The Use of ICTs & Innovative approaches to Enhance Education

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Virtual Educa
SURINAME
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CARICOM at a Glance

- Countries: 15 + 5 associates
- Population: 15 million +
- Workforce: relatively young
- Languages: English, French, Dutch
CARICOM: four (4) pillars of regional integration

- Foreign policy coordination
- Economic integration
- Functional cooperation
- Security
Flagship Programme - CSME

The main objectives of the CARICOM Single Market & Economy are:

- full use of labour (full employment) and
- full exploitation of the other factors of production (natural resources and capital);
- competitive production leading to greater variety and quantity of products and services to trade with other countries.
- for improved standards of living and work and sustained economic development
Drivers

– Trading Agreements
– International Goals / Imperatives/ Plans
  • MDG
  • WSIS
– Relinquish dependency on International development partner support
– The dynamics of knowledge-based economy and society
– Multiple impacts of globalization
– Evolutionary/revolutionary aspects of ICTs
Overview

• Challenges
• Findings
• Other Supporting Strategies
• ICT4D Strategy and Education
• Snapshot of what’s on the Ground
• Opportunities for Partnership
Education Plans / Frameworks

- IT Literacy in Schools
- Life Long Learning
- Vocational Training
- Tertiary Education
- Teaching & Training in Workplace
- Modernizing Education Process
- Skill Targets
- Pre-Literacy

Education & E-Learning
**Challenges**

- Historically, most nations have charged Ministries of Education with the task of determining the broad design of the country's educational system.
- Development and implementation of government policy can't match the ever-accelerating speed of technological innovation.
- Coordinating strategy while dealing with new/emerging technologies.
- Students may have access to more information sources than teachers, more familiar with computers than textbooks.
- Cultural issues, Fear.
- Access to and the use of ICTs in the teaching process is not at the desired level needed to make the transformational changes necessary.
- The absence of verifiable indicators of success, and
- General disconnect between a country's development policy and its ICT and Education strategies, have also made it difficult to properly measure gains at a national/regional level(s).
Education & New Economy:

- requires higher levels of education including high-tech skills,
- demands opportunities for lifelong learning so that workers can keep pace with the high speed of developments in technology, globalization, and new business practices.
- For a more educated workforce is critical not only to raising per-capita incomes but also to reducing income inequality.
Summary of Findings:

- A level of technophobia and resistance to change;
- Teachers operating at the emerging and applying stages of ICT use, versus the infusing and transforming stages;
- Difficulty by teachers to plan effectively for ICT use;
- The need for effective professional development.
More findings…

• Issues related to out-of-school children, illiterate youths and adults
• Inequity of educational opportunities (quality, gender, location, socio-economic background)
• Capacity to define and monitor the quality of learning
• Continue to use historical modes of delivery (other channels = ad hoc)
• Resources not matched to demand for education
• Decreasing number of students in critical areas (physics, math, engineering)
• Agree that all drivers of economic growth can benefit from the development of human capacity in general and from ICT skills
Strategies / Policies

- Services
- Industrial
- Agriculture
- Youth Development Goals
- Energy
- Cultural / Creative Industries
ICT4D Strategy

- Regional Digital Development Strategy
  - Mandated by the CARICOM Heads of Government in 2009
  - Approved 2011
Context of the RDDS: New Economy:

- **Information Society/Knowledge Economy**
  - Inclusive and Collective
  - Collaborative digital environment
  - People empowered by the availability of information
  - People generate knowledge through interaction.
The Strategic Plan Addresses

- Network Readiness and Infrastructure Development
- e-Business and ICT Industry Development
- Legislative and Policy Framework
- Cultural Content and Creativity
- Research and Innovation
- e-Government
- e-Inclusion: Open Access to ICTs
- Education and Training
Education Context (RDDS)

• Centred on Developing **Knowledge Workers & Digital Citizens**

• ICT offered as
  – a solution to the education dilemma
  – as a catalyst for innovation and research and support for lifelong learning for all.

• **Scope**
  – E – Learning / E-Education
  – E- Inclusion
  – E- skills

• Implications for: Labour, Health, Business
Education Context from the RDDS

• Enhancing quality of learning & teaching
• Skill Formation
• Life long Learning
• Improving project planning and management
• Community Linkages
• Supporting Education “Anytime, Anywhere”
Consultations & Findings (RDDS)

• National Consultations (every Member State except Haiti)
  – Recognise the importance of infusion of ICT in development sectors,
  – Importance of engaging all partners – most importantly private sector
  – 10 ‘Cs’ – Connectivity, Content, Community, Commerce, Capacity, Capital, Curricula, Creative, Co-ordination Mechanisms, Culture
<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
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<tbody>
<tr>
<td><strong>Technology literacy</strong> – <em>(Curriculum based)</em></td>
<td><strong>Knowledge deepening</strong> – <em>(Competency based)</em></td>
<td><strong>Knowledge creation – digital literacy</strong> <em>(Competency based and personalised)</em></td>
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<tr>
<td>Develop skills in using ICT</td>
<td>Use ICTs in problem solving</td>
<td>Use ICTs in critical thinking and in providing creative solutions</td>
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</table>
12 Global Competitiveness Indicators

**Basic requirements**
- Institutions
- Infrastructure
- Macroeconomic stability
- Health and primary education

**Efficiency enhancers**
- Higher education and training
- Goods market efficiency
- Labor market efficiency
- Financial market sophistication
- Technological readiness
- Market size

**Innovation and sophistication factors**
- Business sophistication
- Innovation

**Key for factor-driven economies**

**Key for efficiency-driven economies**

**Key for innovation-driven economies**

Most Member States

Few Member States

None
Education Priorities

Improving Quality of Education.

Increasing Access to Tertiary Education through greater private investments. Expanding the pool of knowledge workers with general problem-solving skills

Producing Skills Demanded by Employers.
measurement (for evaluation)

- How can education and literacy best contribute to effective use of ICT, and correspondingly, how can effective use of ICT contribute to education and literacy?

- How is the internet affecting literacy and what new literacy (e.g., information literacy, computer literacy) are required for using the internet?

- Literacy: this affects online access at both the macro- and micro levels.
  - Macro level: mass literacy and education as enablers of economic development
  - Micro level: reading, writing, and thinking skills remain crucial for being able to use the internet.
Development of Indicators

Literacy:
- Computer literacy (basic)
- Information literacy
- Multi-media literacy
- Computer-mediated communication literacy
Development of Indicators (3 of 3)

Literacy and Education

Education: Computer education: educational programs to empower socially marginalized people to learn how to use computers

Computer-enhanced education: broader curriculum in public schools/colleges based on courses and content in areas such as mathematics, science, social studies, language and arts

Distance education: learning through internet-based distance communication
<table>
<thead>
<tr>
<th>STATE</th>
<th>ICT POLICY/STRATEGY</th>
<th>KEY THEMES</th>
<th>SECTOR FOCUS</th>
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<tbody>
<tr>
<td>Dominican Republic</td>
<td>Strategy for Knowledge</td>
<td>Sustainable growth, equality. Social inclusion</td>
<td>Access; digital government, public services; policy</td>
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<td>Grenada</td>
<td>Strategy and Action Plan</td>
<td>Gov’t, business, education, society</td>
<td>Gov., legal infrastr.; human resource</td>
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<td>Guyana</td>
<td>Developing strategy</td>
<td>Public sector reform, HR, economic dev.</td>
<td>Education, content, public sector</td>
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<td>Antigua &amp; Barbuda</td>
<td>Policy – People First</td>
<td>Affordable access; modern telecom’</td>
<td>Marketing, gaming, software, education</td>
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<tr>
<td>Bahamas</td>
<td>E-commerce; 2003 Digital Agenda</td>
<td>Sustainable growth and development</td>
<td>E-bus., e-gov., telecom; human resource; finance; content; tourism</td>
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<tr>
<td>Barbados</td>
<td>National ICT Strategy,</td>
<td>Health, wealth, security</td>
<td>Human resources; quality of life;</td>
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<tr>
<td>Belize</td>
<td>E-readiness</td>
<td>E-transactions</td>
<td>Laws, HR, Government</td>
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<tr>
<td>Dominica</td>
<td>E-government</td>
<td>Services; reduce poverty; improve competitiveness</td>
<td>Government, tourism, education, agriculture, ICT</td>
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<tr>
<td>St. Lucia</td>
<td>E-dev/ Edu. Strategy</td>
<td>E-government Education</td>
<td>Tourism, agriculture, training, health,</td>
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<tr>
<td>St Kitts and Nevis</td>
<td>Strategy - to be revised</td>
<td>Infrastructure for Information society</td>
<td>Tourism, financial services, education, agriculture</td>
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<tr>
<td>St. Vincent and the Grenadines</td>
<td>Strategy and road map</td>
<td>Public sector reform, HR, Infrastructure</td>
<td>Education, content, culture</td>
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<tr>
<td>Belize</td>
<td>In process</td>
<td>Government, education</td>
<td>Education</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>Policy and strategy</td>
<td>HR, economy, e-government</td>
<td>Education, SME, health care, justice</td>
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National Programmes for Transformation

- Jamaica’s eLearning Initiative
- Barbados EduTech 2000 initiative
- A & B – Mobile ITClassrooms
- (Most) One laptop per child / family / Teacher Training
- (Few) Public/private programmes
Regional

- CUPIDE
- CKLN
- C@RIBnet
- UWIDEC
- UWI – Open Campus
- Compete Caribbean
Regional Agencies

Partnership for ICT CAPABILITY

(HUMAN INFRASTRUCTURE)

• Partners identified: CKLNA; CXC; CRITI; CAIC and Regional Coalitions; CARICAD; Regional Media, CARINFO
Opportunities to Collaborate

- Development of an ICT4E Framework
- Strong Caribbean presence in International Meetings
- Regional Hub for capacity building in open source software for education and research
- IT teacher training framework
- Lifelong learning for socio-economic development.
- Networking academies

Related:
- Establishing a digital local language library
- Digital connected regional information/documentation centres
- Regional search engine
- Developing robust IT infrastructure
- Development of CARICOM Statistics & Indicators
Thank you!

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