ICT IN TEACHING & LEARNING:
A CXC PERSPECTIVE

Caribbean Examinations Council
14th April 2011
ICT IN TEACHING AND LEARNING: A CXC PERSPECTIVE

- CARIBBEAN CHILDREN TODAY: DIGITAL KIDS IN ANALOG CLASSROOM
- MAKING THE SHIFT FROM PLAY & ENTERTAINMENT TO LEARNING & DISCOVERY
- PREPARING THE CARIBBEAN CLASSROOM FOR C21
- CXC'S ICT INITIATIVES
Digital kids in analog classrooms
DIGITAL KIDS

- Multi-modal capabilities
- Immediacy of information....google it!
- Different notions of social interaction (friendship in the age of Face book)
- Interaction is all-the-time, anywhere
connectedness

Caribbean students socially interact in mobile and virtual worlds.
Caribbean identity in the age of facebook

Social tribes: FB, myspace: 2,000+ friends

Music genre tribes: homogenization of music and cultural forms – reggae->reggaeton -> rap

Identity constituted by interpolating constructions of tribal affiliation

No longer limited by geography
From play & entertainment to learning & discovery

Auditory
Spatial
Kinesthetic

Interactive skills for C21 jobs
...drone pilots?
<table>
<thead>
<tr>
<th>Country</th>
<th>Total FB Users</th>
<th>Penetration of Population</th>
<th>Penetration of online Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anguilla</td>
<td>6,940</td>
<td>47%</td>
<td>154.22%</td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>34,700</td>
<td>40%</td>
<td>53.38%</td>
</tr>
<tr>
<td>Barbados</td>
<td>110,100</td>
<td>38.54%</td>
<td>77.54%</td>
</tr>
<tr>
<td>Belize</td>
<td>50,180</td>
<td>15.95%</td>
<td>83.63%</td>
</tr>
<tr>
<td>British Virgin Islands</td>
<td>10,760</td>
<td>43.15%</td>
<td>269%</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>30,420</td>
<td>60.59%</td>
<td>126.75%</td>
</tr>
<tr>
<td>Dominica</td>
<td>17,080</td>
<td>23.46%</td>
<td>62.11%</td>
</tr>
<tr>
<td>Grenada</td>
<td>33,040</td>
<td>30.64%</td>
<td>122.37%</td>
</tr>
<tr>
<td>Guyana</td>
<td>88,440</td>
<td>11.82%</td>
<td>40.20%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>534,480</td>
<td>18.77%</td>
<td>33.80%</td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>19,400</td>
<td>38.88%</td>
<td>114.12%</td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>41,680</td>
<td>39.99%</td>
<td>54.84%</td>
</tr>
<tr>
<td>St Lucia</td>
<td>39,180</td>
<td>24.35%</td>
<td>27.42%</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>406,740</td>
<td>33.10%</td>
<td>83.86%</td>
</tr>
<tr>
<td>Turks and Caicos Islands</td>
<td>14,760</td>
<td>62.73%</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Totals/Averages</strong></td>
<td><strong>1,437,900</strong></td>
<td><strong>35.26%</strong></td>
<td><strong>86.88%</strong></td>
</tr>
</tbody>
</table>
CXC ...moving towards an IT-intelligent organization
CXC TRANSFORMATION IN A NUTSHELL

Change CXC

Innovate EXAMS/SYLLABUS

Enhance TEACHING

Improve LEARNING

IDEAL CARIBBEAN PERSON
GLOBAL HUMAN RESOURCE COMPETITIVENESS
WORLD CLASS CERTIFICATION
<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAMS</td>
<td>RESULTS</td>
</tr>
<tr>
<td>• More varied</td>
<td>• More detailed</td>
</tr>
<tr>
<td>• More reliable</td>
<td>• More useful</td>
</tr>
<tr>
<td>• More globally competitive</td>
<td>• More comparative</td>
</tr>
</tbody>
</table>

**CORE PRODUCTS**

**Existing:**
Associate Degree
CAPE®
CSEC®
CCSLC®
CVQ®

**New:**
Caribbean Primary Exit Assessment (CPEA)

**ASSESSMENT REPORTS**
Candidate Results
Country-School Reports
Exam Subject Reports
Statistics

**INSTRUCTION & TRAINING**
Virtual Subject Associations

**LEARNING & APPLICATION**
Learning support material

Interactive Portals
The scope contribution of IT to the Education Curriculum

- Syllabus Development
- Instruction and Delivery
- Education Support
- Organizational efficiencies/exam admin & delivery
Rationale for using technology

Support for instructional approaches

Improves and supports critical thinking
Mental-manual

Enhances economic development

Increases teacher/student productivity

Rationale for using technology
CXC's ICT Initiatives

**INNOVATING SYLLABUS**
- Seamless articulation of learning: the qualifications framework
  - Syllabus as mapping KSAs for C21 learning
- The foundation of learning: Caribbean Ideal Person + UNESCO Pillars of C21 Learning
- Students constructing knowledge: the new SBA approach

**MODERNIZING EXAMS**
- More efficient and cost effective exam paper development
  - Virtual panel meetings
  - Document collaboration - Docushare
- More efficient exam administration
  - ORS EXPERTS
  - E-marking review
  - Online exams
  - Engagement with e-Learning Jamaica
- Faster more cost effective marking of exams
  - Immediate access to students, schools and policy makers
  - More detailed and comprehensive data to policy makers
- More direct and faster delivery of results

**ENGAGING STAKEHOLDERS**
- Website: blog, art gallery, real-time info
- Social Networking: Facebook, Twitter, YouTube

**DATA MINING**
- Using historical information and statistics to drive educational decision-making
- Encouraging research

**ENHANCING TEACHING**
- Notesmaster - portals for teachers
- Virtual Subject Associations
- UWI Open Campus - blended distance certificate in subject teaching

**IMPROVING LEARNING**
- Notesmaster - portals for students
- Mobile apps: results to mobile, podcasts, study tips
Integrating technology into the curriculum encourages:

- **Active engagement**
- **Promotes creativity**
- **Group participation**
- **Feedback and support**
- **Real-world, real time alliances with experts**
Skills acquired by studying CXC ICT courses

- Software Architecture and Design
- Communications Network Design
- Software applications
- IT Business Consultancy
- Multimedia
- Product Design
- Integration & Test Engineering
- Data Communications Engineering
Making Language learning fun and interactive...

CXC Regional Educational Licensing and pilot
Syllabus Development

Curriculum Development
- Paper development by distance (Docushare)
- Content focusing on technology
- Suggested activities and methodologies incorporate technology

Stakeholder Feedback
- Enhanced CXC Website
- Online forums and conferences
- Online surveys
Educational Support

- Publication of syllabuses and resource materials
- Online access to syllabuses, specimen papers, past papers
- Posting of best practices and outstanding projects on the CXC web site
- Direct access to CXC staff via direct lines, OC
IT Technologies being utilized in CXC

Faster Development of Question Papers

Access to documents at your fingertips from anywhere in the world

DocuShare

Secure access and submissions of information
IT Technologies being utilized in CXC

Quicker and easier registration processing

Real time information

Online Registration System
IT Technologies: e-Marking pilot

Convenience of marking from home

Quicker turn around in Marking

ONLINE EXAMS

Reduce expenditure
IT Technologies being utilized in CXC

More effective Data analysis

Online data mining

Access to all exams results

BUSINESS INTELLIGENCE /
EXAM RESULTS DATA WAREHOUSING
Registrar’s Blog & CXC Forum

News

Social Networking

Art Gallery

The heart beat of CXC
UNIFIED COMMUNICATIONS SYSTEM

Unification of major systems providing:
Instant communication, instant response, better efficiencies
UNIFIED COMMUNICATIONS SYSTEM

Integrating the telephone, email and messaging services onto one platform

VIRTUAL ROOMS
(VIRTUAL) COMMUNITIES OF PRACTICE

Teacher-Student Collaboration

Corporate Collaboration

Stakeholder Collaboration

the power of mass collaboration...
CORE FEATURES

NOTES AREA

Growing **collection of content** including rich text notes with images, flash video, simulations and interactive tests

- CSEC Subjects
- CAPE Unit 1 Subjects
- CAPE Unit 2 Subjects

Teachers Area

- Teachers can find other teachers to network with
- Students can find their teacher’s personal web page

Personalized syllabus reflecting only those subjects you study or teach

- Ability to share with others
- Space online to privately archive all your work

MY DESK

Online Editor

- type rich text documents online
- import animations, video and audio from our library of free resources
- upload and store your own files
A Sample of Live Notesmaster Pages

• Interactive tests allow for instant feedback
  Math Quiz on Profit and Loss

• A note combined with an interactive test
  CSEC Human and Social Biology: Cells

• Simulations
  Cape 2 Biology: Flash animation showing The Resting Potential

• Video and Audio
  Caribbean History: The connection between sugar and slavery

• Dynamic mapping
  Google map of Trinidad (you may drag the map around)
In a space of a year the CXC Facebook fan base increased by over **3,000**

**Social networking new trends in learning & collaboration**
STRATEGIC PARTNERS IN ICT

- notesmaster
- BBM
- CARIBBEAN DEVELOPMENT BANK
- UWI Open Campus
- Nelson Thornes
- Converge Solutions Inc.
- RosettaStone
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Taking CXC to the next level; be part of the journey.

Presented by Didacus Jules, Keone James and Simone Pasmore