Learning from MOOCs – lessons for the future

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“Learning Technology and Groundhog Day”

Terry Mayes, 1995

Seen it all before
It will blow over

“a faculty encamped just north of armageddon”

Robert Zemsky, “Checklist for Change”
Lessons from learning at scale: learners, technologies & directions

- Educational data from MOOCs – pro’s & con’s
- What have we learned?
- Some technology gaps
- Some new areas to explore
Two types of MOOC research are most common

“Who studies on MOOCs?”
- e.g. University of Edinburgh
- Items: Demographics, MOOC intentions, satisfaction, prior experiences, future intentions
- Survey sources: incomplete (often <20% response rates)
- Ethics: explicit

“What do MOOC learners actually do on course?”
- e.g. MIT, EPFL
- Items: Groups of learner types, stop-out points, use of online tools, mastery, discussion forum behaviours
- System data: 100% but only records on-system study
- Ethics: ambiguous
“Who studies on MOOCs?”

What have we learned about.... ????

- Age
- Gender
- Country of residence
- Prior educational attainment & subject
- Prior MOOC experience
- Intentions for MOOC study
- Actual MOOC outcomes
- Behaviour on course

All our analyses are openly available at: http://moocs.is.ed.ac.uk
1.4 million sign ups - over 1 million unique people enrolled
10.5 million video views
1.9 million quizzes submitted
667,967 active learners
353,934 forum posts made
88,845 completion certificates awarded
745+ videos made
218 countries represented
85 academics + 109 TAs involved
38 live course iterations
24 courses
15 academic schools
6 core staff
2 platforms
2.5 years
Futurelearn vs Coursera MOOC data

MOOC platform audiences differ appreciably.....it may be both design and the ‘maturity stage’ of the platform
Forum users per course vs. number of posts per forum user
Course active participation

13 courses 28 iterations 1.1 million sign ups
633,521 active learners
Certificate attainment
Top countries supplying learners on 6 Edinburgh MOOCs
Age profiles of learners on 6 Edinburgh MOOCs
Highest level of academic study completed

- 0.3% Primary school
- 2.8% Some secondary school
- 9.7% Completed high school
- 3.8% Some additional training (apprenticeship, CPD courses etc.)
- 13.2% College
- 30.1% Undergraduate university
- 40.2% Postgraduate university

Learning from MOOCs, Stockholm May 2015
Educational profiles of learners on 6 Edinburgh MOOCs
Prior study subject of learners on 6 Edinburgh MOOCs

Was your academic study in a subject area related to this course?

- AI Plan 2
- Astrobio 2
- EDC 2
- Equine 2
- Intro Phil 2
- Intro Phil 3
- Critical T 2

No
Yes
Reasons for learners to study on 6 Edinburgh MOOCs

What do you hope to get out of this course?

- Learn new things
- Meet new people
- Improve my career options
- Try online education
- See what MOOCs are
- Browse Edinburgh's offering
- To get a certificate
- Unsure

2nd run vs 1st run
Increasing repeat study of learners on 6 Edinburgh MOOCs

Have you enrolled on any MOOCs before this one?

<table>
<thead>
<tr>
<th></th>
<th>2nd run</th>
<th>1st run</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>No</td>
<td>60%</td>
<td>80%</td>
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Reasons for studying on a MOOC vs age profiles

reasons to study MOOC vs age band

- To get a certificate
- Learn new things
- Improve my career options
- Meet new people
- Try online education
- See what MOOCs are
- Browse Edinburgh's offering

Legend:
- under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
As % of learners of that age

SoA intenders & achievers vs age

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In summary:

Mostly adults of working age, well-educated, global with concentrations in developed countries, learning for interest

Demographics changing slowly, can be influenced

Large numbers of learners in the minority groups

Interest in study for career etc rising

As with all online education, continuous study hard to sustain against external pressures
Where next?
Teacherbots: 
addressing mass communications with intelligent answers


Scanning the MOOC twitterspace for key words and phrases – deadline, assignment, lost, unsure…..and giving a teacher pre-prepared response
Dashboard for quality of online discussion groups
MOOCs & cultural backgrounds of learners

- Coursera = 45% non-US
- edX = 33% non-US
- Future Learn = 18% non-UK

http://www.xuetangx.com/

http://www.rwaq.org/
Potential for scaling up with technology??

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
Potential for scaling up thru technology

- **Content**
  - (video, readings, Etc)

- **Text-based interaction**
  - (discourse, questions, tweets, posts etc)

- **Assessment**
  - (MCQ, short text, essay, peer grading, competence testing)

- **Bespoke academic Input**
  - (career advice, high stakes assessment etc)

Scalable to massive

Human only (1: small)

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So, where does all this fit with a traditional university re-positioning itself for 2025?
An educational portfolio with technology: 2013

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

Off-campus
2000 students
50 Masters
since ~2005

14 MOOCs
750k learners
since 2012
~15 MOOCs
under construction

Open studies
Extension
~17,000 learners
enrolled

LITTLE/NO TECHNOLOGY

Learning from MOOCs, Stockholm May 2015
On-campus AND off-campus
40,000 students, all with at least one fully online course

Off-campus
10,000 students
100 Masters
10s of PGRs

Open studies Extension
~17,000 learners enrolled

An educational portfolio with technology: c2025

100s MOOCs
1000s OERs
10,000,000 learners since 2012
Thank you for listening