



Technological resources for MOOCs

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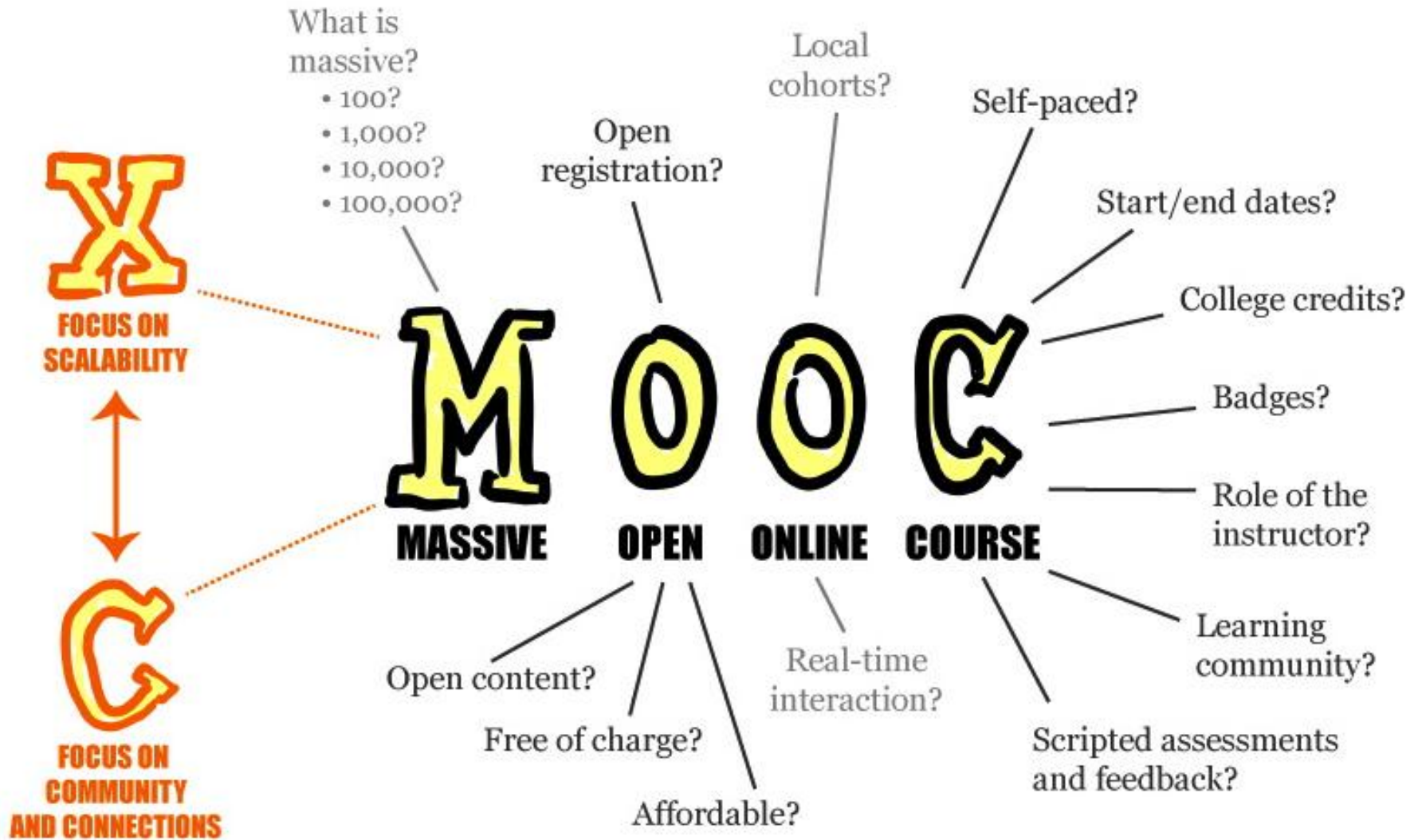
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What is a MOOC?



A new game in Higher Education with major players...

HarvardX



UDACITY

coursera

Stanford



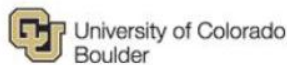
UCIRVINE



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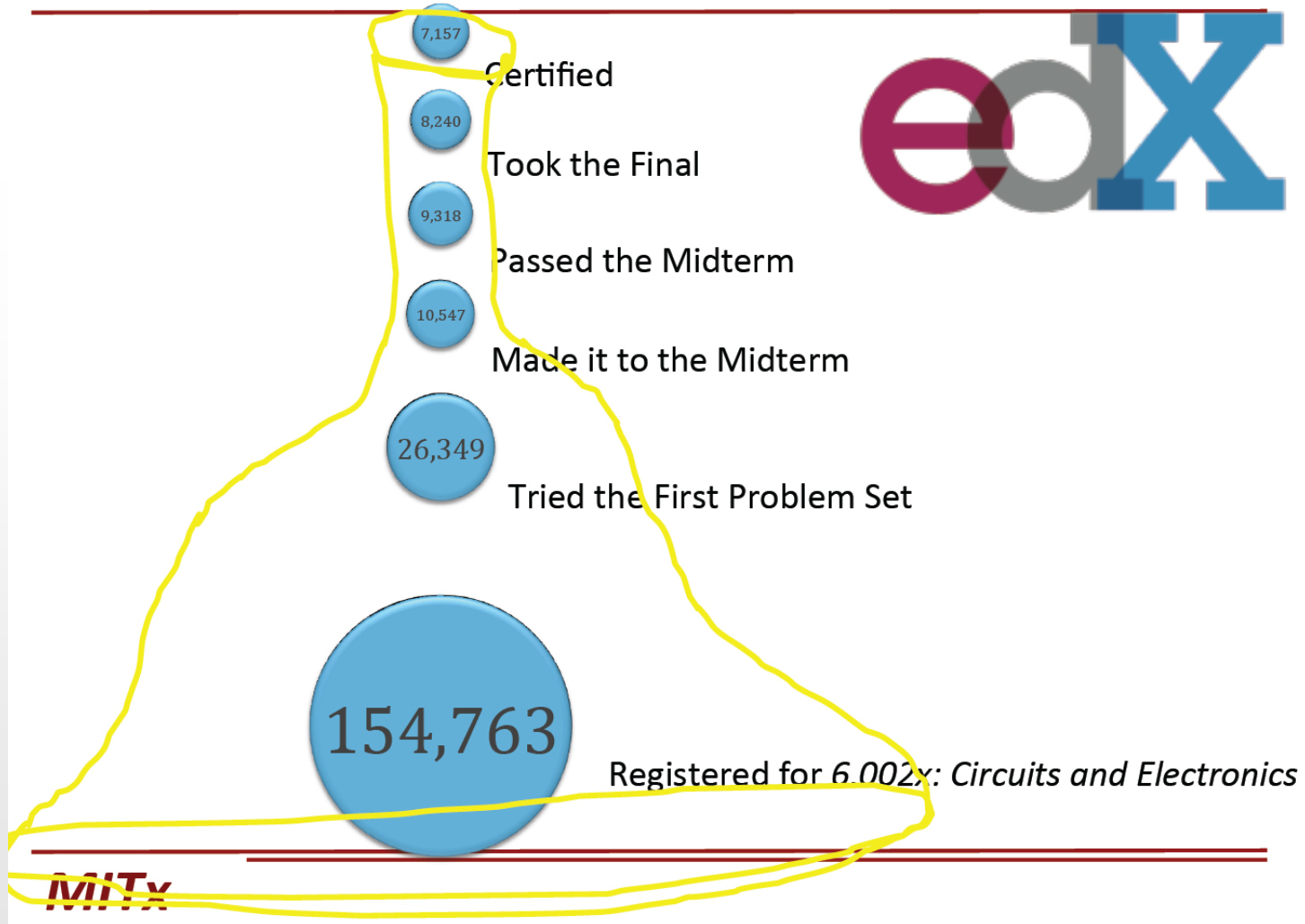


CURTIS INSTITUTE OF MUSIC

RUTGERS



...and big numbers



2012-13: the year of the MOOC

M. Mitchell Waldrop

13 March 2013 | Corrected: 20 March 2013

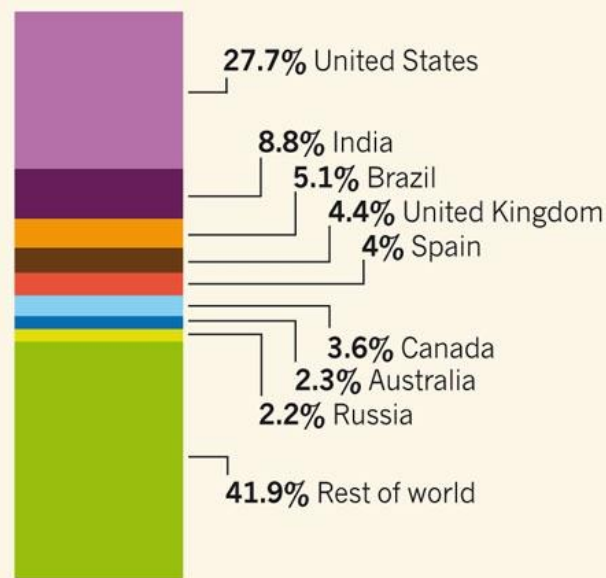
MOOCs rising

Over little more than a year, Coursera in Mountain View, California — the largest of three companies developing and hosting massive open online courses (MOOCs) — has introduced 328 different courses from 62 universities in 17 countries (left). The platform's 2.9 million registered users come from more than 220 countries (centre). And courses span subjects as diverse as pre-calculus, equine nutrition and introductory jazz improvisation (right).

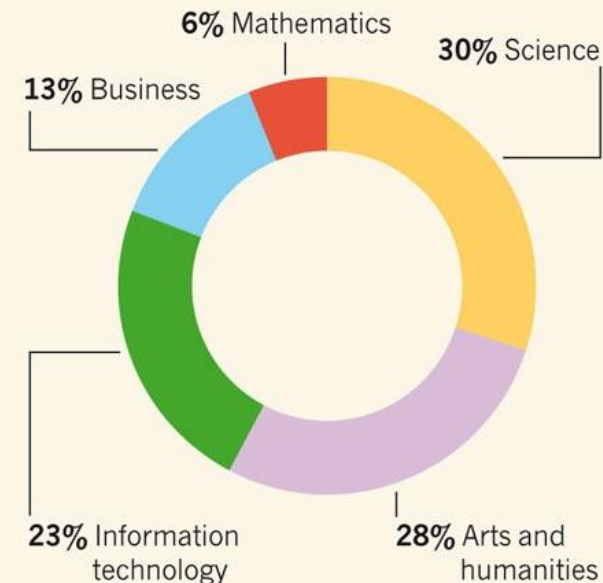
Supply and demand



Student origins



Courses offered



The USAL experience

- This is much harder than it looks
- This takes more resources than you would think
- This takes management skills that are hard to find at a university
- This requires professional production resources





Course design



Course production



Course delivery

Business Model

Course design (1)



■ Typical course structure:

- Promotional video. <http://www.youtube.com/watch?v=buqUB0mOSTQ>
- Module 0. *Introduction and rules setting*
- Module N. *From 6 to 8 modules (one module per week)*
 - Video (s). *Main learning objects*
 - Additional documents. *pdf, ppt, web links, ...*
 - Test. *Auto-evaluation.*
 - Peer-grading exercise. *Not in every module.*

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Estadística para investigadores: Todo lo que siempre quiso saber

Inicio | Syllabus | PyR | Foro | Administración

Módulos

- Módulo 0
- **Modulo 1. Estadística Descriptiva: Tablas estadísticas y Tratamiento gráfico**
- Módulo 2. Estadística Descriptiva: Medidas de Síntesis
- Módulo 3. Análisis de la relación entre dos variables cuantitativas: Correlación y Regresión
- Módulo 4: Análisis de la relación entre dos variables cualitativas: Test Chi cuadrado
- Módulo 5: Análisis de la relación entre dos variables una cualitativa y otra cuantitativa: t de Student
- Módulo 6: Test no paramétricos: U de Mann-Whitney y Test de Wilcoxon
- Despedida

Modulo 1. Estadística Descriptiva: Tablas estadísticas y Tratamiento gráfico

Veo: Estadística descriptiva: Cómo organizar los datos en tablas y gráficos

Tablas estadísticas y tratamiento gráfico

Estadística Descriptiva: Tablas estadísticas y ...

ESTADÍSTICA DESCRIPTIVA

TABLAS ESTADÍSTICAS Y TRATAMIENTO GRÁFICO

Dr. M. Purificación GALINDO VILLARDON
Dr. Purificación VICENTE GALINDO
Universidad de Salamanca

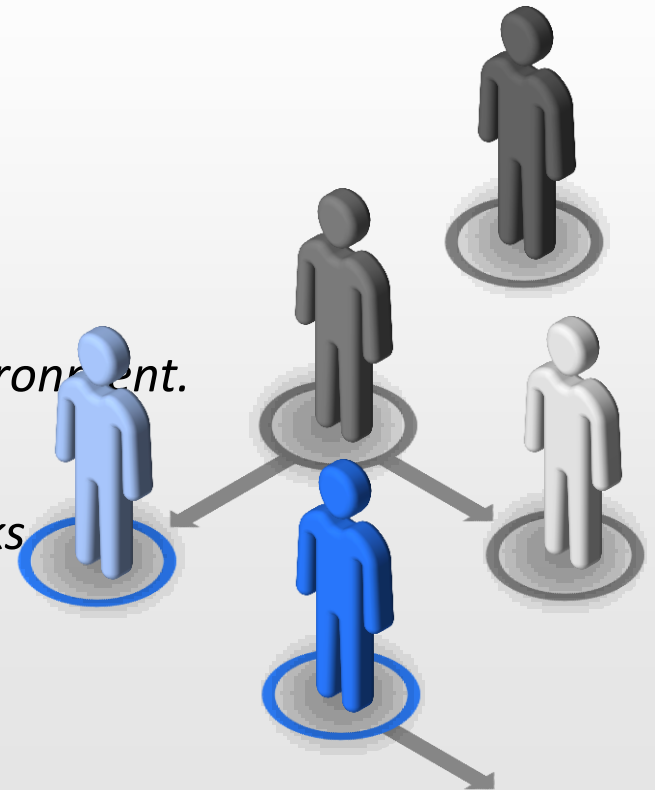
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Siguiente

Course design (2)



- You cannot take a regular class and video tape it
 - It must be redesigned with attention to details a classroom course never requires
- Professional profiles:
 - **Lecturer/Professor.**
 - *Provides the knowledge and course content*
 - **Instructional designer**
 - *Adapts de course content to the MOOC environment.*
 - **Project manager**
 - *Plans and controls phases, times, costs & risks*



Course production (1)



- **It takes more resources than you would think:**
 - It takes faculty about 10:1 time for a MOOC than a regular class.
 - It requires professional production resources.
 - It needs quality control. Review everything and don't let it out if it doesn't meet your stamp of approval.

- **Professional profiles:**
 - **Graphic designer**

 - **Video producer**

 - **Video editor**



Course production (2)



■ Innovation and Digital Production at USAL



Crea, sostiene, desarrolla, produce...



Course delivery (1)



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Próximos Cursos

Course delivery (2)



- **We are using the platform MiriadaX:**

- Property of:



- **Professional profiles:**

- **Platform expert**

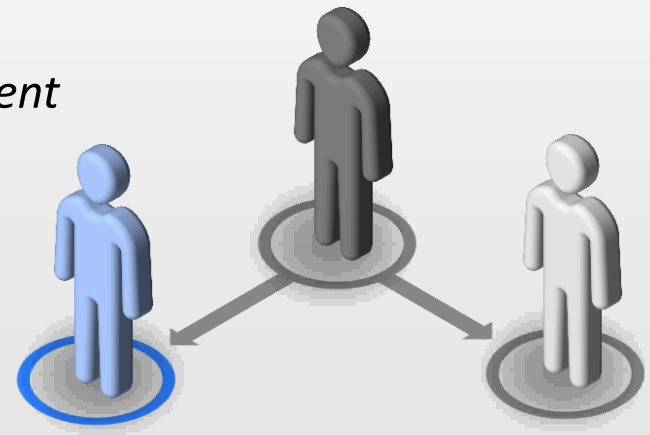
- *Responsible for setting courses, modules, activities, ...*

- **Content curator**

- *Validates course content and guide the development of the course (typically the professor)*

- **Facilitator**

- *Monitors the development of the course, specially forums. Corrects any slight deviations and reports jams or difficulties to the curator*



Course delivery (3)



- **MOOCs configuration :**

- LMS structure for:

- Registering and erasing courses
- Assigning users and profiles (enlist curators, facilitators, students)
- Creating previously prepared MOOC structure (modules) and uploading instructional materials and contents
- Creating the training plan and 4 types of activities
- Self-enrollment of students

- **Monitoring tools:**

- My Course Stats: basic report of activity of the course
- My Gradebook: table of activities and students per module
- Student Manager: student search and basic report of student learning activity

- **Course mailing tool:** mass mailing tool per course

- **Collaborative tools:** forum, blog and wiki

Course delivery (4)



1

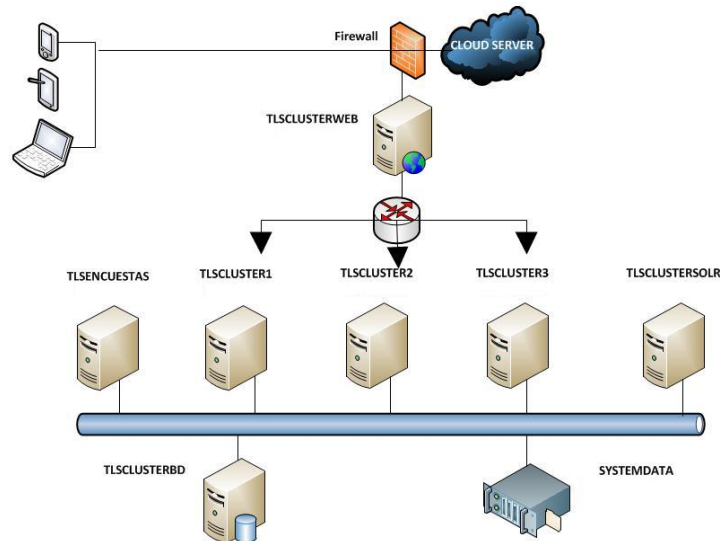
Communications

- Unlimited Bandwidth.
- Internet delivery up to 90 Mbps per second.
- Servers connected in a 1Gb private network.

2

Servers

- 3 Application Servers in a cluster. 8 CPU, 16 GB RAM.
- 1 Web Server. 4 CPU, 4 GB RAM.
- 1 DDBB Server. 8 CPU, 16 GB RAM.
- 1 Surveys Server. 4 CPU. 4 GB RAM.
- 1 Storage Server. SAS hard disks. 500 GB.

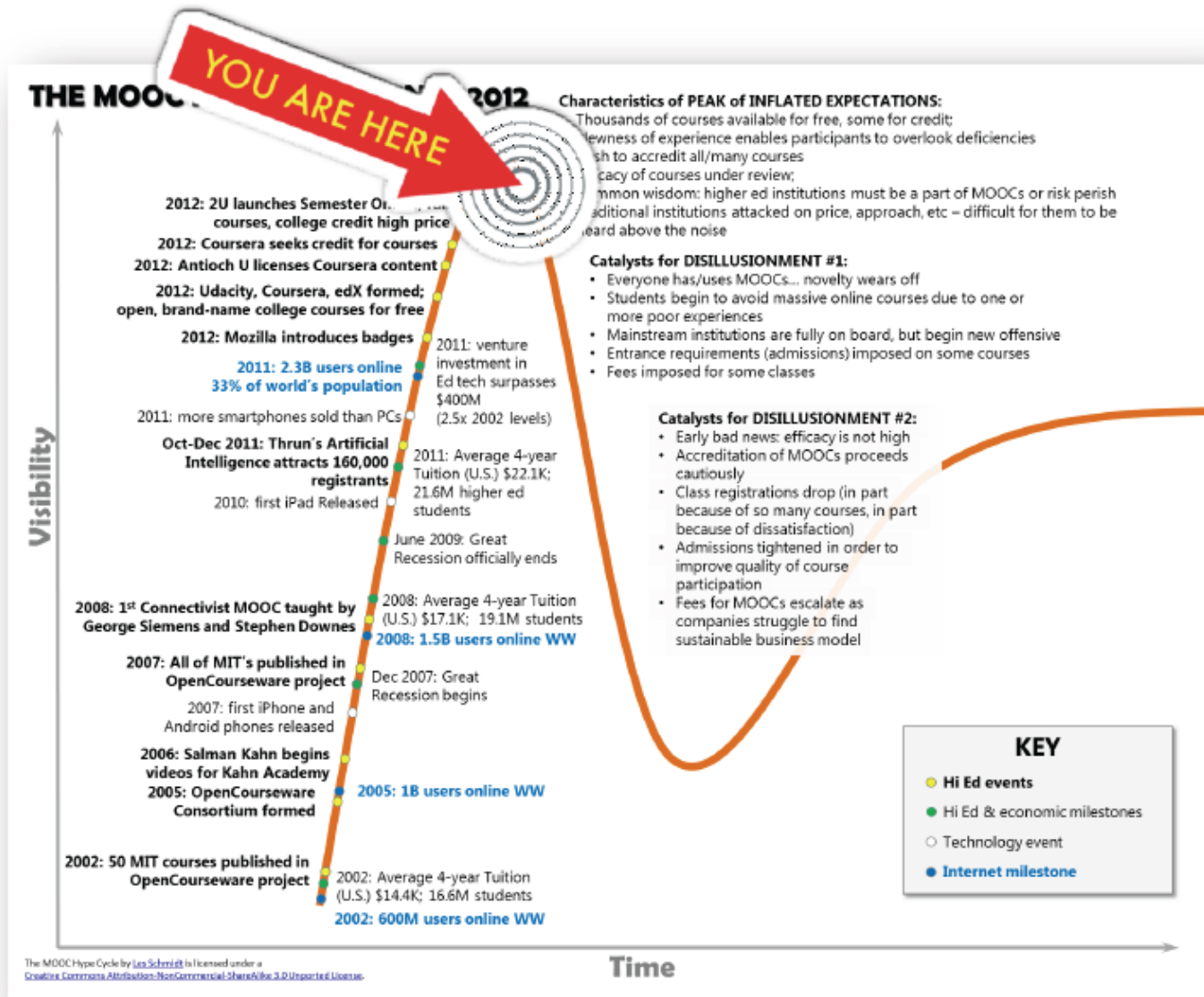


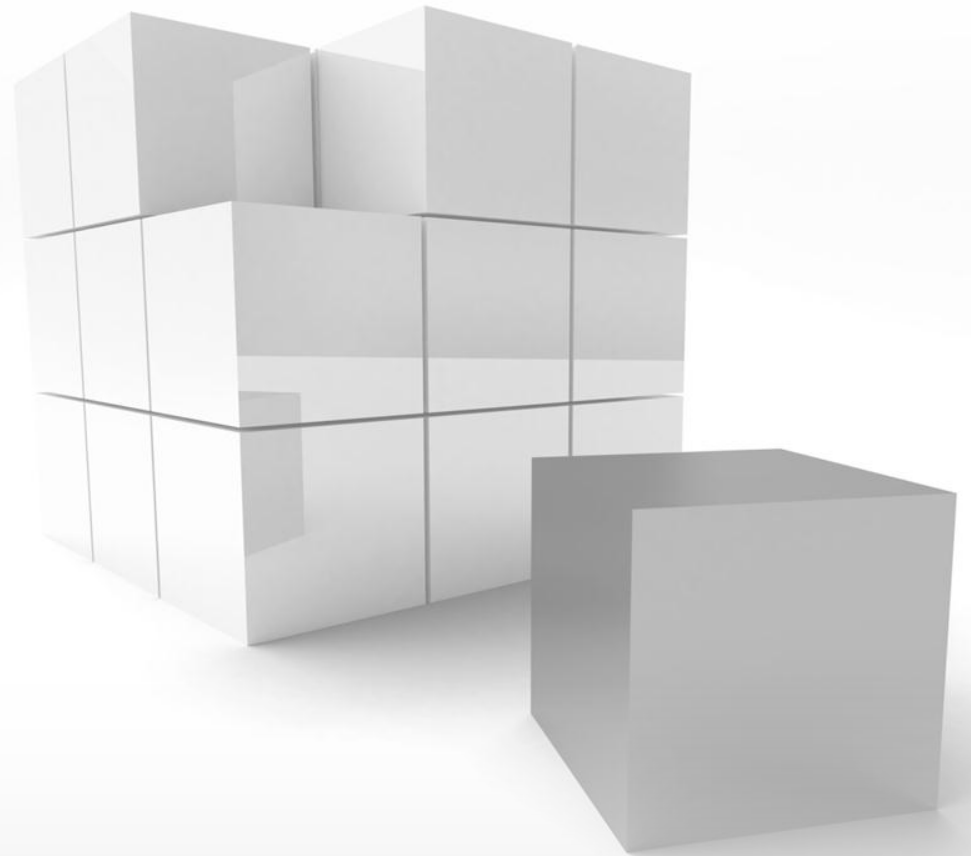
Business model. Who pays the bill?

- **Accreditation.** Income from certificates, diplomas, ...
- **Employers.** They can pay to know who are the best students.
- **Books and Apps.** Supplementary to MOOC's materials.
- **Tutoring.** Tutor paid instead of social learning
- **Branding.** Promotion of the university
- **Getting new students.** Students that take a MOOC firstly and then a regular course.
- **Others to define in the future?**

—

MOOCs. Where we are?





Thank you