

Transforming a University Course into a Two-public Sustainable MOOC

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Context

- **Mature** traditional course (*LFSAB1402 : Informatique 2, 5 ECTS*)

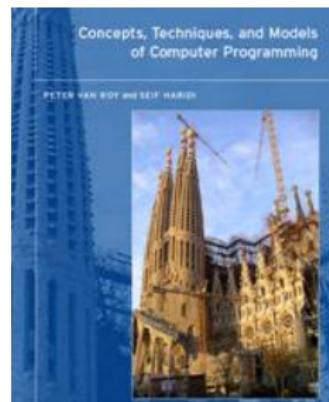
2nd year university programming course for engineering students

- Taught since **2005**

*A lot of available material:
exercises, textbook in EN and FR...*

- **Transformation** into MOOC

Gradually with three steps



(MIT Press)

Motivations

- **Transforming the course into a MOOC**
 - 1 Reaching **two publics** with (almost) same effort and resources
 - 2 Opening possibility for **interactions** between the two publics
 - 3 Offering **new means of education** to local students

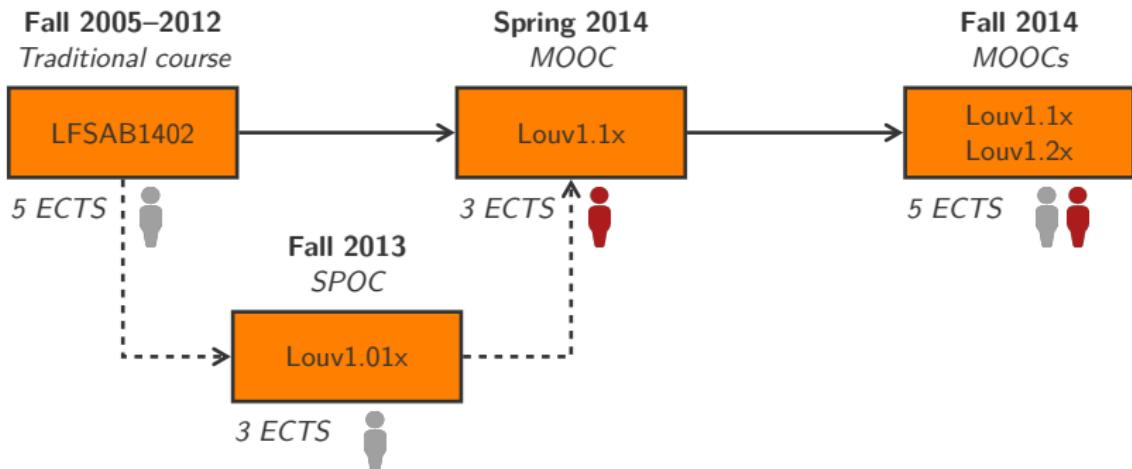
- **Migration spread over three academic semesters**

*Cope with limited human resources and
allow staff to gain experience with MOOC creation*

Three-step Transformation

- **Gradual transformation** of the traditional course to a MOOC

Dedicated to on-site  and worldwide  learners



Two publics

- On-site learners

Required to follow the MOOC with a +2/-2 incentive

- Worldwide learners

- Students
- Professionnals

- Different motivations and requirements for both publics

Need to keep some specific activities for on-site students

Sustainability

- **Initial cost** to launch the project was large
 - Extra charge for the professor to make videos
 - Extra research assistant to create coding exercises grader
 - Extra MOOC assistant to animate the MOOC when running
- Only **1/2 MOOC assistant** needed for Fall 2014 edition

To update exercises and animate the MOOC while running
- **No more additional** MOOC assistant for Fall 2015 edition

Only one additional student monitor

Evolution of the on-site course

	Fall 2012	Fall 2013	Fall 2014
On-site	Lecture: 2h/week Lab session: 2h/week Project Midterm+final exam	Lecture: 2h/week Lab session: 2h/week Project Midterm+final exam	Lecture: 1h/week Lab session: 2h/week Project Midterm+final exam
On-line	None	1 SPOC 13 lessons/ 10 weeks 8h37 videos Midterm+final exam	2 MOOCs 6 lessons/ 7 weeks + 6 lessons/ 6 weeks 5h20 + 5h01 videos Two final exams
Resources	1 professor 4 teaching assistants 11 student monitors	1 professor 4 teaching assistants 11 student monitors 1 MOOC assistant	1 professor 4 teaching assistants 11 student monitors 1/2 MOOC assistant

- 12 student monitors and no MOOC assistant for Fall 2015

Conclusion

- Hybrid approach to make the MOOC sustainable

The MOOC serves on-site students and is opened worldwide

- Very satisfactory experience for the course transformation

- On-site course will stay a MOOC for the foreseeable future
- Only one extra student monitor as additional resources
- About 30 verified certificates generated

"In our view, one possible **sustainable evolution** of MOOCs is the **permanent transformation** of selected university courses into **two-public courses**."



Sébastien Combéfis & Peter Van Roy, 2015.

Credits

- Pictures of books from Amazon
- <https://openclipart.org/detail/177854/person-icon>
- <https://www.flickr.com/photos/booleansplit/3510951967>