MOOCs and other Online species — A Lexicon and Overview

by

Meera Sitharam

University of Florida
What is a MOOC?

Choose one

1. A cow’s mating call
2. Newest novel by Jane Smiley
3. No one really knows
MOOC

Massively Open Online Course
Backdrop

- Skills shortage
- Cost of higher education

Can MOOCs address these issues?
Massive

• How many enroll? 5,000 – 50,000
• How many drop out? > 90%
OPEN

What does OPEN mean? Choose one:

- Organization’s Ploy to Educate Nincompoops
- Odd Payments Entitlements Noise
- No one really knows
OPEN

• Free and open course materials for each student

• Free and open course materials for other instructors (a variety of tight copyleft Creative Commons type licenses)

• Open source Platform (also with a variety of licenses) [Student quiz performance data visible only to instructor, IP address invisible, hosted on the cloud – security level announced upfront]

• Open “brand” – membership cooperative: examples of “closed/exclusive brand” edX
(1) Free and open course materials for each student  
(2) Free and open course materials for other instructors  
(3) Open source Platform  
(4) Open membership cooperative

Pearson/Harcourt online  -- None

<table>
<thead>
<tr>
<th>Platform</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>Coursera/Udacity</td>
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<td>Khan Academy</td>
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<td>AOPS (alcumus)</td>
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Online (distance only)

Four types of online (distance only) paradigms:

(1) Web-based textbooks with web assignments

(2) MOOC
  - Synchronized (Coursera), Nonsynchronized
  - (Khan Math, Udacity)
  - Noninteractive online content (audio + text/video)
  - Interactive robot-graded exercises (no other content in the case of codeacademy and MIT appinventor)
  - Peer-to-peer chat forum/discussion board with/without moderator

(3) MOOC, but with phone-in instructor help
  - Florida Virtual School

(4) Socratic style interactive distance lectures w/ conferencing or chatblazer
  - Art of problem solving
  - Delivered realtime by one instructor (two helpers per “section” of 30 students), and 4 hand-graded project assignment
Online (distance only)

Four types of online distance paradigms:

(1) Web-based textbooks with web assignments
(2) MOOC
   - Coursera, Khan Math, Udacity
   - Noninteractive online content (audio + text/video)
   - Interactive robot-graded exercises (only these in the case of Codeacademy and MIT Appinventor)
   - Peer-to-peer chat forum/discussion board with/without moderator
(3) 100% automated, with phone-in instructor help
   - Florida Virtual School
(4) Socratic style interactive distance lectures on chatblazer
   - Art of problem solving
   - Delivered by one instructor and two helpers, to a class of 30, and 4 hand-graded project assignment
Online (distance only)

• Cost
  • Web-based textbooks with web assignments (comparable to textbooks)
    MOOC  *Coursera, Khan Math, Udacity* (startup cost, $30K per course, one TA salary for 200 participants, one IT person salary for 1000 participants. For student: free unless discussion participant, need certification etc.)
  • Automated course with telephone access to instructor and some hand-grading. *Florida virtual school* ($500 per student for a semester course at K-12 level)

• Socratic style interactive distance lectures  a class of 30, and 4 hand-graded project assignments. *Art of problem solving* ($300 per student for a quarter course)
Online(distance) positives

- Animated textbook
- Exercises as games
- Increased access to interaction with worldwide peers and experts
- Open/crowd sourced development and improvement of a searchable database of instructional material for standardized courses of study
- Large scale student response data (in easily analyzable format) for understanding how people learn
- Can support “flipping the classroom” teaching methods
Online (distance) Issues

• Does not offer the standard level of support even of large face-to-face courses
  • An expert prof to run the course and one TA for every 30 or so students, hands-on discussion/lab

• Question 1: What are the student and content characteristics needed to ensure quality?
• Question 2: How are the students to be authentically evaluated and certified at a distance without a proctor?
Online(distance) Issues

- **Plausible answer to Question 1**
  - **Student**: well above average resourcefulness, discipline, self-confidence to self-assess learning effectiveness without hand-holding
  - Qualities not measurable as quantities – but can be statistically defined as 5% of the population
  - **Course content**: entry level, not requiring depth of conceptual understanding, course just provides some practice and experience (course not major / minor in)

- **Answer to Question 2**
  - Difficult, unsolved problem
Links

Web textbooks with interactive exercises:

http://www.pearsonhighered.com/pearsonhigheredus/index.page?forced_logout=forced_logged_out
Other Online species

• Take a step back: What does a course consist of?

• **Unbundle** according to:
  - Content delivery and Interaction /Discussion
  - Assessment towards feedback or credit – how is it done?
  - Assessment toward credit – who does it?
  - Accreditation of the Course – who does it?

• **Mix and Match** according to
  - Course content
    (for an experience-report on flipped classroom, see http://www.cise.ufl.edu/~sitharam/flippingtheory.pdf)
  - Budget ...
## Unbundling Education

### Table 1: Unbundling Course Delivery

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<thead>
<tr>
<th>Interaction Type</th>
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<th>distance</th>
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<tbody>
<tr>
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<td>live recorded</td>
<td>performing arts, fast-changing areas</td>
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<tr>
<td></td>
<td></td>
<td>student-student</td>
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Unbundling Education

Unbundling Student Assessment towards Credit: Who does it?

- Content deliverer
- Employer
- Independent standardized testing
- 
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-
Unbundling Education

Unbundling Accreditation: Who does it?

• “Brand”: a cooperative of content deliverers
• Employers
• Independent accreditors
Case Studies

Cheap

- SJSU
  - https://www.udacity.com/collegecredit
- GaTech
  - https://www.udacity.com/georgiatech
- FL SB 904 rolled into HB 7029
  - http://www.flSenate.gov/Session/Bill/2013/7029
Look for: http://www.pearsonvue.com/
Case Studies

Not Bad (blended online, closed)

- Duke via 2U  http://2u.com/
- Udemy https://www.udemy.com/

--Florida Virtual Campus http://www.flvc.org
Your Rights
Issues and Concerns

• You are
  • content creator
  • content presenter
  • owner ?
IP ownership
Legal Wild West

· You might think it all belongs to you
· The university wants it all

Who decides? ……. 
The University of Florida Case

・The Deputy General Counsel says:
  ・Your online course belongs to UF

・The CBA says:
  ・It belongs to you unless
  ・UF commissioned it AND
  ・UF paid you specifically for it

・No case has been tested yet
The University of Florida Case

Georgia Tech Masters in CS with Udacity

· Interesting deal, appears reasonable for faculty

http://www.insidehighered.com/news/2013/05/28/documents-shed-light-
Food for Thought

• Safe option: use your own resources even if you plan a free and open course

• Incidental use of university resources may be OK
What the Future Holds

- Familiarize yourself with the technology
- Actively promote awareness of fragility of IP ownership
- No issue is fully settled – they continue to evolve

Get faculty involved in discussions!
Comment by a Workshop Attendee

When dealing with online “revolution” we can collectively choose to:

• Be in the driver’s seat
• Be in the passenger’s seat
• Be in the trunk

Get faculty involved in discussions now!
Thank you