

MoOC

A revolution in teaching?

A European view

Université Pierre
et Marie Curie,
Paris

Yves Epelboin
Director ICT
Yves.Epelboin@upmc.fr

www.upmc.fr

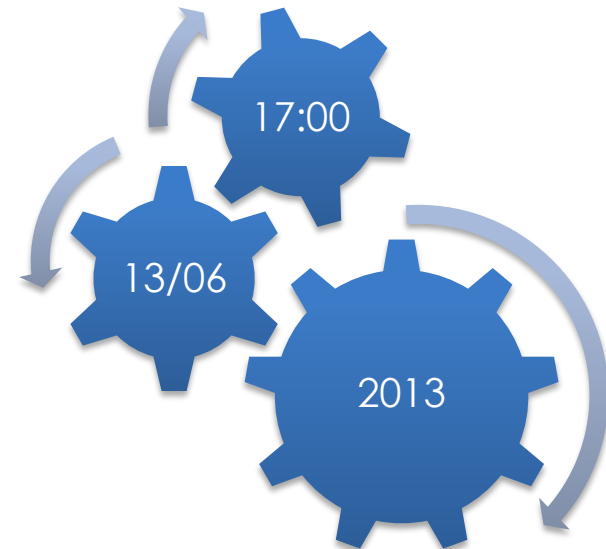
UPMC
SORBONNE UNIVERSITÉS

Warning

- MOOCs are an evolving subject



The contents of this presentation will be valid only until

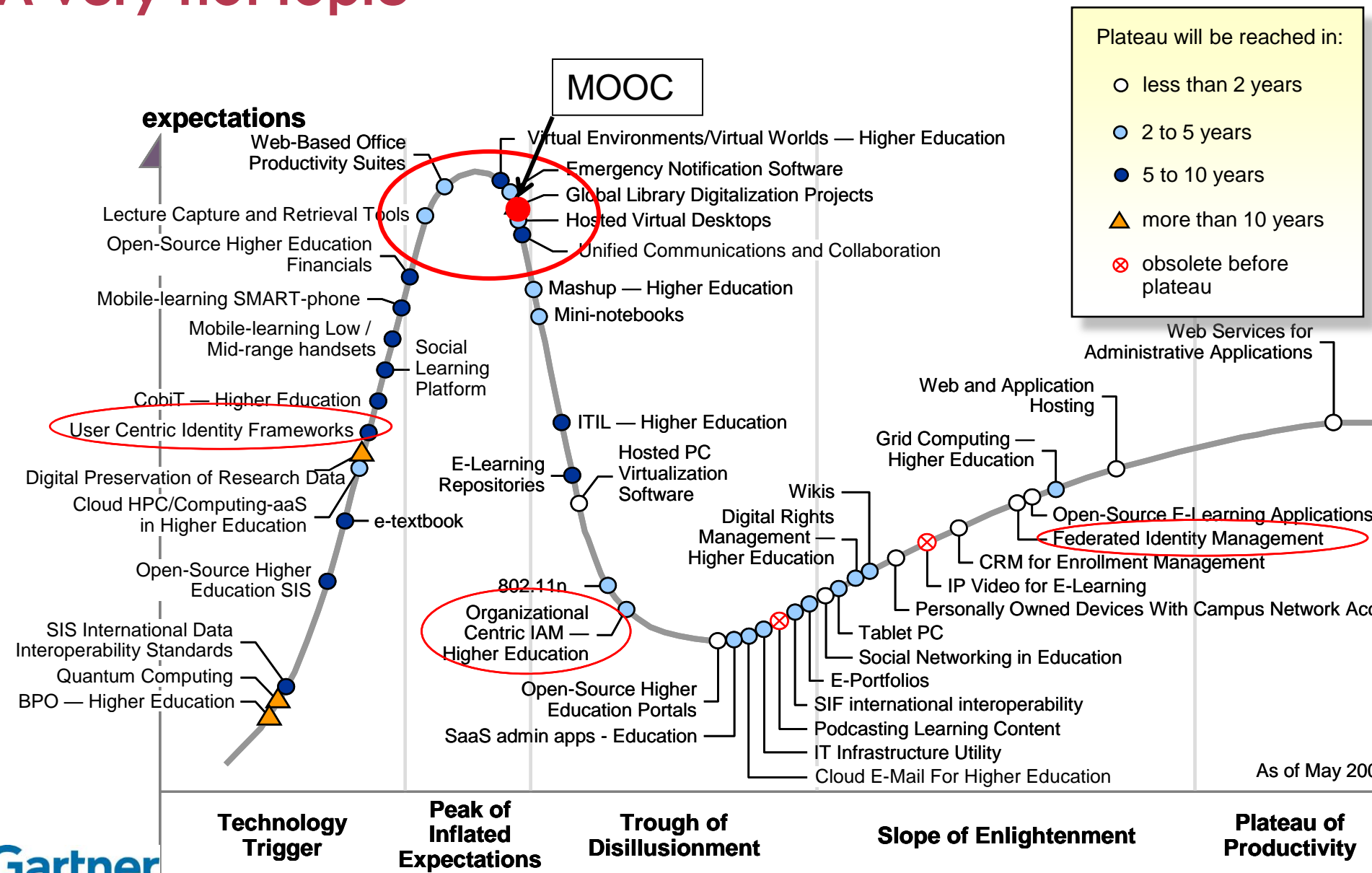


- MOOCs : an international tsunami coming from the US
- Pressure from Brussels: 23 april :
http://europa.eu/rapid/press-release_IP-13-349_en.htm
- European OER initiatives: TERENA MTF, EUNIS LTF
- MOOC European Summit, Lausanne EPFL, June 6-7
- A visit to the US in November:
 - Pennsylvania U.
 - Drexel U.
 - Educause

MOOC: a solution to a US problem. How to apply it in Europe?



A very hot topic



Plateau will be reached in:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

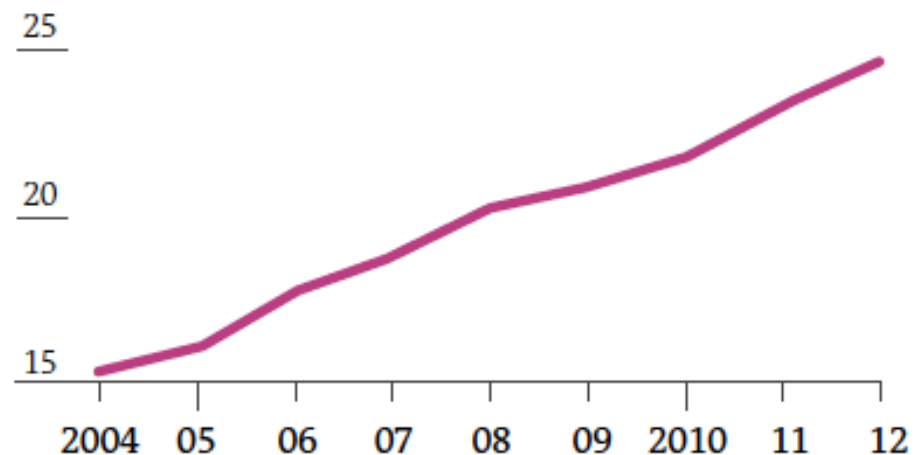
An aerial photograph of Paris, France, showing a dense urban landscape with numerous buildings and a prominent red-roofed structure in the center. The Eiffel Tower is visible in the far distance on the left side. The sky is overcast and hazy.

MOOCs in the US: why? A socio-economic view

The economical crisis

- Tuition fees at an unacceptable level:
 - Over 10 000 \$ in public universities
 - 40 000 – 60 000 \$ private universities
- An abyssal students debt: 1000 Milliards \$
 - Mean value 25 000 \$ in 2012 (15 000 \$ in 2004)
 - 40 Millions loans (20 Millions in 2004)

Montant moyen d'un emprunt étudiant, en milliers de dollars



Source : Le Monde 23/03/2013

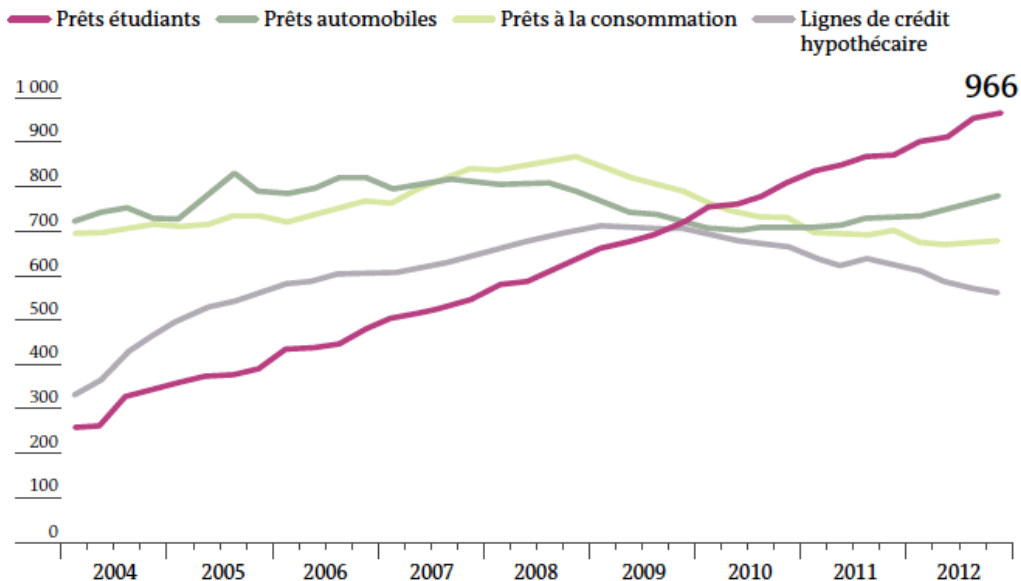


Tuition debt

- The number of borrowers :
 - 20 millions in 2004, 40 millions in 2012
 - 40% under 10 000 \$, 30% under 25 000 \$, 30% more than 25 000 \$
- A negative impact on the US economy

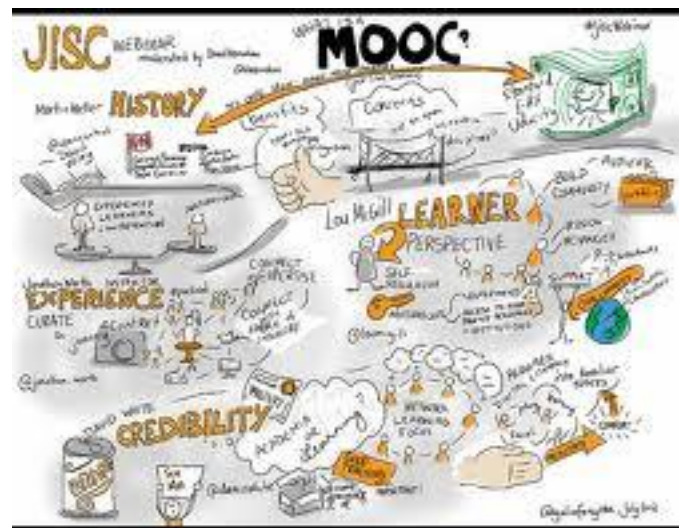
Les études, première source d'endettement (hors prêts immobiliers)

Evolution des emprunts, en milliards de dollars



MOOC: the solution?

- A massive course: over 140 000 students!
 - Few interactions with teachers
 - Pure distance learning
 - Automatic tests and peers controls
 - Certification at the end
- Certification is not credential
 - Not for free
- Savings with labor costs?
- A high dropout rate (90%)



... and now?

- « MOOCs as capital-biased technological change »
J. Zevin The Magnet is always on,
17/12/2012
- edu@2025 R. Katz (youTube)
- « Udacity has already partnered with more than 20 companies who verify and accept the certificates of course completion »
S. Thrun, (Standford et Google) in CNN W. J. Bennett, 5/07/2012



The main actors



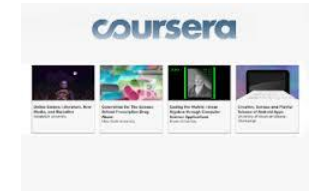
- edX : Harvard, Berkeley, U. of Texas...

www.edx.org



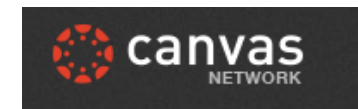
- Coursera : Stanford, EPFL, Edinborough...

www.coursera.org



- Canvas : Brown, U. of C. Florida...

www.canvas.net



- Udacity : private company

www.udacity.com



- Futurelearn : Open University

www.futurelearn.com



- Miriada X, www.miriadax.net

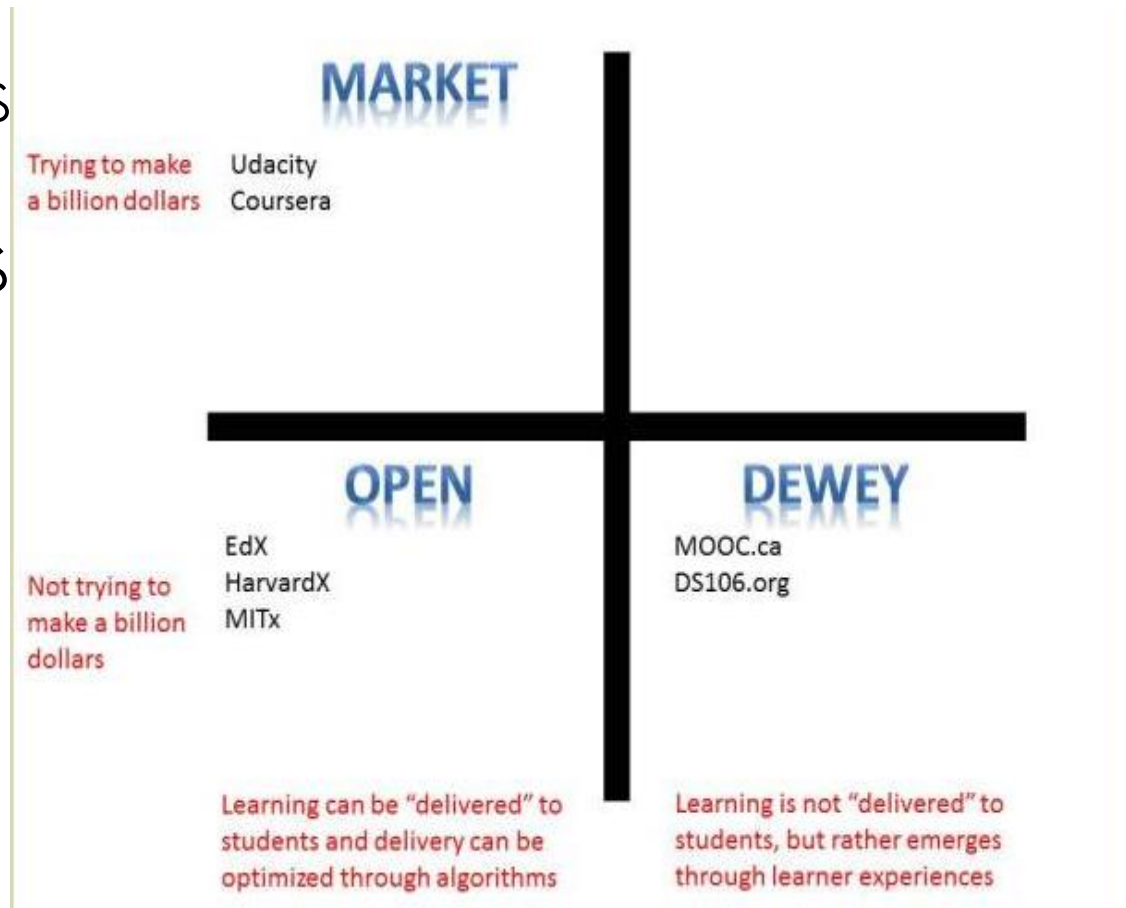


miriada X



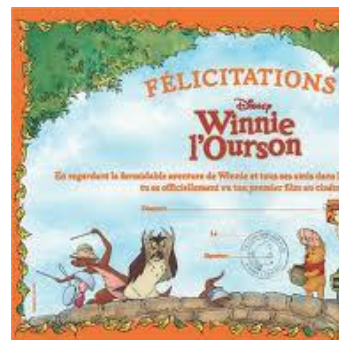
An important funding

- Finances :
 - edX : 60 M\$
 - Coursera 25-100 M\$
- Price for course:
100 000 – 600 000 \$
- A full time job to design a course



A new grading system

- 13/11/2012 Coursera:
 - 33 courses accepted as credits by renown universities such as Stanford, Penn, Princeton, Brown, Berkeley...
 - Move from the OCW concept towards a pay model
 - A paying certification revolving towards a paying graduation
 - Business model shared with the industry: Wiley



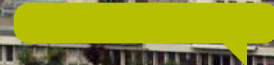
Models for Europe?

- The economical model:
 - Mass and open?
 - Less expensive distance learning model
- The organization model:
 - Centralized : HE European model
 - Competition among consortiums
 - European, national scale?
 - Merging with US consortiums?
- The funding problem
 - LMS
 - Support staff and teachers
 - Contents

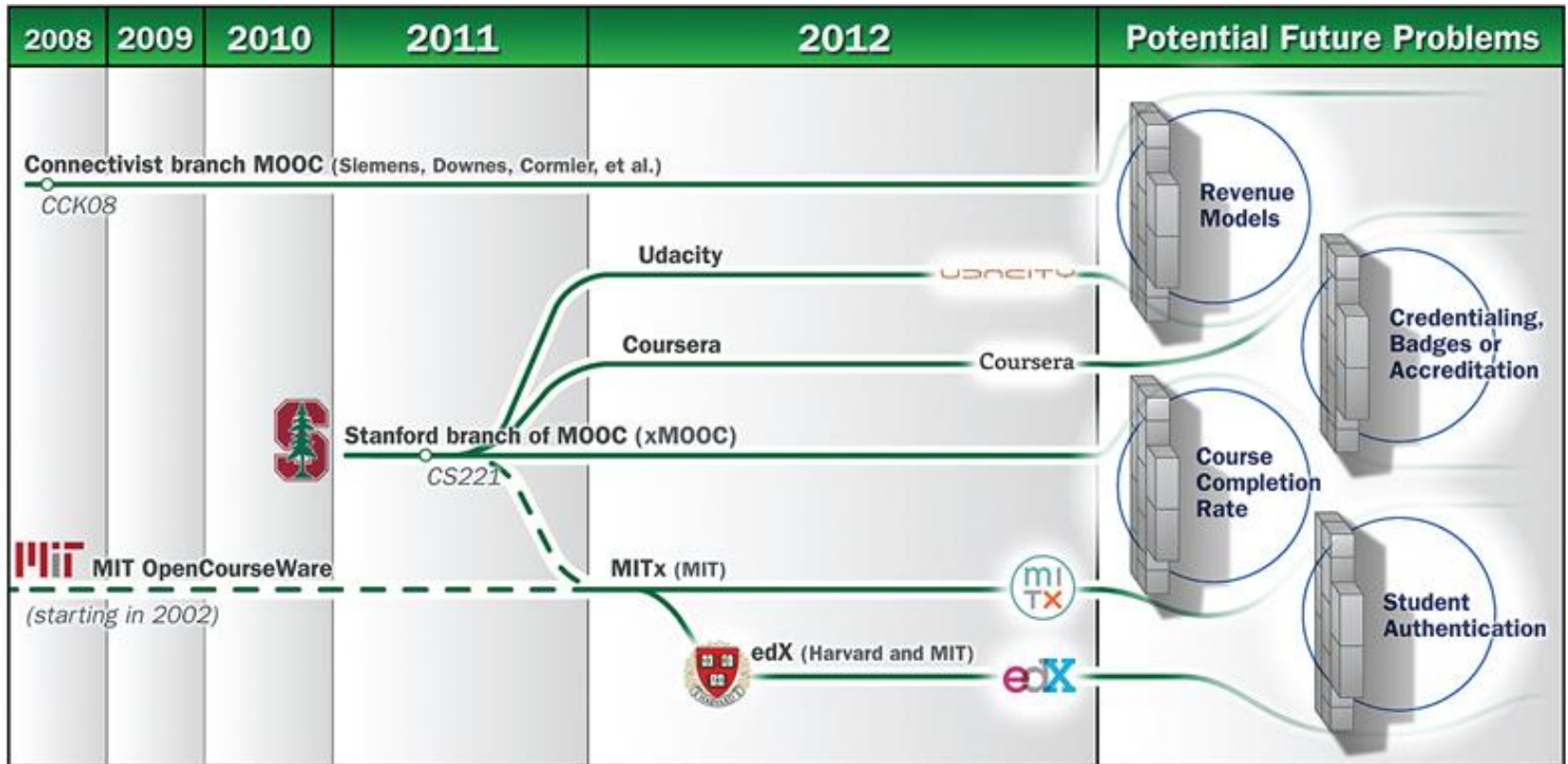


MOOCs

C & X



From OCW to x-MOOC and c-MOOC



- Phil Hill, Educause Review , 1^{er} novembre 2012

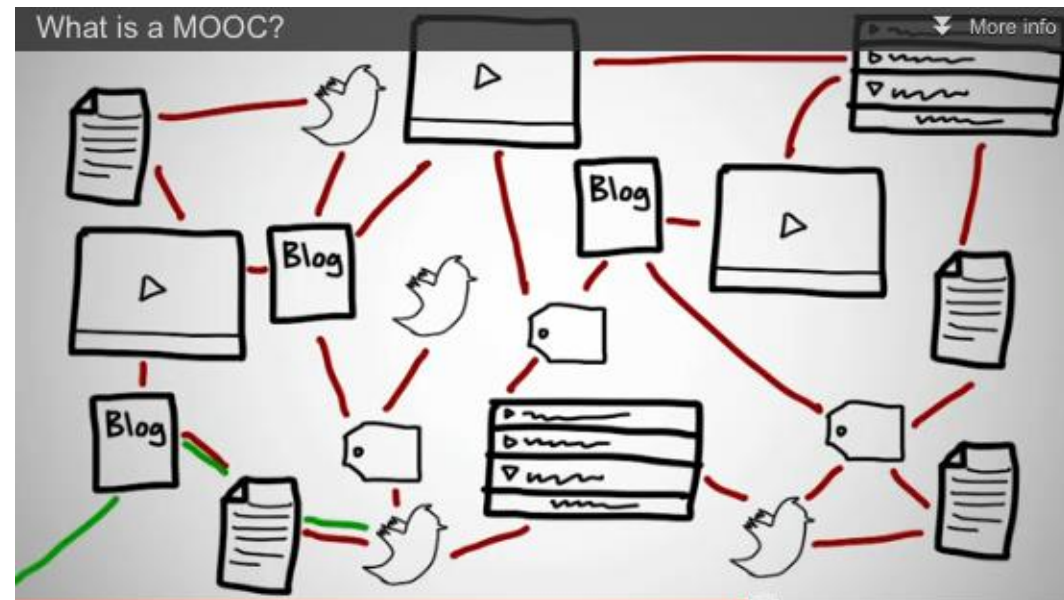


- The connectivist model
 - « *All learners, all teachers* »
- No build path, no pedagogical path
- Some resources available but
 - Bring your own resources
 - Web crawling more important than anything else
- Aims:
 - Exchanges, social learning
 - Network and connections
 - Acquisition of knowledge
- Certification: how?



c-MOOC : a course?

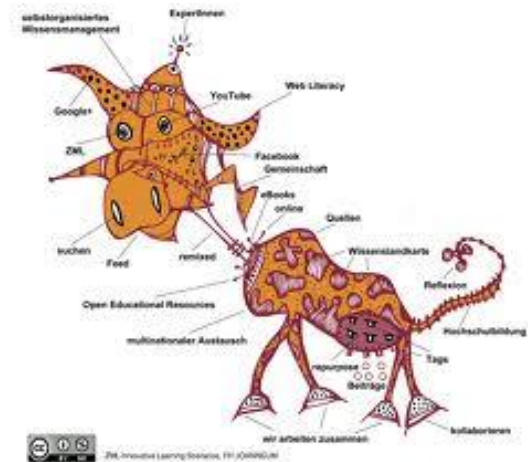
- A c-MOOC is not a course in the usual meaning
 - It is a means to connect people
 - It is a means to collaborate
- It is an event where interested people meet.
- Every participant brings his/her own work
- Every one contributes



MOOC guide <http://moocguide.wikispaces.com>



- Main lecture:
 - Videos = the theater
 - Documents = books
- Application classes:
 - Exchanges among participants (forums, social tools)
 - Crowd learning
 - Exchanges with teachers
 - Comments in forums et social tools
- Assessments
 - Quizzes
 - Peer evaluation
- Degree = Certification



A 21st century answer?

- Alternative to classical learning:
 - Information is everywhere
 - Information is accessible from anywhere
 - Knowledge is distributed (Wikipedia)
- A MOOC is:
 - Open to everybody
 - Participatory
 - Distributed
 - Based on a network of relations for all along the life educational path

After « blended learning »
« flipped learning »



Flipped learning

- Inverted pedagogy
 - All participants
 - All learners
 - All teachers
- End of the classical academic model
 - Delivering documents
 - Pedagogical support
 - Assessments ...
- A new model for the 21st century student
 - Peer control
 - Peer help
 - Learning analytics





MOOCS & Europe

Trends in Europe

Outputs from European MOOC summit
(Lausanne 6-7 June 2013):

- MOOCs exist in most European countries
- Various definitions: from OER to MOOC
- Various aims:
 - from course remedial to massive open courses
 - Most often, thought primarily for internal use
 - Extension to massive access for various reasons
- Various technical solutions:
 - *“The platform is not the problem”*
 - Coursera and edX as main partners
 - Miriada in Spain



A young technology

- « *One course = one platform* »
Charles Severance, Indiana University
- Cloud to sustain the load
- Open source :
 - Canvas : Ubuntu (Debian, MacOS?)
 - edX : Xblock, just released (MIT)
 - Class2go (Stanford) (Python, Django)
 - Coursebuilder (Google) (Django)
 - OpenMOOC (Spain) (Python, Django)
 - Sakai CLE (Aperreo foundation, Java)
 - Claroline Connect (to come)
- Other national solutions under way (NREN, vendors, research...)



European organization?

- Decision in the hands of the stakeholders:
 - Universities
 - Ministries of Higher Education
 - Universities National organizations (UCISA, LADOK, AMUE...)
- Choices:
 - Merging in existing consortia (Coursera, Canvas...)
 - Universities consortia (LERU, EUA...)
 - National consortia
 - Role of NREN, EUNIS?
- Vendors
 - More than software providers?
 - Selling full courses?



2025 horizon?

- Major industrial companies: Google, Microsoft...
- Survival of universities
 - In the USA :
 - Standardized curricula under pressures to reduce costs and prices.
 - In Europe :
 - Concurrency between universities and education business
 - Certification and graduation
 - TROC : Tiny Restricted On-Line Courses

See edu@2025 R. Katz, YouTube



An aerial photograph of Paris, France, showing a dense urban landscape with numerous buildings and a prominent red-roofed structure in the center. The Eiffel Tower is visible on the left side, and the Notre-Dame de Paris cathedral is on the right. The text "MOOCs : a revolution?" is overlaid in the center of the image.

MOOCs :
a revolution?

A revolution?

- **No**: Open University UK model from 1992 adapted to 2013 technologies
- **Yes**: admitted economical objective: the alternative to face-to-face teaching for mass education
- A new way of teaching?
 - **Yes**: acquisition of knowledge without teachers
 - **Yes**: acquisition of competencies : c-MOOC approach but not adapted to all fields.
- Assessment of knowledge and competency ?
 - **No**: automatic quizzes without teachers do not suffice
 - **Yes**: methodology already in place in some fields



An alternative?

MOOCs do not replace face-to-face or any equivalent means for distance learning.

Example : First year of Medicine in France

- 2500 students, 480 retained
- Conditions of success
 1. Excellent grades for baccalauréat
 2. Additional expensive small classes

But some industry leaders try to make believe that MOOCs are the alternative to the “King teacher”
(Xavier Niel, Iliad & Free)



Changes to come

- Distance learning
 - End of synchronism with the university timing
 - End of organization by ECTS
 - Certification or graduation?
- Open University
 - Bring a new public to the university
 - Retired people
 - Knowledge lurkers
- Continuous education
- Prerequisites, remedial courses
- Battle with business for alternative graduation



EUNIS e-learning TF position

EUNIS has a keen interest in these developments but remains skeptical about the fact that much current MOOC activity is US-centric with its roots firmly in the commercial sector that is currently underwriting much of the development activity. There are also contrasting pedagogic models being labeled under the same banner. Europe needs to analyze the lessons learned from these developments and look at how best to apply them to improve the educational experience in a diverse range of educational contexts. EUNIS sees opportunities to improve pedagogic practice by incorporating more online learning (especially effectively designed peer interactions) in traditional courses. There are also some opportunities for widening participation bearing in mind the digital literacy (and indeed cultural attitudes to learning) required by students before they can become effective learners in this type of context.



Next steps in Europe

- National, European consortiums for running MOOCS?
- Coordination among universities to offer a wide diversity of courses?
- Multicultural, multilingual approach?

or each institution going on its own with international consortiums and/or vendors?

Some possible hints: European MOOC summit in January 2014 in Lausanne, Switzerland.
See you there.



A scenic view of a Parisian river, likely the Seine, with a white boat in the foreground. In the background, there are several large, modern buildings and the iconic Gothic architecture of Notre-Dame de Paris. The sky is blue with light clouds.

Discussion

Yves.Epelboin@upmc.fr