COMMONWEALTH of LEARNING

Old wine in new bottles? Exploring MOOCs

Professor Asha Kanwar
President & Chief Executive Officer
Commonwealth of Learning

UWI, Port of Spain, March 28, 2014

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

COMMONWEALTH of LEARNING

WHAT IS IT FOR?

To help Commonwealth governments and institutions use various technologies to improve and expand learning for development


C·O·L
Celebrating 25 years
1988 – 2013

Plan

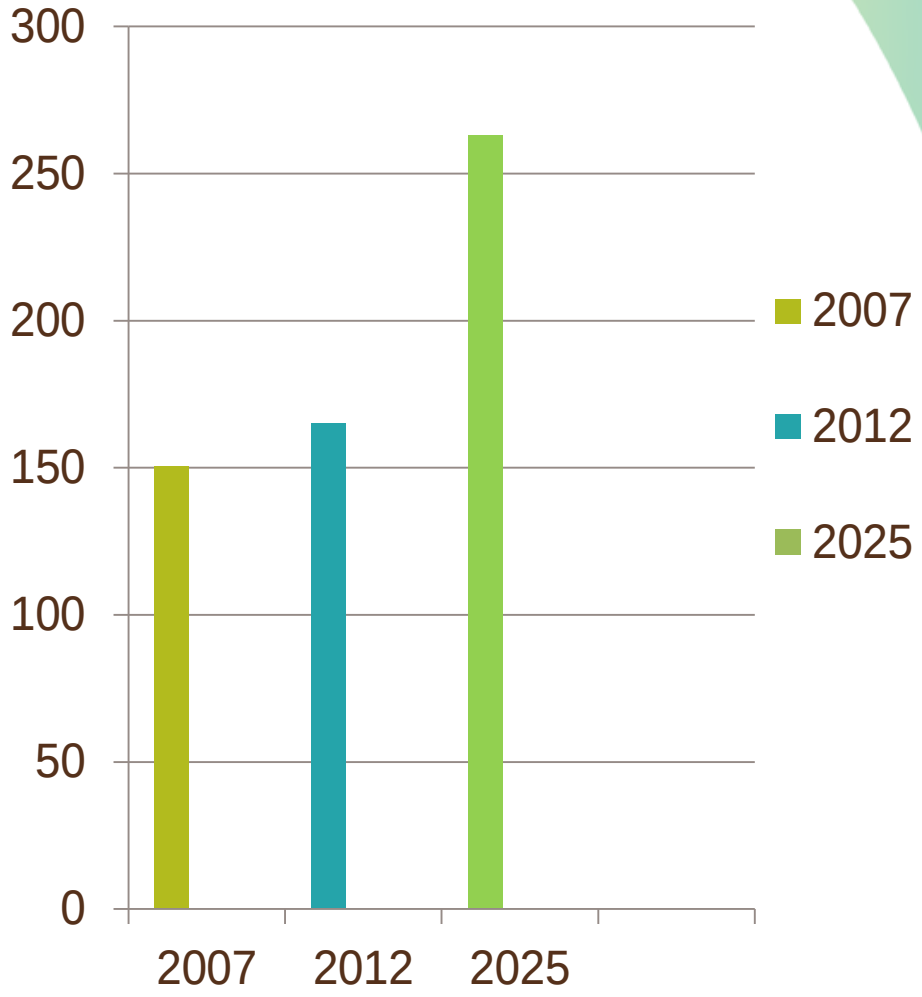
- The context of HE
- The response
- Implications for the developing world

The context

- Demand
- Costs
- Technology

Exploding demand for HE

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



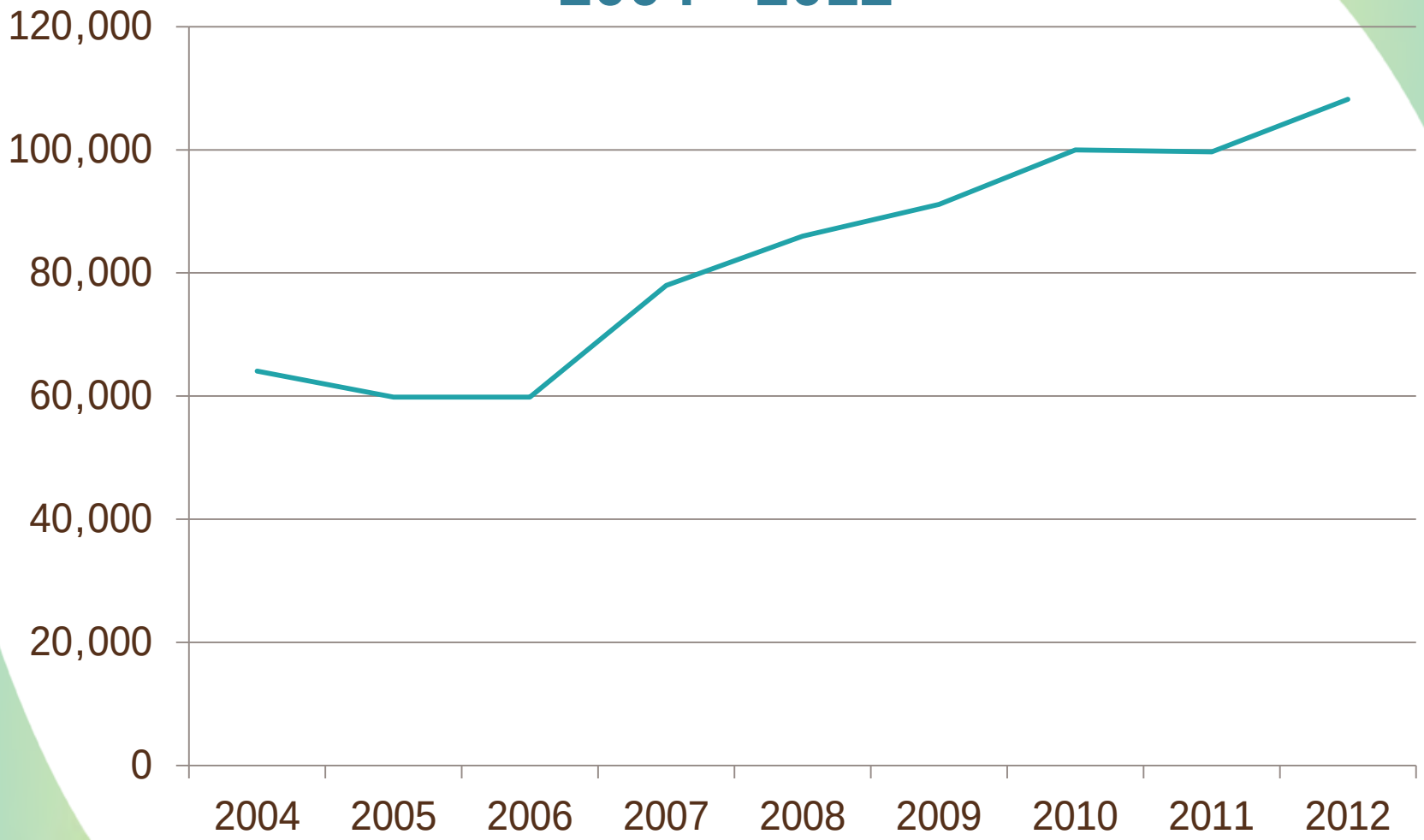
The Demand

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

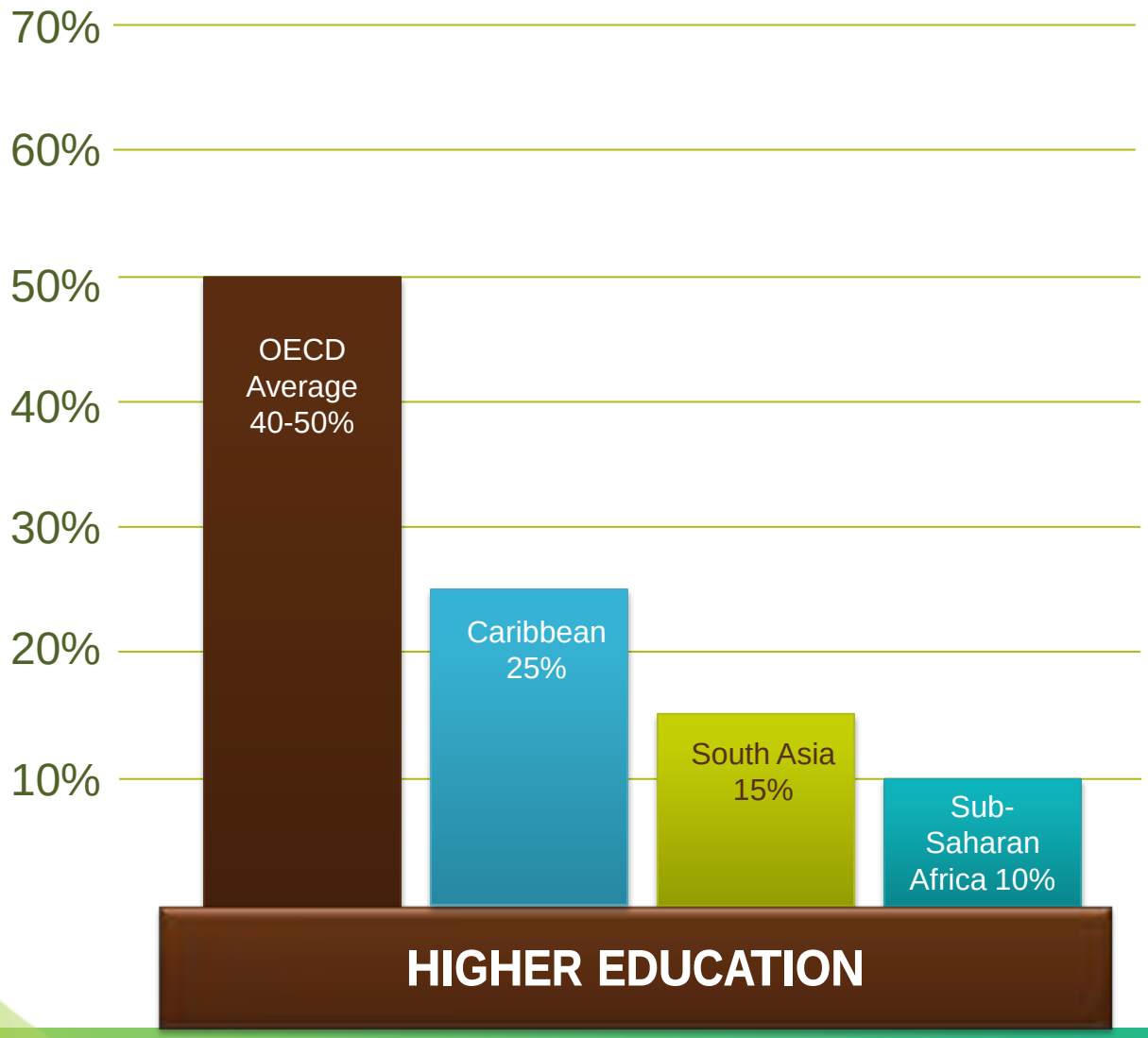
Everitt, qtd Liyanagunawardena et al, 2013

Tertiary Enrolment in the Caribbean (Commonwealth) 2004 - 2012

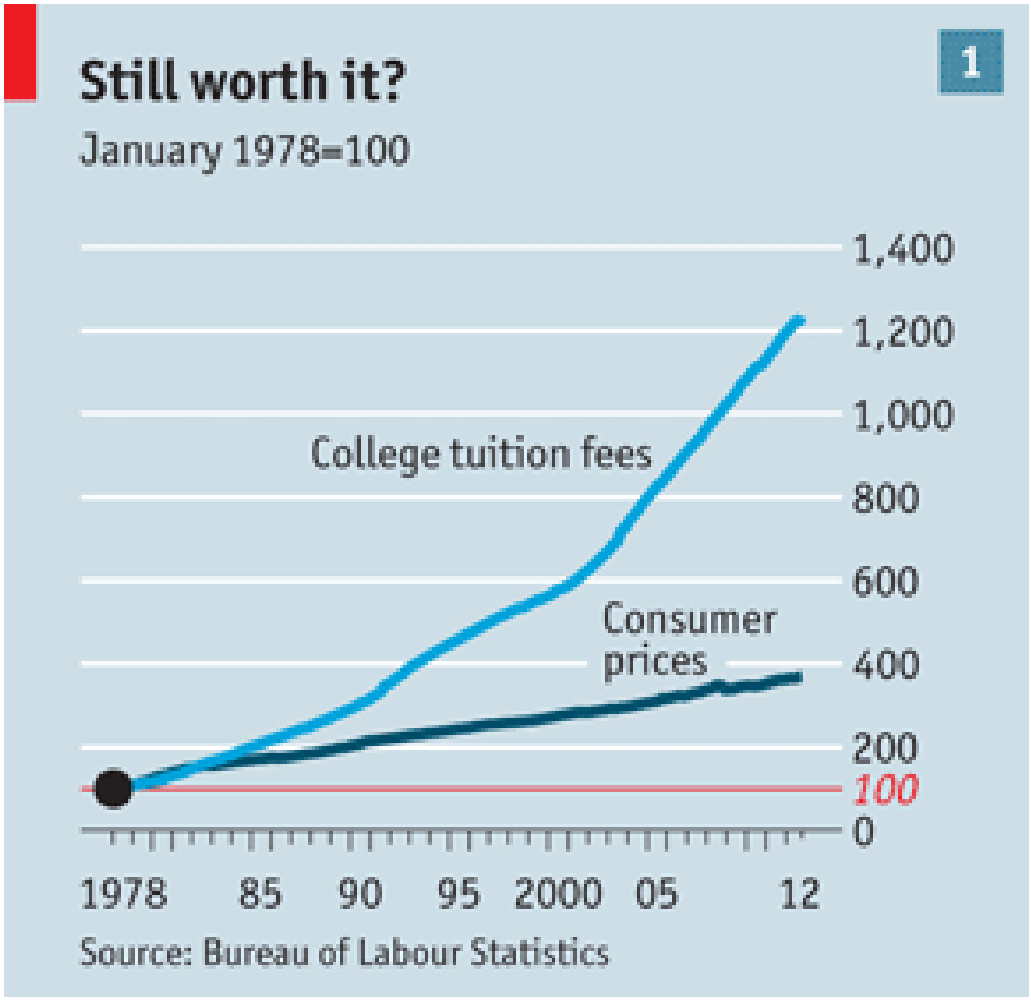


Source: *UNESCO Institute for Statistics*, Retrieved on February 25, 2014.

Access to Higher Education

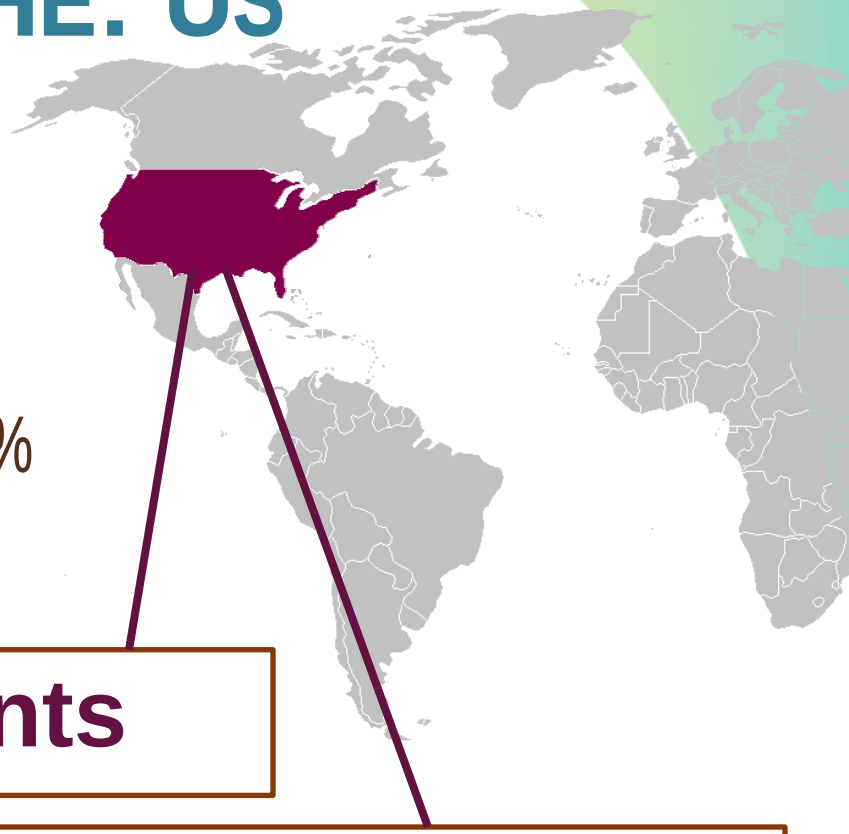


Rising Costs of Higher Education



Source: The Economist Dec 1st – 7th, 2012, Higher education, 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

  Arum & Roksa, *Academically Adrift*, 2011

- Half the employers say they have trouble finding qualified graduates to hire

  Chronicle of HE and *Marketplace*

Cover Credit: PHOTOGRAPHS BY PETER HAPAK FOR TIME

More accountability for HE

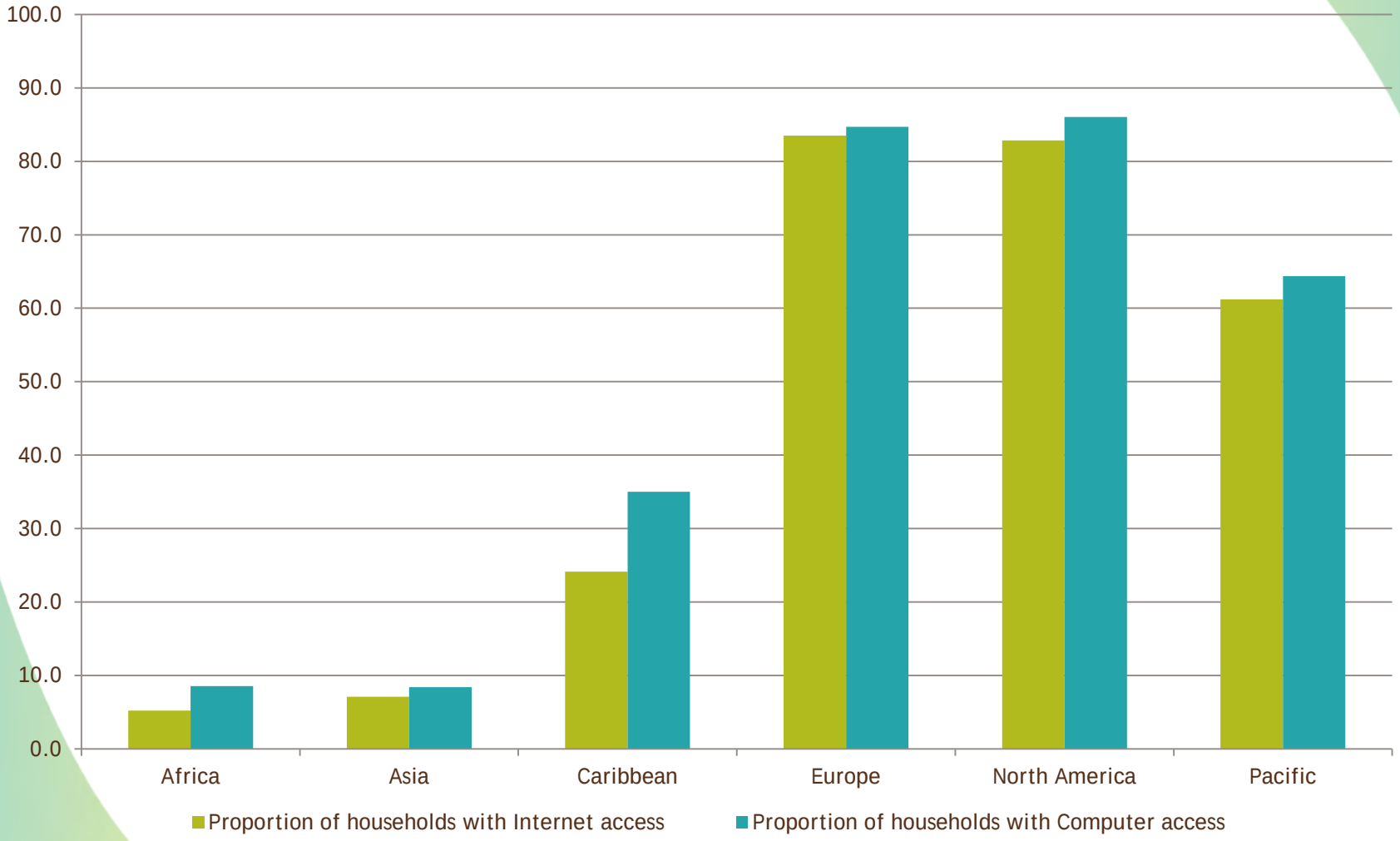
- University ratings system
- Earning power of the graduates

Arne Duncan

Rising costs +growing demand=more emphasis on quality

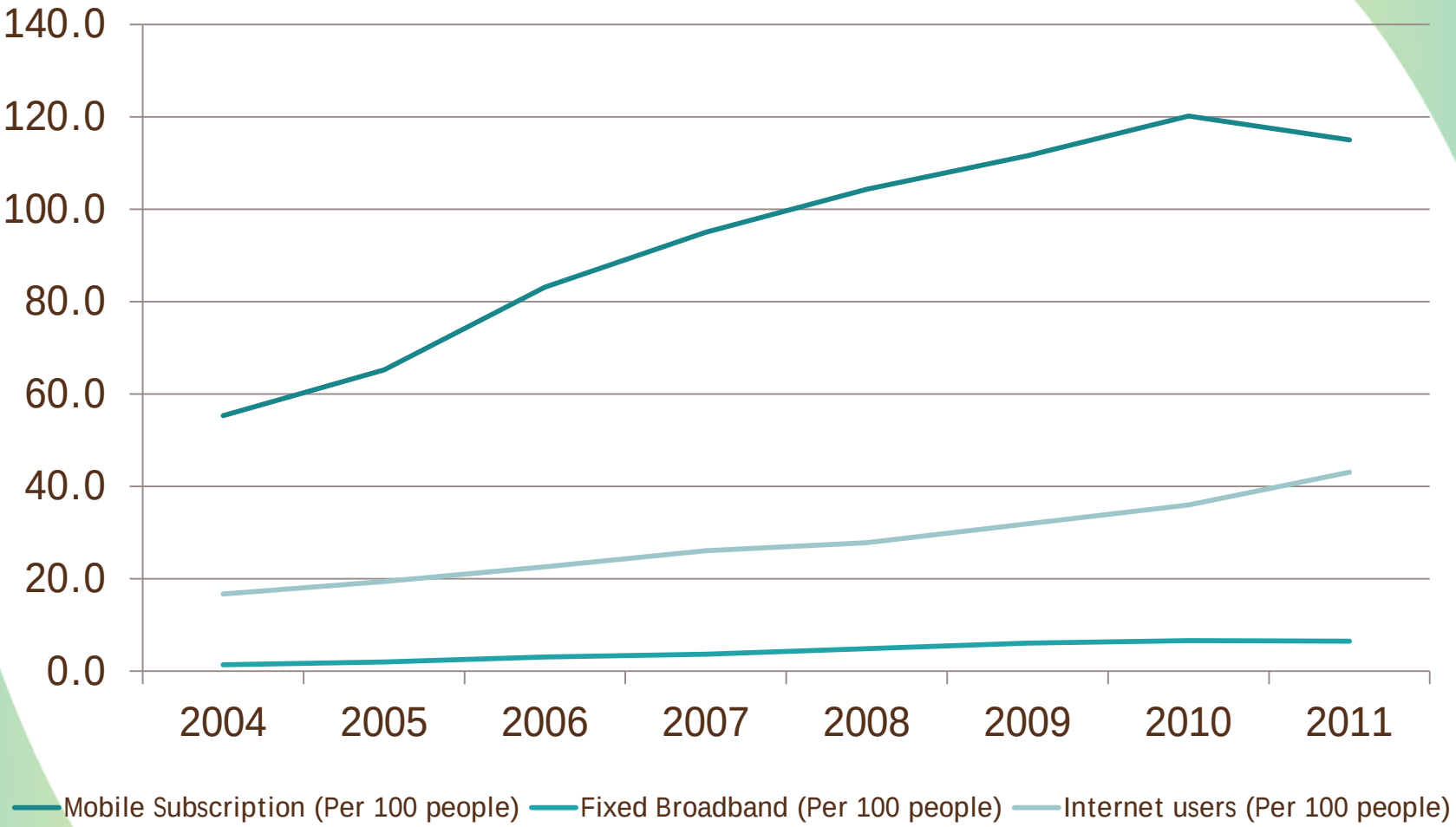
Photo: http://en.wikipedia.org/wiki/Arne_Duncan

The Digital Divide (Commonwealth countries)



Source: International Telecommunications Union
http://www.itu.int/ITU-D/ICTEYE/Reporting/DynamicReportWizard.aspx

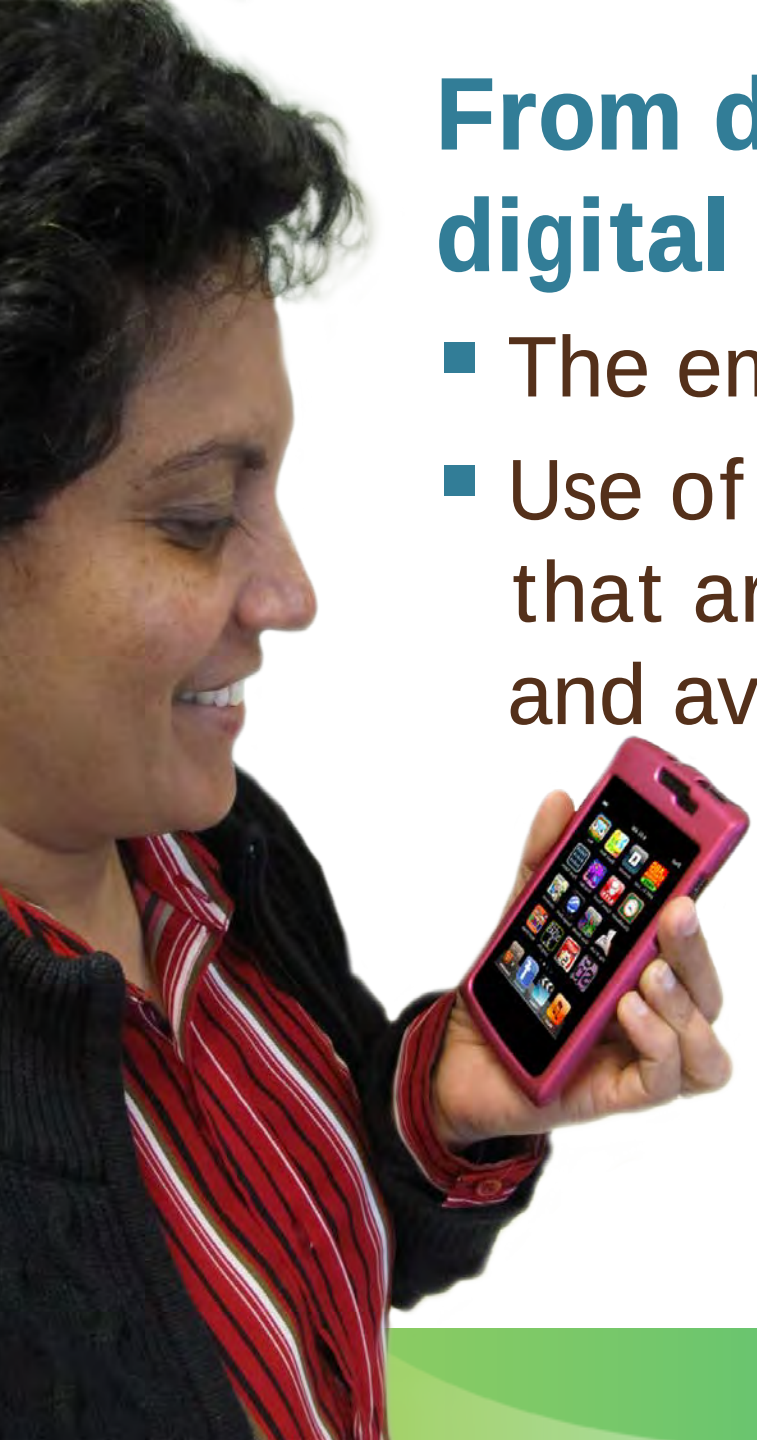
ICT in the Caribbean 2004 - 2011



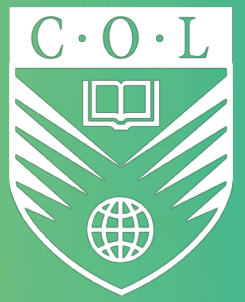
Source: The World Bank DataBank, Retrieved on February 25, 2014.

From digital divide to digital dividend

- The emergence of mobiles
- Use of appropriate technologies that are affordable, accessible and available



THE RESPONSE



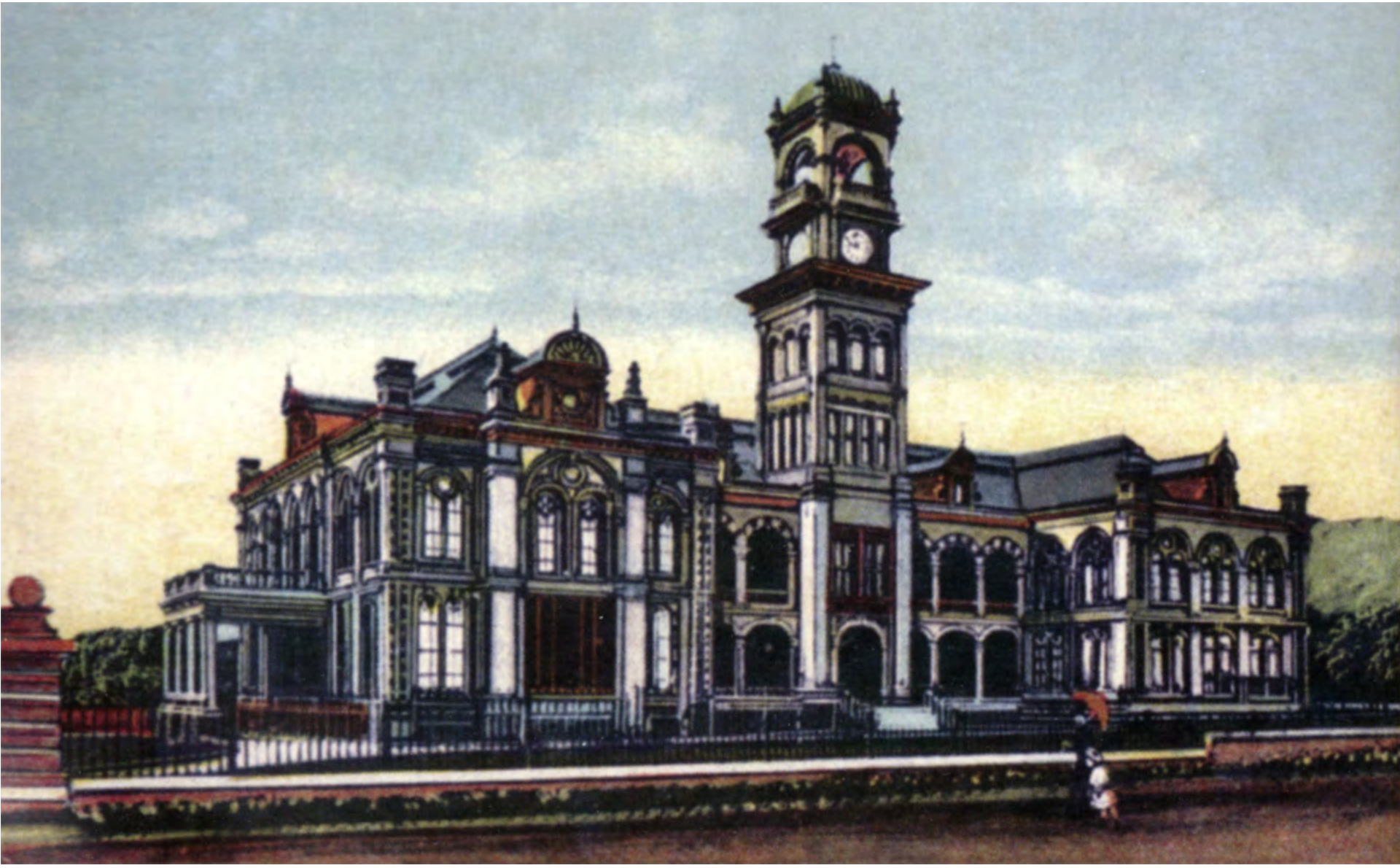
Higher Education for the masses

University of London:

The People's University

"reaching the shoemaker in his garret…"

Queen’s Royal College, Port of Spain



Emergence of the External Degree


University of London

This is to Certify,

that Mr. Frederick William Mackenzie

passed the First Examination in Medicine

in the year 1839: and that he was placed in the

First Division.

Correspondence Colleges

- University Correspondence College (1887): agencies in Jamaica, India, Ceylon, S Africa (1890's)
- Wolsey Hall
- Rapid Results

Distance Education in the Caribbean

- 1983: UWI Distance Teaching Enterprise (UWIDITE)
- 1996: UWI Distance Education Centre (UWIDEC)
- 2008: UWI Open Campus

The Rise of Open Universities


IGNOU
UKOU
AIOU
Athabasca
Open University of Malaysia
Open University of Tanzania
National Open University of Nigeria
Netaji Subhash Open University
Bangladesh Open University
BRAOU, Hyderabad, India
YCMOU, Nashik, India
MPBOU, Madhya Pradesh, India
UNISA, South Africa 110,000
Open Univ of Sri Lanka
TNOU, Tamil Nadu, India
Kota Open Univ, Rajasthan, India
Open Univ, Uttar Pradesh, India
Nalanda Open University, Bihar, India
DBROU
KSOU, India
Open University of Zambia
Open University of Uttaranchal, India
Open University of Assam, India
Open University of Cyprus
K.K. Hadique State University, India
The Open Polytechnic of New Zealand
Wawasan Open University, Malaysia
Open University of Mauritius
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)

Open and distance education in mega universities

Country	Institution	Enrolment	% of Campus Cost*
Pakistan	AIOU	456.126	22
China	CCRTVU	2,300,000	40
India	IGNOU	1,187,100	35
UK	OU	203,744	50

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

The Open University

The Open University

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

Source: http://www.open.ac.uk/about/main/the-ou-explained/facts-and-figures

Online enrollment as a % of total enrollment, 2002 to 2012: US

Source: Grade Change - Tracking Online Education in the United States I.E. Allen and Jeff Seaman

Online enrollments 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%

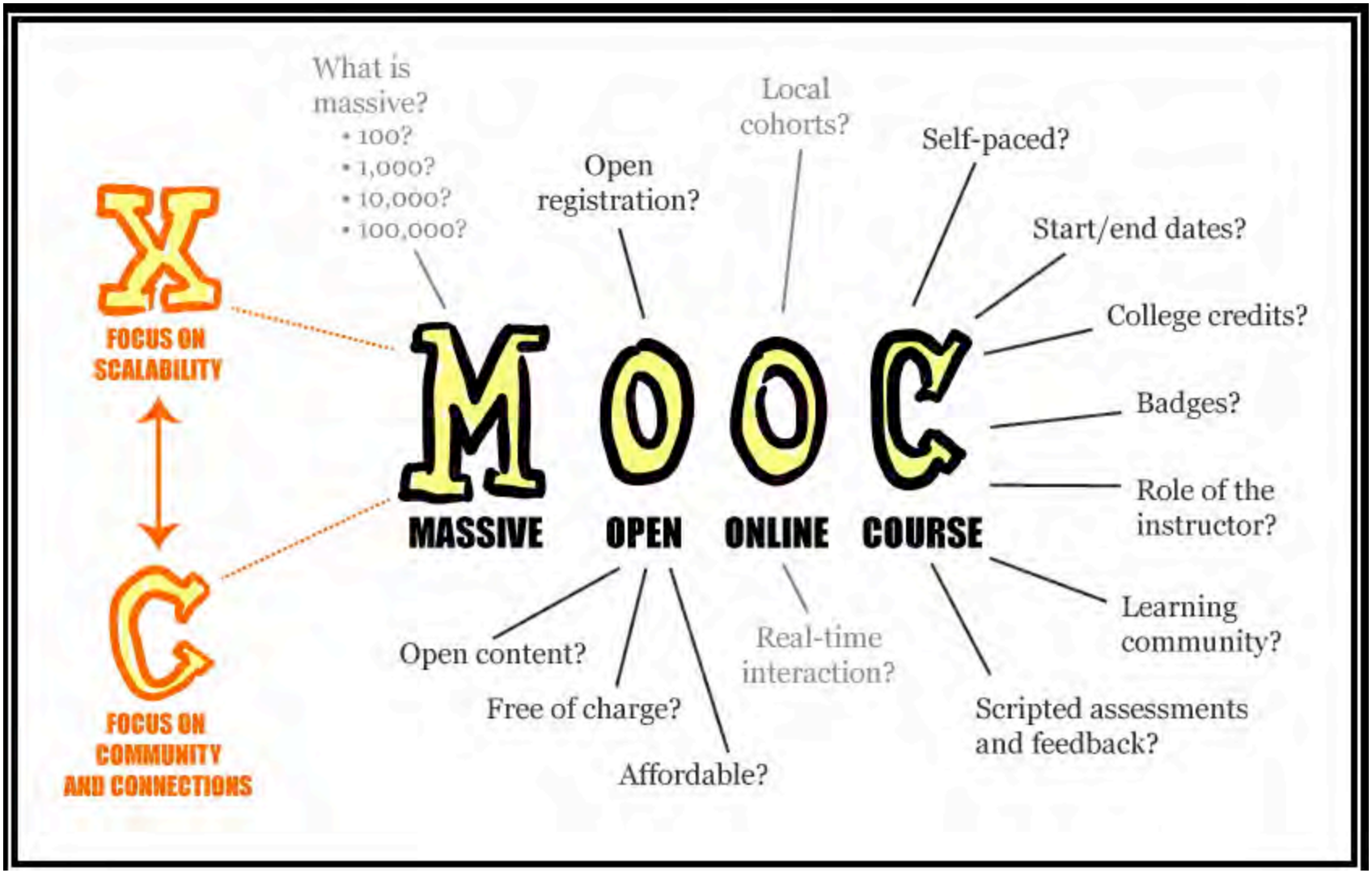
  e.g. Brazil: 21.5% Columbia 18.6%

Ambient Insight Regional Report, October, 2012

Massive Open Online Courses: MOOCs

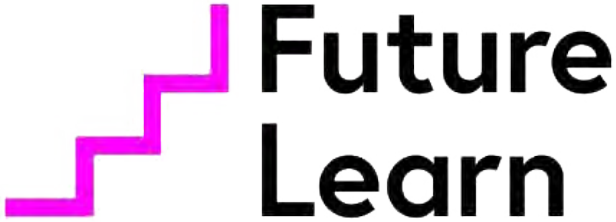
*… a MOOC is a type of **online course** aimed at large scale participation and open access via the web. MOOCs are a recent development in the area of **distance education**, and a progression of the kind of open education ideals suggested by **OER***

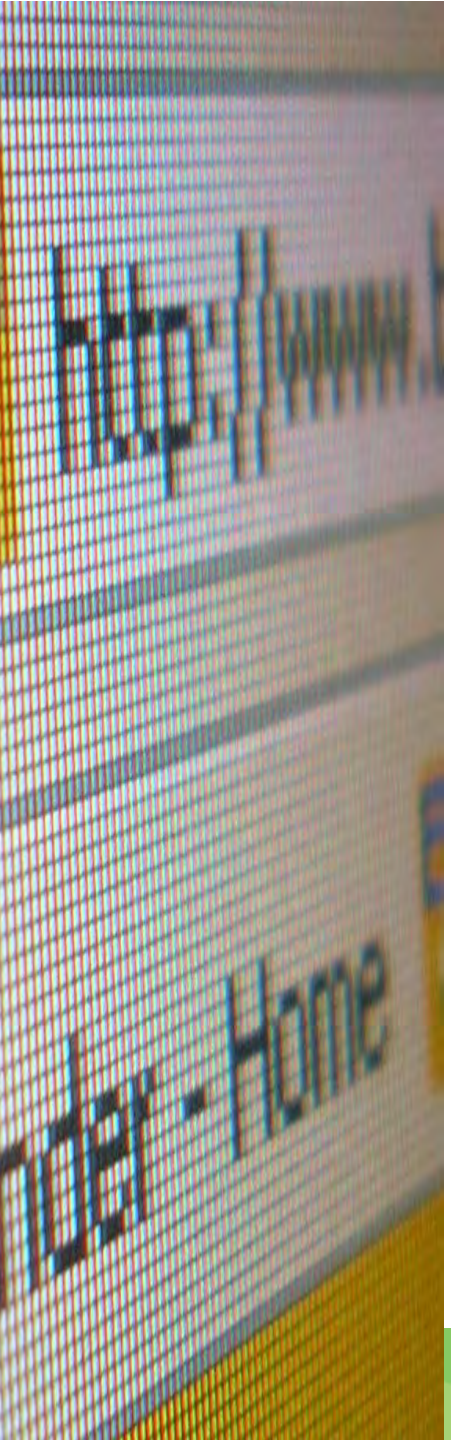
Wikipedia, 20/09/12


What is massive?
• 100?
• 1,000?
• 10,000?
• 100,000?
Open registration?
Local cohorts?
Self-paced?
Start/end dates?
College credits?
Badges?
Role of the instructor?
Learning community?
Scripted assessments and feedback?
Real-time interaction?
Affordable?
Free of charge?
Open content?
X
FOCUS ON SCALABILITY
C
FOCUS ON COMMUNITY AND CONNECTIONS
MOOC
MASSIVE OPEN ONLINE COURSE

Massive Open Online Courses:

MOOCs





MOOCs are typically

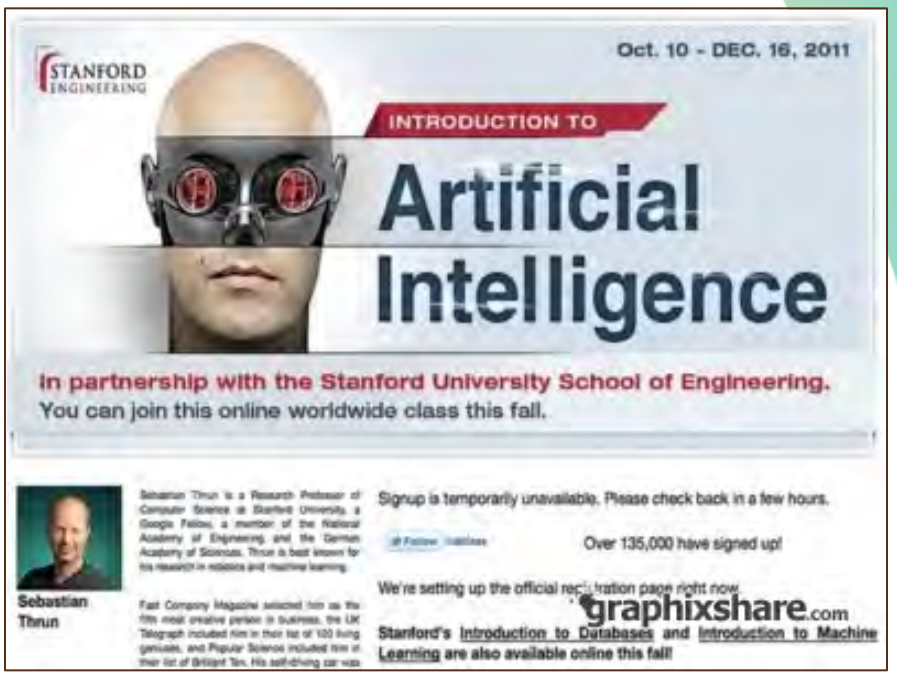
- Free of charge
- Designed for large numbers
- Designed to encourage peer to peer learning
- Meant to award completion certificates rather than course credits

OBHE Report, 2012

Stanford 2011

- Artificial Intelligence course
- 160,000 registered
- 23,000 completed
- All countries except North Korea

STANFORD UNIVERSITY



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

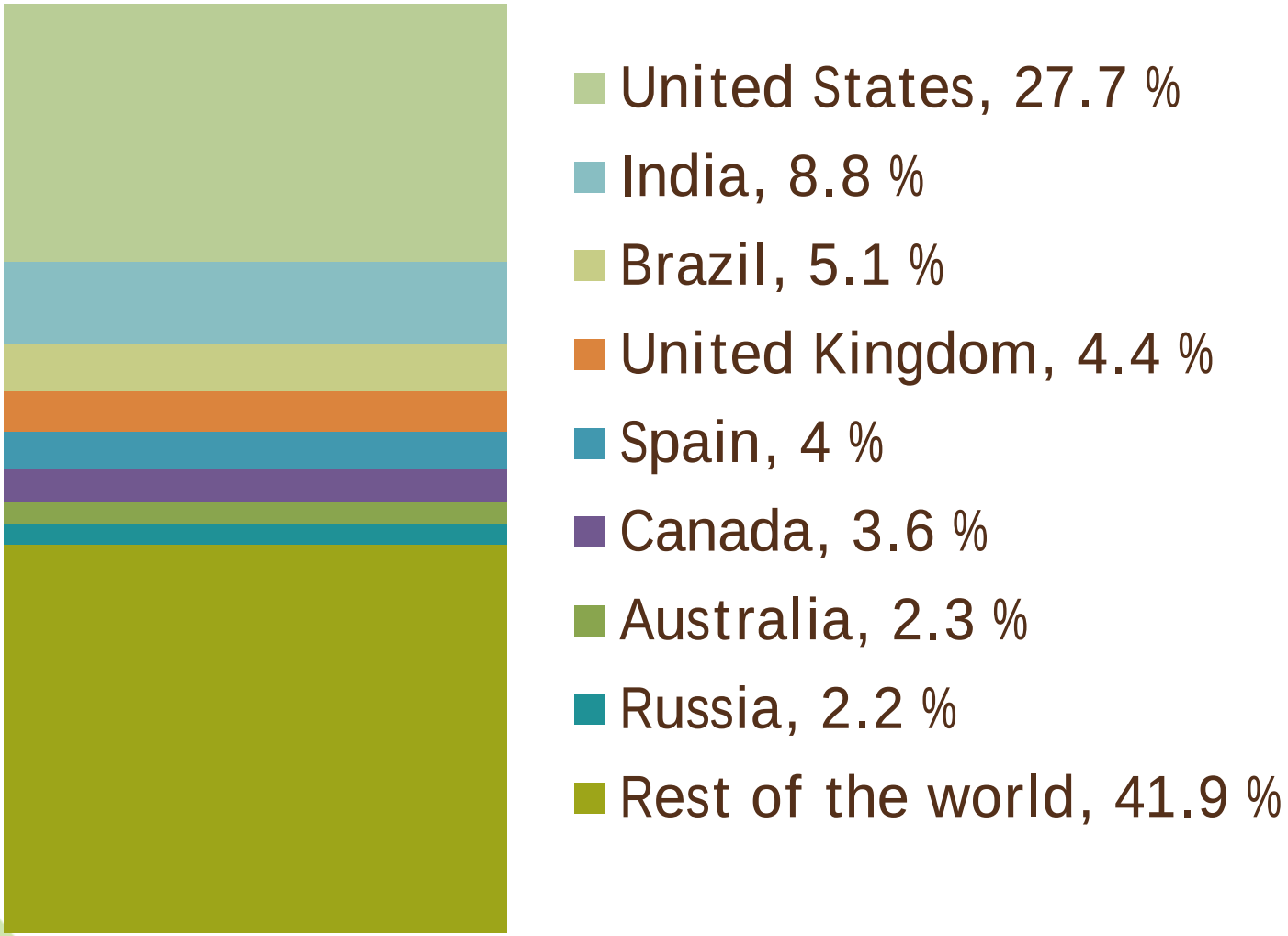
Source: Waldrop, M. M. (2013). Campus 2.0. *Nature, 495,* 160-163

The MOOC Experience

- March 2013: 132 MOOCs (US)
- Participants mostly from US and Europe
- Courses in Computer Science (61); Business & Management; (21); Humanities (14);
- Success rates: less than 10%

T Liyanagunawardena, S Williams, A Adams, 'The impact & reach of MOOCs: a developing countries' perspective', May 2013

Student Origins



Source: Waldrop, M. M. (2013). Campus 2.0. *Nature, 495,* 160-163.

Courses Offered

Source: Waldrop, M. M. (2013). Campus 2.0. *Nature, 495,* 160-163.

Tsinghua University, China

- Offers MOOC using own content (in Mandarin relating to STEM & history/culture)
  - No certificates offered
  - Purpose is enrichment

National Project for Technology Enhanced Learning, NPTEL, India

- Online Courses in STEM
- Foundation course in IT
- Purpose is to improve job-readiness of young professionals
- Ten week free online course
- Certification available at INR 2000 (USD 35); requires physical appearance in an exam center
- Jointly organized with IIT, NASSCOM and Ministry of HRD
- Over 25000 registered

MOOC for Development (M4D)

- Designed and offered by COL and IIT-Kanpur
- Content as OER
- Delivery compatible with mobiles using Android
- Experts from different countries for online mentoring
  - 2286 sign ups; 116 countries

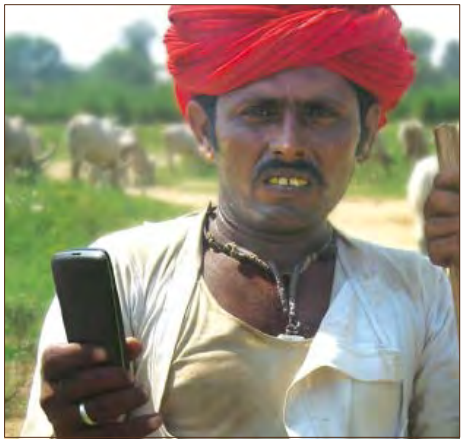
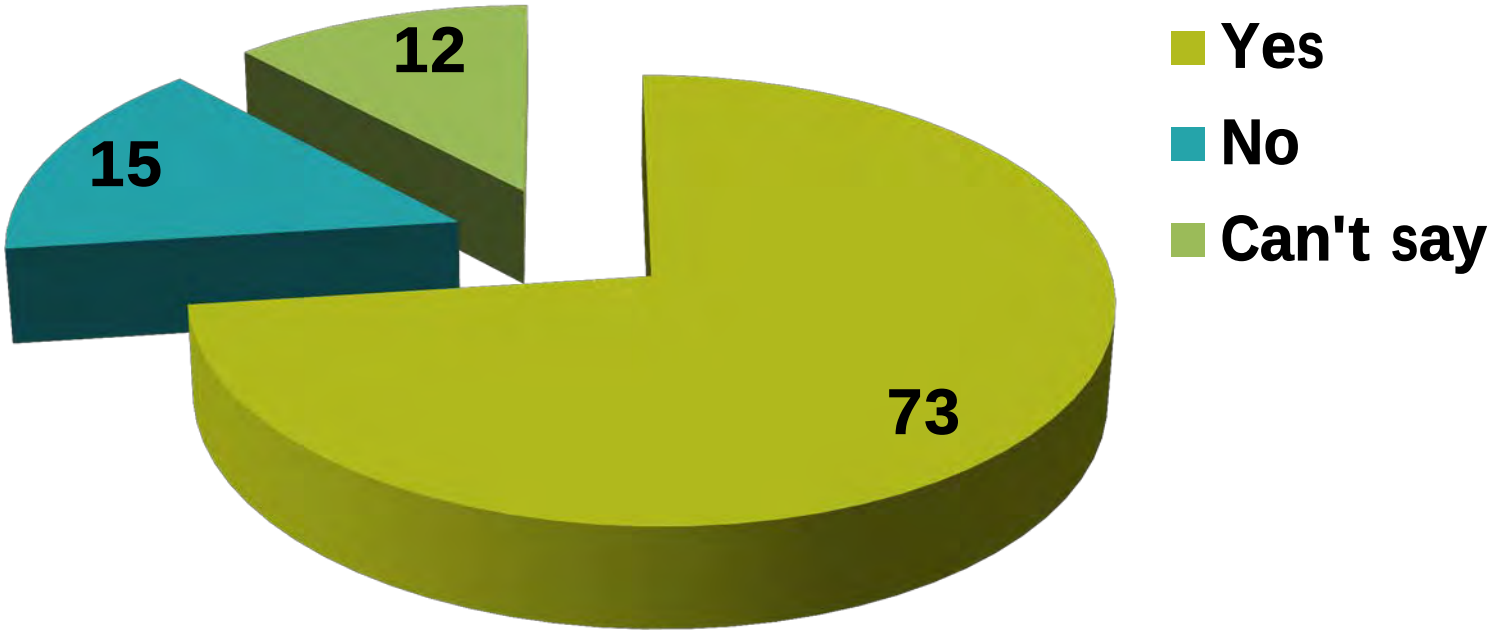


Photo source: http://www.m4dev.org/m4d.pdf

Would you have taken this course if there was no certificate offered?

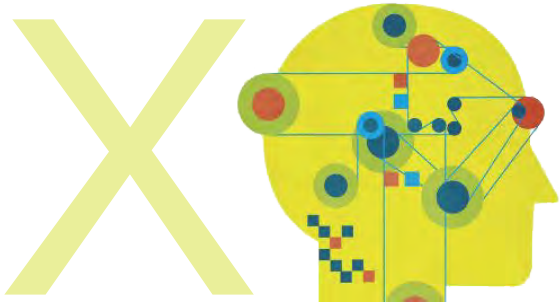


What is the business model?

- ‘freemium’ model—free content; paid services
- Revenue through certification
- Licensing fees from universities
- Revenue generation from potential employers

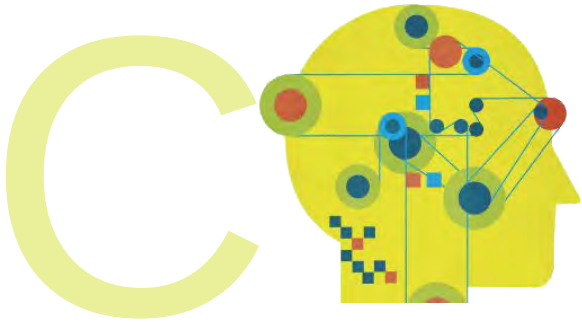
xMOOCs

- Cognitive-behaviourist pedagogy
- Teacher as expert
- Transmission of content
- Videos, automated quizzes, activities



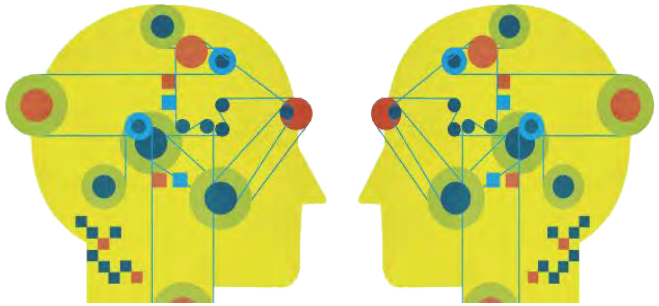
cMOOCs

- Connectivist pedagogy
- Student-student interaction
- Autonomous learner
- Construct share and distribute learning experiences



Pedagogy

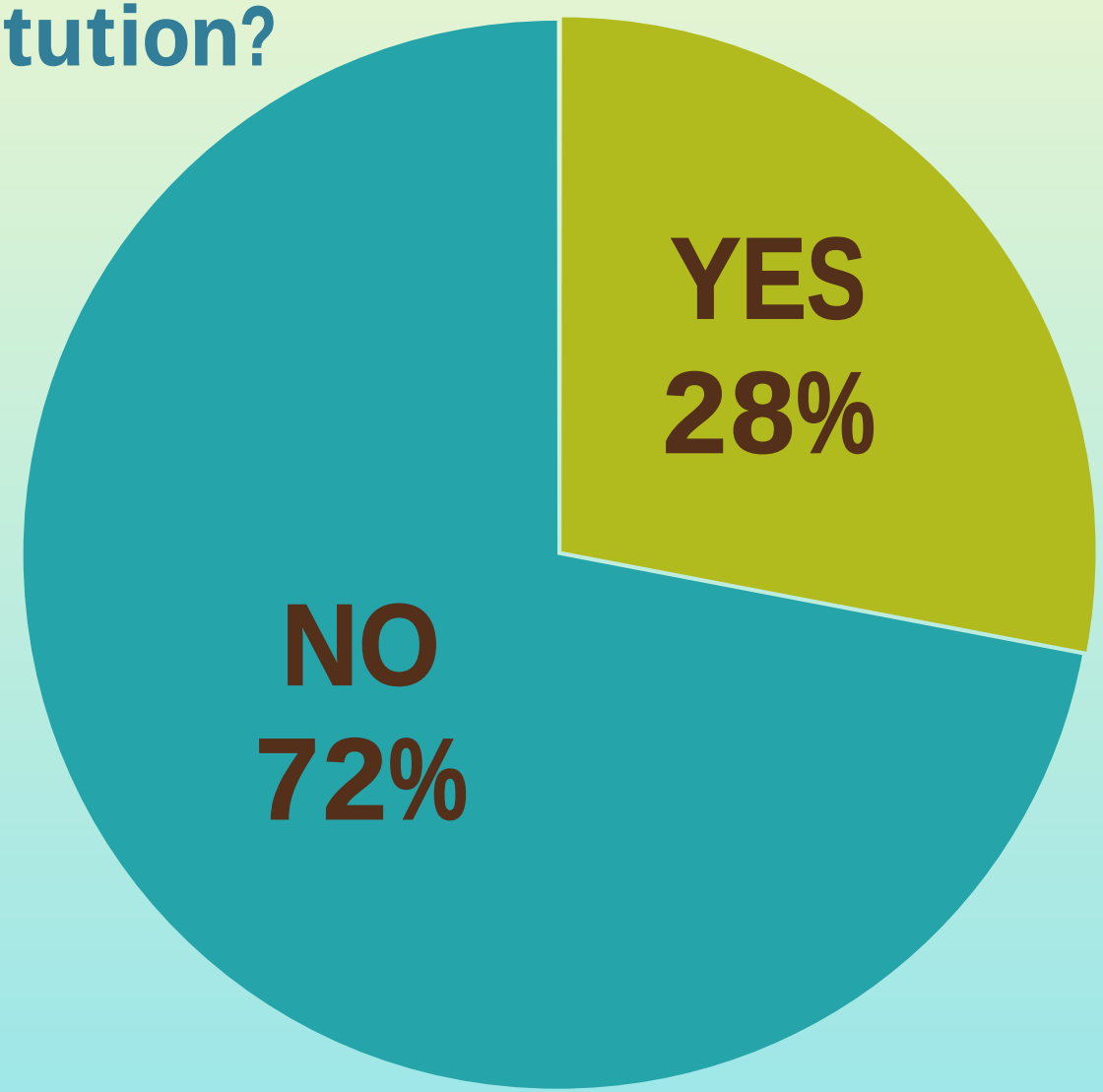
- Flipped classroom
- Short chunks of learning resources
- Interactivity
- Peer-to-peer learning
- Continuous improvement because of analytics



Credentialling

- Certificates of completion
- Badges
- Invigilated exams at testing centres
- Credits

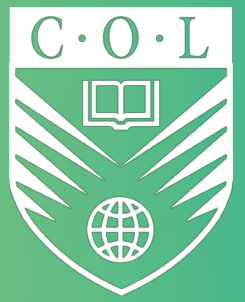
Do you believe students who succeed in your MOOC deserve formal credit from your institution?



Issues for Quality

- Can one size fit all?
- Student verification and academic integrity
- Is a peer reviewed assessment acceptable?
- Is there a delinking of the institutions which teach and the institutions which credential?

ODL WINE OR NEW BREW?



Peer to peer interactions: new paradigm

- MOOC platforms today provide for excellent online networking opportunities
  - **Learner-Learner**

'instead of the classroom being the centre, it becomes just one node of the network of social interactions'

George Siemens, Oct 2013

Dynamic pedagogy: Learning Analytics

- Predictive Systems can be developed
  - An Early Warning System: an upcoming drop out can be noticed
- Recommender Systems can be built
  - Tutor/Coach can observe frequent attempts and failures in a particular activity and recommend remedial activities

The advantage of Learning Analytics

- Creates wholly new personalization pathways for learning from masses of data
- Continuous feedback for ongoing improvement
- Improved outcomes
- Quality of learner experience enhanced

Cost-effective opportunities: scaling up

- There is NO need to use only the three or four Global brands
  - These are no more than particular online platforms
- Any University can set up own or shared platform
  - Based on Cloud services or
  - Reliable local hosting services
- Can use OER wherever possible
  - Lower costs, higher quality


New degrees of ‘open-ness’
Open platforms
Open content
Open interactions

Implications for HE

- ‘Unbundle’ services offering more flexibility
- Build on established and successful Open Content & Practices
- Improve teaching-learning experience

Pedagogy: Coursera; Udacity

*“ Interestingly, while Coursera courses followed a format that resembles the **traditional lecture/text** – testing routine of traditional university courses spread over multiple weeks with hard deadlines, Udacity courses all followed a format that resembles nothing so much as the **programmed learning approach** developed by B. F. Skinner (1954).”*

Karen Swan from the University of Illinois

Source: http://sloanconsortium.org/conference/2013/aln/exploring-mooc-pedagogy

SPOCs: Small private online courses, Harvard

- Free
- Delivered online
- Restricted through a selection process
- More rigorous assessment

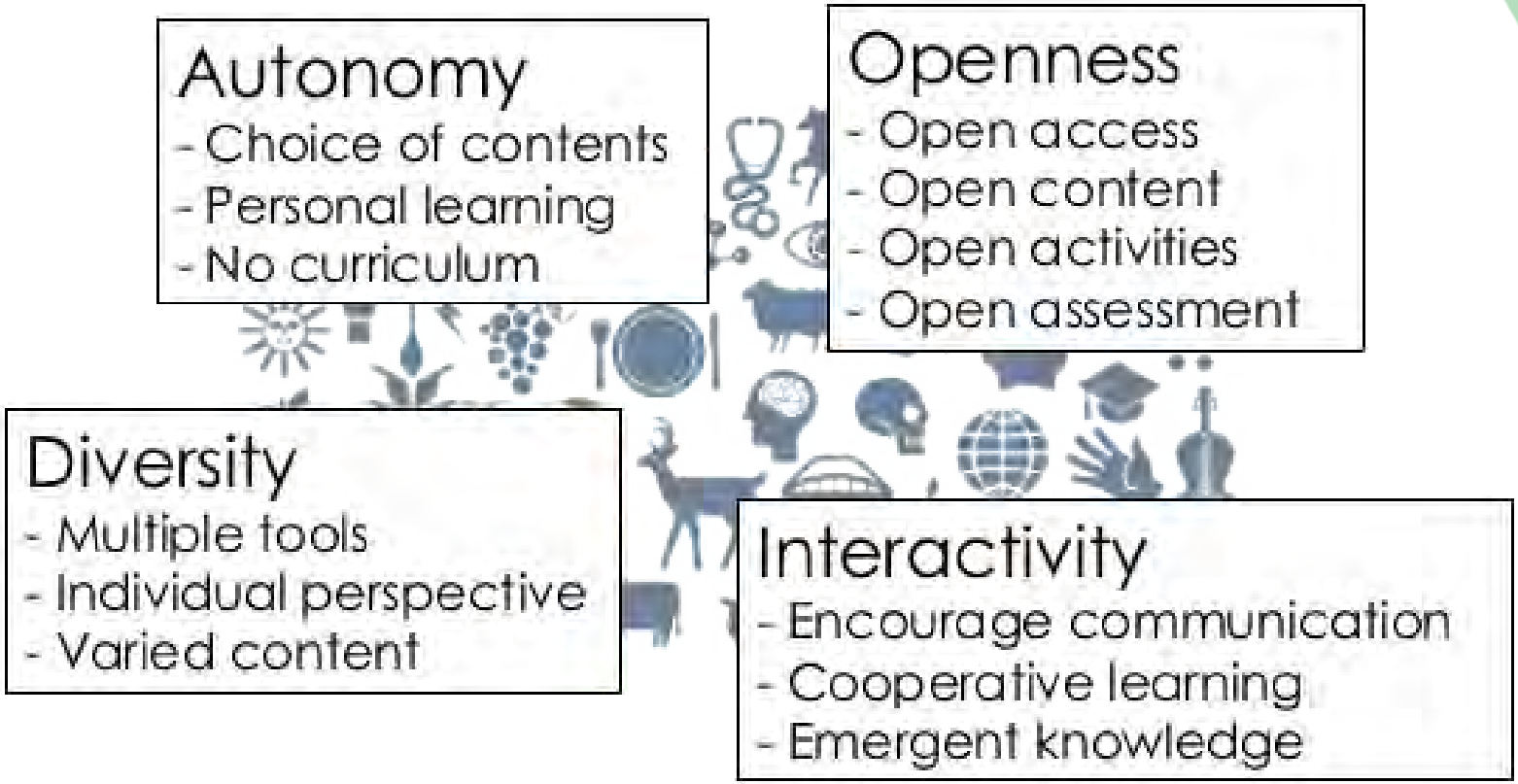
BBC Business, Sept, 2013

Mind to MOOCs: recommendations

- Equity: inclusion, social justice
- Diversity: attention to context
- Innovation & Quality: improve pedagogic practice

ICDE, Beijing, Oct.,2013

Design principles for MOOCs

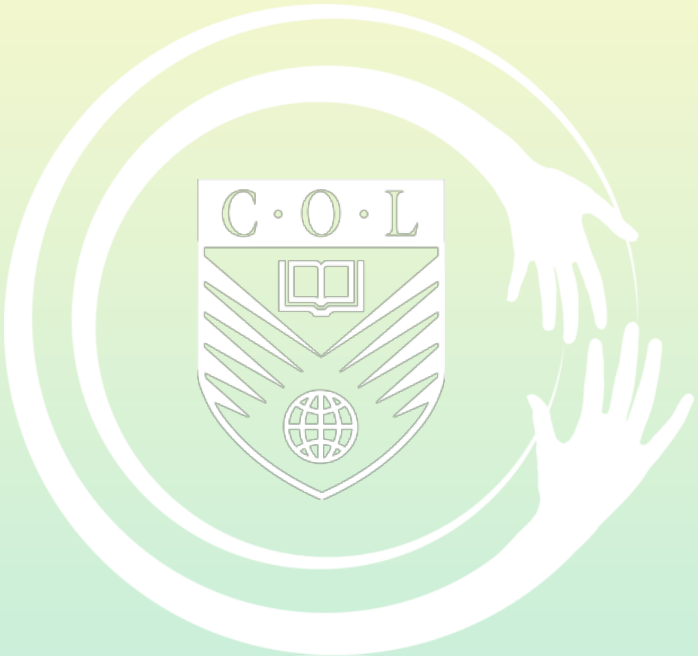


Stephen Downes

Source: http://www.slideshare.net/Downes/2014-03-10-valencia

Finally,

- MOOCs are an ***evolution*** of past open education practice rather than a *revolution*
- Being used for ***continuing professional development*** in developing countries
- Will refresh ***pedagogic practice***
- Will ***supplement*** rather than replace traditional institutions



THANK YOU