

4 Distance and Virtual Learning in the Caribbean

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Introduction

Although often linked to the United States, the Caribbean is a region so different that it is difficult for an outsider to imagine the context in which distance and virtual learning exist. The 30 or more countries that comprise the region are composed of a series of islands and archipelagos and are diverse even among themselves. Some are compact (e.g., Barbados, with a population of 262,000 persons in 166 square miles of territory), while others are dispersed (e.g., the Bahamas, with a population of 273,000 persons on 700 islands

and cays scattered over 5,382 square miles). (See Table 4.1) Some lack telecommunications infrastructure (e.g., Haiti, with only one telephone for every 150 people), while in others, most of the population has ready access to telecommunications (e.g., the Bahamas, with one telephone for every two persons).

Many of the countries in the Caribbean are considered lesser developed. Their populations live at poverty levels well below the world average. The education systems in many Caribbean countries lag behind highly developed countries,

Table 4.1

Comparative Statistics for Selected Caribbean Countries Compared to the United States

Country	Area (sq. mi.)	Population (000's)	Life Expectancy	Adult Literacy	Per Capita GDP	Persons/ Telephones	Persons/ TV Sets
Bahamas	5,382	273	72	93%	11,115	2.3	4.6
Barbados	166	262	76	99%	7,538	3.0	3.8
Dominican Republic	18,704	7,900	68	83%	1,600	41.6	10.9
Guyana	83,000	735	65	98%	766	22.3	23.0
Haiti	10,714	7,500	55	35%	400	150.0	234.4
Jamaica	4,240	2,600	75	85%	2,171	12.3	7.9
United States	3,700,000	270,000	76	97%	28,600	1.5	1.3

Source: U.S. State Department, March 1998

so that traditional opportunities for tertiary and secondary education are not available to the majority of the population.

Precisely because of the geographic and economic conditions that confront the countries of the Caribbean, distance and virtual education at both the secondary and tertiary levels could benefit individual countries and the region in general. Yet few Caribbean tertiary institutions are involved in distance and virtual education.

A sense of “regionalism” seems to permeate the Caribbean countries. Sixteen of the countries are members or associate members of the Caribbean Community and Common Market (CARICOM). Eastern Caribbean countries that are members of the Organization of Eastern Caribbean Countries (OECS) share a common judicial system. (See Kenny D. Anthony, www.oas.org/en/pinfo/legal.htm) In recent years, they have developed a regional Education Reform Strategy for Eastern Caribbean states to improve the quality and availability of education.

Speaking at a recent meeting of the Organization of American States, the Governor General of St. Lucia pointed to three mechanisms undertaken in the region to improve tertiary education capabilities of the countries. The first was the OECS Education Reform Strategy; the second was a regional network of institutions, the Association of Caribbean Tertiary Institutions (ACTI); and the third was the development of centres of education specialisation, which are assuming regional roles. (See Pearlette Louisy, www.aos.org/en/pinfo/week/030698ae.htm.)

The Commonwealth of Learning (COL) has provided continuing support to educational institutions in the Caribbean, including assistance with planning and developing distance education programmes. COL has helped train Caribbean faculty members in ways to re-package face-to-face courses for distance education delivery. It has also facilitated co-operative working relationships between Canadian and Caribbean educational

institutions, and has supported a project to upgrade the skills of technical and vocational instructors in the Caribbean. The Commonwealth of Learning Document Archive lists several helpful reports, including a Strategic Plan for providing tertiary education in “non-campus countries” (NCCs) through distance education, and other scholarly papers and reports. See www.col.org/caribe.htm. (Also, a search of “Caribbean” or individual country names from COL’s home page (www.col.org) will provide access to several relevant reports on COL’s activities and research.)

The University of the West Indies

The University of the West Indies (UWI) (www.uwichill.edu.bb) has emerged as one of the leading tertiary institutions and the leader in providing distance education to residents of most of the countries in the Caribbean. While other institutions in the region have initiated distance education courses and programmes (see below), an examination of the UWI distance education activities provides insight into some of the issues and accomplishments in the region.

The University of the West Indies is an independent institution that serves 15 countries in the Caribbean: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, and the Republic of Trinidad & Tobago. The university was established as a traditional university with a single campus at Mona, Jamaica in 1948. Originally named the University College of the West Indies, it was affiliated to the University of London. UWI achieved full university status in 1962, one year after it had opened its second campus at St. Augustine, Trinidad. A third campus was opened in 1963 at Cave Hill, St. Michael, Barbados. As a

regional institution, UWI places a strong emphasis on Caribbean issues in both its teaching and its research.

THE DEVELOPMENT OF DISTANCE EDUCATION AT UWI

The University's present distance education programme evolved out of a "challenge programme" that was started in 1973 by the Faculty of Social Sciences in response to a need in non-campus countries (NCCs) for upgrading and training of mid-level government employees. This programme allowed those employees to study on their own using print resources from the university and then "challenge" the exams in the subjects they were studying. The university provided no additional support to the students beyond a copy of the course syllabus and, where necessary, a list of recommended reading.

The university soon learned that most students could not pass the exams using this form of study, and so it established study centres in the NCCs, where local tutors provided tuition for students.

In the early 1980s, the U.S. government offered UWI use of the ATS6 satellite for academic use. The U.S. Agency for International Development (USAID) also funded a feasibility study that explored offering academic programmes through satellite uplinks and downlinks. This led the university to establish a new administrative unit, the University of the West Indies Distance Teaching Experiment (UWIDITE). By 1983, UWI was offering courses by audio-conferencing, print materials, and local face-to-face tutorial support.

The local tutors were bolstered by teleconferences with campus-based university tutors. Where possible, the academic programmes built on existing infrastructures, including local tertiary learning institutions (TLIs). By the 1990s, this process had become the norm for UWI's distance education programme. The audio-conferencing system was expanded over the years to include

more sites with funds from the Canadian International Development Agency (CIDA) and the Caribbean Development Bank (CDB).

As early as 1990, the university made a determination to expand its "outreach and distance education" activities. A July 1992 Appraisal Report noted several issues that needed resolving if such expansion were to be successful. They included:

- *Enrolment:* The report called for increased representation of students from non-campus countries. NCC enrolment had declined from 13% of the total student population in 1960–61 to 5% in 1989–90. Distance education was seen as one way to increase the enrolment of potential students from NCCs.
- *Management of outreach:* The report observed a "bewildering array of offices, units, and faculties operating with minimal co-ordination or even knowledge by the University Centre (which was charged with oversight of outreach and distance education at that time) which were intended to deliver the university's outreach." And none of those entities was integrated with the university faculties, which had primary responsibility for professional continuing education and articulation or franchising relations with tertiary learning institutions. Consequently, distance education was viewed by the faculties as peripheral to the main mission of the university.
- *Inadequate information systems:* The report found "inadequacies in programme planning, communication, record keeping, gaps in services, and duplication of efforts," and, "inadequacies of data on student registration, especially for non-credit courses."
- *Pedagogy and support:* Distance education courses often lacked sufficient back-up material, and technical problems plagued the UWIDITE conferencing system.

- *Training:* A great need was found for “extensive training in all aspects of distance education.” At the same time, the report noted that there were no agencies devoted to improving pedagogy anywhere in the university.
- *Computerisation:* Although this report predated the explosive use of computers and the Internet worldwide, it envisioned the use of computers university-wide for various educational purposes, including the support of distance education.
- *Needs assessment:* The authors of the report found deficiencies in how the university determined the need for outreach and distance education, as well as its own needs for change in order to adapt to a rapidly changing educational environment.

One of the outcomes of the 1992 Appraisal Report was a recommendation to develop a Distance Education Unit, reporting directly to the Board for Distance Education and chaired by the Vice Chancellor of PVC Academic Affairs. That recommendation was accepted, and since 1996 distance education at UWI is managed through the Board for Non-Campus Countries and Distance Education (BNCCDE). That Board is an office of the University Centre, located at the Cave Hill campus in Barbados. It oversees three executive arms: the Distance Education Centre (DEC), the School of Continuing Studies (SCS), and the Tertiary Level Institutions Unit (TLIU).

Another issue that surfaced in 1992 was whether distance education would be freestanding or integrated within the existing university departmental structure. It was seen as a fundamental issue to choose between a dual-mode distance education operation and some form of autonomous distance education programme (what was referred to as a possible “fourth campus” of the university). The latter would have

centralised all responsibilities for distance education and perhaps have permitted greater flexibility than some campus-based faculties might be willing to tolerate. But the Renwick Report recommended against this option on the grounds that it might preclude opportunities for mutual enrichment of the on-campus and off-campus programmes, and the possibility that the distance education programme might be seen as being of lesser stature than on-campus programmes. Dual-mode was intended to assure that neither modality was superior.

The dual-mode route was chosen. Consequently, distance education at UWI today largely consists of courses that the university faculty produces. Distance education has become an integral part of the workload of the university departments—part of the normal duties of the faculty. And just as the academic programmes are dual-mode, so are the support areas of the university, offices such as the registrar and information services. One by-product of the decision, however, was a parallel decision to keep the matriculation requirements the same for both modes, which has made UWI distance education programmes less “open” to non-traditional adult students than distance education programmes at some other institutions.

Another fundamental issue faced at that time was what role technology would play in the delivery of distance education. On the one hand, technology could make rich educational opportunities more widely available. On the other hand, if the access to technologies became an integral part of the delivery system, it could limit participation by large numbers of potential students, especially in poorer countries. The decision was made that, given the under-representation of students from NCCs, and in order to serve those potential students more completely, print materials would dominate the support materials for distance education courses. Teleconferencing (as used by UWIDITE) required regular attendance

at university centres. Print-based materials could be used anywhere, any time the student wished.

In recent years, the typical structure of UWT's distance education courses is a print-based study package with a heavy reliance on tutorial assistance. Often, the student must attend a prescribed number of sessions in-person with a local tutor, plus some at a distance with a campus-based tutor through audio-conferencing.

The 1997–98 academic year saw a large jump in distance education enrolments at UWI, which has been attributed to improved marketing of courses and the notion of distance education in general.

A June 1998 paper on a new strategic plan for distance education reviewed the progress of the previous five years. Here is what it found in the key areas that had been identified as concerns in 1992:

- *Enrolment:* Looking at figures available at that time, the authors reported that, “Here the picture has remained bleak.” Non-campus countries (NCCs) are under-represented in on-campus enrolments. This need has not changed much since the 1992 Appraisal Report. The NCC countries now contain 22% of the population of the UWI contributing countries, but their nationals acquired only 9% of the undergraduate degrees awarded by the university in 1993 and only 14% of the certificates. The northwest and eastern Caribbean countries are especially hurt in this distribution. They each have 11% of the population, but the northwest countries contributed only 1% of the on-campus registrations and the eastern countries contributed only 5%. One solution the university is pursuing is to place greater emphasis on involving local TLIs in distance education programmes, promoting the notion of the university as a hub and the TLIs as the spokes in an integrated regional system. However, the situation is compounded by inequities in

“sponsorship” in the NCCs. While the campus countries sponsor all their undergraduate students and many of their postgraduates, most NCCs set significant limits on the number of students they sponsor. This is further complicated because the fees for non-sponsored students from NCCs are so high that most potential students find it cheaper to attend North American institutions. (Roughly nine times as many students go to North America as go to UWI.)

- *Management of outreach:* Many changes were made to the structure and management of distance education at UWI following the 1992 report. BNCCDE now sets the policy for outreach and distance education and directly supervises three units: Distance Education Centre (DEC), School of Continuing Studies (SCS), and the Tertiary Level Institutions Unit (TLIU). DEC is responsible for the telecommunications system and computer network used for distance education, embracing three campuses, several other sites in the campus countries, and sites in all of the NCCs. In 1993–94, UWIDITE was integrated into the DEC, linking the university's three campuses with University Centres in Antigua, Grenada, St. Lucia, St. Vincent, St. Kitts, and Dominica through local telecommunications networks.

Since 1993–94, the university budget for distance education has increased from J\$23.5 million to J\$143 million in 1998–99. SCS is responsible for a variety of non-credit courses and for managing the sites used by the DEC teleconferencing system. The TLIU facilitates articulation between regional tertiary-level institutions and the university and assists the TLIs in upgrading their resources. This new structure has not given control over all aspects of outreach and distance education to the BNCCDE. The professional

faculties or schools retain responsibility for professional continuing education, although some of the work involves DEC, SCS, or the TLIU.

- *Inadequate information systems:* An almost accidental step towards a solution of the need for adequate information systems has been the slow but sure implementation of computer connectivity across the campuses, an activity stimulated by a loan from the Inter American Development Bank. However, improvements in registration and other student data are moving very slowly, apparently reflecting an unwillingness to recognise that dual-mode includes administrative as well as academic functions.
- *Pedagogy and support:* The university has implemented several measures aimed at improving pedagogy. They include:
 1. Regularly assessing teaching staff.
 2. Making teaching an explicit consideration in the assessment and promotion system.
 3. Providing instructional development units at each campus to help faculty members.
 4. Developing training manuals for faculty members.
 5. Developing a Certificate in Adult Education for tertiary level teachers.
 6. A new programme for the production of high-quality print materials and a range of other media.
 7. Peer review of such materials, using staff from other campuses and institutions.

Self-instructional print-based materials remain the fundamental resource for distance education courses, but in some cases Web pages play a large role.

Greater attention is paid to the role of local tutors and to providing students with local support systems. What has proven particularly difficult to change, however, is the weaning of staff away from proprietary course development towards a team approach.

- *Training:* There has been much achieved in the actual training of all categories of staff involved in distance education, and in policy recognition for continuing this training. The DEC is the main source for such training and has produced some self-instructional manuals for administrators and local tutors.
- *Computerisation:* Five years ago, no one anticipated the appearance of the Internet or the range of software applications that would be available. The university has capitalised on loans from the Inter American Development Bank and the Caribbean Development Bank to equip the campus.
- *Needs assessment:* Using funds from the Caribbean Development Bank loan, DEC will create a new post for research and evaluation in order to conduct needs assessments on a regular basis in collaboration with the BNCCDE Research Office.

One of the remaining challenges, not highlighted in 1992, is the provision of library services. Limited resources are often spread too thin among a public library system, the local TLI library, and the University Centre. This compounds another challenge: the need to bring the cultural and intellectual atmosphere of a thriving university to the NCCs through relevant activities that might enhance the quality of public discussion throughout the region. An expanded and comprehensive distance education programme was seen as one way to address these needs.

UWI continues to respond to known needs on several levels. Working with TLIs and other local education providers in the NCCs, the university has expanded access through courses offered at remote locations. It has also identified several areas where distance education courses can expand access, including Internet versions of some physics courses, strengthening mathematical and statistical understanding among potential students, and increasing English proficiency through remedial and preparatory courses. Some of these efforts cause the university to continue to examine its entry requirements and policies, which to this point have been rather traditional and rigid and unfriendly towards “mature students.” (See the reference above in the context of the discussion of the nature of a dual-mode institution.)

The University of the West Indies’ literature indicates that distance education continues to be seen as the major source of increased access to programmes of all kinds. However, given the circumstances of the Caribbean, for the immediate future, information and communication technologies apparently will not play a major role in distance education. Start-up costs for technology-based distance education programmes are high and some technologies are not readily accessible to many of the students the university hopes to serve through new distance education programmes. The university is very conscious of the need to weigh carefully the value of the technologies and not to under-utilise some low-tech approaches that might serve large numbers of potential students. Consequently, the university has made it a goal to strengthen its print-based courses so that the course materials can bear more of the burden of tuition. The hope is that by strengthening the course materials, the university will be able to facilitate anytime, anyplace learning while reducing the currently strong reliance on local tutorials. At the same time, however, the

university is upgrading its technological infrastructure (e.g., computers, connectivity, e-mail facilities) as part of a shared effort throughout the eastern Caribbean. As that upgrade is completed, the university expects to add video-conferencing to its current audio-conferencing facilities.

In summation, the University of the West Indies has moved from viewing distance education as an experiment to be tried with individual isolated courses to its current stage of developing and offering complete degree programmes. All of the courses offered are print-based.

In expanding its distance education, UWI has dealt with many “usual” issues:

- Finding ways to articulate distance education programmes with the academic programmes of local tertiary institutions.
- Helping faculty see the development and offering of distance education programmes as team work rather than purely individual efforts.
- Keeping open to the possibility that the distance education courses might be a small element in an academic programme that allows a co-operating TLI to expand its current academic offerings or introduce specialisations it would not otherwise be able to offer.
- Accepting that mixed mode delivery will be the norm rather than the exception, not only for distance education programmes but for on-campus courses as well.

Even as it expands its distance education programme, the University of the West Indies is aware of the fine line it must walk. Of all the tertiary institutions in the region, UWI is best equipped to provide educational opportunities to students throughout the region. Yet, it must take care not to step on the toes of other universities and established tertiary-level institutions. Rather, it must consider ways that, in each country, the various

players might co-operate and collaborate, given that each institution will have its own aims, some of which might conflict with UWI's. The university has chosen to do what only a university can do, including the pioneering of new programmes that others can adapt or adopt, and leaving to others to do what they can do perfectly well on their own.

Other Institutions and Programmes

Other Caribbean institutions also offer some distance education programmes and courses, some in conjunction with the University of the West Indies. Throughout the region, traditional colleges and universities have experimented with distance education and continue to do so. Most, however, are constrained by the lack of facilities, equipment, and infrastructure, preventing them from taking advantage of the very technologies that are making distance education a reality in other parts of the world.

Over the past decade, there have been several region-wide projects sponsored by the Commonwealth of Learning (COL) that have used distance education approaches and technologies to improve educational opportunity and quality in the Caribbean. For example, COL helped the University of Guyana develop a distance education programme of pre-university courses. Delivery included development of learning materials (using a new desktop publishing approach) and installation of an audio-teleconferencing network between Georgetown and seven regional study centres.

- *Sir Arthur Lewis Community College*, through its Department of Continuing Education (DOCE), provides lifelong learning opportunities to adults in St. Lucia. During the 1998–99 academic year, they are offering seven courses leading to secretarial and business

studies diplomas. (See their Web site at www.col.co.uk/orgs/sarthur/sarthur.htm.)

- *Antigua State College* has been the main partner with the UWI in Antigua. It has franchised several UWI courses.
- *The British Virgin Islands*: UWI works closely with a local TLI to provide a degree in Education using a variety of resources and approaches. The major competition has come from the University of the U.S. Virgin Islands (See their Web site at www.uvi.edu.)
- *Cayman*: Articulation arrangements between UWI and the local community college on Cayman, including provision for dial-up access to UWI's computers, is providing greater access to higher education to island residents. However, most advanced tertiary training is undertaken in the United States.
- *Grenada*: The national TLI, T. A. Marryshow Community College, and an active off-shore institution, St. Georges University, work with UWI to offer courses.
- *Turks and Caicos*: The Community College on Grand Turk has a UWIDITE facility that is just going into operation. A main concern is that they might not be able to find sufficient local tutors.
- *Jamaica*: COL assisted the Ministry of Education in launching the Teacher Training Project, which upgraded 200 primary grade teachers from a certificate to a diploma qualification in the pilot phase alone. Also in Jamaica, under a World Bank project, distance education is featured prominently in the teacher training and upgrading component of a project to reform secondary education.
- *Haiti*: The Haitian Foundation for Private Education (FONHEP) has developed a pilot project to test the feasibility of distance education as a vehicle for delivering

high-quality instruction to the country's primary schools. Emphasis is on interactive radio instruction (IRI) as the primary learning channel, supplemented by printed materials (e.g., posters, teacher guides, student workbooks). Technical assistance is being provided by project ABEL (Advancing Basic Literacy and Education).

- *Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines* are participating in a distance education pilot project being conducted under the auspices of the COL Organization of Eastern Caribbean States (OECS). The pilot will demonstrate the practicality of offering print-based courses by distance to a number of different sites in the region.
- *Trinidad and Tobago*: As recently as December 1998, Trinidad and Tobago launched a nationally co-ordinated system of distance learning. It holds promise of advancing educational opportunities to new cohorts of students.

Training workshops have been held throughout the Caribbean region to enhance institutional capacity and distance education. The workshops have covered the use of the computer in distance education, adaptation of distance learning course materials, planning and management of student support services, and course design for interactive audio-teleconferencing.

One promising development for the region is the Caribbean University Network (CUNeT), a project directed by the University of Puerto Rico to facilitate access to e-mail to universities and institutions in the Caribbean. Increasingly, there

are nodes of computers that connect several institutions to the server at the University of Puerto Rico through dial-up technology. Funding is provided through the Organization of American States (OAS).

Conclusion

The very geography of the Caribbean region requires that tertiary-level institutions consider distance education in one form or another unless they intend to serve a small number of students each year (as many choose to do). So far, most of the distance education programmes have taken the form of either place-bound classes (e.g., in community learning centres) that are at a distance from the provider institution, or print-based courses that can be taken anytime, anyplace by students who have the study skills and motivation to pursue correspondence courses. Those colleges and universities that have tried to develop distance education programmes using today's technologies have run into barriers in the form of high costs, lack of faculty skills needed to take advantage of the technologies, lack of student access to the technologies, and lack of infrastructure to deliver the instruction.

The University of the West Indies seems to be the university that is most active in distance education in the region. It has chosen to limit the use of information and communication technologies in the delivery of distance education courses to avoid precluding any potential students from taking those courses (e.g., because they do not have access to the technologies or because the communication infrastructure does not exist in their part of the country).

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WEB RESOURCES

www.oas.org/en/pinfo/legal.htm : Article by Kenny D. Anthony on membership of the Organization of Eastern Caribbean Countries (OECS).

www.oas.org/en/pinfo/week/030698ae.htm : Speech by Pearlette Louisy, Governor General of St. Lucia, at a meeting of the Organization of American States (OAS).

www.col.org/caribe.htm : Home Page for Commonwealth of Learning archive of information about its Caribbean activities.

www.uwchill.edu.bb/bnccde : Home Page for University of the West Indies Board of Non Campus Countries and Distance Education.

www.tcol.co.uk/orgs/sarthur/sarthur.htm : Information page for Sir Arthur Lewis Community College in St. Lucia.

www.uvi.edu : Home Page for the University of the U.S. Virgin Islands.