DEEP DRIVERS OF CHANGE
IN
GLOBAL HIGHER EDUCATION: TECHNOLOGY

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Overview

- LMS-based credit programs
- Blended/hybrid learning
- MOOCs
- Mobile learning
- Virtual labs
- Web 2.0/social media
- Implications for a World University
Credit-based online courses

United States (fully online), 2011: 7 million students (32%) taking at least one online course

Source: Allen and Seaman, 2012
The success of fully online credit programs

- 85-95% course completion rates for 24 Canadian (Ontario) universities’ credit online courses: (5% less than face-to-face classes)

- 42% of Open University (U.K.) students graduate within 7 years (about the same as face-to-face students in U.S. state universities)

- But: must use best ‘online design’ practices
USA, Canada, UK, Northern Europe, Spain, Australia, New Zealand: extensive

East Asia (South Korea, Malaysia, India): rapid growth

Latin America, Africa: slow growth

NOT: France, Germany, Italy, Japan: China complex!
Credit-based online learning: world

BUT:

- Mexico: only 32% households have Internet access; socio-economic groups D and E: no access; 10 years maybe

- Africa: <5% Internet access: US$1 to download YouTube video (one day’s income)
Blended/hybrid learning

- Mix of online/classroom teaching
- Last 12 months: big move to hybrid learning (in Canada)
- ‘Flipped’ classroom
- BUT: it can be so much more; re-design/re-think the campus experience
MOOCs

The good:

- Easy to access
- Minimal cost to learners
- High quality content
- Massive numbers
- Great educational broadcasting
- Great PR (Ivy League/media)
MOOCs

The bad

- Massive non-completion rates
- Lack of learner support
- Difficulties with assessment
- Poor online pedagogy (lectures)
- Not learned from credit courses
- Massive hubris
Mobile learning

- The future: tablets; mobile phones
- Africa: 40–70% of all adults have mobile phones
- CoL: lifelong learning for farmers in Africa (68,000)
- Aakash tablets in India (US$20)
- BUT: narrow bandwidth; courses need careful design
Virtual labs

Animations and simulations

Molecule shapes simulation: phET, University of Colorado at Boulder

Remote labs

Colorado Community College System remote labs
Web 2.0

- blogs/WordPress
- wikis
- video and audio, e.g. showing dynamic change, talking through images
- e-portfolios
- open educational resources
Educational implications of web 2.0

• Greater self-management of learning by learners
• Peer-to-peer collaboration
• Access to open content
• Learning demonstrated by creating multi-media materials (e.g. e-portfolios)
• Development of 21st century skills: historiography
Implications for a World University

It should:

• Be a world leader in ed. tech

• Use course design principles based on research into how students best learn

• Use accessible media

• Support learners and adapt to local circumstances (local partners?)