



ICT in Education  
Leadership Forum  
in the Caribbean

25-26 January 2012  
Accra Beach Hotel & Spa  
Barbados

Teachers' Creativity and Innovation:  
A Key to Success in the Caribbean

# Forum Report



**Microsoft**



Forum Organisers:



## Executive Summary

Quality education is a critical catalyst for social and economic development and the single most important investment in the future of individuals, communities and nations. Access to and the innovative use of technology is vital for reforming education systems for 21st century learning.

Teachers play an important role in preparing the next generation workforce. Studies show that by the end of this decade, two-thirds of the jobs that will be created don't even exist today. New skills will be needed to realize these opportunities. To help learners develop these skills, we have to start with teachers, who through their work, prepare and empower the future generations.

To support the Caribbean region in this task, the *Commonwealth of Learning (COL)*, the *Commonwealth Secretariat (ComSec)*, *Microsoft*, and *UNESCO*, brought together 73 Education policy leaders and stakeholders, including 12 Permanent Secretaries from across Commonwealth Caribbean countries and territories.

The Forum focused on the theme '*Teachers' Creativity and Innovation: a Key to Success in the Caribbean*', and explored how the UNESCO ICT Competency Framework for Teachers (CFT) has enhanced ICT integration into teaching and learning. Specifically, participants were invited to explore the impacts of the innovative use of technology, including:

- how it influences teacher development approaches that enable capacity building for the future; and
- how the adoption of the UNESCO ICT CFT can support local educator development.

Participants looked at policies and practices needed to harness the potential of ICT in teacher development. Permanent Secretaries from Guyana, Trinidad and Tobago, and St Vincent and the Grenadines shared their experiences of integrating ICT in education. Together delegates developed working solutions, with practical strategies on how governments and education systems can work together to deliver engaging, relevant and authentic education experiences through the use of ICT, and Open Educational Resources (OER).

The partners made available key learning resources to assist them in implementing the UNESCO ICT CFT, and were invited to continue the conversation online through the Commonwealth Connects Portal community space.

Delegates were also able to discuss the key barriers to the integration of ICT into teaching and learning, and meet with multilateral agencies and donor-organisations to explore opportunities for collaboration and partnership.

The partners committed themselves to working with interested Caribbean countries to transform their teacher development strategies and education curriculums through deploying the UNESCO ICT CFT to realise the benefits of 21<sup>st</sup> century technologies.



## Contents

Pre-Forum Stakeholders' Meeting	1
ICT in Education Leadership Forum in the Caribbean	3
Objectives	3
Participants	3
Welcome and opening remarks	3
Keynote presentations	4
How ICT has been integrated into teaching and learning in the Caribbean	5
Implementation of the UNESCO ICT CFT in Guyana – a success story	7
Addressing the issues, experiences and challenges in ICT competencies for teachers through Microsoft's <i>Shape the Future</i> and <i>Partners in Learning</i> initiatives	7
Deployment resources to implement the UNESCO ICT CFT	8
Commonwealth Connects Portal – New collaborative and partnering paradigm in support of ICT in education	10
Addressing the issues, experiences and challenges in ICT competencies for teachers: Experiences in Guyana, Trinidad & Tobago and St Vincent and the Grenadines	11
Donors' perspectives on ICT in education and teacher development in the Caribbean	13
Opportunities and challenges in the Caribbean to implement ICT in education	14
Annex 1: List of Participants	



## Pre-Forum Stakeholders' Meeting

24 January 2012

The purpose of the pre-forum meeting was to bring together the key multilaterals and donor organisations prior to the Forum to introduce them to the Caribbean ICT in Education Initiative (initialised in Guyana) as well as to the organisations collaborating on this initiative. The emergent discussion was an important first step towards the development of a meaningful multi-stakeholder collaborative approach to implement ICT in Education initiatives in the Caribbean.

Attendees included representatives of relevant development organisations such as: the Canadian International Development Agency (CIDA), the Caribbean Development Bank (CDB) and USAID; as well as key regional stakeholders representing government and the private sector: Caribbean Centre for Development Administration (CARICAD); the Caribbean Telecommunication Union (CTU); and the Caribbean Trade Association of Telecommunications Firms and Operators (CANTO).

After welcoming the participants, the Forum hosts and primary partners, the Commonwealth Secretariat (ComSec), the Commonwealth of Learning (COL) and Microsoft introduced the role of their respective organisations within this partnership and gave an overview of the scope of the ICT in Education Leadership Forum.

The multilateral organisations proceeded to provide insight to their mandate in respect of providing support in the field of education as well as ICT. They referenced the lack of infrastructure and sufficiently expert human capacity as the main barriers towards realising the full potential of ICT especially in under-served communities. Attempts to infuse ICT in education have still not delivered the desired targets owing to the vacuum in teacher development/teacher effectiveness, as well as sustainability and support (technical and pedagogical) to teachers.

Delegates elaborated on their respective involvement in the ICT for education arena, citing various capacity building initiatives and infrastructure programmes in the Caribbean. Both CDB and CIDA had been working with the University of the West Indies on their Open Campus project, an innovative initiative for the provision of distance learning in the higher education sector.

Ms Trudi Van Wyk, eLearning Education Specialist (COL) outlined the 6 prerequisites for successful integration of ICT in Education: infrastructure, access/connectivity and regulation, quality educational content, teacher development, teacher support, and robust monitoring and evaluation.

Mr Greg Butler, Worldwide Education Strategy Director (Microsoft), outlined the rationale behind the UNESCO ICT Competency Framework for Teachers (CFT), explaining that while it created an international quality assured standard, it did not constitute an absolute prescription, with sufficient scope for adaption at the local level.

Mr Tony Ming, Adviser (Informatics) Governance & Institutional Development Division (ComSec) guided the participants in identifying the key barriers preventing proper integration of ICT in education. These include:

- Lack of political buy in, and business continuity in the event of political change;

- Inadequate evaluative benchmarks for identifying existing competency gaps within the teaching profession;
- Deficit of technological literacy between learners, and teachers, particularly amongst older professionals who are resistant to change;
- Quiescent equipment, due to early adoption of technology/donor projects without the corollary teacher development to realise their benefits;
- Lack of technological sensitivity at Ministerial level widely identified a key impediment to implementation;
- Intra-regional fragmentation/isolation of approaches impeding the beneficial circulation of information and expertise across the Caribbean, and increasing costs;
- Inadequate change management for successful transition to a digital teaching environment;
- Lack of consultation and dialogue with influential and essential partners i.e. teachers unions and parent-teacher-associations;
- Donor fatigue;
- Investment in technology misguidedly constituted as a capital acquisition, rather than a service which requires regular updating; and
- Lack of qualified technicians to support newly installed digital infrastructure in schools.

The meeting suggested the following action items:

1. The creation of a digital inventory which maps ICT in education interventions amongst the multilaterals/stakeholders;
2. The creation of educational policies at national level as well as policy guidelines at regional level necessary to integrate ICT in Education; and
3. The creation of a business case for ICT integration in Education strategies, based on robust evidence, with particular reference to the objectives of donor agencies e.g. poverty reduction and economic growth.



## ICT in Education Leadership Forum in the Caribbean

25 - 26 January 2012

### Objectives

The objectives of the Forum were to:

- Explore how ICT has been integrated into teaching and learning in the Caribbean;
- Review the issues, challenges and initiatives related to ICT competencies for teachers in the Caribbean;
- Introduce the UNESCO ICT CFT;
- Discuss teacher development approaches that make capacity building possible;
- Discuss where and how policies and practices in education need to respond to harness the potential of ICT in teacher development;
- Explore possibilities for further implementation/ contextualisation of the UNESCO ICT CFT in the Caribbean; and
- Engage multilaterals, donor agencies, NGOs, private sector on collaboration within the region to implement ICT in Education initiatives.

This Forum was also an opportunity to brief participants about the UNESCO-COL joint project *Fostering Governmental Support for Open Educational Resources Internationally*, which is being conducted in the run-up to the World Congress on Open Educational Resources that will be held at UNESCO, Paris on June 20-22, 2012.

### Participants

The following eleven countries participated in the Forum: Antigua & Barbuda, The Bahamas, Barbados, Dominica, Grenada, Guyana, Jamaica, St Kitts & Nevis, St Lucia, St Vincent & The Grenadines and Trinidad & Tobago. Present also were six British territories: Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat and the Turks & Caicos Islands. The countries and territories were represented by high policy officials (amongst which 12 Permanent Secretaries).

The following organisations were represented: Caribbean Development Bank (CDB), CARICAD, CARICOM, COL, ComSec, COMNET, EU Delegation to the Eastern Caribbean, Microsoft, Open Text, UNESCO, Caribbean Telecommunication Union, CIDA and USAID.

(Annex I: List of participants)

### Welcome and Opening Remarks

*The Honourable Ronald Jones, MP, Minister of Education and Human Resource Development, Barbados*

The Forum was officially opened by the Honourable Ronald Jones, MP, Minister of Education and Human Resources Development, Barbados. He acknowledged that the continued use of ICT in every single country in the region had the potential to “bring us a little closer to enhancing learning within

our school environment, among our students” [and] “to making it possible for our countries truly to be referred to as seriously emerging economies with the kinds of skills necessary for the 21<sup>st</sup> century”.

### **Keynote Presentations**

*The importance of ICT in education and trends in ICT in the Caribbean - Sir John Daniel, President & CEO, Commonwealth of Learning*

Sir John Daniel delivered a keynote presentation on the importance of ICT in education and trends in ICT in the Caribbean. He detailed a recent COL survey of ICT in Education in the Caribbean, looking at policies for ICT in education; ICT in schools; and ICT and teacher development. He concluded that ICT in education policies will increase countries’ participation in the knowledge society of the 21<sup>st</sup> century. When ICT has been successfully integrated into education it will increase the country’s competitiveness and make government and society more efficient. He also recognised that familiarity with ICT is today a core skill and that ICT in education, when successfully integrated, will improve the quality of teaching and learning.

From the survey he noted that not all countries had implementation strategies, monitoring and evaluation plans, and where they existed, they did not always correspond to the policy. He emphasised that policy makers need to ensure that the mistake of merely distributing the latest devices as a solution to integrating ICT in education was not repeated. He explained the strengths of COL’s Commonwealth Certificate for Teacher ICT Integration (CCTI) as a vehicle to implement the UNESCO ICT CFT.

*The importance of Open Educational Resources (OER) to support ICT in Education - Ms Stamenka Uvalić-Trumbić, Senior Consultant, Commonwealth of Learning*

Ms Uvalić-Trumbić, stressed the importance of OER in contributing to the integration of ICT in education in the Caribbean. She explained to the participants, that as they adopt quality learning content under open licences, they could be adapted to various curriculums and contextualised on a needs basis. The group were invited to contribute to the formulation of the declaration on OER that will be presented to the World OER Congress in Paris in June.

*UNESCO ICT Competency Framework for Teachers (CFT) - Mr Janis Karklins, Assistant Director-General: Communication and Information, UNESCO*

Mr Karklins explained that UNESCO is passionate about investing in education, as a tool for economic growth and poverty reduction. He explained that despite the investment by countries in education, there remained 67m children out of school, and 800m illiterate adults - two thirds of which are women. The use of ICT to support quality teaching and learning at all levels has the potential to transform education systems, he argued. However, countries worldwide face urgent challenges in harnessing the full potential of ICT for educational delivery due to a myriad of issues such as the rapid development of technologies, teacher competencies and financial investments among others. The UNESCO ICT CFT was therefore designed to develop teachers’ competencies to effectively integrate ICT in their practice - key to harnessing ICT for quality teaching and learning. The UNESCO ICT CFT will help countries to develop comprehensive national teacher ICT competency policies and standards and contribute to an overall ICT in Education Master Plan for a country.

*Importance of Partnerships to further ICT in education in the Caribbean - Mr Max Everest-Phillips, Director: Governance and Institutional Affairs Division, Commonwealth Secretariat*

Mr Everest-Phillips explained the importance of multi-stakeholder partnerships (MSP) to support ICT integration in education. He defined MSP as “Alliances between parties drawn from government, business and civil society that strategically aggregate the resources and competencies of each to resolve the key challenges of ICT as an enabler of sustainable development, and which are founded on principles of shared risk, cost and mutual benefit.” He emphasised the need to move beyond public-private partnerships, to including civil society, multilateral donors, and vested interests such as education workers unions. He stressed that only through MSP can ICT integration in education be sustainable, and appropriately meets the needs of learners and teachers.

### **How ICT has been integrated into teaching and learning in the Caribbean**

*Panel Discussion:*

- *What challenges do countries have in the integration of ICT into education?*
- *What are the issues, experiences and remaining challenges in ICT competencies for teachers?*

In a panel discussion of Permanent Secretaries from the region, delegates looked at the experience of Trinidad and Tobago and St Vincent and the Grenadines as case studies.

The Permanent Secretary, Ms Kathleen Thomas and Director of the Distance Learning Secretariat, Mrs. Karen Rosemin reported on the experience of Trinidad & Tobago in attempting to integrate ICT into their education system. Efforts began in 2005, and after initially focusing on the distribution of technology, they were now refocusing their resources on teacher training and connectivity. A strategy plan was devised with the support of COL, which though not fully implemented at the time (2005), formed the basis for subsequent interventions.

As part of their strategy over 7,000 laptops were purchased for teachers and students, with technicians recruited in several schools to meet the consequent support needs. In addition, agreements were made with local internet service providers to ensure connectivity in the schools. An inter-ministerial team was set up to ensure sustainability and included officials from the legal, education and science and technology ministries. Teacher training initiatives, in the initial stages, concentrated on familiarising teachers with popular software applications. Later training models attempted to co-opt university graduates into training other teachers, with limited levels of success.

The current implementation strategy therefore articulates the need for a teacher training curriculum to integrate ICT in education. The need to integrate ICT competency within the culture of teaching was also recognised as being integral to ensuring teachers valued these skills intrinsically.

This holistic approach extended to ensuring buy in was sought from parents, unions and private partners, as well as making initial steps to locate the primacy school system within this novel approach. Ms Thomas stressed that these seismic shifts needed to be underpinned by a robust change management process, crucial to moving a sometimes stubborn teaching profession in the direction of change.

The Permanent Secretary of St Vincent and the Grenadines, Mrs Nicole Bonadie-Baker, introduced the forum to the implementation of ICT in education in her country by acknowledging the

progressive partnership between ComSec, COL and Microsoft in the country. She discussed the Ministry of Education's technology initiatives such as:

- Creation of an enabling framework for ICT in education, including an ICT in education policy;
- Provision of hardware in the form of ICT equipment;
- Provision of software to be used to enhance teaching and learning processes;
- Provision of equipment to aid connectivity in educational institutions;
- Provision of training for teachers throughout the system in ICT integration and basic computer literacy; and
- Provision of training in maintenance and repair of the all ICT equipment.

She discussed initiatives such as a survey of technology skills, attitudes and practices that will serve as baseline for ICT in education initiatives, the 'One laptop per student' initiative with its supporting activities such as a 'School Technology Acceptable Use Policy', Netbook agreement forms and the appointment of school technology coordinators.

She further outlined the importance of partnerships such as with:

- EU/World Bank/CDB/UNESCO for policy support;
- Republic of China and Taiwan and the Governments of Portugal and Venezuela for infrastructure support,
- UWI, COL and ComSec for teacher development, and
- the Universal Service Fund (USF) through the National Telecommunication Regulatory Commission (NTRC) for connectivity.

In collaboration with COL, Microsoft and ComSec an ICT Professional Development Implementation Plan for Educators in St Vincent and the Grenadines has been developed and implementation has commenced through a local consultant.

She outlined the challenges in ICT integration as:

- Misconception that all teachers must become IT teachers (teaching IT subjects);
- Changing established mind sets of older teachers within the system to allow for embrace of new technologies and new ways of teaching and learning;
- Issues of leadership at the school level;
- Including all stakeholders such as education management, education officers, students, parents etc.;
- Political issues;
- Recent budget debates;
- Stakeholder buy-in; and
- Provision of training in maintenance and repair of the all ICT equipment.

She shared the following lessons learnt:

- The need for a strategic ICT policy and implementation plan to guide any ICT in education initiative;

- High maintenance cost coupled with centralised maintenance structure is inefficient and ineffective;
- One of the critical successes in ICT initiatives in the education system in St. Vincent and the Grenadines to date was the completion of an ICT curriculum for Grade K-9 in 2001. This has been developed and is being used in primary schools (that have computer labs). The curriculum may also be used in Forms 1-3; and
- The main focus of ICT in Education must be to train teachers to use the resource as a complementary tool for enhancing and enriching the educational experience, using a modern multimedia approach in presenting educational content, which is relevant to our local context.

### **Implementation of the UNESCO ICT CFT in Guyana – a success story**

*Ms. Delma Nedd, Permanent Secretary, Ministry of Education, Guyana*

Delegates received a verbal and written case study from the Permanent Secretary, Ms Delma Nedd, on the successful implementation of the CFT in Guyana. The *Guyana ICT Professional Development Strategy for Teachers* and associated initiatives were developed in partnership with ComSec, COL and Microsoft, in conjunction with the National Centre for Educational Resource Development (NCERD), the Cyril Potter College of Education (CPCE) and the University of Guyana (UG). The strategy is essentially a comprehensive framework and learning pathway for educators to become competent in harnessing ICT to support high quality teaching and learning.

It was explained that in countries where resources and human capacity are at a premium, the Guyana model could be replicated. Beyond the necessary infrastructural requirements the training, curriculum review, and materials development processes can be achieved cost effectively. This is possible because of the availability of quality free and open resources and tools.

### **Addressing the issues, experiences and challenges in ICT competencies for teachers through Microsoft's *Shape the Future* and *Partners in Learning* initiatives**

*Mr Greg Butler, Worldwide Education Strategy Director, Microsoft*

Mr Butler posed the critical question of how does a country ensure the appropriate allocation of technologies to transform students into becoming knowledge creators? In addressing the question, he identified teacher leadership as being central to this process, as well as system level changes to re-focus learning with the student at the centre. Microsoft, he explained, have initiated two programmes which can assist in this task:

- ***Microsoft Partners in Learning*** helps educators and school leaders connect, collaborate, create, and share so that students can realize their greatest potential. The programme is a 10-year, almost 500 million dollar global initiative aimed at improving teaching and learning. It provides the educators with the necessary tools to enable them to do what they do best: teaching kids and growing young minds.

- **Microsoft Shape the Future** is a government program aimed at providing universal digital access that is inclusive of everyone within the policy's target audience. Providing every citizen digital access, also known as e-inclusion, can improve the economy, provide more jobs, and develop workforce skills. *Shape the Future* programmes can be national, municipal, or even city-wide programmes. The *Shape the Future* programme not only improves Educational outcomes when implemented, but can also improve Healthcare, and Government services.

## Deployment resources to implement the UNESCO ICT CFT

*Guyana and NCERD –Ms Marcia Thomas and Mr Neil Butcher*

Ms Thomas and Mr Butcher presented a case study outlining how the content development processes worked during the first phase of implementation of the UNESCO ICT CFT in Guyana. Ms Thomas began by introducing the key players in professional development for teachers in Guyana and explaining their different responsibilities and the history of professional development in ICT in education in that country. She proceeded to introduce the work that COL, ComSec, and Microsoft had facilitated in Guyana. Mr Butcher went on to describe how two courses – one on Technical Literacy and one on Knowledge Deepening – had been prepared in partnership with the National Centre for Educational Resource Development, Cyril Potter College of Education, and University of Guyana. Given limits on financial resources and a need to move fast in content development, a decision was taken to harness existing Open Educational Resources (OER) and use the UNESCO ICT CFT to shape these into a coherent course experience. As a result, it was possible to produce to highly coherent, contextualized courses for no more than a quarter of the cost of producing them from scratch, in a very reduced timeframe. Importantly, the courses produced were simple and flexible enough to enable rapid take-up, with the result that they were being delivered by CPCE within two weeks of being made available (and within two months of commencement of development). Importantly, the resulting courses are available under Creative Commons licences so can be used across the Region.

*Microsoft - Educator Learning Journey - Mr Greg Butler*

The **Microsoft Teaching with Technology** is an initiative that helps policymakers drive effective strategy toward a transformative vision and approach to the bottleneck of educator development. The initiative provides a flexible system of educator support by connecting the proven Microsoft capability of delivering professional development and certification, at scale and in any region including the Caribbean, with the Competency Framework for Teachers.

The Teaching with Technology initiative will:

- **Diagnose** educator competencies.
- **Engage** educators in customized learning paths (online, instructor led, or local/ global, among others) that appeal to their core mission as educators.
- **Certify** achieved competencies so that every educator has the opportunity to work toward benchmarked, international teaching credentials.

Microsoft is currently piloting the initiative in 4 countries, and includes a self-assessment tool and training materials for the Technology Literacy Strand of the UNESCO CFT. The programme will be launched globally in April 2012.

*COL and ComSec - Commonwealth Computer Navigators' Certificate (CCNC) – Ms Trudi van Wyk*

COL and ComSec's Commonwealth Computer Navigator's Certificate (CCNC) allows learners to acquire ICT skills in the tools of their choice (Technology Literacy strand of the UNESCO ICT CFT). The CCNC adds value to the Open International Computer Drivers License and distribute the training as free content for anyone to use, modify and distribute. The materials are designed for teachers' use of ICT in the classroom, is CD based, interactive and available as multi-media, interactive slides and print based. Modules include:

- Concepts of Information Technology
- Using the computer and managing files
- Word processing
- Spreadsheets
- Database management
- Presentations
- Using the Internet
- Communication technologies

By using free content, the CCNC will create more opportunities to acquire the prerequisite ICT skills (technology literacy), throwing a wide bridge across the digital divide. The materials will be available on the Commonwealth Communities Online site.

*COL – Commonwealth Certificate for Teachers' ICT Integration (CCTI) –Ms Trudi van Wyk*

The Commonwealth of Learning's Commonwealth Certificate for Teacher ICT Integration (CCTI) has been developed for teachers and school leaders wishing to integrate ICT into management, teaching and learning. It aims to improve teachers' experience of teaching in the classroom with ICT and increase school managers' involvement in ICT implementation in the school. It is aiming at the UNESCO ICT CFT Knowledge Deepening level and is Open Educational Resources that COL are making available to teacher training institutions throughout the Commonwealth and beyond.

It can be broken down and adapted/repurposed for in-service training, as part of an existing qualification or as an Advanced Certificate/Diploma in Education. The materials will be made available at the Commonwealth Communities Online site.

The Commonwealth Certificate for Teacher ICT Integration (CCTI) has the following characteristics:

- **Activities-driven** - activities are at the centre of the modules and guide educators to read supporting content, plan and implement classroom activities, reflect on practice and share experiences with the group.
- **Classroom/school context** - the all-important context of learning is the educator's school, classroom and subject needs. These are specifically identified by the educators themselves

during the modules. The activities and content do not refer to any specific context, but sometimes illustrate a point with a variety of sample contexts.

- **Uses ICT as a tool in the work place** - the emphasis is on how educators and learners use ICT as a tool and integrate ICT into teaching and learning.
- **Community of learners** - the educators share their experiences with a group of colleagues online, using email groups and other online collaboration tools.
- **Sharing classroom experience** –the emphasis is on classroom experience, reflection on that experience, sharing thoughts with the group online, contemplating change and implementing new solutions.

The CCTI is a distance learning course requiring little or no face-to-face intervention. The courseware includes a guide to help adapt the content for local delivery or to convert the course into a face-to-face offering.

All course materials are available on CD. Students are assigned to mentors who facilitate the completion of a module, pace activities, give advice and coordinate assignments. Group interaction is a strong feature of the CCTI and a variety of online interaction methods are used. Activities range from self-study to group collaboration efforts. The activities deepen understanding in preparation for the assignments. Assignments are completed for formal assessment.

The materials will be made available at the Commonwealth Communities Online site.

### **Commonwealth Connects Portal – new collaborative and partnering paradigm in support of ICT in education**

*Mr Tony Ming, ComSec and Mr Alex Benay, VP, Government Relations, Open Text*

Delegates were introduced to the Commonwealth Connects Portal. It was explained that the Commonwealth Connects Portal establishes a single point of entry at [www.commonwealthconnects.org](http://www.commonwealthconnects.org), which aggregates news, events and opportunities from across the commonwealth, creating a “one-stop shop” for the public where users can learn about Commonwealth work and activities. Operating alongside the portal, Community Communities Online (CCO) harness the full potential of web 2.0 technologies to strengthen and facilitate public and secure CW networks, covering the full spectrum of Commonwealth activities and values.

ComSec, it was explained, was working with COL to collate a comprehensive list of OER and aggregate them within the portal search function for public use. Delegates would also be invited to join the Commonwealth Communities Online, where they could systematically capture, store, create, share and apply knowledge, to better achieve their objective of integrating ICT in Education. Crowd sourcing was cited as having driven productivity in the private sector, and the CCO allowed governments to collaborate similarly online.



**Addressing the issues, experiences and challenges in ICT competencies for teachers:  
Experiences in Guyana, Trinidad & Tobago, St Vincent and the Grenadines**

*Mr Neil Butcher, ICT in Education Strategist, South Africa*

Mr Butcher presented the issues, experiences and challenges from working in Guyana, Trinidad & Tobago and St Vincent and the Grenadines.

In 2009, the Government of Guyana approached the Commonwealth Secretariat to assist them in the development and implementation of a Guyana ICT Professional Development Strategy for Teachers. This was an integral part of the Guyana Strategic Plan for Education that prioritises teacher education and training, supported by ICT, to tackle ineffective teaching and low quality of learning in classrooms.

A partnership was formed between the Commonwealth Secretariat, Commonwealth of Learning and Microsoft. The three partners worked closely with the Ministry of Education, the National Centre for Educational Resource Development (NCERD), the Cyril Potter College of Education and the University of Guyana to develop the strategy and formed a curriculum revision and materials development team who took the process forward. The strategy is essentially a comprehensive and practical framework and learning pathway for educators, incl. lecturers, teacher students, practising teachers and school principals to become competent in harnessing ICT to support high quality teaching and learning.

The framework incorporates ICT components at all levels of teacher education in Guyana namely:

- The pre-service college programme - leading to an Associate Degree in Education;
- The pre-service university programme - a further two years of study, leading to a Bachelor of Education Degree; and
- A suite of short in-service courses to be offered by NCERD.

In developing the curriculum for the above, the Guyana team used a method that proved quick and cost effective to implement but resulted in a comprehensive professional development ICT programme.

By adopting and reworking the UNESCO ICT CFT the team was able to develop a curriculum that created a logical flow between courses run at the College, the University and NCERD and was different than traditional ICT programmes because it has at its core a distinctly education focus as it encourages the acquisition of ICT competencies in areas such as educational policies, curriculum and assessment, pedagogy, ICT tools, school administration and teacher professional development.

In developing materials and activities to support the competencies outlined in the UNESCO ICT CFT, the development team exploited free and open education resources that are available. The team realised that there are a myriad of high quality resources available and did very little repurposing of these resources, but rather created sets of student activities designed to contextualise the materials used. They also created sets of facilitation guides to assist the implementation of the programme. The ICT in Education courses have been packaged as both a paper based courses and as CD ROMs. Students and teachers in Guyana are working through the materials in a 'real' setting and the assumptions of the development team are tested thoroughly and the materials adapted accordingly.

The Guyana case study demonstrates that OER can be used effectively as a catalyst for educational change.

He posed the question - is it replicable? They have taken the same approach to St Vincent and the Grenadines. It has proven that they could go through the same process even faster than in Guyana. In countries where resources and human capacity are at a premium, transfer looks promising. Beyond the necessary infrastructural requirements, always a capital intensive exercise, the training, curriculum review, and materials development processes can be achieved cost effectively. This is possible because of the availability of quality free and open educational resources and tools.

What are the critical success factors for the use of OER in this initiative?

- Political and governmental buy-in and support are essential;
- There are no shortcuts to good education, we still have to have good conceptualized programmes and curriculum development. The UNESCO ICT CFT provides an excellent point of reference for development or refinement of development strategies and curricula;
- Engagement in the process and adoption of course materials by the lecturers is enhanced if the product meets a real need or requirement. Also building the capacity of staff to deliver high quality teaching and learning cannot be compromised and must continue; and
- Partnerships are important – global partnerships extend the reach and impact of an intervention, but local partnerships with Ministries, institutions and organizations are essential for ownership and sustainability.

It has been demonstrated that OER can offer a time and cost effective route to acquiring quality teaching and learning materials, especially in environments where resources are in short supply. It is not, however, a shortcut to the normal materials development process. It requires time, some skill, and creativity to rework the materials to satisfy a specific set of objectives identified.

The real benefit of using OER is that once a 'master' version has been fashioned from repurposed resources it can be legally shared and distributed amongst a large group with no additional costs.

In discussions that followed the following key issues for teacher development in ICT in education were outlined:

- Contexts are unique, but many problems and challenges are common;
- The UNESCO ICT CFT is not a new initiative, but rather a lens through which to structure what is already happening;
- Focus is on leveraging effectiveness of existing investment, not making big new investments;
- Caribbean countries can be global leaders in ICT in education;
- Teacher development in ICT in education need to be an integral part of teacher development (both in-service and pre-service);
- ICT interventions failed because they are mainly focussed on infrastructure and not on teacher development and support in the use of ICT in the classroom;
- The once-off workshop approach doesn't work – teacher development need to have a longer outlook, and combined with mentoring support;
- While learners are technologically proficient, they still require the support of teachers to harness those skills to enhance their traditional learning;

- ICT need to be mainstreamed within teacher training colleges and schools, and not seen as an isolated discipline outside of the main curriculum;
- Teacher trainers and educational management need to be ICT proficient; and
- There are a lot of materials available as OER and these can effectively be adapted to be used in both pre- and in-service teacher development programmes. Harnessing what exists accelerates implementation.

### **Donors' Perspectives on ICT in Education and Teacher Development in the Caribbean**

#### *Panel Discussion:*

- *What are, from a donor/funding organisation perspective, the main challenges in ICT in Education implementation?*
- *What are the most important issues that countries need to address when thinking of approaching donor/funding organisations to support ICT into Education initiatives?*

During this panel discussion, panel members discussed the two questions. The main challenges are:

- Equal access and opportunity;
- Quality Assurance (adapted courses/instructor training);
- Relevance to local context;
- Not duplicating efforts;
- Sustainability; and
- Economies of scale in small countries.

The CARICOM Secretariat argued for the creation of a working group to create a roadmap to inform to share information on ICT in Education programmes, in partnership with related agencies. This would feed into their existing ICT working group. They also stressed the need for ICT integration to start in primary school, with lessons learned during this phase of educational development informing improvements not only within in this sector, but also ensuring these mistakes are not made at the secondary school level. Stressed the need for consultations with teachers to identify existing gaps in ICT for Education

The CIDA representative stressed the need for online educational resources to serve the needs of employers, with adequate quality assurances. She outlined the three principle aspects donors would look for in a funding proposal: institutional capacity, financial capacity and implementation plan.

The CDB representatives highlighted key challenges to implementation. They stressed that there had been too much emphasis on the supply of technology, and there needed to be a strengthening of policies for innovation, to build frameworks and public awareness. They specifically referred to the financial challenges and the need to leverage existing tools e.g. social media, into the classroom experience, not only to ensure teachers were competent with existing technologies, but also to take advantage of cost efficiencies.

The donor organisations recognised that the educational agenda is often set by the political regime, so it is not only necessary that there is buy-in from respective Departments of Education, but also from ministerial (political) levels too. Donors were grateful for the opportunity to hear from

recipients, in recognition of the fact that much money had been invested in this sector, without the expected returns.

### **Opportunities and challenges in the Caribbean to implement ICT in Education**

*Round Table Discussions:*

- *Opportunities, experiences and resources at country level to implement/contextualise the UNESCO CFT*
- *Country-level challenges to implement/contextualise the UNESCO CFT*
- *How to help countries to develop ICT in Education standards and to build their capacity*

During this session, the following key points were highlighted:

- Delegates agreed that collaboration with countries that have implemented the UNESCO ICT CFT would be beneficial to the Caribbean;
- A regional network is needed to reduce fragmentation, and ensure sustainability and economies of scale;
- It was noted that robust needs assessments were necessary to baseline current gaps in teacher knowledge and competencies. Instruments were developed for Guyana and St Vincent and the Grenadines and were shared;
- Assessments of current practices/needs should form the basis of leveraging positive relationships with key partners;
- The UNESCO ICT CFT was an useful starting point, though countries needed to identify the key components for implementation domestically and include it in Strategic Plans;
- The complementary nature of the work that CARICOM and CDB has initiated in this area, emphasises the need for their buy in to support countries in implementing the CFT; and
- The need for the developing world to be actively involved in the production of OER was emphasised, to prevent this area of knowledge becoming a new form of colonial control.

The following action points were outlined:

- The partners and country representatives committed themselves to supporting delegates in implementing the UNESCO ICT CFT in Caribbean countries;
- Delegates were encouraged to initiate gap analyses so assistance could be appropriately delivered;
- Country delegates will send a letter to COL to indicate their need for support to implement the UNESCO ICT CFT;
- UNESCO, ComSec, COL and Microsoft expressed their commitment to supporting member states who request assistance;
- COMNET agreed to continue their work on compiling a digital inventory on ICT maturity in member states;
- COMSEC would invite delegates to join an online community where they can circulate best practice and expertise;
- Participants would be provided with a survey and draft letter to request assistance from the partners;
- Microsoft committed to creating a webinar to promote the initiative with donors;

- The partners committed themselves to drawing up a business case document for the CFT implementation, to assist countries in funding proposals; and
- The partners agreed to replicate the conference for the Pacific region.

The forum closed with thanks to country delegations, organizers, stakeholders and funders for a successful event.

All presentations and supporting documentation are available on [www.ictf2012.org](http://www.ictf2012.org)

Delegates to complete the questionnaire at: <http://www.surveymonkey.com/s/TB5NH62>

Example letter of intent at: <http://ictf2012.org/resource-centre>

## Annex 1

### List of Participants

<b>Anguilla</b> Ministry of Health & Social Development	Ms Chanelle Petty Barrett, Permanent Secretary
	Ms Dawn Reid, Education Services Planner
<b>Antigua &amp; Barbuda</b> Ministry of Education, Sports, Youth and Gender Affairs	Mr Jessel Edwards, Permanent Secretary
	Mrs Stacey Payne-Mascalls, Leader Teacher IT
<b>Barbados</b> Ministry of Education and Human Resource Development	The Hon Ronald Jones, Minister Education
	Mrs Cecile Humphrey Permanent Secretary
	Dr Roderick Rudder, Senior Education Officer, Planning, Research & International Relations
	Mr Paul Murphy, Programme Director
	Ms Vaneisha Cadogan, Senior Education Officer Curriculum & Assessment
	Mr Burkley Lowe, Acting Programme Director, Education Enhancement Unit
<b>The Bahamas</b> Ministry of Education	Mrs Michelle Sears, Professional Development Officer
	Ms Bernadette Murray, Education Officer, Computer Studies
<b>Bermuda</b> - Ministry of Education	Mrs Wendy McDonell, Commissioner of Education
	Mrs Patricia Callender, Education Officer
<b>British Virgin Islands</b> Ministry of Education and Culture	Mr Allen Hodge, Education Officer/Technical and Vocational Education & Training
<b>Cayman Islands</b> Ministry of Education, Training & Employment	Mrs Mary Rodrigues, Permanent Secretary
	Mark Ray, ICT integration Specialist
<b>Dominica</b> Ministry of Education and Human Resource Development	Mr Stephenson Hyacinth, Chief Education Officer
	Mr Timothy Lavinier, ICT representative
<b>Grenada</b> Ministry of Education and Human Resource Development	Mrs Arlene Buckmrie-Outram, Permanent Secretary
	Mrs Andrea Phillip, Deputy Chief Education Officer, Curriculum
<b>Guyana</b> Ministry of Education	Ms Delma Nedd, Permanent Secretary
	Ms Kim Spencer, National Centre for Educational Resource Development
	Ms Marcia Joy Thomas, ICT Coordinator/Senior Subject Specialist, National Centre for Educational Resource Development

<b>Jamaica</b> Office of the Prime Minister and Minister of Education	Dr Canute Thompson, Senior Education Officer, Tertiary Unit
	Dr Ashburn Pinnock, Principal of Sam Sharpe Teachers' College
<b>Montserrat</b> Ministry of Education, Health, Community Services, Youth Affairs and Sport	Mrs Daphne Cassell, Permanent Secretary
	Mrs Cherlyn Hogan, Principal, Montserrat Sececondary School
<b>St Kitts and Nevis</b> Ministry of Education and Information	Mrs Ionie Liburd-Willett, Permanent Secretary
	Mr Quinton Morton, Education Planner
<b>St Lucia</b> Ministry of Education and Culture	Dr Rufina Frederick, Permanent Secretary
	Mr Ron Isaac Project Co-ordinator, Education Enhancement/ICT
	Mrs Cathy Gill, Curriculum Specialist, ICT
	Mr Royston Emmanuel Lecturer, Sir Arthur Lewis Community College
<b>St Vincent and the Grenadines</b> Ministry of Education	Mrs Nicole Bonadie-Baker, Permanent Secretary
	Mr Nigel Scott, Deputy Director, SVG Community College
<b>Trinidad and Tobago</b> Ministry of Science, Technology & Tertiary Education (MSTT) and Ministry of Education (ME)	Ms Kathleen Thomas, Permanent Secretary (MoE)
	Ms Karen Rosemin, Director, The Distance Learning Section (MSTT)
	Ms Angela Sinaswee-Gervais, Deputy Permanent Secretary (ME)
	Ms Gaynelle Holdip, Director Curriculum Development (Ag.) (ME)
<b>Turks &amp; Caicos Islands</b> Ministry of Education, Youth, Sports and Culture	Dr Beatrice Fulford, Permanent Secretary
	Mr Mark Garland, Deputy Director of Education
<b>Caribbean Development Bank</b>	Ms Deidre Clarendon, Portfolio Manager, Social Sector Division, Projects Department
	Dr Idamay Denny, Operations Officer, Social Sector Division
	Dr Martin Baptiste, Operations Officer (Education)
<b>Caribbean Telecommunication Union</b>	<a href="#">Mr. Trevor Prevatt, obo</a> /Ms. Bernadette Lewis, Secretary General
<b>CARICAD</b>	Mrs Jennifer Astaphan, Executive Director
	Mr Andre Griffith, E-Government and ICT Adviser
<b>CARICOM</b>	Ms Patricia McPherson, Deputy Programme Manager, Education
<b>CIDA</b>	Ms Lianne Garceau-Bednar, A/Consuelo (Development) and Deputy Director, Operations, Caribbean Programme
<b>Commonwealth of Learning</b>	Sir John Daniel, President and CEO
	Ms Trudi van Wyk, Education Specialist: eLearning

<b>Commonwealth Secretariat</b>	Mr Max Everest Philips, Director, Governance & Institutional Development Division
	Mr Anthony Ming, Adviser (Informatics) Governance & Institutional Development Division
	Mr Naveed Somani, Programme Officer (ICT Research & Support) Governance & Institutional Development Division
	Mr Neil Butcher, ICT in Education Strategist
<b>COMNET</b>	Ms Sandra Hyzler, Business Development Manager
<b>Delegation of European Union to Barbados and the Eastern Caribbean</b>	Mr Zissimos Vergos, Head, Social Development Sector
	Mr Stephen Boyce, Project Officer (Education &IT)
<b>GEMFORD Consultancy Services Inc.</b>	Ms Glenda Melford, Managing Director
<b>International Council for Open and Distance Education</b>	Dr Monica Masino, Programme Coordinator, Academic Programming and Delivery (APAD), UWI on behalf of Principal, Professor Hazel Simmons-McDonald
<b>Microsoft Caribbean</b>	Mr. Greg Butler, Worldwide Education Strategy Director
	Mr Darren Mohammed, Education Sector Manager - West Indies (T&T)
	Mr Pedro Julio Uribe, International Organisations, Director for Latin America
	Mr Terrence Philip, Public Sector Director - West Indies (T&T)
<b>OER Project</b>	Ms Stamenka Uvalic Trubic, Senior Consultant
<b>Open Text</b>	Mr Alex Benay, VP, Government Relations
<b>University of West Indies</b>	Dr Susan Herbert, Head of Department & Lecturer, School of Education
	Dr Dianne Thurab-Nkhosi, Teacher Training Facilitator
	Mr Nazir Alladin , Director, Campus IT Services
<b>UNESCO</b>	Mr Janis Karklins, Assistant Director-General Communication and Information
	Ms Zeynep Varoglu , Programme Specialist, ICT in Educ. Knowledge Societies Division Communications and Information Sector
<b>USAID</b>	Sophia Cave, Development Program Assistant