More than MOOCs

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KNVM & NVMM
Spring Meeting 2015
Papendal, April 14th
Roadmap

**MOOCs**
- definition; geographical origin;
- example; quality; typology

**More than MOOCs**
- MOOCs + …
- Online ≠ MOOC
- blended

**Questions**
Defining “MOOC” (1)

Massive Open Online Course
Defining “MOOC” (2)

Massive Open Online Course

A typical MOOC is a seven weeks course with videos that correspond more or less to a two hours weekly lecture, quizzes and various assignments.
MOOCs are from the US

North America: 482
Europe: 196
Asia: 33
Australia: 22
South America: 0
Africa: 0
MOOCs: an example

Platform: edX [https://www.edx.org](https://www.edx.org)

School: Massachusetts Institute of Technology

Course: DNA Replication & Repair
First Principles of Instruction  
(book by M. David Merrill, 2013)

Learning is promoted when learners …

1. acquire skill in the context of real-world problems
2. activate existing knowledge and skill as a foundation for new skill
3. observe a demonstration of the skill to be learned
4. apply their newly acquired skill to solve problems
5. reflect on, discuss, and defend their newly acquired skill
Instructional Quality of MOOCs
(January 2015 research article)

Key criteria: Merrill’s First Principles of Instruction

Additional criteria: learning resources and supports

Scoring on 72-point scale

76 randomly selected MOOCs assessed
Instructional Quality of MOOCs
(January 2015 research article)
[continued]

The majority of MOOCs scored poorly on most instructional design principles:

≤ 28 out of 72 points.

However, most MOOCs scored highly on organisation and presentation of course material.
Typology of MOOCs
(Pierre Dillenbourg, unpublished)

[1] Large Class
[2] Twins
[3] Unique Selling Proposal
[4] Lab Debriefing
[5] Crowd Data
[6] Lab Passport
[7] Gate

[8] Lifelong
[9] Teacher Training
[10] Alumni Refresh
[12] Citizen
[13] Tangible
[14] Spitz
More than MOOCs: MOOCs + …

“… where MOOCs are supposedly copying old-style university lectures, joining MOOC usage to existing learning infrastructure in colleges and universities can combine the best of both worlds” [prof. dr. Fred Truyen of KU Leuven]

http://bib.kuleuven.be/agora
http://www.youtube.com/watch?v=pViPBYglJ4g&feature=youtu.be
More than MOOCs: Online ≠ MOOC

1995: first online course

2008: first MOOC

2015: 4000 MOOCs

>>4000 non-MOOC online courses
Educating the next generation microbiologists: MOOCs?

1. Many MOOCs are poor in instructional design.
2. Selected MOOCs are fit for specific purposes.
3. Embed MOOCs in existing learning environment.
4. There is a wealth of online education ≠ MOOC.
5. How to teach on online course?
   http://elevatehealth.eu/course/teaching-online-course-0

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QUESTIONS?
More than MOOCs: Blended Learning

What is Blended Learning?
www.youtube.com/watch?v=z74z57G2Nfc

“Learning outcomes determine the means used to deliver course content. In a blended-learning context there is an explicit rationale for the use of each component in the blend”
Online ≠ MOOC examples: *Elevate Health*

- Online Medical Education
- Utrecht University/UMC & partners
- Microbiology: not yet, but expected: course on *Infection & Immunity*, with University of California in San Diego
- [http://elevatehealth.eu/](http://elevatehealth.eu/)