

基于翻转教学模式的PBL课程改革与建设

电子科技大学外国语学院

伍忠杰

2014年07月31日

Je pense, donc je suis.

我思，故我在。

— René Descartes



I wanna think ...

思考_{de}问题：

1. Project-based learning
→ What? Why? How?
2. Flipped teaching/learning
→ What? Why? How?

What is PBL?

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PBL integrates knowing and doing.

—Thom Markham (2011)

What is PBL?

The basis of PBL lies in the authenticity or real-life application of the research.

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... Although projects are the primary vehicle for instruction in project-based learning, there are no commonly shared criteria for what constitutes an acceptable project.

—Wikipedia

Why for PBL?

Why for PBL?

PBL provides productive environments for the development of meta-cognition.

—Downing et al. (2009)

Why for PBL?

(Students) are able to see a purpose and find validation for what they are attempting.

—Rosemary Jacklin (2008)

How to apply PBL?

How to apply PBL?

Computer-based technologies integrated in project-based learning are particularly useful for constructive learning.

—Roschelle et al. (2000)

How to apply PBL?

Students are expected to use technology in meaningful ways to help them investigate, collaborate, analyze, synthesize and present their learning.

—Wikipedia

How to apply PBL?

A project:

Learning to excel

by

rediscovering yourself
approaching giants
being a citizen
cultivating leadership
promoting honesty
marketing your innovation
deciding your career
pursuing graduate study

Based on 《新大学英语·卓越篇》

Some ideas:

- Language learning is basically oriented towards not only language competence but also cultural awareness and critical thinking.
- Class time should be mostly devoted to learning use.
- Lectures in the form of video clips are necessary on language points, background information, grammar, knowledge about writing, preparing for tests, etc.
- Educational technologies have made it possible to learn a foreign language both in and out of class.
- Teacher's role needs to be changed.



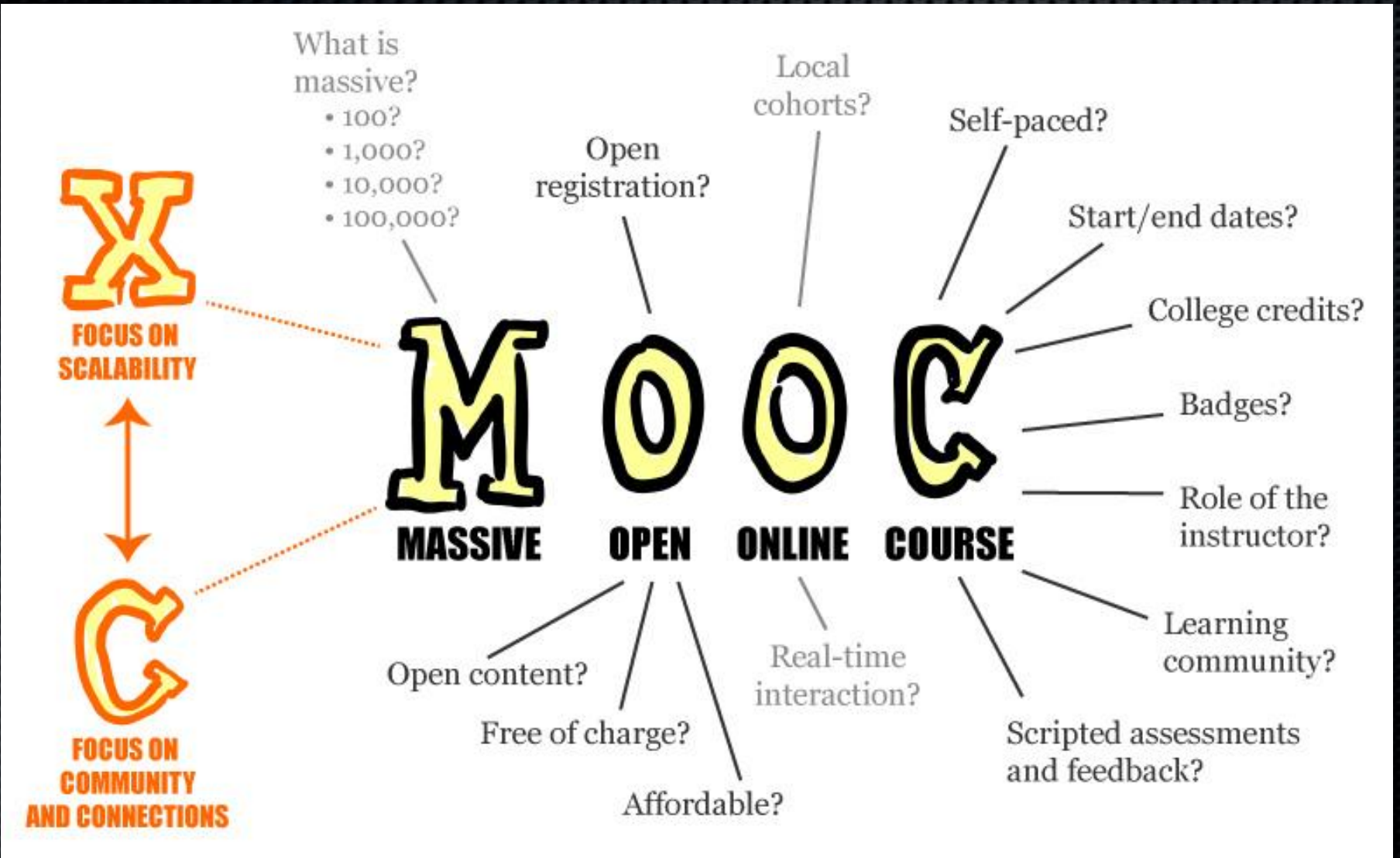
Two online learning modalities

- MOOC (Massive Open Online Course)
- Flipping (Flipped learning/teaching/class/classroom)

MOOC

What is it about?

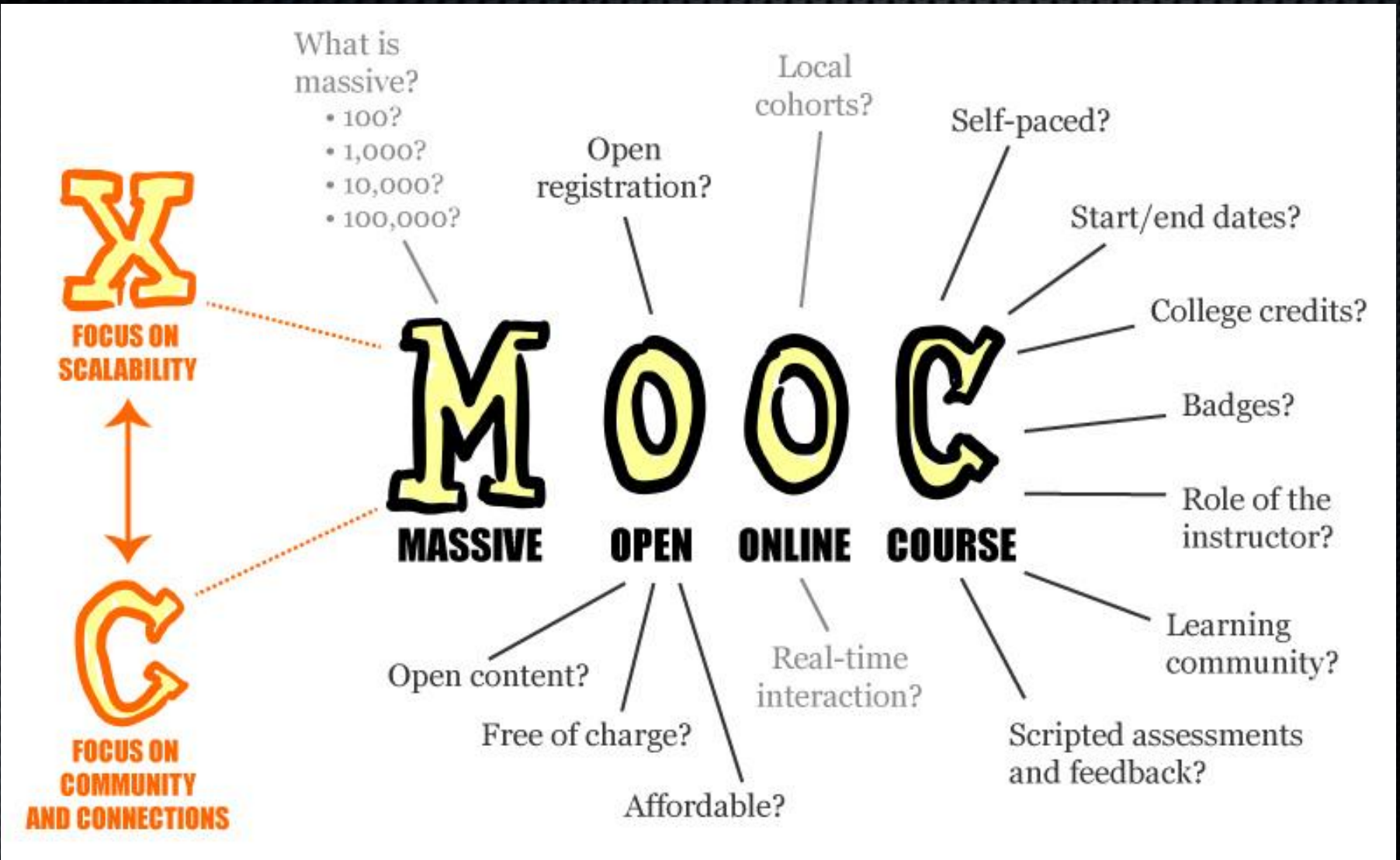
Questions about MOOC:



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What is MOOC?



与传统课程相比，MOOC具有以下典型特征：一是高校、教师、学生与投入等方面的**规模化**；二是学习对象、教学形式、课程内容、教育理念等方面的**开放性**；三是随时随地、主动学习、数据挖掘等方面的**网络化**；四是课程的组织方式、课程内容、学习方式、课程评价等方面的**创新性**。

陈肖庚、王顶明（2013）

MOOC把费用昂贵、过程复杂的高等教育供给变得更加简单和低廉。

...

对提供MOOC的高等院校而言，MOOC则被视为**维持性创新**，因为MOOC可以被用来试验新形式的在线学习，从而改善已有的校园教育。

袁莉等(2014)

MOOCs provide a new methodology and modality for teaching and learning. This newness does pose some **problems** for learners, but also provides for exciting new **possibilities**.

Apostolos Koutropoulos (2012)

A first-ever survey of MOOC professors

This survey, conducted by *The Chronicle of Higher Education* in 2013, attempted to reach every professor who has taught a MOOC. The online questionnaire was sent to 184 professors in late February, and 103 of them responded.

A first-ever

rs

This survey, conducted in 2013, attempted to reach 100 professors. The online questionnaire was distributed in February, and 103 of them responded.

ation in MOOC. February,

BY THE NUMBERS

103 professors responded to our survey about MOOCs. Here are some of the key figures they told us.

33,000 Median number of students enrolled in a MOOC.

2,600 Median number of students who completed with a passing grade.

1 Median number of teaching assistants helping with a MOOC.

100 Median number of hours spent preparing for a MOOC.

8 Median number of hours spent per week on a MOOC while it is in session.

5 Median number of e-mails received per week from students while MOOC is in session.

51 Percent of professors who said they respond to 100 percent of their MOOC students' e-mails:

13 Percent of professors who said they don't respond to any of their MOOC students' e-mails.

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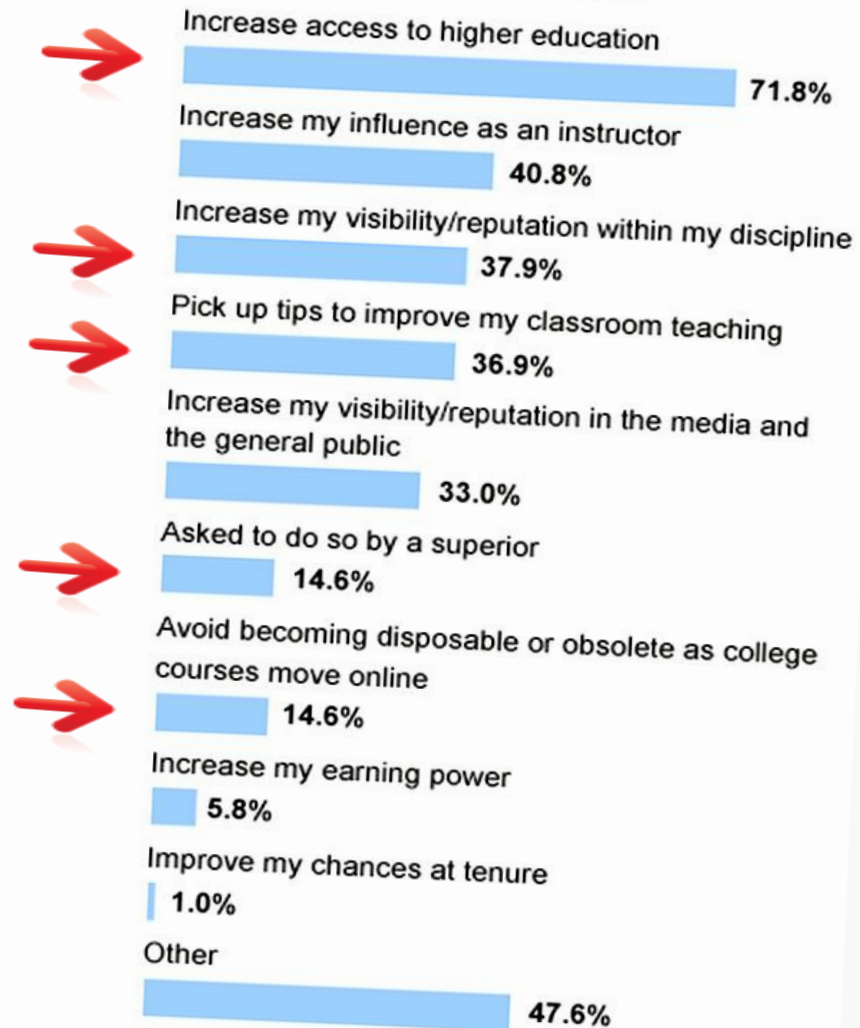
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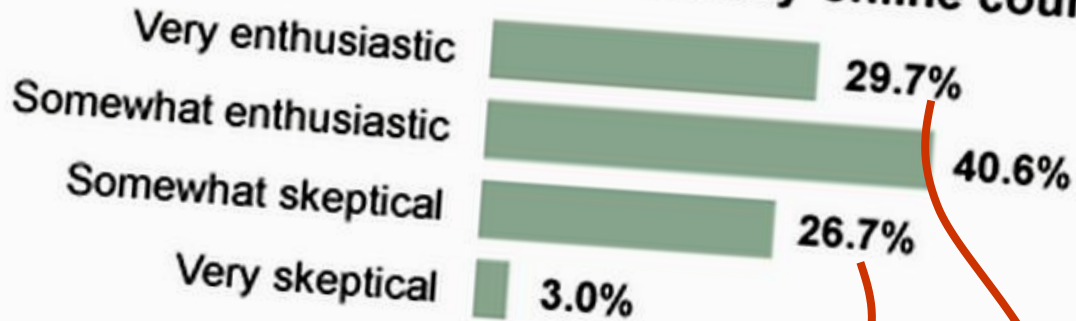
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What were some of your **motivations** in deciding to teach a MOOC? (Note: respondents could select more than one answer)

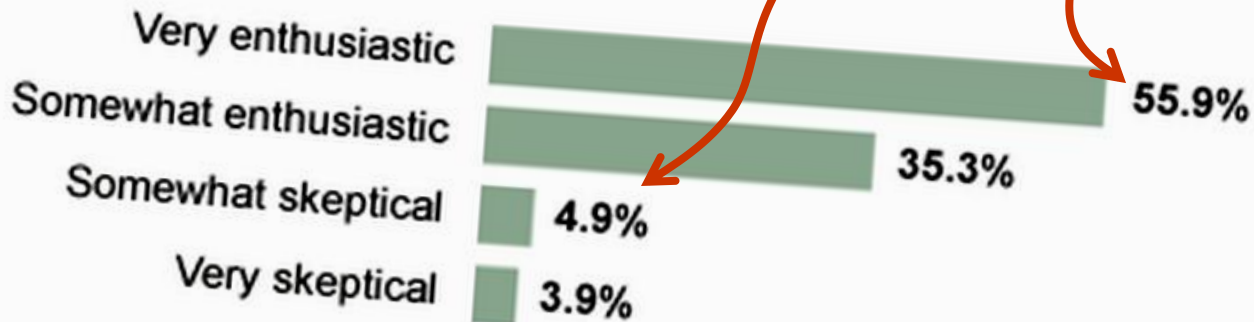


A first-ever survey of MOOC professors

Before teaching your MOOC, which of the following best described your beliefs about fully online courses?



Now which of the following best describes your beliefs about fully online courses?



In fifty years, if not much sooner, half of the roughly 4,500 colleges and universities now operating in the United States will have **ceased to exist**.

... Tens of thousands of professors will **lose their jobs**.

... ten years from now Harvard will enroll **ten million students**.

Nathan Harden (2012)

未来的教育将会出现“教师明星化，课程精品化，内容模块化，辅导分级化”的趋向。

... 在线教育环境下，教师的需求量将越来越少，直至在竞争中只留下少数明星教师，每位教师都有成千上万的学生。

伍民友，过敏意(2013)

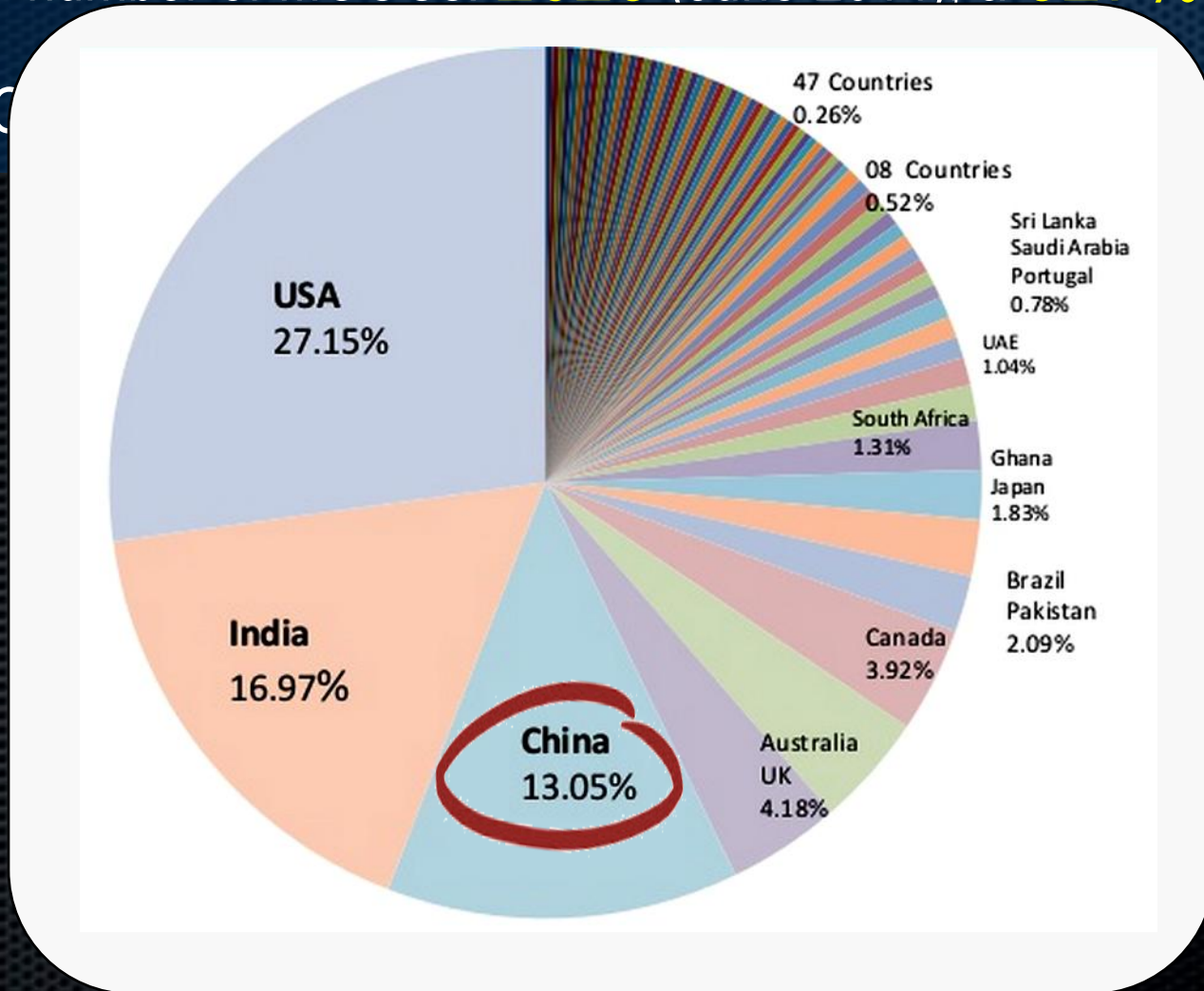
MOOCs Booming

The total number of MOOCs: **2625** (June 2014), a **327%** increase of MOOCs within ONLY 1 Year (June 2013 to June 2014).

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MOOCs and Beyond



What is flipping?

The Flipped Classroom **IS:**

What is flipping?

The Flipped Classroom **IS:**

- a means to increase **interaction** and personalized **contact** time between students and teachers.
- an **environment** where students take responsibility for their own learning.
- a classroom where the teacher is not the “**sage on the stage**”, but the “**guide on the side**”.
- a blending of direct instruction with constructivist learning.
- a class where all students are engaged in their learning.
- a place where all students can get a personalized education.



What is flipping?

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- ✗ • a synonym for online videos. It is **the interaction and the meaningful learning activities** that occur during the face-to-face time that is **most important**.

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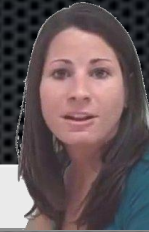
- a synonym for online videos. It is the interaction and the meaningful learning activities that occur during the face-to-face time that is most important.
- about replacing teachers with videos.
- an online course.
- (students) spending the entire class staring at a computer screen.
- ✗ • (students) working in isolation.



What is flipping?

A method of teaching that turns the traditional classroom on its head.

Why flipping class?



Why I Flipped My Classroom

Before flipping

- 90% of class time spent on delivery and review on content;
- 10% of class time spent on application;
- Teaching to the middle level students;
- Higher level students not challenged;
- Struggling students not receiving enough remediation.

After flipping

- 90% of class time spent on application of content
- 10% of class time spent on delivery of content;
- All students engaged and challenged.

Why flipping class?



Humanize the classroom



Traditional

Most of the teachers' time is spent on doing lectures, grading tests, etc. Maybe 5% of their time is on sitting next to their students and actually working with them.

Now

100% of their time with their students.

How to flip class?

How to flip class?

Flipped Learning method

- Students **prepare** for class by watching video, listening to podcasts, reading articles, or contemplating questions that access their prior knowledge.
- After accessing this content, students are asked to **reflect** upon what they have learned and organize questions and areas of confusion.
- Students then log in to the website to **post** their questions.
- The instructor **sorts** through these questions prior to class, organizes them, and develops class material and scenarios that address the various areas of confusion.
- In class, the instructor uses a **Socratic method** of teaching, where questions and problems are posed and students work together to answer the questions or solve the problems. The role of the instructor is to listen to conversations and engage with individuals and groups as needed.

— Dr. Eric Mazur (Harvard University)

Current applications:



Class video



Video lecture



In front of a white board



Animation

A tentative design:

- Lectures on texts, writing, translating, etc. are made as mini video lessons for students to learn according to their individual needs before class and/or after class for revision.
- The video lectures should be followed by exercises to consolidate learning, questions to encourage exploration, and topics for discussion.
- Video lessons are delivered in the form of one-to-one conversations, aided by callouts, marks, graphics, video clips, audio files, etc.
- Class time is mainly spent on the use/application of language.

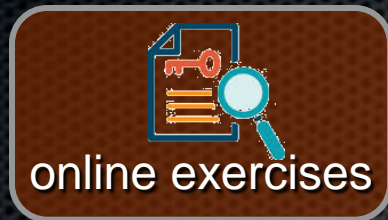
Designing ideas--before & after class:



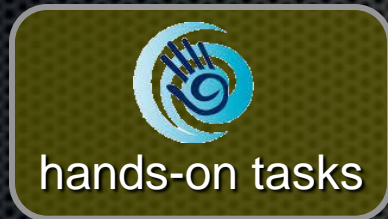
Designing ideas--before & after class:



Reading comprehension



Language consolidation



Skill and thinking development

Designing ideas--in class:



Designing ideas--in class:

presentation

Vocabulary
building-up

listening
&
retelling

discussion

reflection

challenging

writing

games

simulation

A tentative design (sample lesson):

Unit One: Rediscovering Yourself

Before class	Input: read a poem; Output: write (by simulating) a poem Input: watch P1 text videos; Output: answer/reflect on questions
In class	Activity: share the poems written by the students. (group and class) Activity: read the story of Colonel Sanders and plan your “actions”. (group) Activity: discuss about P1 by way of comprehension questions. (pair) Activity: enhance and enlarge vocabulary through word games. Activity: speak on a diagram.

The Man Who Thinks He Can

Walter D. Wintel

If you think you are beaten, you are.
If you think you dare not, you don't.
If you'd like to win, but think you can't,
It's almost a cinch you won't.
If you think you'll lose, you're lost,
For out in the world we find
Success begins with a fellow's will;
It's all in the state of mind.
If you think you are outclassed, you are.
You've got to think high to rise.
You've got to be sure of yourself before
You can ever win a prize.
Life's battles don't always go
To the stronger or faster man;
But sooner or later the man who wins
Is the one who thinks he can.



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If you think **you are in love** _____, you are.

If you think **it's too hard to express it** _____, you **won't** _____.

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If you think **you are in love**, you are.

If you think **it's too hard to express it**, you **won't**.

If you'd like to **get your love**, but think **your beloved may say no**,

It's almost a cinch you won't.

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But sooner or later the man who wins

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Text videos:

Passage 1: Find Your Inner Einstein

-  U01_P1: Lead-in 
-  U01_P1: Para01
-  U01_P1: Para02
-  U01_P1: Para03
-  U01_P1: Para04 
-  U01_P1: Para05-06
-  U01_P1: Para07
-  U01_P1: Para08-09
-  U01_P1: Para10-11 




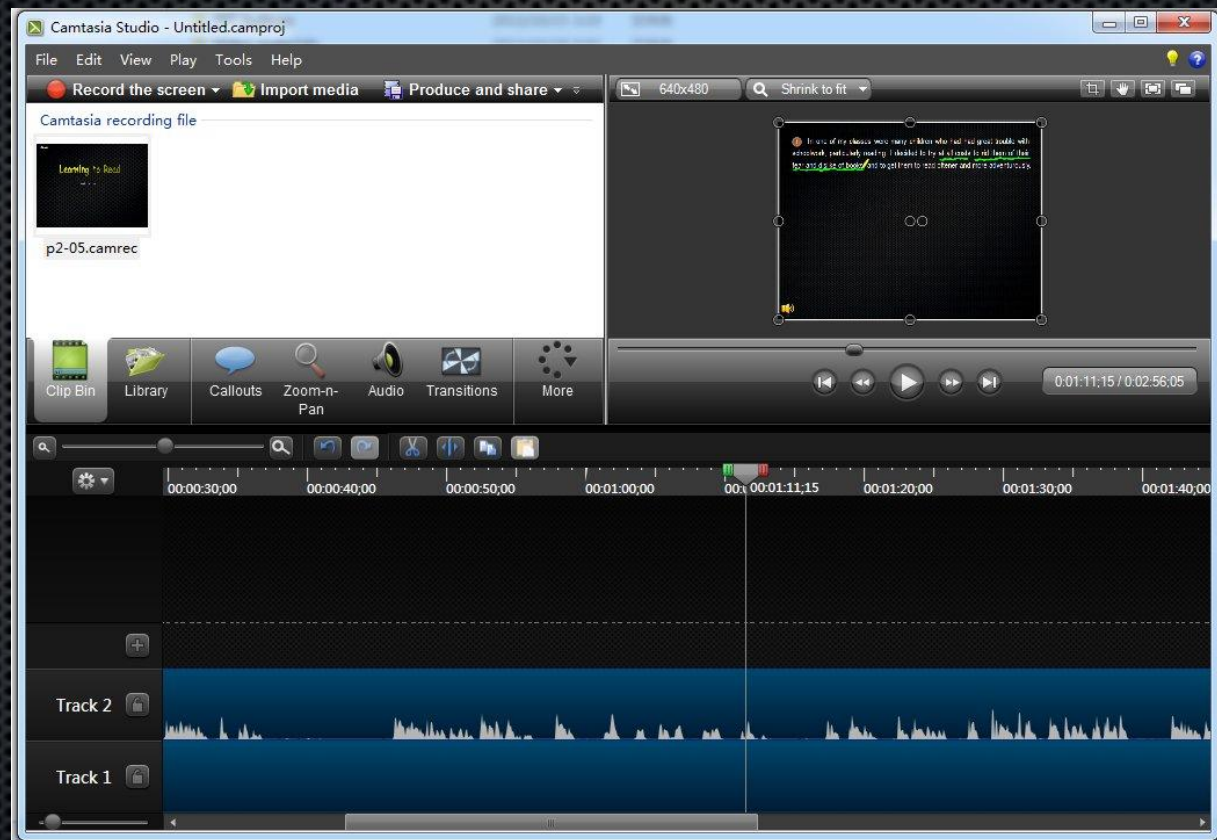
Producing video lessons

Tools:


- MS PowerPoint (as the background)

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- Camtasia Studio (for video processing) 

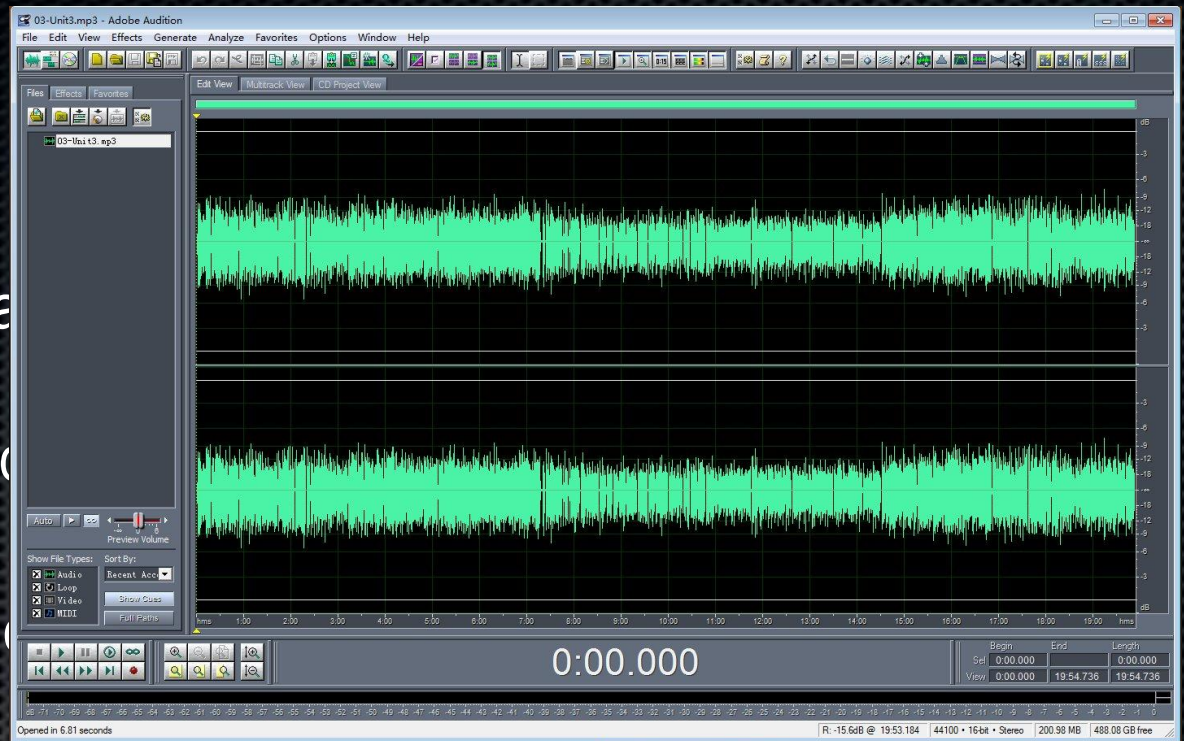


Tools:

- MS PowerPoint (as the background)
- Camtasia Studio (for video processing) 
- Photo Shop / Paint Shop (for graphic processing)

Tools:

- MS PowerPoint (a)
- Camtasia Studio
- Photo Shop



- Adobe Audition (for audio processing) 

Tools:

- MS Po


- Ca



- Wacom Pen and Touch Tablet (optional)



Developing tasks:

1. Script (content design, effects, etc.) 
2. Audio (recordings)
3. Video (clips)
4. Web platform / App
5. Application to the course (experiment, research)
6. Modification



Prospects:

- Blend learning with the application of technologies.
- Meet the needs for individual learning.
- Develop students' autonomy.
- Encourage researches on new models of language learning.
- ...



Concerns:

- What if students don't want to learn online?
- What if no obvious results show from learning this way?
- What if teachers shake their heads?
- What if ...



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fear vs. desire



Challenges:

Enormous effort on lesson design and development, and huge investment of time, but lots of **fun** when the work is well done.



To flip, or not to flip,

that is the question.



Thank You!

**QUESTIONS
ARE
WELCOME.**

