Trends in distance and online learning: can they address development challenges?

Professor Asha Kanwar
President & CEO,
Commonwealth of Learning
COL Vision

Access to Learning is the Key to Development

Created by the Heads of Commonwealth at CHOGM 1987

Intergovernmental Organization

1987 Commonwealth Heads of Government Meeting (CHOGM), Vancouver, Canada
WHAT IS IT FOR?

To help Commonwealth governments and institutions use various technologies to improve and expand learning for development
Combating Poverty through Adult Education
How can Learning Contribute to Development

Sir John Daniel
COL President, 2004-2012
Professor Asha Kanwar
COL Vice President, 2006-2012

ICT in
Higher Education:
Who Stands to Gain?
Trends in distance and online learning: can they address development challenges?

- The Context of HE
- Trends in distance and online learning
- Addressing development challenges
THE CONTEXT OF HE
Exploding demand for HE

- 2007: 150.6 million tertiary students globally
- 2012: 165 million
- 2025: 263 million
The Demand

4 new universities to cater to 30,000 needed each week to accommodate children who will reach enrolment age by 2025

go.nature.com/mjuzhu

Everitt, qtd Liyanagunawardena et al, 2013
Tertiary Enrolment in the Caribbean (Commonwealth) 2004 - 2012

Tertiary Enrolment in Jamaica 2004 - 2012

## Gross Enrollment Ratio in Secondary & Tertiary, 2011

<table>
<thead>
<tr>
<th>Country/Regions</th>
<th>Secondary %</th>
<th>Tertiary %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>93</td>
<td>26</td>
</tr>
<tr>
<td>Latin American &amp; Caribbean</td>
<td>90</td>
<td>41</td>
</tr>
</tbody>
</table>

Access to Higher Education

- **OECD Average**: 40-50%
- **Caribbean**: 25%
- **South Asia**: 15%
- **Sub-Saharan Africa**: 10%
Rising Costs of Higher Education

Source: The Economist Dec 1\textsuperscript{st} – 7\textsuperscript{th}, 2012, Higher education, \textit{Not what it used to be}.
Federal funding for HE: US

- 2000: $56 billion
- 2010: $153 billion
- Growth in enrolment: 33%

Huge investments

What impact?

(Baum and Payea, 2011, qtd in Terry Hartle, ‘Accreditation and the Public Interest’
And yet...

- 36% of college graduates did not show any significant cognitive gains over 4 years

- Half the employers say they have trouble finding qualified graduates to hire
  *Chronicle of HE* and *Marketplace*
More accountability for HE

- University ratings system
- Earning power of the graduates

Rising costs + growing demand = more emphasis on quality

Arne Duncan

Photo: http://en.wikipedia.org/wiki/Arne_Duncan
TRENDS IN DISTANCE AND ONLINE LEARNING
The Rise of Open Universities

UNISA

The Open University

Athabasca University

Ignou - The People's University
Athabasca (1978)
IGNOU (1985)
UKOU (1969)
AICU (1974)
Bangladesh Open University (1902)
BRAOU, Hyderabad, India (1982)
UNISA, South Africa (1946)
Open Univ of Sri Lanka (1984)
BCOU (1978)/OLA (1988)
Tele-Universite du Quebec (1972)
2012 COMMONWEALTH OPEN UNIVERSITIES
Costs in ODL

- Korea (KNOU): annual cost/student $186 as compared to $2880 in a campus university

- Thailand (STOU): studies show cost/learner is $226 compared to $876 for conventional learning

Open and Distance learning in the developing world – Perraton (2000)
Dual-mode provision

- University of Nairobi: cost/learner of a residential B.Ed was 3 times that of an ODL programme

For dual mode systems: cost in CCIs were 15% of conventional departments

Perraton (2000)
Open and distance education in mega universities

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>Enrolment</th>
<th>% of Campus Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>AIOU</td>
<td>456,126</td>
<td>22</td>
</tr>
<tr>
<td>China</td>
<td>CCRTVU</td>
<td>2,300,000</td>
<td>40</td>
</tr>
<tr>
<td>India</td>
<td>IGNOU</td>
<td>1,187,100</td>
<td>35</td>
</tr>
<tr>
<td>UK</td>
<td>OU</td>
<td>203,744</td>
<td>50</td>
</tr>
</tbody>
</table>

*Unit cost per student as a percentage of the average for other universities in the country, NKC, 2004.
The Open University

- highest rated for overall student satisfaction in the 2012 National Student Student Survey
- rated fifth of 100 UK universities (2003)

Source: http://www.open.ac.uk/about/main/the-ou-explained/facts-and-figures
Online enrolment as a % of total enrollment, 2002 to 2010: US
Online enrolments in Asia and Latin America

- Asia has highest growth in the world at 17.3%
  e.g. Vietnam: 44.3% Malaysia: 39.4%
- The growth rate in Latin America is 14.6%
  e.g. Brazil: 21.5% Columbia 18.6%

*Ambient Insight Regional Report, October, 2012*
The Digital Divide (Commonwealth countries)

Source: International Telecommunications Union
ICT in the Caribbean 2004 - 2011

Mobile Subscription (Per 100 people)  Fixed Broadband (Per 100 people)  Internet users (Per 100 people)

ICT in Jamaica 2004 - 2012

Open Education Resources (OER)
What are Open Education Resources (OERs)?

Materials that are

- Free and freely available
- Suitable for all levels
- Reusable
- Digital
Costs: $10 per teacher

- 20 teacher education programmes in 12 countries
- Materials available in 4 languages
- In 2010, 320,000 teachers benefited
OER and Textbooks

- **Brazil**: a study found that for 75% of students at University of São Paulo, the cost of acquiring books was higher than the family's monthly income.

- **USA**: Utah Open Textbooks project: $5 per printed and zero for online content.

- **South Africa**: R 1.5 billion for textbooks: Department of Basic Education decides to develop OER textbooks.
OERu

- Athabasca University
- Otago Polytechnic
- University of Southern Queensland
The OER university concept. Adapted from Taylor (2007)
Can OER contribute to Quality?

- 611 institutions in India
  - KSS Women’s Engineering College, Andhra Pradesh
  - Maya Devi Educational Foundation, Uttarakhand
  - Bhilai Institute of Technology, Chattisgarh
Massive Open Online Courses: MOOCs

... a MOOC is a type of online course aimed at large scale participation and open access via the web. MOOCs are a recent development in the area of distance education, and a progression of the kind of open education ideals suggested by OER.

Wikipedia, 20/09/12
Massive Open Online Courses: MOOCs

Coursera

Future Learn

UDACITY

edX
The ‘Massive’ in the MOOC

270 000
Students enrolled in Udacity’s Computer Science MOOC

200 000
US University first-year students intending to study Computer Science in 2968 4-year degree granting institutions

Student Origins

- United States, 27.7%
- India, 8.8%
- Brazil, 5.1%
- United Kingdom, 4.4%
- Spain, 4%
- Canada, 3.6%
- Australia, 2.3%
- Russia, 2.2%
- Rest of the world, 41.9%

Courses Offered

- Mathematics, 6%
- Science, 30%
- Arts and humanities, 28%
- Information technology, 23%
- Business, 13%

MOOC on M4D

- Covering use of mobile devices and technologies in education, rural banking and agricultural extension

- Sources of content:
  - IIT-Kanpur (Departments of Computer Science and Electrical Engineering)
  - COL
  - National Institute of Banking Management, India
  - Athabasca University (Center for Distance Education)
  - OER from various sources including ITU, UNESCO and the WWW Foundation

- No pre-requisites either formal or informal
- English
Udacity + Georgia Tech

- Masters in Computer Science: $7,000
- Existing cost: $40,000
- Will reach 10,000 within the next 3 years
Stanford 2011

- Artificial Intelligence course
- 160,000 registered
- 23,000 completed
- All countries except North Korea
Distance and Online Learning can

- Enhance access and equity by reducing costs
- Improve quality by providing world class resources
- Provide flexible learning opportunities
ADDRESSING DEVELOPMENT CHALLENGES?
Global Youth Unemployment Rate
2004-2013

Source: ILO - Global Employment Trends for Youth 2013
## Unemployment

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Unemployment %</th>
<th>Youth Unemployment %</th>
<th>Unemployment with Tertiary Education (% of Total Employment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Jamaica</td>
<td>10</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Unemployment, 2.5, World Development Indicators, 2013, World Bank, [http://wdi.worldbank.org/table/2.5](http://wdi.worldbank.org/table/2.5)
Emigration Rate of Tertiary Educated to OECD Countries (2000)

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>% of Tertiary Educated Population Age 25+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>84.7</td>
</tr>
<tr>
<td>Latin American &amp; Caribbean</td>
<td>10.8</td>
</tr>
</tbody>
</table>

Remittances from the Diaspora

- 2010: $2.02 billion\(^a\)
- 2012-13: 15\% of GDP\(^b\)

\(^a\) Source: MIGRATION AND REMITTANCES FACTBOOK 2011, The World Bank

\(^b\) Source: Diaspora much more than a dollar sign, Jamaica Gleaner, June 16, 2013
http://jamaica-gleaner.com/gleaner/20130616/focus/focus3.html
## Doing Business

<table>
<thead>
<tr>
<th>Country Region</th>
<th>Number of Days to Start a Business</th>
<th>Cost for Procedures (% of Per Capita Income)</th>
<th>Number of Days to enforce a contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>7</td>
<td>6.7</td>
<td>655</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>64</td>
<td>42.1</td>
<td>727</td>
</tr>
</tbody>
</table>

Jamaican Labour Market

- Science
- Technology
- Energy
- Mining
- Vocations
- Tourism
- Finance
- Green Economy
Jamaica: Education and Labour Market

Tertiary students..... are not pursuing courses which would prepare them for the demands of the Labour Market

Hon. Minister of Labour and Social Security Mr. Derrick Kellier
Jamaica Labour Market Information System, 2013
http://www.lmis.gov.jm/home/viewnews/24c4892f-f7b7-457f-90ee-c1c520591e71
“Employers, Education Providers and Youth Live in Parallel Universes”

<table>
<thead>
<tr>
<th>Country</th>
<th>% of youth who believe that their Secondary Education Improved their Employment Opportunities</th>
<th>% of Employers who believe that new graduates are not adequately prepared for entry level vacancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>59</td>
<td>48</td>
</tr>
<tr>
<td>India</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td>Turkey</td>
<td>46</td>
<td>56</td>
</tr>
<tr>
<td>United States</td>
<td>44</td>
<td>45</td>
</tr>
</tbody>
</table>

Three types of skills

- Foundation skills
- Transferable skills
- Technical and vocational skills

UNESCO: GMR, 2012
Skills for employability?

- **Non-cognitive skills**: leadership, communication, honesty/ethics, teamwork and flexibility

- **Cognitive skills**: analytical and critical thinking and the ability to learn

Burnett, 2012
Education to Employment Strategy in Europe

- **Innovate** with design, course delivery and financing to make education more affordable and accessible
- **Focus** on young people, employers and education providers on improving employment readiness
- **Build** the supporting structures that allow the best intervention to scale up
- **Share** relevant practices on matching labour market demand and supply

Source: *Education to Employment: Getting Europe's Youth Into Work*, McKinsey Center of Government
http://www.mckinsey.com/insights/social_sector/converting_education_to_employment_in_europe
Addressing Challenges

- Transform the **curriculum** to integrate cognitive and non-cognitive skills
- Harness appropriate technologies
- Facilitate the **convergence** between education, the labour market and the learner
If someone can give me the skills and the opportunity to work, I know I can achieve my goals.

young woman, Ethiopia
GMR, 2012, p.13