Might MOOCs still be disruptive?

Jeff Haywood

http://homepages.ed.ac.uk/jhaywood

Structure

My interest in the area

Disruption & Innovative Disruption

MOOCs

Context for disruption
      student populations
      regulating HE
      objective measures of HE outputs
      skills and competencies

Conclusions – or at least final musings!

The "Changing Pedagogical Landscapes" Study for the EC

Changing Pedagogical Landscapes: Overall objectives

The overall objective of this study is to examine to what extent government strategies and higher education regulatory and accreditation, funding, quality assurance, assessment and certification frameworks **support or hinder new modes of learning, and in particular increased use of technology in the teaching and learning process**.

The research should further formulate conclusions and recommendations on how these systems – the framework conditions for higher education - can best be tailored to support new modes of teaching and learning.

The EU's High-Level Group on the Modernisation of Higher Education has published a report on 'new modes of learning and teaching in universities'. The report gives an analysis of current practices in the EU and abroad, and offers 15 recommendations for the improvement of teaching technologies and practices.

2014

High Level Group on the
Modernisation of Higher Education

http://www.openeducationeuropa.eu/en/news/new-eu-report-modernisation-higher-education-just-published
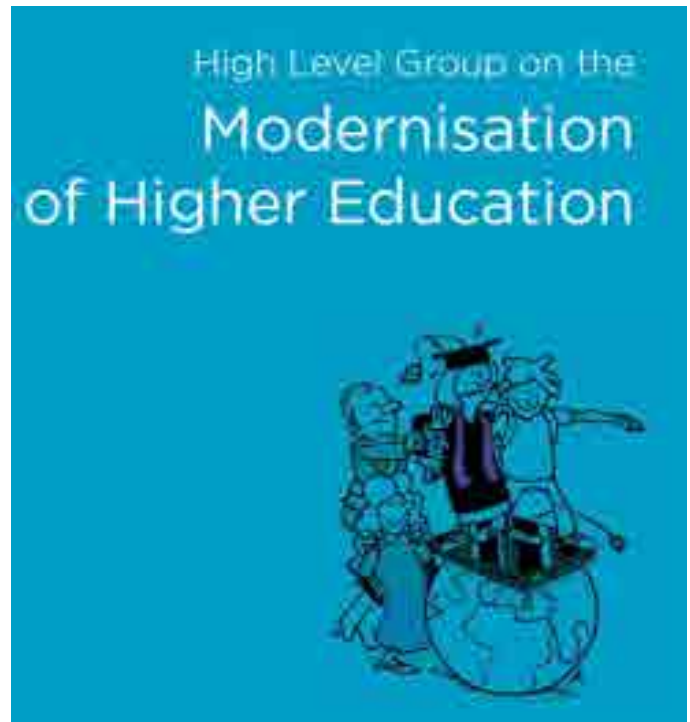
Disruption & Disruptive Innovation

disruption

Line breaks: dis|rup|tion

Pronunciation: /dɪsˈrʌpʃn 🔊 /

Definition of *disruption* in English:

NOUN

[MASS NOUN]

Disturbance or problems which interrupt an event, activity, or process:

'the scheme was planned to minimize disruption'

[COUNT NOUN] 'there had been no delays or **disruptions to** flights'

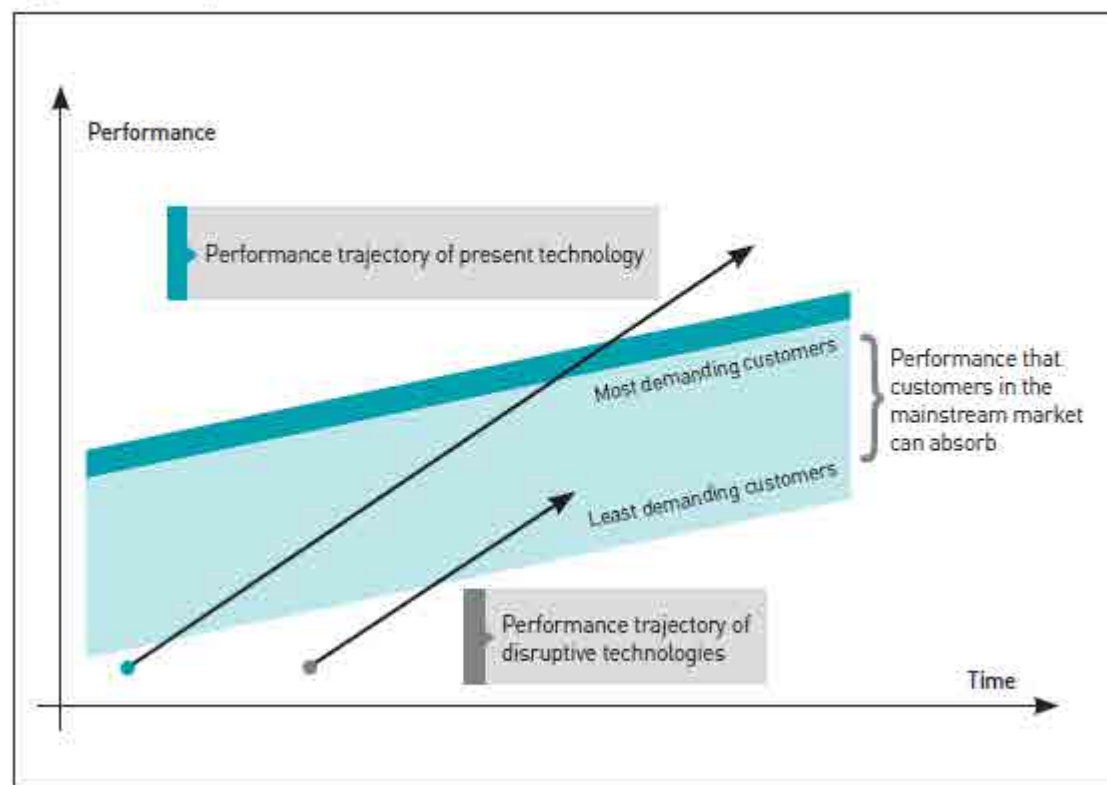FLAN meeting, Edinburgh Jan 2015

Disruptive innovation

a term coined by Clayton Christensen, describes a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors.

Characteristics of disruptive businesses, at least in their initial stages, can include: lower gross margins, smaller target markets, and simpler products and services that may not appear as attractive as existing solutions when compared against traditional performance metrics.

Because these lower tiers of the market offer lower gross margins, they are unattractive to other firms moving upward in the market, creating space at the bottom of the market for new disruptive competitors to emerge.

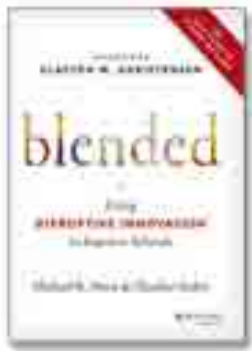Source: http://www.claytonchristensen.com/key-concepts/

Historically, higher education has avoided competitive disruption. One reason for this past immunity is the power of prestige in the higher education marketplace, where the quality of the product is hard to measure. In the absence of comparable measures of what universities produce for their students, the well-respected institutions have a natural advantage. A re-

Figure 2: Disruptive Innovation

Christensen & Eyring, 2013   https://net.educause.edu/ir/library/pdf/ff1207s.pdf
FLAN meeting, Edinburgh Jan 2015

But maybe disruptive innovation can be quite tame!!

Blended Learning Publications

Blended: Using Disruptive Innovation to Improve Schools

October 2014

Co-authored by Michael Horn and Heather Staker, *Blended: Using Disruptive Innovation to Improve Schools* serves as a design guide for K–12 stakeholders looking to effectively embrace the rise of blended learning. This book is a must-have resource for educators, parents, and innovators navigating the future of learning. Read more

Source: http://www.christenseninstitute.org/blended-learning/

Disruption in higher education (T not R)

Disruption of what?

UG, PGT, full-time, part-time, residential, online/distance, degrees, short courses, price, bundles

Disruption by when?

Too difficult to call but ease of disruption might be…
PGT>>UG ; short courses >> degrees; online>>residential; P-T >> F-T; price = unbundling

Disruption by whom?

New companies as HE providers – for profit / not for profit
Existing HE providers – colleges going up-market; agile universities; non-HE companies offering HE; governments; NGOs…

The Un-changing Higher Education Landscape

❑ Durability of existing pedagogies

❑ Faculty skillset / student skillset

❑ Less student enthusiasm for radical change than the hype implies

❑ Risk of action by individual universities is high

❑ Lack of incentives / actual barriers (financial | legal | regulatory |...)

❑ Inter-locked curricula

❑ Physical estate

❑ Lack of burning platform

CHECKLIST FOR CHANGE

Making American Higher Education a Sustainable Enterprise

ROBERT ZEMSKY
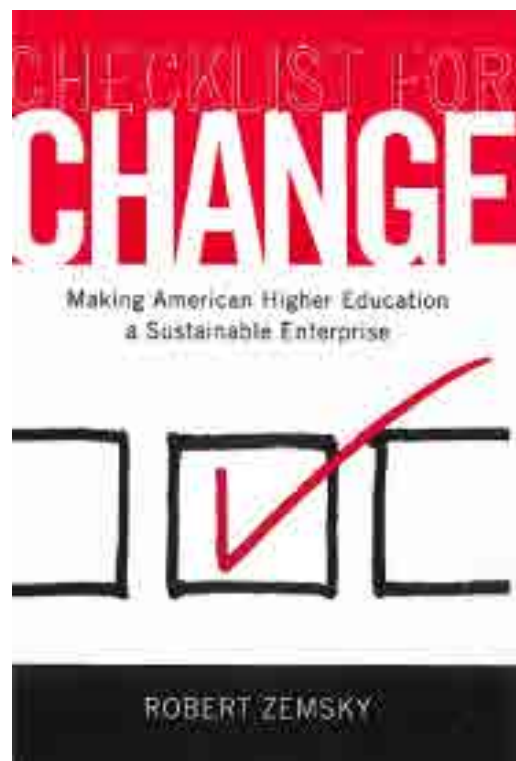
Such faculty are encamped just north of Armageddon. They can look over the ridge and see the destruction that would await them, were they to be so foolish as to charge headlong in pursuit of change. Among the faculty there are those who believe something must be done to recapture the initiative and thereby ensure that the academy is not flattened. But most faculty simply worry about that which they cannot control, all the while saying with increased conviction, "I think I'll sit this one out."

Information technology has been extremely consequential in higher education over the last 25 years, but principally in "output enhancing" ways that do not show up in the usual measures of either productivity or cost per student.

William G Bowen, Tanner Lecture, Stanford University, October 2012

MOOCs

Warhol
Date to be announced.

Philosophy and the Sciences
Date to be announced.

Animal Behaviour and Welfare
Date to be announced.

Fundamentals of Music Theory
Date to be announced.

Introduction to the Clinical Psychology of Children and Young People
Date to be announced.

AstroTech: The Science and Technology behind Astronomical Discovery
Date to be announced.

What is a MOOC?

1. MOOC = a specific educational object or process

2. MOOC = a concept

3. MOOC = a term or word for online learning

4. MOOC = a political instrument

5. MOOC = ??????

The pedagogy of the Massive Open Online Course: the UK view

Siân Bayne and Jen Ross, the University of Edinburgh

1 MOOCs are multiple: we can no longer define them either as a single 'transformative' entity or clearly position them in terms of the previously dominant cMOOC/xMOOC binary.

2 MOOC pedagogy is not embedded in MOOC platform, but is negotiated and emergent, a sociomaterial and discipline-informed issue.

3 The teacher persists in the MOOC: though reworked and disaggregated, the teaching function and teacherly professionalism remain central.

quizzes and assessments. The 'teacher as code' is likely to become more of a feature, as assessment technologies like Automated Essay Scoring, already subscribed to by the MOOC platform EdX, become common (see Balfour 2013 for a useful review). Intelligent tutoring and adaptive learning systems for MOOCs, informed by advances in natural language processing and learning analytics, are likely to further orient MOOC pedagogy toward the non-human teacher. A challenge here is to balance what is good

https://www.heacademy.ac.uk/resources/detail/elt/the_pedagogy_of_the_MOOC_UK_view

What impact have MOOCs had? a 2012 slide
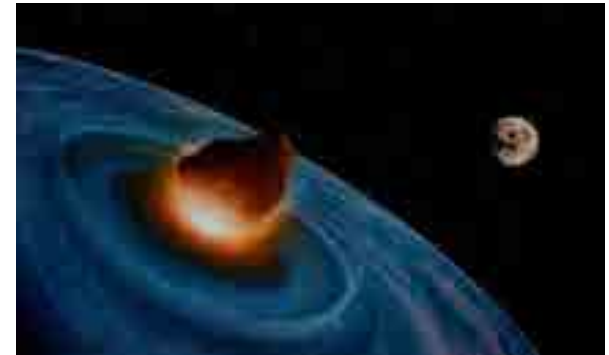
- On presidents/SMTs of universities ★ ★★
- On governments/agencies ★★
- On faculty
- On students
- On student funders, incl parents
- On the media ★★★★★★ ?
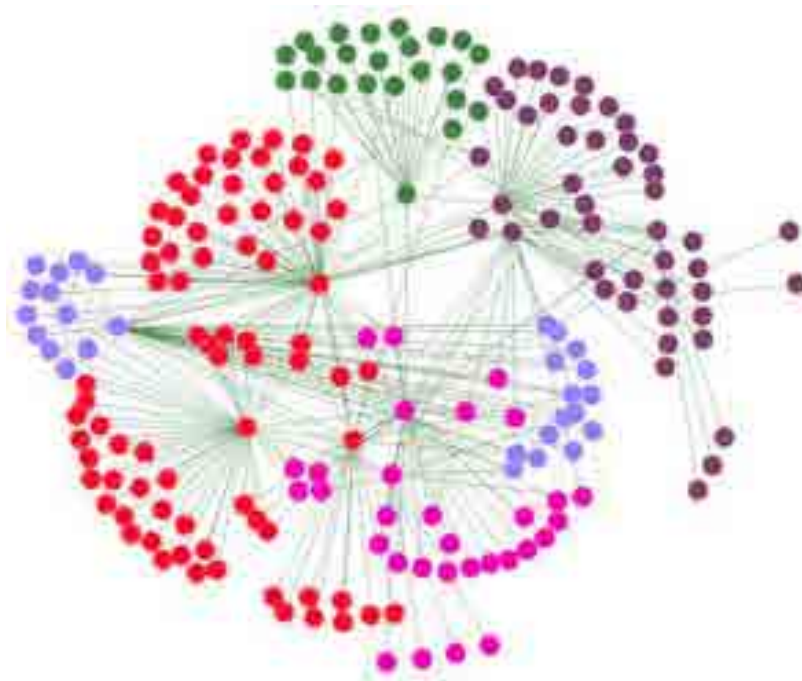

http://star.arm.ac.uk/
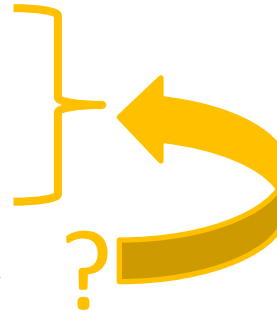
- Varied by region: **US·UK·Europe·Oz·NZ** / *SE Asia / China / Asia / S & C America*

NB: This is very subjective – there are 1000s of universities in the world!!

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MOOCs as a truly global phenomenon

MOOC platforms & their global partnerships

coursera = 45% non-US

edX = 33% non-US

Future Learn = 18% non-UK

http://www.xuetangx.com/

http://www.cnmooc.org/home/index.mooc

Massive Open Online Courses in Arabic

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MOOCs as politics

India visit

The announcement was made as six of the Futurelearn partners take part in a major business and skills mission to India with the Prime Minister. Welcoming the news, David Cameron said:

"Britain boasts some of the best universities in the world. This innovative new offer led by The Open University will mean that Indian students can access some of the best teaching and learning online from their home in Mumbai or Delhi. I'm delighted that Futurelearn is expanding to include more British universities and the British Library. I hope it will encourage many more Indian students to take the next step and study with a UK university."

Open Education Europa

European Commission

The gateway to European innovative learning

EUROPA > Open Education Europa > Home

European Sources
European Education Institutions at the Open Education Europa portal, Alison, First Business MOOC, FUN, FutureLearn, Iversity, Miriada X, Open Classrooms, Open Course World, openHPI, openSAP, Unow, UnX, Ocean

Other Sources
Coursera, EDX, Canvas, Connected Courses, CnMOOC, CourseSites, Edraak, Novoed, Standford University, P2PU, Open learning, Open2Study, Education MongoDB, Janux, JMOOC, High Tech High, Complexity Explorer, Rwaq, OER University, OOEd, Google, Kaikeba, REL2014, Udemy

State Department Hosts 'MOOC Camp' for Online Learners

International students can experience blended learning for free

MOOC Camp aims to provide a high-quality, American-style learning experience, Evan Ryan, assistant secretary of state for educational and cultural affairs, wrote in an email. While the courses are open to anyone, she says young people in particular have much to gain from participating.

Massive open online courses, or MOOCs, have been celebrated for their ability to give anyone with an Internet connection free access to classes at some of the best U.S. universities.

Student populations in HE

BIS | **Department for Business Innovation & Skills**

HIGHER EDUCATION

Students at the Heart of the System

JUNE 2011

4.2   For many people, entry to higher education does not follow the traditional and well-established route of A-Levels followed by a full-time, residential, three-year degree. Some choose to undertake a foundation degree, Higher National Diploma (HND), Higher National Certificate (HNC) or Apprenticeship, while others enter higher education later in life after a period in the workforce, or move onto a higher education qualification having already undertaken some vocational learning. Some want to work or take care of their family alongside studying part-time while others want to study more intensively, compressing a three-year degree into one or two years.

Student in US (IPEDS, 2012) and UK (HESA 2012)

UK:

PGT = 42% part-time; UG = 23% part-time;

UG = full-time 90% are <25 yr but part-time are 74% are >25 yr

No HESA data for UK students studying at a distance?

US:

All enrolments UG+PGT = 38% part-time

Fully online study – UG = 2,000,000 (11%); PGT = 650,000 (22%)
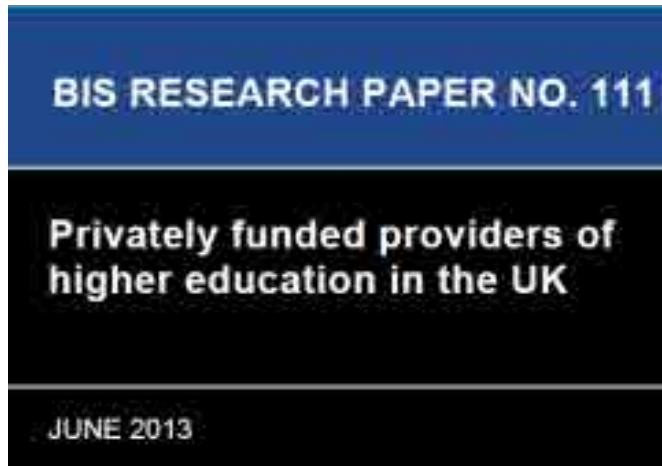
Regulating higher education

4. Regulatory Reform

Pedagogical and curricular innovations alone are unlikely to bring about change without regulatory reform. Regulatory barriers favor incumbent higher education institutions and give them a competitive advantage over new entrants.

Recent actions by the Obama Administration and U.S. Department of Education, however, could signal a rollback of protectionist policies and movement toward regulatory reform.[34] **Redefining the credit-hour to include the "amount of work represented in achieving learning outcomes"[35] is a significant policy change that has helped level the playing field for CBE.**

In a more hospitable regulatory environment, the pace of change would likely accelerate among some of the principal drivers of innovation: MOOC-based degrees, CBE, learning-optimized courseware, federal financial aid for learner support services, micro-credentialing, and the use of performance indicators to reward institutions that improve student outcomes.

Mazoue 2014 http://www.educause.edu/ero/article/beyond-mooc-model-changing-educational-paradigms

Private HE providers in UK

BIS RESEARCH PAPER NO. 111

Privately funded providers of higher education in the UK

JUNE 2013

BPP UNIVERSITY

ifs University College
Incorporated by Royal Charter

Mr Willetts says: "The number of English and EU students claiming support at APs [alternative providers] has grown from 13,000 in 2011-12 to 30,000 in 2012-13, and the total public expenditure on these students has risen from £60 million to £175 million."

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ABOUT   PROGRAMS   PAYING FOR SCHOOL

ONLINE LEARNING EXPERIENCE

Competence-based education

SETTING THE PACE

EXPANDING OPPORTUNITY FOR AMERICA'S STUDENTS UNDER RACE TO THE TOP

March 2014

U.S. Department of Education

Student Loans | Grants | Laws

Competency-Based Learning or Personalized Learning

Transforming away from seat time, in favor of a structure that creates flexibility, allows students to progress as they demonstrate mastery of academic content, regardless of time, place, or pace of learning. Competency-based strategies provide flexibility in the way that credit can be earned or awarded, and provide

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▶ Degrees & Programs
▶ Admissions
▶ Tuition & Financial Aid

Why WGU – Competency-Based Learning

OpenLearn Works | Free educational projects sup The Open University

Competency based educational eContent
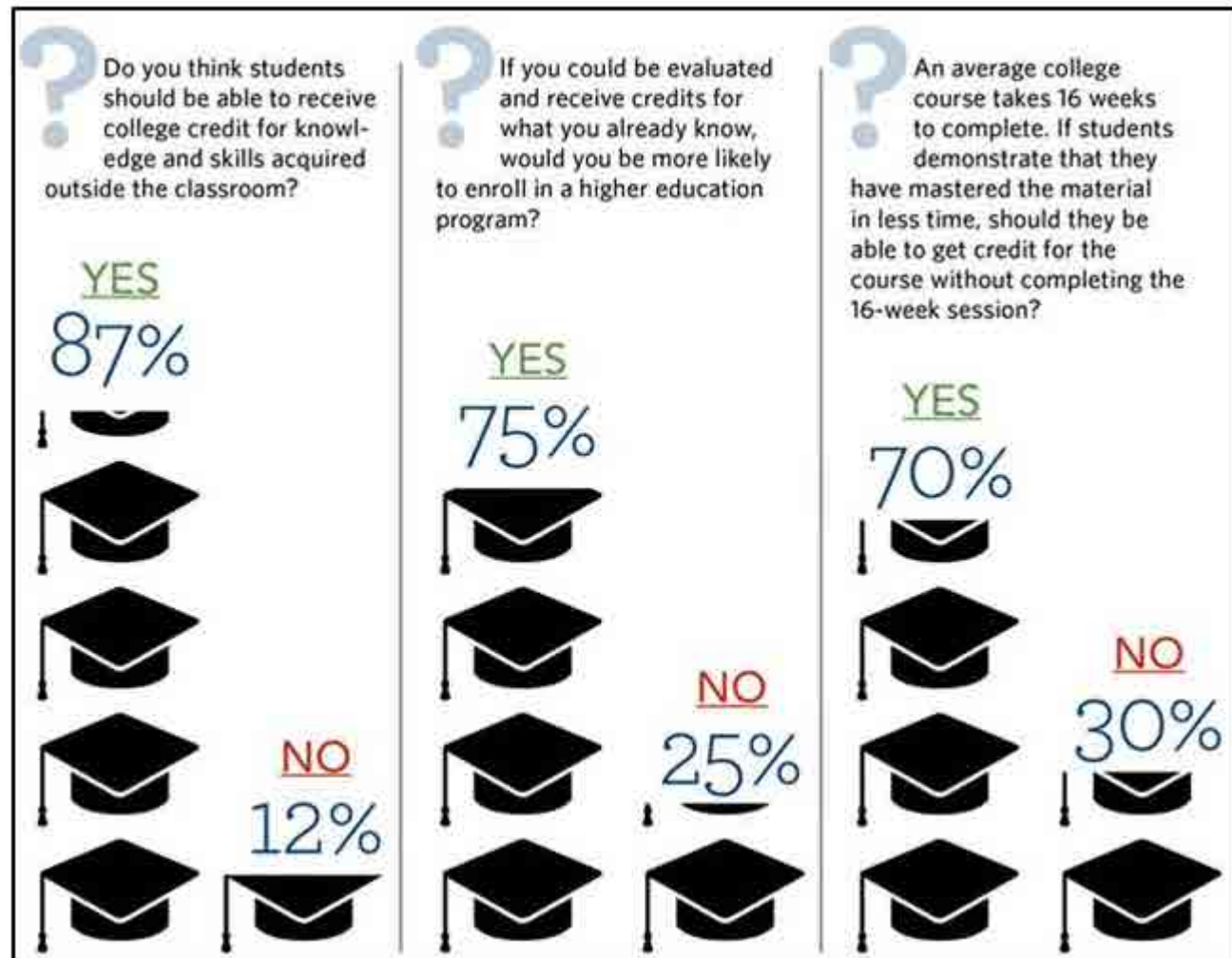
Navigation

Home

Flex YOUR POTENTIAL.

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TAKE THE FLEX FIT SURVEY

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By the Numbers: Classroom Optional: What Americans Think About Competency-Based Education

9/9/2014

Lumina Foundation and Gallup. 2013. *America's Call for Higher Education Redesign: The 2012 Lumina Foundation Study of the American Public's Opinion on Higher Education*. Washington, DC: Gallup.

Globally-recognised metrics of graduate learning

publicTENDERS.NET

The **latest public tenders** from across the UK and EU
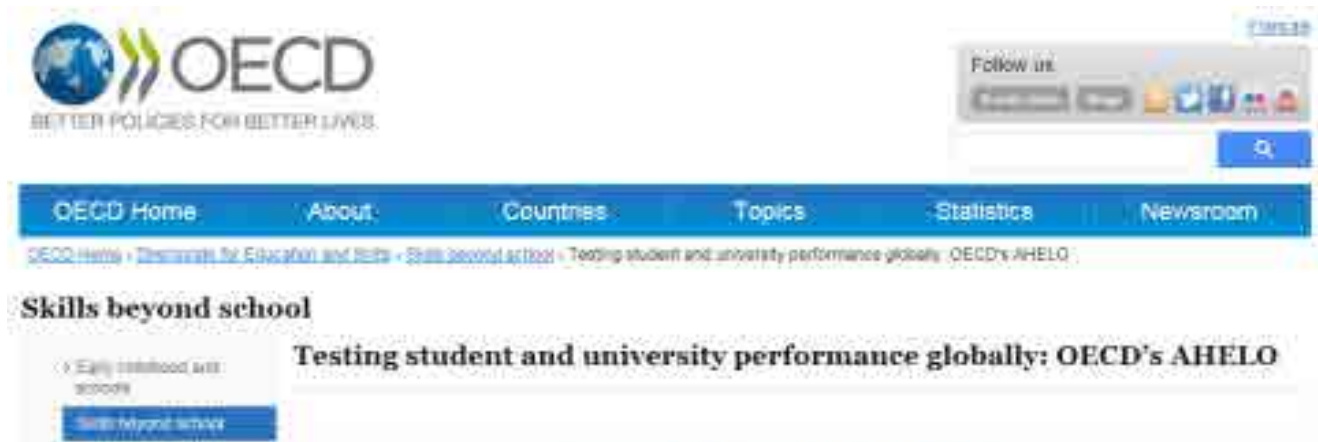
RE140092HEFCE - Learning Gain Research

Description

There is growing interest around the world in measuring how much students in HE learn, and the contribution that institutions, courses and particular educational activities make to that learning. While there is in principle a difference between 'learning

gain' – students' improvements in skills and knowledge – and 'value-added' – the contribution of particular factors (such as the institution attended) to that improvement, the terms are often used interchangeably. While significant research has been undertaken

elsewhere in the world, and in schools education in the UK (particularly on value-added), there has to date been comparatively little attention to the issue in UK higher education. HEFCE is developing a project, in partnership with the Department of Business,

Innovation and Skills (BIS) and the Higher Education Academy (HEA), to explore approaches to the measurement of learning gain through asking the following questions: •What conceptions of learning gain are in evidence in higher education, and to what purposes

are they being applied, particularly in England? •What feasible and robust mechanisms exist for assessing learning gain and what is the extent of their applicability (i.e. for what purposes and in which circumstances are they most appropriately applied) in

an English context? •Is the National Survey of Student Engagement (NSSE) valid as a proxy measure of learning gain in a UK context?

To conclude…

Headlines from 2012

Is Coursera the Beginning of the End for Traditional Higher Education?

- Comment Now   + Follow Comments

Clay Shirky

« Save Homicide Watch

Remembering Aaron by taking care of each other »

Napster, Udacity, and the Academy

Fifteen years ago, a research group called The Fraunhofer Institute announced a new digital format for compressing movie files. This wasn't a terribly momentous invention, but it did have one interesting side effect: Fraunhofer also had to figure out how to compress the soundtrack. The result was the *Motion Picture Experts Group Format 1, Audio Layer III*, a format you know and love, though only by its acronym, MP3.

So, to return to the conditions for innovative disruption…

1. Free short courses (regarded by many as also low quality)
2. Low price point for add-ons, including 'credit'
3. Rapid technology & pedagogy innovations
4. Large scale, wide reach, 'long tail' audiences
5. High flexibility & free from most time-space constraints
6. Courses fit well with govt & commerce skills agenda
7. Interest from employers (end market)
8. Rise in interest in competence-based education
9. Gov't interest in learning gains / objective measures of HE outputs
10. Increasing flexibility in gov't view of regulations
11. Lack of burning platform problem in traditional HE
12. HEIs polishing existing product, increasing cost/not seeking price reductions

So, might MOOCs still be disruptive?