Dominica

Summary

Although the Commonwealth of Dominica's ICT policy in education has not been developed, both the MOE and schools themselves have made efforts to provide access and basic IT skills to students at the primary and secondary levels. The most significant initiative may be IT for Dominica, a partnership with schools in Alberta, Canada, that has used refurbished Canadian computers to establish communication between students and teachers in the two countries. In addition, a limited number of upper-secondary students are enrolled annually in elective courses leading to the CXC exams.

More elaborate efforts, including EMIS implementation and support for integration of ICT into teaching and learning across the curriculum have been in development but may not be high priorities at this time.

The economy of the Commonwealth of Dominica is primarily dependent on tourism and agriculture. Forty percent of Dominican workers are in the agricultural sector, with primary agricultural exports

Basic Data

Category	Date	Value
Population	2006 (est.)	68,910
Per capita GDP (PPP)	2005 (est.)	$3,800
Economy, composition		Agriculture, tourism
Language of instruction	—	English
Literacy, total population 15 and over	2003 (est.)	94%
Literacy rate (girls)	2003 (est.)	94%
Gross enrollment ratio, primary		88.2%
Gross enrollment ratio, primary (girls)		85.0%
Gross enrollment ratio, secondary		85.5%
Gross enrollment ratio, secondary (girls)		92.8%
Telephone main lines	2004	21,000
Telephones mobile	2004	41,800
Internet hosts	2006	263
Internet users	2005	20,500

Source: World Factbook

Relevant Policies

Policy	Status	Date	Key points
Strategic Plan for Implementation of ICT's in the Education System of the Commonwealth of Dominica*	Not adopted	March 2004	■ Integrate ICT in the school curriculum ■ Promote equitable access to educational resources through the strategic application of ICT ■ Provide computer literacy (requisite ICT skills) improving graduates' employability in the information economy ■ Create a teaching force with requisite ICT skills and competencies to enhance the teaching/learning process ■ Promote a cadre of ICT teacher specialists ■ Encourage and facilitate the use of the Internet as a research and communication tool ■ Improve the efficiency and effectiveness of educational administration by facilitating the implementation of an EMIS ■ Create partnerships for a sustainable ICT program among the public sector, private sector and communities ■ Establish schools network system for the collaborative sharing of educational resources and stakeholder participation.

* This policy document was created using the OERU template.

Source: MOE

including tobacco, bananas, vegetables, coconut oil, and essential oils.

Infrastructure

All primary and secondary schools have at least one Internet ready computer. One of the island's telecommunications providers (C & W) offers free Internet access. Initially, access was limited to a 56 Kbps dial-up connection; that connection has been upgraded to broadband access at 128K to 256K.

Computers in schools are used primarily for e-mailing and for creating and filing documents. In fewer than 10 schools educational software is being used, for mathematics and reading. At the primary level, software titles include: Reader Rabbit, World Book Encyclopedia, Inspiration, and Mavis Beacon Teaches Typing. At the secondary level educational

software includes: Video Professor, various subject-specific tools such as Chemistry, French, BodyWorks, Google Earth, Mavis Beacon Teaches Typing, AutoCAD, Inspiration and Turbo Pascal. Schools hold only one-user software licenses for these tools.

The IT for Dominica Project

The IT for Dominica Project (*itfordominica.org*) provides refurbished computers to schools and supports training of teachers and school administrators. A partnership with a school district in Alberta, Canada, the project began implementation in 2000. The main goals of the program are to provide access to ICT and training for Dominican teachers to improve collaboration between teachers and students in Canada and Dominica.

Initiatives involving use of ICT in education in Dominica that are supported by IT for Dominica also encourage participation in structured online discussion via the following projects:

ICT Resources in Schools

School type	Number	Median enrollment	ICT profile
Primary schools, government	60	—	■ 32 have computer labs with an average of 8 machines
Secondary schools, government	15	—	■ 11 have computer labs with an average of 20 machines

Source: MOE

Relevant ICT Programs

Public Private Para-statal	Organization	Programs	Target Groups	Technology	Scale (No. of schools, no. enrolled, etc.)
Public	Dominican and Canadian Governments	IT for Dominica	■ Primary and secondary schools	■ 30 computer labs with 6 to 20 computers connected to the Internet	■ 3 secondary and 16 primary schools

Source: MOE

- **Global Teenager Project:** Participation in moderated discussion forums on varied themes http://www.globalteenager.org/mambo
- **Small Island Voices:** Connecting students in all school levels from small islands from all over the world http://www.unesco.org/csi/smis/siv/sivindex.htm
- **Young Foresight Program:** Providing an entrepreneurial view for the students through Internet-based communication targeted at the secondary level www.youngforesight.org

Students participate in IT for Dominica during designated class sessions. The issues discussed are usually of a current nature, and concurrent with topics being covered from the syllabus. Pre- and post-session discussions are held during social studies classes.

Teacher professional development

Pre-service teacher development takes place at the Dominica State College. The curriculum for the Associate Degree in Secondary Teacher Education requires completion of the ED7 Instructional Media course. ED7 is intended to prepare teacher trainees for the integration of instructional resources of all kinds—teacher-made resources, static media, electronic media, and computers—into teaching and learning.

IT for Dominica offers one two-week in-service course of ICT training per year targeting 40 teachers (2 groups of 20 teachers each). This training provides an opportunity for Canadian teachers and school administrators to share with Dominican teachers and administrators best practices and functional skills in the use of ICT as a tool for teaching/learning. Candidates for the 2-week course are recruited through a selection process, and priority is given to teachers from schools already equipped with computer labs.

Secondary curriculum

In the 11 secondary schools with computer labs (out of 15 total schools), all students learn basic computer skills using Microsoft Office (Internet, word processor, spreadsheet, database, presentation) during their first three years. In their final two years, selected students may enroll in CXC General (programming skills) or Technical (Office applications) courses in preparation for CXC exams.

The computer/student ratio is 1:3 in the lower-level courses and 1:1 in the CXC preparatory courses.

Demand for enrollment in the CXC preparatory courses typically exceeds capacity, with access principally determined by scores on math exams. However, girls are generally well represented in ICT courses at all levels, in some cases outnumbering boys.

ICT Curriculum in process

A primary-level ICT curriculum guide is intended to support an integrated learning approach, which combines computer skills with teaching and learning in the traditional subject areas and changes in student assessment. However, release of a new national curriculum by the Curriculum Development Unit of the MOE may complicate use of the guide in schools by changing curriculum objectives, TPD, and other teaching-related components.

EMIS and use of ICT within the MOE

In Dominica, funding is considered the greatest hurdle to the procurement and implementation of an EMIS in Dominica. However, other obstacles, including lack of appropriate software products, limited telecommunication infrastructure, and lack of the necessary culture of reporting and accountability in schools, and limited EMIS experience within the MOE and in the Dominican private sector, suggest that EMIS planning should be approached cautiously.

Dominica has participated in efforts to synchronize efforts among the OECS grouping of islands to push the agenda for a regional EMIS that have been coordinated by the OERU.

Tertiary education

The Dominica State College offers an Associate Degree in Computer Science, as well as making computer-science courses available to all students as electives.

Tertiary-level students in Dominica access various technologies to access higher education at off-island institutions. Students participate in UWIDEC courses via teleconferencing. In addition, several UK-based universities, including Cambridge University and the Universities of London and Leicester, offer courses via e-learning or via blended learning (usually an online segment followed by a contact segment).

Non-formal learning

There are several community projects in Dominica funded by UNESCO and UNDP. Six media centers provide Internet access and basic computer training to the community for minimal fees.

Challenges

The two main challenges to the effective implementation of ICT in education in Dominica are lack of resources—including physical, financial, and human resources—and lack of curriculum guidance for the ICT division.

However, as with EMIS procurement, the limited "ICT culture" in Dominica is an important if less

tangible factor as well. ICT in all of its forms is entirely new to the island, more particularly to the rural communities. There are urgent needs to be tackled in order to make technology accessible and valuable in these communities. These include experience and training in critical activities, such as maintenance, training of community members, community outreach, and the establishment of key local partnerships.

Lessons learned

The Lessons Learned section has been contributed by Mr. Abraham Durand, Director of the ICT Division of the MOE, in the form of a reflection on the history and current state of ICT in education in Dominica.

- The computer is an "expensive guest," which requires huge investments in infrastructure, equipment and maintenance, and servicing of equipment. Good solid software is also expensive and requires monitoring and review. In addition, training needs to be given to teachers if the integration of ICT in the teaching/learning process is to be effective and have a lasting productive impact on the education of youth and by extension on the country's economic development.
- However, it is acknowledged that ICT opens up huge possibilities for learning and access to the huge vault of information and opportunities that the Internet, electronic storage, and transmission of information make possible. The IT for Dominica Project has assisted greatly in providing the kind of constructive inputs that have helped to overcome the obstacles posed to ICT implementation in the form of physical and human resources. The project has demonstrated the significance of private/public sector/ NGO collaboration that lends itself to integrated development, both economic and society-wide. These initiatives, however, have to be closely monitored and managed in such a way that they lead to effective transfer of human capital to the economy, as well as creating opportunities and entrepreneurship in the international arena.