

Breaking the Mould

MOOCs as Catalysts of Major Educational Change

Professor Jeff Haywood, Vice Principal, CIO & Librarian

University of Edinburgh, UK

jeff.haywood@ed.ac.uk

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



MOOCs.....

- ❑ are open to anyone – no mandatory qualifications
- ❑ have no fees for study
- ❑ have enrolments at start >>> learners at end
- ❑ have learners (not students of offering universities)
- ❑ are fully online
- ❑ are very lightly tutored & supported
- ❑ are assessed (in various forms, formative & summative)
- ❑ have low study hours per week, on modules not degree programs
- ❑ offer ‘statements of accomplishment’ rather than credits (but...)
- ❑ are a different business model to trad HE



MOOCs in proportion @ Edinburgh

On-campus
30,000 students
all courses
since ~1990

Off-campus
2000 students
50 Masters
since ~2005

open

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6 MOOCs
308k learners
since 2012

Take the World's Best Courses

Join 1,046,860 Coursera learners

308,000 learners enrolled

6 MOOCs Jan 2013 Coursera

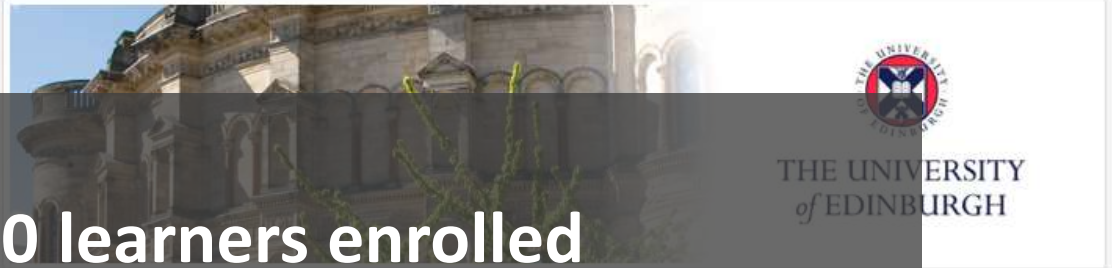
200 countries

wide age range

diverse intentions

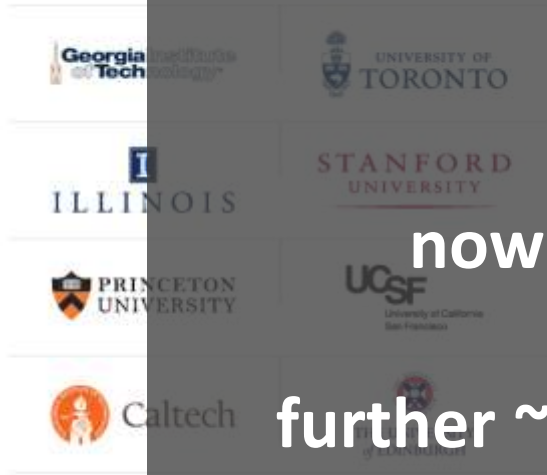
now a Futurelearn partner too

further ~20 MOOCs under construction



	Artificial Intelligence Gerhard Weikum, Austin Tayl The course aims to provide a basic grounding in artificial intelligence techniques for planning, with an overview of the wide spectrum of different problems and including their underlying theory and their applications.	Jan 26th 2013 5 weeks long
	Astrobiology and the Search for Extraterrestrial Life Learn about the origin and evolution of life and the search for life beyond the Earth.	Jan 26th 2013 5 weeks long
	Critical Thinking in Global Challenges Celine Caquineau, Mayank Dutia In this course you will develop and enhance your ability to think critically, assess information and develop reasoned arguments in the context of the global challenges facing society today.	Jan 26th 2013 5 weeks long
	E-learning and Digital Cultures Jeremy Knox, Sian Bayne, Hamish Macleod, Jen Ross, Christine Sinclair This course will explore how digital cultures and learning cultures connect, and what this means for e-learning theory and practice.	Jan 26th 2013 5 weeks long
	Equine Nutrition Jo-Anne Murray This course will cover many aspects of equine nutrition ranging from anatomy and physiology of the gastrointestinal tract to dietary management of horses/ponies affected with nutrition-related disorders.	TBA 5 weeks long
	Introduction to Philosophy Dave Ward, Duncan Pritchard, Michela Masseimi, Sutilin Lavelle, Matthew Chrisman, Allan Hazlett, Alasdair Richmond This course will introduce you to some of the most important areas of research in	Jan 26th 2013 7 weeks long

FROM 16 UNIVERSITIES



Why did Edinburgh offer MOOCs?

- ❑ Reputation – early adopter of educational technology
- ❑ Exploration of a new pedagogical ‘space’ to inform practice
- ❑ Wish to reach as widely as we can with our courses
- ❑ Sharing experiences with peer universities
- ❑ Fun!
- ❑ **Not money.....**



THE UNIVERSITY of EDINBURGH

Critical Thinking in Global Challenges

Celine Caquinesu, Mayank Dutia

In this course you will develop and enhance your ability to think critically, assess information and develop reasoned arguments in the context of the global challenges facing society today.

[Sign Up](#)

Watch intro video

Critical Thinking

conclusions, evidence, thought, problem, criteria, reflective, relevant, one, logical, recognize, believe, argument, process, information, assess, develop, reasoned, global, challenges, facing, society, today.

Coursera / edX MOOC subjects

Subject area	# C	#edX
Computer science	88	12
Arts/humanities	103	15
Social sciences (incl teacher ed)	200	7
Science & engineering (excl CS)	218	29
Clinical (M & V)	85	5

Some MOOCs have >1 subject

total Coursera MOOCs = 390; edX MOOCs = 60

Who studies on MOOCs, and why?

- ❑ Limited data – enrolling on a MOOC doesn't require ID!!
- ❑ For Edinburgh's 6 MOOCs (launched with 308,000 learners) we had:
- ❑ Mainly 18-35 years old; female = male; UG degree and many with PG degree; lots in education/training; wanted 'to learn new things'; wanted 'to see what MOOCs are about'; few wanted certificate or career enhancement
- ❑ US and UK dominate enrolments (~30-50%) but truly global too
- ❑ Patterns from other MOOCs very similar, altho some courses are more career-oriented

- ❑ **These are data from 'first offerings' – may well change dramatically**
- ❑ **Data are at: <http://edin.ac/YWGDdK>**

What impact have MOOCs had?

On presidents/SMTs of universities ★★

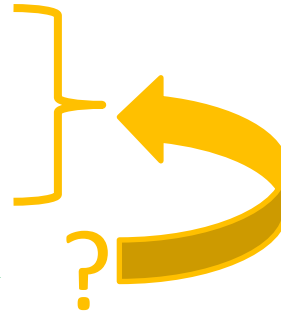
On governments/agencies ★★

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!!

Where might MOOCs go next?

- Fade away – bubble bursts
- Hold steady – case for expansion not clear to universities
- Expand & diversify ✓
- Emergence of specialised MOOCs – unique areas ✓



Great expectations?

Learners are not shackled by the experiences and courses offered by their own university which leads to demands for more [flexible, learner-controlled, cheaper] higher education

Politicians ask the hard question: ‘If you can be so agile and innovative in MOOCs, why is the mainstream curriculum still [sluggish, old-fashioned, academic-year bound, 3 or 4 years long]?’



Catalysts for change

- 'Light teaching' at large scale
- Mastery assessment
- Teaching with courses from other universities
- Really opening up the curriculum | virtual mobility
- Assessment of remote learners (esp for high stakes)
- Credit for open courses (=RPL?)
- Degrees at the learners' speed
- Fees | prices vs costs | financial transparency for teaching

Examples of many of these exist, in practice or in exploration

Challenges for us in the next 5 years

1. Strategic direction – ‘MOOCs as a passing phase’
2. \$\$\$ / £££ / €€€ - investing in hard times
3. Our faculty/academics – preparedness for change?
4. Lack of sufficient curriculum design support / digital infrastructure
5. Student receptiveness to deep educational innovation
6. Political will – the search for the painless silver bullet
7. Going the way of the music/newspaper etc sectors – not unaware, but not able to bite the tough bullets

Gates Foundation Gives \$9-Million in Grants to Support ‘Breakthrough’ Education Models

June 19, 2012, 11:00 am