries in the Region to create their own future.

Countries in Latin America and the Caribbean countries are creating the future today through the application of information technology in the three intersectoral areas mentioned previously. In the following paragraphs, these areas are described:

- **New Economy and Development**

The diffusion of information and communications technology is changing the way the economy operates and, some say, challenging economists to reconsider some of their basic premises. Whether this is actually a new economy or if it is just that information and communications technology force us to become conscious of

what has been true all along will be much debated. Regardless of how this controversy is resolved, if it ever is, one thing is undeniable: the conditions of development have changed. More importantly, the question of whether or not the new economy will have a positive or negative impact on Latin America and the Caribbean depends on what adjustments to the new conditions the Region decides are necessary to meet development objectives. At the Bank we have been taking steps to promote consideration of this issue among staff and among specialists from beneficiary countries.

It is also clear to us that private sector initiative is crucial for a dynamic and pluralistic information sector of the economy as well as for a competitive information industry and information marketplace to expand in Latin America and the Caribbean. *One of our objectives in this area is to increase the capacity of the Region to add value to local resources and, thereby, create and distribute new wealth.* We are developing activities in the following areas:

- Special Program on Youth (the internet generation and new media enterprises)
- The Expansion of a regional information sector including small and Medium-sized Enterprises
- Rural Renaissance (deploying information and communication technology to provide services – in addition to efforts to improve – agricultural productivity)
- Electronic commerce (particular assessing its potential for addressing issues related to equity)

Electronic commerce is a multidimensional phenomenon that requires a multidimensional approach. In the Information Technology for Development Division, we are working in a variety of fronts to formulate just such an approach for assisting developing member countries in applying electronic commerce in:

- i. Working with other groups in the Bank as well as the Multilateral Investment Fund (MIF) and Inter-American Investment Corporation (IIC) on a strategy paper for electronic commerce;
- ii. Working with the regional operating departments of the Bank on a set of and electric commerce projects in various countries to decide what type of IDB involvement can most benefit borrowing member countries;
- iii. Exploring with the Special Program on Youth ways to expose young entrepreneurs to electronic commerce.
- iv. Including the subject of electronic commerce in sessions on the new economy seminars that we have organized in Costa Rica and Mercosur. The topic also was part of the new economy session at the Annual Meeting seminar on “America XXI: Information Technology for Efficient, Equitable and Sustainable Development” which we organized last March in New Orleans. It will also be the topic at similar events in Central America and Jamaica.

- v. Exploring cooperation with other international organizations in a variety of areas, including the creation of an observatory on the subject;
- vi. Continually participating in events such as this one to deepen our understanding and build strategic alliances.

As a result of these efforts, IDU is emerging as a reference on e-commerce in the Bank and, as our work becomes known, throughout the region.

- **Creating Human Capital: Lifelong Learning in the Knowledge Economy**

In response to the increasing demand for learning opportunities, public, private and civil society organizations are offering a variety of environments (classroom, workplace, and community center). New techniques such as distance learning, methods, forms of funding such as vouchers, alternative uses of time and space are challenging traditional approaches of accreditation, construction, curriculum design and the training of learning agents (i.e., teachers, professors, trainers). *Increasingly, human development provides a more relevant framework for formulating strategies and designing Bank-funded projects that expand access to quality learning opportunities. This new context involves but transcends the current emphasis on primary, secondary and university "education."*

- **Digital Democracy**

In essence, the reforms in the Region are part of an ongoing effort to build trust in defining the terms of a social contract among the diverse groups that make up the society in each country.

New forms of dialogue and collaboration among public, private and civil society organizations enhance transparency and accountability that can assist in creating conditions of fair and open competition and expanding access so that everyone can participate in and benefit from the expanding knowledge-based economy.

“Digital Democracy” is a phrase we have been using to link our efforts in the area of modernization of the state – re-engineering the public sector using information technology – with strengthening the capacity and the credibility to formulate policies and establish appropriate regulatory frameworks for expansion of efficient, equitable and sustainable growth of a knowledge-based economy.

We believe that countries committed to public sector modernization and the use of information technologies may be better positioned to dialogue with the private sector and civil society to formulate policies that promote information sector competition and increase access.

At our Annual Meeting held recently in New Orleans, we organized a seminar program on "America XXI: Information Technology for Efficient, Equitable and Sustainable Development." This program addressed the three areas mentioned previously – new

economy, human capital and digital democracy. These topics have also been the focus at other seminars we have organized in Mercosur, Central America, Costa Rica and, soon, in Jamaica.

We have been systematically looking for ways to use our current financing instruments in innovative ways and designing new instruments that are more appropriate for this new environment. For example, the IDB Board recently approved a regional technical cooperation agreement with the European Union on a "Pilot Program for the Diffusion of Information Technologies in Social Programs."

Conclusion

No one can predict what the Region will be like during the remainder of the century. The future of the Region is being created by the accumulated impact of the decisions made and implemented by all people in all aspects of their lives. All decisions and their implementation depend upon access to information in order to build and apply knowledge. Sovereignty in the emerging knowledge-based global economy requires innovative and human-centered knowledge-based development strategies essential for domestic prosperity and global competitiveness.