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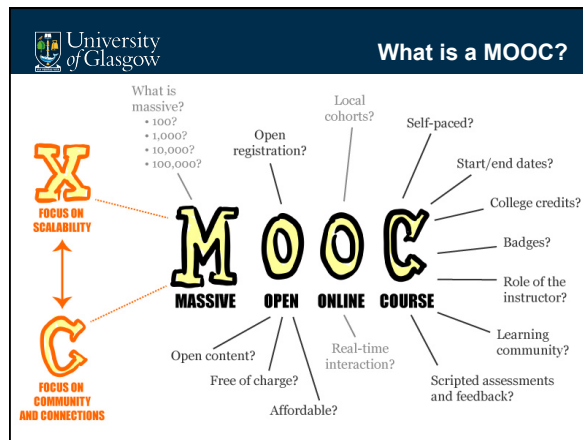
A University of Glasgow Guide to MOOCs

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<http://tinyurl.com/GlasgowMOOCTalk>



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What is a MOOC? (2)


- Massive: big numbers
- Open: no fees; no HE certificates
- Online: no required face to face time
- Cohort: Finite duration, synchronised group learning

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Three positive reasons for MOOCs

Despite many bad MOOCs, subjectively 3 kinds of outstanding positive experience have occurred:

- New love of learning and teaching: best ever learning experience (Sarah)



- Chance to teach a subject you are passionate about: best ever teaching experience (Dave Cormier) "I wanted to invite a bunch of people to a conversation about my work to see if they could help me make it better... An amazing group of people from around the world decided to spend some of their time learning with me for six weeks."
- Best ever impression of openness and access (MIT/Oxford/OU opening of resources)

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Types of MOOC

XMOOC

- Peer interaction is haphazard
- Instructivist (broadcast)
- Didactic
- Online versions of traditional courses (but bigger)
 - Video lectures
 - Recommended reading
 - MCQs
 - Discussion forums
 - Peer assessed assignments
 - Badges/statement of achievement (free/paid)

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Types of MOOC

CMOOC

- Peer interaction is fundamental
- Connectivist
- Collaborative learning
- Social networking
 - Facebook/G+
 - Twitter
 - Blogs
- "The community is the curriculum" → syllabus decided by learners not the teacher



MOOC-like entities

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. Bayne and Ross 2014

http://www.heacademy.ac.uk/assets/documents/elt/HEA_Edinburgh_MOOC_WEB_030314_1136.pdf

- SPOC: Small Private Online Course:
<http://www.bbc.co.uk/news/business-24166247>
- COOC: Community Open Online Course
<http://coocs.co.uk/>
- DOCC: Distributed Open Collaborative Course
<http://femtech.net/newschool.edu/docc2013/>
- Headless courses: <http://ds106.us/>
- ZombieMOOC:
<https://p2pu.org/en/courses/882/content/2987/>



Demographics

Maximum educational qualification of MOOC students:

- 40% a postgraduate degree
- 30% an undergraduate degree.
- 16% college or additional training qualifications,
- Less than 13% are only educated to school level.

<http://hdl.handle.net/1842/6683>

- Many participants have already done other MOOCs
- Many participants are simultaneously participating in multiple other MOOCs



Learner: why do a MOOC

- Lifelong learning.
- Addicted to learning.
- Brush up on subject knowledge.
- Want to find out if a subject is right before enrolling in formal education.
- Find out if there are any useful hints for one's own teaching.
- Find out what MOOCs are like.
- Getting a certificate.
- Career enhancement/CPD.
- No local resources.

<http://www.psy.gla.ac.uk/~steve/loaled/docs/moocReport1.pdf>



Teacher: why do a MOOC

- Potential to connect with a huge audience of enthusiastic learners.
- Potential to connect with other subject specialists.
- Commitment to widening access and widening participation.
- Potential for alpha or beta testing: finding out what really works so one can implement it in one's own classes.
- Cram all of one's teaching into one short, intensive burst to free up time for other more interesting work.



Institution: why do a MOOC

- Build a reputation for innovation, originality, great showcase teaching: marketing (advertising and recruitment).
- Commitment to widening access and widening participation (outreach).
- What can be learnt about teaching in HE? (Lessons that can be applied elsewhere).
- Get experience of online teaching and prepare materials.
- Chance to collaborate with partner institutions (potential for huge grants!).
- Possibility of monetisation.
- Not being left out.



What should we think about MOOCs?

Knee jerk reactions

- Dawn of a golden age
- Free Life Long Learning
- We're all going to lose our jobs

Other reactions

- Valuable prompt for rethinking L&T
- Research opportunities
- Prompt for considering paid online courses

“Attrition” rates

Completion means something different in a MOOC

The average completion rate of xMOOCs is 7.6%, with a minimum of 0.67% and a maximum of 19.2%. The 19.2% appears to be an outlier from Ecole Polytechnique Fédérale de Lausanne, although it may be worth figuring out how they got their rate so high.

<http://halfanhour.blogspot.co.uk/2014/03/like-reading-newspaper.html>

What should we be comparing: registering = browsing a course brochure?

Is completion relevant?

- nobody says the restaurant has failed if a person doesn't eat all the foods in a buffet
- nobody says a map has failed if a person doesn't look at or reference every street name in the gazetteer
- nobody says that a hockey or football game is a failure if you didn't watch every play from every player beginning to end
- nobody says a grocery store is a failure because a person doesn't complete the food selection available
- nobody says a television channel is a failure if people don't watch the entire run of programming from sign-on to the national anthem
- nobody says a Lego set is a failure if a person does not build every model in the guidebook

<http://halfanhour.blogspot.co.uk/2014/03/like-reading-newspaper.html>

Workload

How long is a piece of string?

"I will say though that I'd do it again, and it's been one of the most engaging teaching experiences I've had for a long time, if also one of the most exhausting."

Weller, M (2013)

http://nogoodreason.typepad.co.uk/no_good_reason/2013/05/h817open-reflections.html

Challenges (that can't be swept under the carpet any more!)

MOOCs dodge 2 challenges, raise 2 more. Traditional teaching tends to sweep all 4 under the carpet, but online teaching must face all of them.

- Peer interaction: hope for the best!
- Scaling assessment: MOOCs ignore this.
- Range of abilities/engagement: see below
- The business model: there isn't one for MOOCs!

http://upload.wikimedia.org/wikipedia/commons/2/3b/The_Elephant_in_the_Room_Banksy-Barely_Legal-2006.jpg

1. The quality of the learning experience will be mainly dependent upon the quality of the peer interaction because with one teacher for thousands of learners, personal interaction with the teacher must be negligible. So if a course is to be different from just buying a book, or a DVD set, then it must have interaction. (But how is this different from large lectures?)

2. What are the learner experiences so far? The main message is: some are absolutely terrible, some are really good. Typically the same informant has had both kinds of experiences.

3. There is a gigantic range of degree of "engagement" amongst the learners on a given MOOC, of two distinct types:

- 3a) Effort (and so time) allocated by the learner to the course.
3b) Pre-requisite knowledge.

This is the same issue as actually exists in GU's level 1 courses but *much* bigger. Bohan et al. (2013)

The Harvard SPOC is one way of addressing this: requiring no fees but to write an acceptable essay as an entrance requirement (measures commitment of effort perhaps more importantly than capability: no tourists).

4. We might argue that the real mega-MOOCs are a) Video Games; b) Wikipedia (the ultimate learner-generated content)

These are pre-existing, socially important, enterprises which involve even more participants than any MOOC to date, with a large collaborative element, and which at bottom are all about learning.

5. MOOCs as a research stimulus, advancing our understanding of learning and teaching:

- How would your recommended course design do if it had 5,000 students?
- Do your students ever discuss conceptual matters with peers?
What are you doing about this?
- If you had an hour or a week to teach the most important stuff you know to students, what would it be? Why aren't you doing this now?
- Learners learn most from doing tests (Karpicke & Blunt). How are you going to scale up "assessment" without expanding staff costs?
- [CPD] We do a good job on many students in getting them addicted to academic knowledge. How are we going to feed this created need after they graduate? (Part of the clamour for Open Access to research papers is driven by this: and so is almost all the demand for MOOCs.)

Designing online courses in general

MOOCs have dodged issues of:

- Recruitment
- Money (business model)
- HE certificates backed by law and public confidence -> exams

So they aren't a recipe for online for-money courses in general.

Designing online courses in general

What do we know that would help in designing online courses with fees and credits?

From MOOCs:

- Scaling: the need to think about it, some ideas for doing it.
- The central importance of peer interaction
- The possibility, but rarity, of online courses being the best ever.
- The importance of consciously addressing big ranges within a single student cohort of:
 - pre-requisite knowledge;
 - amount of effort learner will commit.

Designing online courses in general

The biggest barrier to GU creating successful online courses probably stems, not from narrow pedagogical issues such as how to promote peer interaction, but from overall course quality issues.

These arise from the interaction of these elements, and their impact on both course design and delivery:

- Teaching and course design depend upon largely implicit skills. No-one knows how to communicate these to another.
- Task analysis: the process of making these explicit.
- Speed of repairs ("pace" in interaction).
- Flexible division of labour.

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Implicit skills and Task analysis

- Plimmer and marking
- Course secretaries
- Muting the microphone
- Pointing at slides

Reliance on implicit skills means that everyone's assumptions of how to create a course team for online courses will be far off the mark.

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Speed of repairs ("pace" in interaction).

- Unless you have 100% foresight, then success depends on capability for resolving problems.
- There will be many **more** problems for:
 - a) a new task like online courses;
 - b) using skills that are largely tacit (or missing).

Speed of a repair \propto time round the loop
 \leftrightarrow Number of repairs per unit time \propto time round the loop

- Air traffic control
- Suchman, and the forms for ordering xerox paper.

If a course cannot be created and run by a single person, then the quality will depend heavily on the time round the loop between the people involved. If you depend on someone in the next building, you better have 10 times fewer problems; if you depend on an outsourced service (e.g. a software server) then it must be better by perhaps 1000 times fewer problems than if it is on your desk.

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Flexible division of labour

There is no one way to allocate skills amongst a team. Thinking you can do this in advance when you advertise a post gives you only a tiny chance of success (one combo out of the many possible).

Search out those rare people who have held:

- Both lecturing and IT support jobs**
- Both lecturing and course admin/secretarial jobs**
- etc.

For 2 reasons: because small teams covering multiple roles need this; And because collaboration works best between people with some experience of the other's needs.


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So:

You want teams of multi-skilled people working in a single room, with as little use of outsourcing and central units as possible until experience and increasing volume builds up

- Best thing is for a single person to do everything. Cost of collaboration.
- Next best is as few as possible.
- NOT using central university services which won't be ready for the new challenge, and solving this will swamp the course team with extra problems to solve.
- Even better than "few as possible" is as few as possible but where each can do some or all of what the others do: you collaborate well only when you have been in the other person's shoes.


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