

**International Collaboration in Distance Education:
A Case Study of the Commonwealth Youth Programme Diploma
in Youth in Development Work**

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Abstract

The Commonwealth Youth Programme, the youth development arm of the Commonwealth Secretariat, is collaborating with a consortium of sixteen Commonwealth universities to deliver professional training to youth development workers across the Commonwealth. Two thousand students are registered in the pilot programme. They use common learning materials that were developed by teams of course writers and instructional designers from across the globe. The programme is being delivered by supported distance education methodologies in Commonwealth member countries. This case study focuses on the rationale for, and background to, the programme, the nature of the partnerships through which the programme is being delivered, delivery systems being used in the Caribbean, delivery methodologies and student support mechanisms. As well, it addresses the many challenges encountered in delivering the programme in seventeen small states in the Caribbean. Among the challenges are those related to the logistics of coordinating development of a programme requiring inputs from across the Commonwealth, materials development and distribution, development and costing of delivery systems, collaboration between educational institutions and other partners, communication barriers and use of a competency-based, learner-centred model that is new to students.

EDSAT-Americas, a Hemisphere-Wide Collaborative Network: Is There a Demand?

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Rationale for an EDSAT-Americas Project

We begin with some critical assumptions on ingredients for sustainable economic growth.

The impact of education and telecommunications on national long-term economic growth cannot be overemphasized. In an environment where competition has been raised to a global dimension and where information flows are of greater importance to business than product movements, business investments will migrate to those countries with high levels of education and modern telecommunications infrastructures. Hence, investments that create a pool of skilled labor and digital networks will improve long-term country competitiveness, and as a result will both facilitate its integration into the global economy and enhance the ability to move up the production value chain.

Although not directly linked to long-term economic growth, numerous studies have shown the indirect connection between telecommunications and educational investments and the growth of GDP. And we believe that countries unable, or unwilling, to make these education and telecommunications priorities will become economic backwaters, where growth is limited and foreign investments scarce.

Business has over the last decades invested heavily into information technologies and employee training. Business is now focusing on organizational recalibration in order to expand

core competencies, and then to leverage these for competitive advantage in the marketplace. In an environment where competition has been elevated from the national to the international level key ingredients to the successful execution of corporate strategy are an educated/skilled workforce and the efficient dissemination of information. Telecommunications and primary/secondary education perform vital functions in realizing these objectives.¹

The central role of education and training in economic growth was also stated by Laura D'Andrea Tyson, former economic advisor to President Clinton, when she suggested that "the American economy has enjoyed a robust expansion . . . unfortunately, the economy's expansion has failed to reverse two disturbing long-run trends: stagnant or falling real earnings for the majority of workers and increasing income inequality".²

She further points out that: "lifelong learning is a necessity if workers are to meet the demands created by changing technology and intensifying globalization".³ In a *Washington Post* editorial (July 16, 1997) addressing the pros and cons and the successes and disappointments of the North American Free Trade Agreement (NAFTA), the editors suggest that "job training and, in the long term, better primary and secondary education is likely to be key" to greater NAFTA success.⁴

The access and use of "technologies" to improve and incorporate all countries' demands

for training and, in the long term, better primary and secondary education are closely linked to economic growth!

Rapidly evolving technologies are being applied worldwide to address seemingly intractable education problems, especially those related to access and quality, but also as innovations to anticipate future trends in the way educational services at all levels could be delivered. The demand for such applications is clear-cut. Within school walls, teachers and students now access information and knowledge through Internet connections. The electronic exchange of ideas about teaching and learning has generated new ways to enhance the curriculum and to stimulate professional development. Outside the classroom, students and teachers more frequently interact through new combinations of distance education formats. In addition, connections to cultural and scientific institutions, and the growth in connectivity using various telecommunications modes in the home and elsewhere, has led to expectations that information and knowledge sharing and learning seemingly have no barriers.

To capitalize on the potential of available technology, countries now need to develop their own educational strategies to make technology integral to their education vision and strategic planning for the year 2000 and beyond. In the current dynamic environment, educational decisions taken during the next few years undoubtedly will have long-lasting consequences for the educational and productive future of all Latin American and Caribbean (LAC) societies. Countries will need to prepare a facilitating environment to encourage both public and private sectors to contribute fully to education in this regard.

Building the required infrastructure to

accommodate new education technologies looms on the horizon. Current capacity varies considerably in the LAC region. Investment strategies must reflect the fiscal reality of each country; however, as noted in the report, educational technology appears within reach of all countries of the region if it is carefully selected and deployed at suitable educational levels and where cost effectiveness can be achieved.

An important consideration not to be overlooked is the potential inequities that could be perpetuated when planning technology investments. All segments of the learner populations should be considered, but special attention should be given to technology access by the poor in both rural and urban areas. Above all, the incorporation of technologies must be organized to maintain open societies that encourage the free flow of information.⁵

The countries of Latin America and the Caribbean have made important strides in increasing primary and secondary school enrollments. Despite such progress, countries of the region confront major challenges in the development of education in the years ahead. Indices of education quality, such as the Third International Mathematics and Science Study (TIMSS), reveal that Latin America countries lag behind many other nations in student achievements on these measures. . . .

LAC countries have been using technology for many years to deliver educational services, mostly in the form of radio and broadcast television. Both have been effective in addressing specific education challenges, especially reaching students in rural areas. The problems that are addressed and the achievements are significant. There are, however, significant differences in the application and cost of technologies now available for education.⁶

Most LAC countries lack a comprehensive strategy for incorporating technologies into their educational systems – even though several are now making significant investments. A few major projects in some countries in the region provide evidence of how best to proceed. In addition some smaller, generally free-standing, projects, not coordinated into an overall educational planning framework, can be found in most countries. More evaluation is needed of these early investment efforts, especially their cost and the application of lessons in other efforts in the same or other LAC countries.

Ideally, investment in technology will become an integral part of a country's overall strategy for education improvement. World experience suggests that it is prudent to coordinate technology planning and investment with key educational goals rather than to consider them as merely discrete applications. One of the greatest opportunities is that technology may eventually provide higher quality education to substantially more of the population.⁷

Despite these and other efforts, and in spite of the fact that Latin American and Caribbean countries in the past 30 years have expanded educational opportunities and improved equality, there remains

Persistent inequality in the region, [and] low quality of educational supply and outcomes, ... Educational inequalities clearly perpetuate income and social inequity. Increasing the quality of basic education for the poor, providing early childhood education, and expanding access to upper-secondary and higher education have become part of a new strategic vision for reducing inequality within LAC societies, and dealing with disparities between LA and other regions at similar stages of economic development.⁸

Political and Educational Change

There is no question that many Latin American and Caribbean countries have been prioritizing education spending to provide access and use of education resources through technology for basic secondary and higher education, and to improve the quality of education throughout the system. While there are numerous examples of distance education programmes throughout the Latin American and Caribbean countries there are no official statistics available on these programmes.

On affordability and financial sustainability the Work Bank finds that “one of the many issues facing ministries of education in the Latin American region today is ‘how’ – not whether – to fund the introduction of computers in schools, and on what scale ... although funds to support pilot educational technology programs at selected schools can readily be found.”⁹ The present educational technology and models used by the Latin America and Caribbean countries are largely employed with the help of loans from the World Bank and the Inter-American Development Bank (IDB).

The Internet

Before leaving this section on educational change and pressure mention must be made of the exponential growth brought about over the last five to eight years in the number of users of the Internet system and the services it provides. The impact of the Internet and its potential value cannot be overestimated for business, government, education and other public services, such as health.

As a result of the pressure from the growth in Internet users and the global focus on e-commerce to encourage consumer use, from banking to gardening – i.e. information, trade,

retail and wholesale commerce, research, etc., “the state of the development of telecommunications infrastructure in the Latin American and Caribbean countries will be critical in planning for education uses of technology by countries and in the region generally.”¹⁰

The high cost of Internet access in most Latin American and Caribbean countries is prohibitive. Residents not only pay comparatively high long distance charges, but local calls are charged on a per minute basis.

Few if any will question that Internet connectivity for rural areas, specifically to the poorest schools, is the greatest challenge facing leaders in Latin America and the Caribbean. For example Trinidad and Tobago has started a major National Distance Education effort for all schools. In 1997 Trinidad and Tobago monthly payments were \$100 for 100 hours, \$5/hour for additional hours.

Along with the prohibitive cost barriers to access the Internet/Web systems via telephone lines, there are other substantial limitations and cautions for educators and policy makers to consider.

The Internet is primarily a point-to-point individual system. Its applications for education are suitable for research, information and news. Where affordable it is one of many “tools” that should be institutionalized and accessible for education, instruction and health care services as an efficient and effective means of improving and raising education and teaching standards in the twenty-first century.

Structure and Obstacles in Delivery Systems

The costs for access to the Internet over

telephone lines have already been mentioned. However, it is only recently that there is a better understanding that Internet services can be accessed through alternative delivery systems, such as satellite, and brought down to connect through telephone lines (copper or fibre) or cable. This offers educational institutions two advantages. It substantially lowers operating costs and it simultaneously accesses greater numbers of students and sites, substantially lowering per student costs.

The *Orbiter Newsletter* of the Society of Satellite Professionals International reports that, worldwide, Internet delivery via satellite will reach over “5% of overall satellite band width” by the end of 1999. They estimate the demand for “high band width links to US Internet backbone” by Internet service providers (ISPs) reached \$138 million in revenues in 1998. It also reports on rapidly growing use of the Internet: “Latin American Internet usage grew 250% in 1997 . . . and Intelsat’s service revenue breakdown and growth requirements for [Latin America] indicate that Internet services are growing at a faster rate than other satellite delivered services” found in this Internet study.¹¹

Satellite company officials and experts agree anecdotally that the biggest buyers of satellite time today are ISP companies. In fact the report estimates that “revenues derived by satellite operators providing non-US ISPs with satellite connections to the Internet backbone doubled in 1998.”¹² The total revenue from the Internet for six multinational satellite companies exceeded \$137 million in 1998 and it is projected to exceed that by 100% by the end of this year. Internet sales for Intelsat for 1998 accounted for more than 10% of their total revenue. In the same year Loral Orion revenues from Internet sales exceeded 14% of their total revenue.¹³

What is the significance of this for Latin American and Caribbean policy makers? It demonstrates that Internet services and sales are a fiscally viable market for a consortium of nations operating and managing satellite capacity for education and health care.

Other Delivery Systems for Telecommunications Services

Telecommunications “infrastructure” can be sorted into three categories:

1. Transmission or “delivery” systems – satellite, telephone and cable (fibre and copper wire), sometimes called “pipelines”, “backbones” or “highways”.
2. “Interconnectors” or switching systems between different technologies and systems. (The distinctions between these two categories are becoming very blurred due to deregulation and corporate mergers.)
3. “End-user” equipment – the classroom hardware, software and programming services. This arena, where the “end-user” equipment is critical to the “use” question, is often referred to as the “last mile”.

The three categories are relevant to costs and effectiveness for an organization that may be planning a system to connect education and health care institutions. However, for the purpose of this discussion our focus is on telephone, satellite and cable delivery . . . the “highway”.

In studies prepared for a conference on, “Has Privatization Worked . . . The International Experience?”, Columbia Institute for Tele-Information (CITI), Columbia School of Business, looked at many regions of the globe, including Asia, Latin America, Russia, Europe, New Zealand, India, the Far East and Africa.

With some exceptions, on a scale of 1 to 10, there are wide variations of success where privatization has been “accepted” (and in some countries it has been rejected or rejected and recently accepted); however, where it has been accepted in all cases it has improved economic performance, return on investments and market valuations. However, with the exception of South Africa which used a different model, privatization has not fulfilled its ‘social role’ in advancing “universal service, providing wide access to Internet, sharing the benefits of communications and advancing competition”.¹⁴

In almost all cases, but specifically Latin America, privatization benefits are largely realized by “business” and “service” remains a privilege of the “elite”. The benefits to business are high for investors and financial institutions. Regulation is weak, and largely serves to maintain monopolies, often moving from public to private monopolies. The studies clearly indicate, and are specifically alarming for Latin America when they show, that “privatization has created a two-tier information society, those that have access, and those unlikely to ever have access”. Forewarning of the real probability of “creation of an information underclass with serious long-term implications” rings loud and clear.

What of the future? What implication does this have for education reform in Latin American and Caribbean countries? As we know, “education and training” was the lead priority going into the II Summit of the Americas. Education reform goals as agreed to in the II Summit of the Americas, had a strong component dedicated to the use of information technology to improve teacher and worker training, improving literacy, science and math instruction and, first among equals, to make basic quality education available to all children in the Americas by the year 2010.

The information technology models being used in North and South Latin America and the Caribbean countries are Web pages, linking schools to Internet, computers and modems and dedicated TV channels. Let's look at how the US information technology companies are structured and financed to understand the problem. Are they compatible with the demands from the education market?

- **Structure:** Education demands and use are different from consumer and business demands and use. Education is a "horizontal" business. The finance and structure of telecommunications industries are designed to serve the needs of "vertical" business. In all cases, the telecommunications industry is structured and financed for broadcast (entertainment, news and sports), voice, data/information and commerce. Pricing is based on bandwidth, number of users, and distance. These pricing structures are incompatible with education, public health and other social service goals. Education users have the need to reach greater numbers, lower the barriers of distance, location and wealth, and still lower their per-student costs while greater numbers are reached. Above all, the goal for education and other social services is to close the gap through equitable distribution of resources, which is, more often than not, incompatible with these structural elements.
- **Financial:** In the telecommunications industries "financing" is based on pre-sales, multiple investors with quick-turn-around investments, long-term big buyer/users, "pre-paid" unused time, etc. All telecommunication industries try to encourage "volume" and "longevity" with price benefits. Broadcast, voice and cable industries set their pricing and gravitate

their delivery systems to highly populated and higher per capita income areas. On the other hand, education users need long-term, low-interest loans with long-term turn-around structuring for use and return to investors. Individually education is a small, fragmented and disorganized buyer. (Its buying power when aggregated is as large as, if not larger than, commerce.) Education makes post-payments for services, and buying is based on need and demand, not on population size and quantity. Education is an uneven industry and public market with wide-ranging sizes in populations in rural to high density locations. Education requires governance and control as a nation's constitution mandates, in order to provide equitable distribution of teachers, resources and services (in some cases, even "equal" distribution). Population size, geographic location and per capita income cannot be the major determining factor in the level of educational services.

- **Organization:** The current privatized and liberalized telecommunications models are organized around industry representatives negotiating with ministers of communication and finance as government's representatives and decisionmakers. Industry representatives in turn provide government representatives with the "model" for performance levels to measure success. The industry measures number of access lines, diversity of telephones per population size, lines for numbers of employees, operating and net margins, revenue per line, cash flow and cost per line, etc. These "performance measures" do not relate to or provide for public accountability for the country's or state's education goals and plans, budgets and costs, and above all, a time line for

measuring performance applications. Ministers of education and their US and Canadian counterparts must be in the driver's seat for spending and services (programming), and held accountable for the integration, diffusion and use of telecommunication services and tools in classrooms.

- Industry: The telecommunication companies that have grown to extraordinary economic heights have financing and structures that have responded to the needs and demands of the broadcast, voice and cable industries serving consumers located in homes and workplaces. The demands and needs of the education industries (for-profit, not-for-profit, public and private) do not correspond to the demands and needs of the broadcast, voice and cable industries. Education products and services are curriculum, training, teaching and information with users located primarily in educational, cultural and community institutions. Unlike consumers who purchase independently and operate on need; the teachers and public servants purchase, teach and operate within the demands and time structure of "institutions".

Summation

This paper documents a growing pressure from elected officials and government ministers and their communities for bureaucracies, educators, teachers and their organizations to mitigate intransigence to "change", to encourage and develop plans for the efficient and effective use of new communication and information technologies in teaching, learning and in classrooms.

History and evidence is strong that the "costs" remain the barrier to equity and affordability even when there is a "glut" of capacity. Specifically, small and less populated countries, densely populated cities, and new, fragile democracies are at greatest risk of being left out of the Information Age.

Analysis of the financing, pricing and structures of telecommunication industries clearly shows these are incompatible with the demands and needs of the education sectors, as institutional users, as an industry and as global users.

Recent history also demonstrates that for the most part, in comparisons to commerce and consumer market demands for services and products, the educational institutions are small, fragmented and sporadic users of the same technologies with different demands and services. "Education" usually commands the largest portion of state and nation budgets, second only to defense. On the other hand, it is "business as usual", and booming at that for big buyers - independent cable and telephone companies and multinational corporations. They merge together to lease or buy satellite capacity and telephone lines, aggregate their buying power to lower costs, gain access to greater numbers of users, and are guaranteed control of the timely delivery of their services and products.

The speed with which technologies change, dropping the costs for volume buyers and access to mass markets, provides huge benefits for investors, large companies, and the upper crust of this hemisphere's societies. This scenario not only leaves little room for, but frequently shuts out, low-per-capita communities, small countries, and rural, ethnic and community populations.

We began this discussion with the knowledge that most Latin American and Caribbean countries lack a comprehensive strategy for incorporating technology into educational systems, and the World Bank suggests that “ideally investment in technology will become part of a country’s overall strategy for education empowerment”.¹⁵

What benefits or added values will be gained for countries like Trinidad and Tobago, Barbados or Argentina to participate in a regional cooperative effort, if they already have implemented plans to install and operate their national distance education plans?

Until recently, no Latin American or Caribbean country benefited from a “connected” horizontal or telephone infrastructure. All signals were transmitted through and between US ports. This kept costs and services very high and “limited services”.

Educators are now assuming the installation of broader bandwidth fibre, and stronger copper trunk lines in many Latin American countries will bring costs down and open access to horizontal diversified services. There is no indication or likelihood the telephone companies will carry the stronger infrastructure outside or beyond a major metropolitan area.

Therefore, absent a planned hemispheric effort along with the ministers within each country, planning together, education access is likely to remain limited to population size, wealth and resources. The need to aggregate buying power is critical for the students in Ji-Parana, Brazil, Concepción, Argentina or the Village of La Brea, Trinidad, as well as Brasilia, Buenos Aires and Port of Spain.

Ministries of Education should have options in

selecting end-user equipment and programming by asking the questions, will it connect with and to a “diversity of quality programming”, will it provide predictable services, will it be easy to use for end-users, and is it affordable? Without a large cooperative effort by a group of small and large countries, cost, wealth, distance and use will remain large obstacles to education equity.

There is an urgent need to explore another “distance education model” which will balance the public interests, such as education and health care, with the economic and competitive benefits for business and consumers, a model that addresses the barriers of cost, equity, governance and predictability to connect education and health care institutions in the Western Hemisphere.

In closing we are reminded of the late George E. Brown, Jr., US Congressman, speaking to the NETO/EDSAT International Working Group at the OAS/World Bank meeting in 1998, when he said, “As you well know, technology has made the unimaginable possible, and has increased the rate at which human culture advances. We as a global community have the responsibility to ensure that all people benefit from these changes . . . The concept of an integrated, hemispheric telecommunications system dedicated to instruction is not necessarily a new one . . . The longer we wait to act, the greater the risk of more people falling behind and the greater the divide between technology haves and have-nots . . . The challenge we face is turning ideas into reality!”

Notes

1. Business case for an EDSAT-Americas project, page 1.
2. *Washington Post*, July 8, 1997 (op. ed).

3. Ibid.
4. *Washington Post*, July 16, 1997 (editorial page A18).
5. *World Bank Report - Latin America and the Caribbean: Education and Technology Team* (nd), "Foreword".
6. Ibid, p. viii, "Executive Summary".
7. Ibid.
8. *World Bank Report*, p. 2, "Current Issues".
9. Ibid, p. 22.
10. Ibid. p. 6.
11. *Orbiter Newsletter*, Society of Satellite Professionals, August/September 1999.
12. Ibid.
13. Ibid.
14. Fritz W. Ringling, *Privatization in Perspective: A Quantitative Analysis*. Miami, Florida: NDAI, Inc.
15. *World Bank Report*, p. 6.