

# MOOC: the European Perspective

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# Agenda

- The context
- MOOCs: a few concepts
- MOOCs for Europe



- Strategy for MOOCs
- MOOC: a revolution?

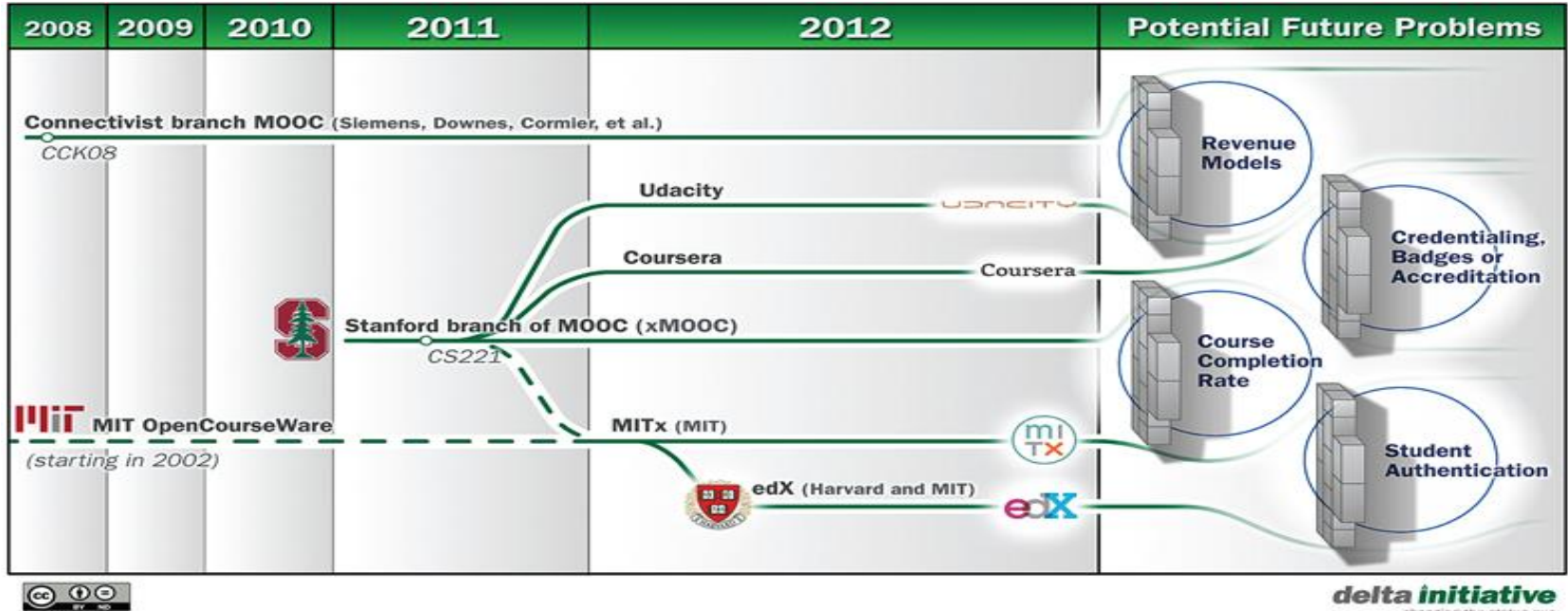
# A short history

- 1972: Open University (UK)
- 2000: Learning Management Systems (LMS)
- 2002: Open Educational Resources (OER)
- 2008: George Siemens “*all learners, all teachers*”  
The connectivist MOOC, cMOOC
- 2011: S. Thrun, Stanford  
xMOOC and transmissive MOOC
- 2012: Coursera, edX...

# Massive Open Online Course

- Massive: large number of participants
  - Definition of large?
    - Depending on the subject
    - Lurkers, true participants and certification
- Open:
  - No prerequisite but must register
  - Not Open Source
- Online
  - More than contents: self contained

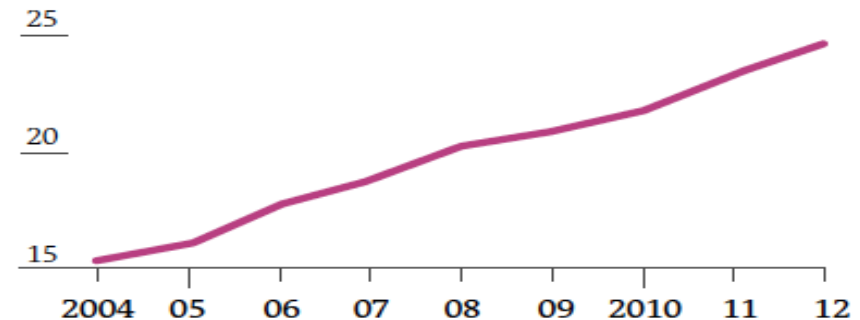
# From OCW to MOOC



# US context: students debt

- Tuition fees at an unacceptable level:
  - Over 10 000 \$ in public universities
  - 40 000 – 60 000 \$ private universities
- An abyssal students debt:
  - 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



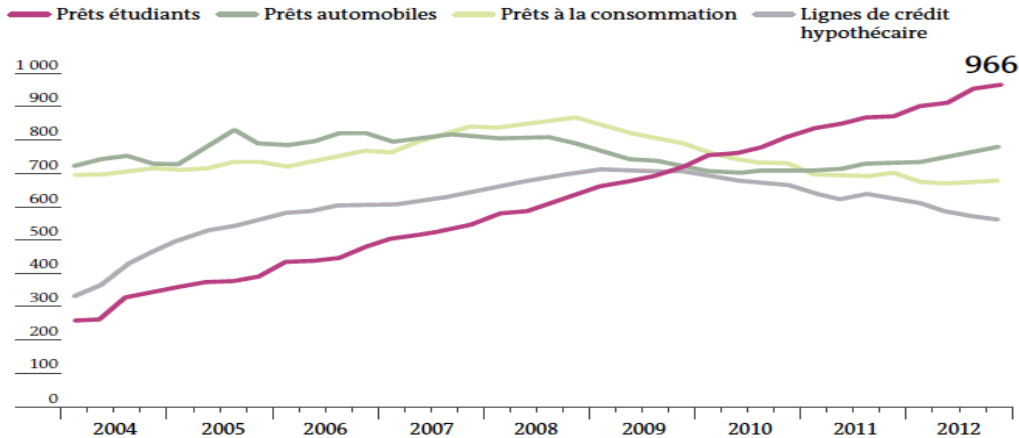
# US context: Tuition debt

## A negative impact on the US economy

First debt before housing!

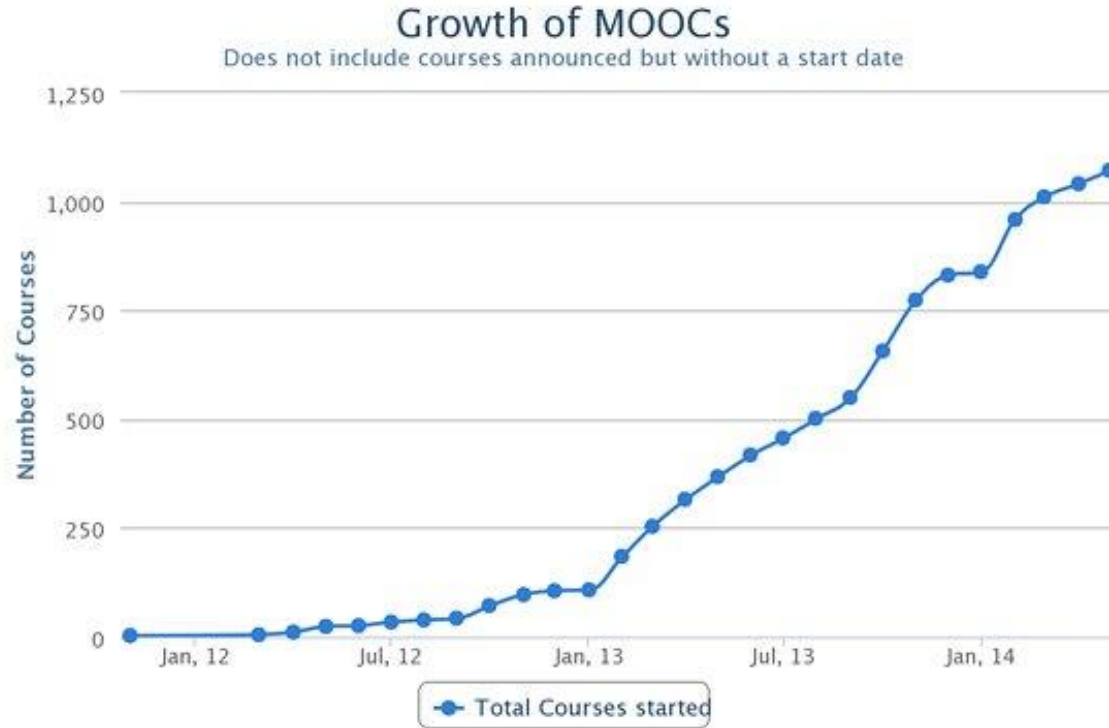
### Les études, première source d'endettement (hors prêts immobiliers)

Evolution des emprunts, en milliards de dollars





# Growth of MOOCs



<https://www.edsurge.com/n/2013-12-22-moocs-in-2013-breaking-down-the-numbers>



# Main actors: US



- Coursera : Stanford, EPFL, Edinborough...

[www.coursera.org](http://www.coursera.org)



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

[www.edx.org](http://www.edx.org)



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

[www.canvas.net](http://www.canvas.net)



- Udacity : private company

[www.udacity.com](http://www.udacity.com)



# Main actors: Europe



- Miriada X (Spain)  
[www.miriadax.net](http://www.miriadax.net)
- Futurelearn : (UK)  
[www.futurelearn.com](http://www.futurelearn.com)
- France Université Numérique (France)  
[www.france-universite-numerique.fr](http://www.france-universite-numerique.fr)
- Iversity (Germany)



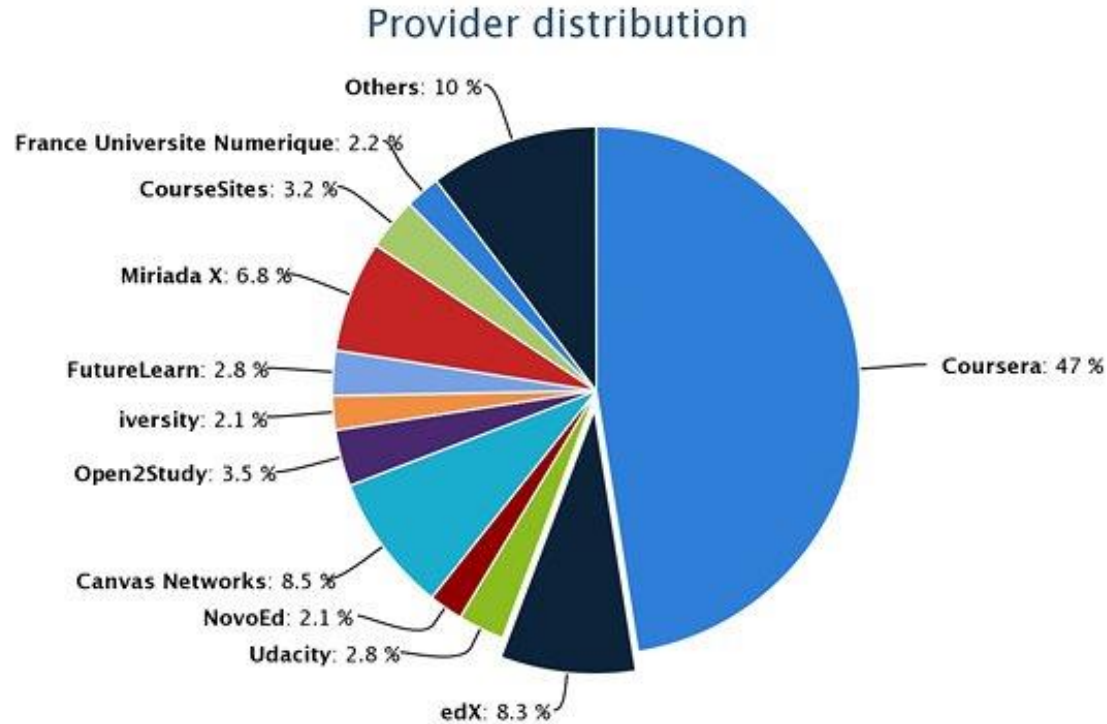
**miríada X**



**FUTURELEARN**

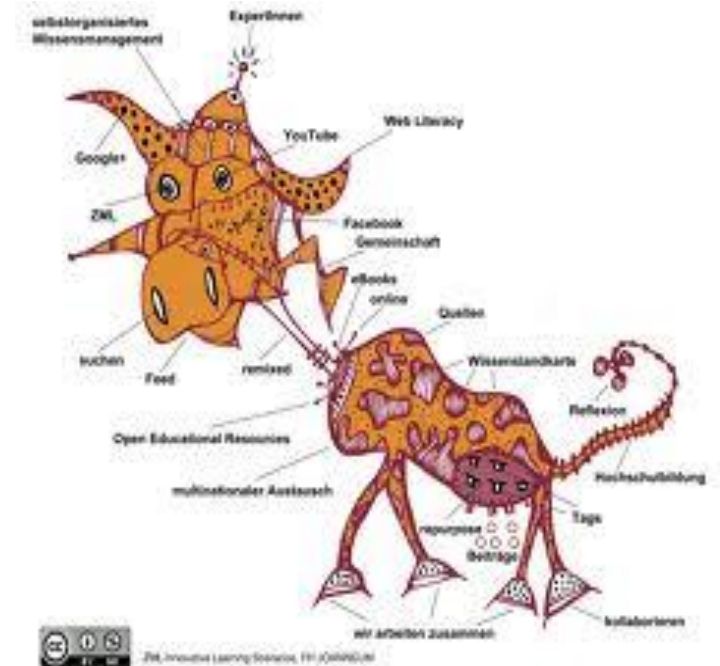
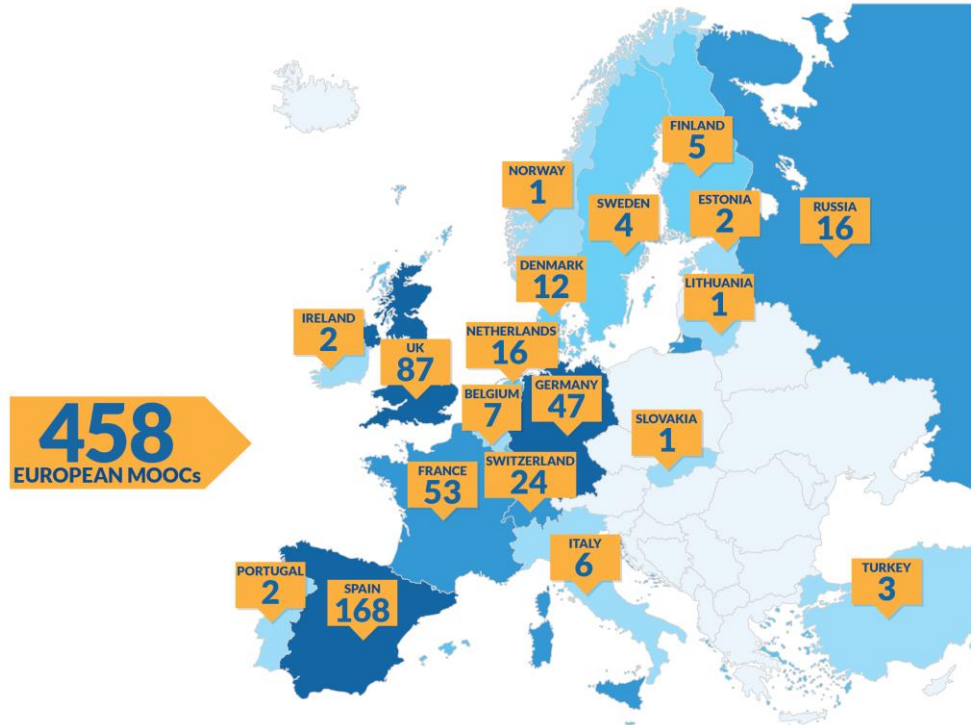


# Provider distribution

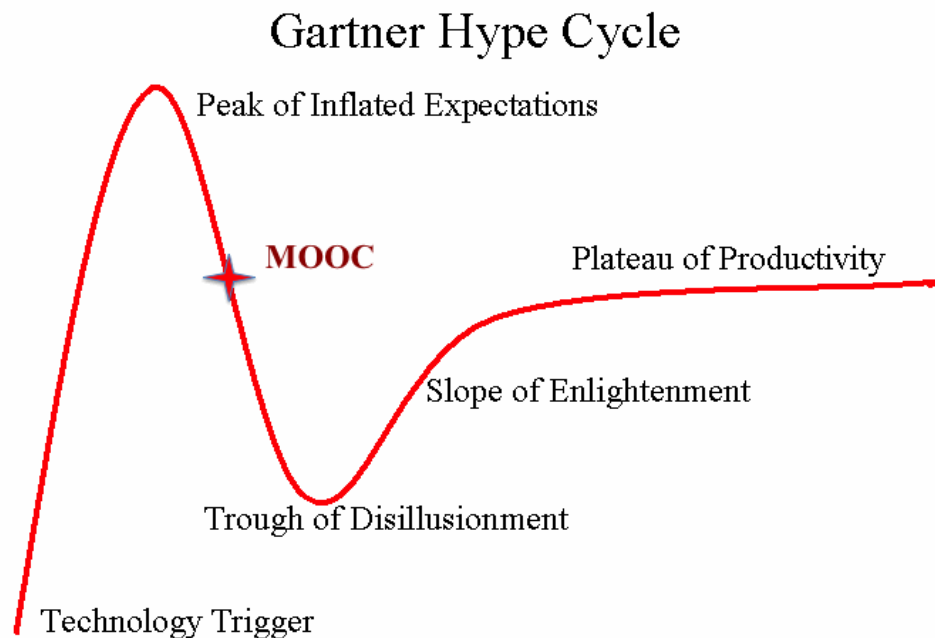


<https://www.edsurge.com/n/2013-12-22-moocs-in-2013-breaking-down-the-numbers>

# European MOOCs



# Where do we stand?







MOOC

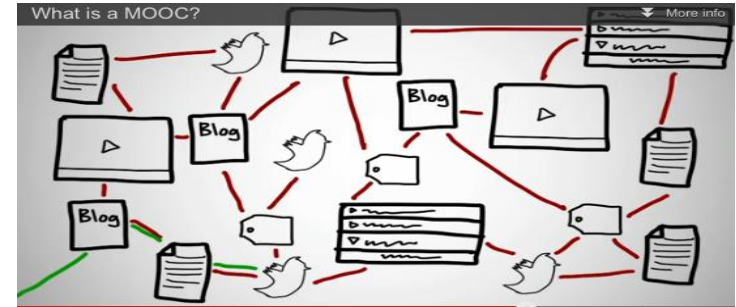
A few concepts

- Flipped learning
- Distance learning with few interactions with teachers
- Distance assessments
- Strong interactions among participants through social networks
- Community managers



# c-MOOC: the social Web

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



# x-MOOC: the continuity

- Videos + documents  $\Longrightarrow$  theater + book
- Forums + social tools  $\Longrightarrow$  face-to-face
- Peer evaluations + quizzes  $\Longrightarrow$  Assessments
- Certification ?



# cMOOC & xMOOC

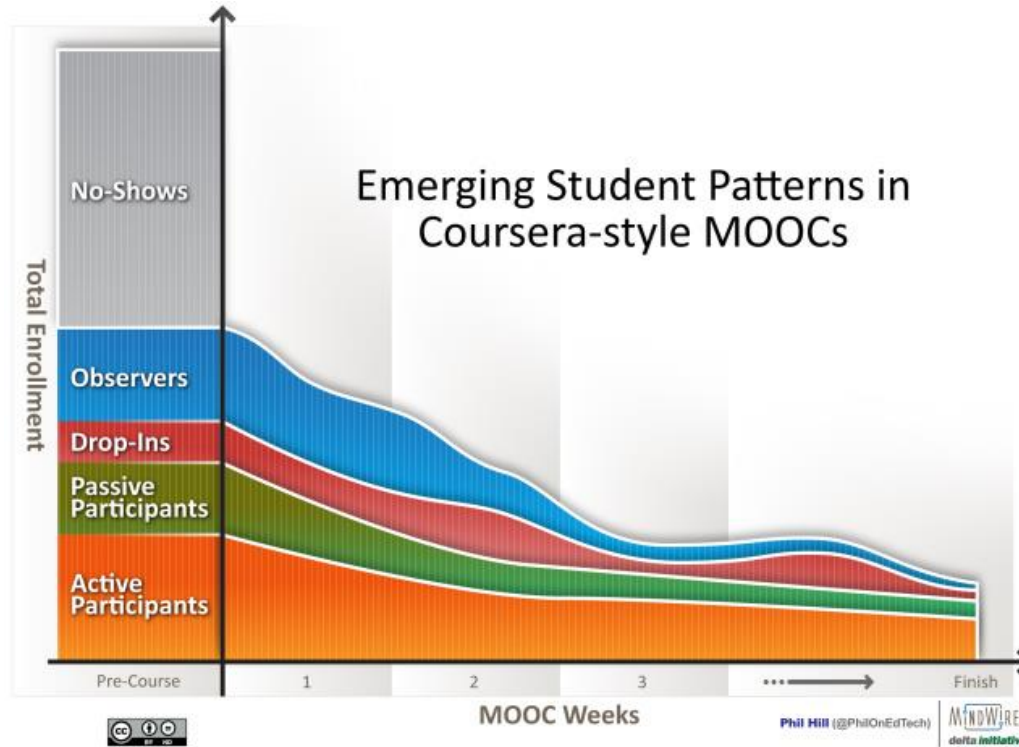
	cMOOC	xMOOC
Learning model	Connectivist	Classic
Objectives	Build by participant	Build by teacher
Coherence	Participant	Teacher
Learning	Navigate, build connections	Follow the course
Resources	Aggregation by participants	Included in the course
Exchanges among pairs	Very important	Possible
Interactions	Distributed	Forum on site

# cMOOC & xMOOC

	cMOOC	xMOOC
Synchronization	At own pace	By teacher
Certification	University, firm or badge. Not necessary	University, firm and badges
Assessment	Among pairs	University & firm
Teacher attitude	Facilitator	Owner of knowledge
Student attitude	Autonomous, sociability	Flipped learning
Student objective	Self enrichment	Promotion

After J-M Gilliot <http://tipes.wordpress.com/2012/06/12/differents-types-de-moocs/> (French)

# MOOC and student retention



Success as not the same meaning in a MOOC than in a class

P. Hill e-Literate, March 2013

<http://mfeldstein.com/emerging-student-patterns-in-moocs-a-revised-graphical-view/>



A panoramic view of Paris, France, featuring the Sacré-Cœur Basilica on Montmartre in the background and a modern building with a facade of colorful pipes in the foreground. The text 'MOOC for Europe' is overlaid in white.

# MOOC

for Europe

# Models for Europe?

- The organization model:
  - Centralized : HE European model?
  - National, private consortiums?
- The MOOC model:
  - Mass and open?
  - Economy ?





# OpenupEd

- Pan-European initiative
  - Portal about MOOCs
  - Quality label ?
  - Under the supervision of EADTU
- 
- No provision for a European MOOC platform
  - Very incomplete portal

# National providers

- Private: Iversity ...
- Semi private: FutureLearn, MiriadaX...
- State: FUN...
- Poland: Poznan SC (?)...
- A number of smaller actors either private or locally founded
- No common European thinking



# The MOOC model

- From the beginning a different view from the US
- SPOC
  - Change in learning: flipped classes
  - Remedial courses
  - Distance learning
- MOOC: mostly another use of SPOC



## **E-learning Task force meeting, Lausanne May 2013:**

*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.*





An aerial photograph of Paris, France, showing a dense urban landscape with numerous buildings, streets, and the Eiffel Tower in the distance. The sky is overcast. Overlaid on the center of the image is the text "MOOC" in large, white, sans-serif capital letters, and below it, the word "strategy" in a smaller, white, sans-serif lowercase font.

# MOOC

strategy

## An important investment

- Course scenario renewed
- New documents and OER
- Massive use of short videos (chunks 5-7 up to 15 mn)
- Need of a local organization to sustain the MOOCs

***A MOOC is a complex team project***





# MOOCs and SPOCs: why?

	Objective	MOOC	SPOC	Level	Remark
1	Educational transformation	option	yes	Bachelor Minors	All B levels. Priority larges groups
2	Remediation	option	yes	Bachelor	Failed modules
3	Entrance in university	yes	no	High School	Self evaluation and initiation courses
4	Life long learning	yes	yes	All levels	

# MOOCs and SPOCs: why?

	Objective	MOOC	SPOC	Level	Remark
5	Foreign students	yes	option	All levels	
6	Knowledge sharing	yes	option	All levels	Excellence
7	Recruiting students	yes	option	All levels	

## MOOC contents:

- Teachers
- Community managers
- MOOC development:
  - Video specialists
  - Web integrator and graphic artist
  - Pedagogic instructor
  - Project manager

*A MOOC is a project with many people, which needs a project manager*

# MOOC: do you have the budget?

- Example of a 8 weeks MOOC
  - Base: Sciences with Maths equations and graphics
  - MOOC being used internally at least 3 times
- Human resources
  - Teachers
  - Academic support
  - Technical support

# Budget: teachers

Mission	Course 1	Course 2	Course 3	
Preparation	40	8	8	
Writing docs	90	20	20	
Writing assessments	40	10	10	Optional
Video recording	32	8	8	½ day per one hour
Project organization	30	5	5	
Animation	48	48	48	
Total				<b>520 hours</b>

# Budget: pedagogic support

Mission	Course 1	Course 2	Course 3	
Pedagogic engineer	40	8	8	
Project manager	60	12	12	
Tests	60	12	12	
Total				<b>225 hours</b>



# Budget: technical support

Mission	Course 1	Course 2	Course 3	
Video	32	6	6	Recording
Video	180-240	36-50	36-50	Editing
Texts	10	2	2	Formatting
Iconography	35	7	7	Variable
Integration	15	3	3	Platform
Meetings	10	2	2	
Total				<b>480 hours</b>



# Budget: cost

- Video studio: from 20 000 € up to 60 000 € and more
- Video editing: 4 000 € per machine
- Computers for all the staff
- MOOC staff: 30 000 € - 50 000 €
- UC San Diego: 300 000 \$  
for 16 weeks



# Delivery of MOOCs

- Requests for platform 24/7
  - Servers (or cloud)
  - System engineers: 2
  - Software engineers: 2
  - Administrative tasks, support...: 4
- Possible financial models (evolving):
  - Coursera: free but 80% if course sold and own certification
  - edX: 50% only but minimum 50 000 \$
  - FUN, Futurelearn: paid by consortium
  - ...



# Defining the priorities

- Each university must debate:
  - Which strategy?
  - Which priorities?
- Each university must evaluate:
  - Available hardware
  - Available technical support staff?
  - Available pedagogical support staff?
  - Volunteers among teachers



# MOOC: a strategic decision

- A Steering Committee
  - All contributing actors
  - All concerned Executives

Under the direct supervision of  
the Rector!





MOOC

a revolution?

# A revolution?

- **No:** Open University UK model from 1992 adapted to 2013 technologies
- **Yes:** the alternative to face-to-face teaching for mass education, especially in Africa and Asia
- **Yes:** mass education for those who will never come to the university



# A new way of learning?

- **No:** the flipped learning model already exists, but remains a niche alternative
- **Yes:** acquisition of knowledge without teachers
- **Yes:** acquisition of competencies : c-MOOC approach but not adapted to all fields.
- **Yes and No:** methodology already in place in some fields

# A new way of diplomacy?

- **No:** An accumulation of successes to MOOCs does not make a diploma
  - Coherence of accumulated knowledge
  - Knowledge and competency
  - Quality of assessments: quizzes do not suffice
- **Yes:** Possibility to show a profile (badges) to employers

# An alternative?

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

But it is the only alternative to conventional universities for less developed countries

# Impact on traditional universities

- Massive use of blended learning
- Changes in the campus: learning centers to work together, less theaters
- Changes in the diplomation. Exams + profiles (badges)
- Competition among universities: MOOC approach will be an influencing factor

# Impact on traditional universities

- Distance learning
  - End of synchronism with the university timing
  - End of organization by ECTS
  - Certification or graduation?
- Open education
  - Bring a new public to the university
- Professional and life long learning

# 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
    - SPOC

See edu@2025 R. Katz, YouTube





# Discussion

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