Recasting a Traditional Course into a MOOC by Means of a SPOC

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UCL Université catholique de Louvain

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Context

- Louv1.01x – Paradigms of Computer Programming

Existing traditional course

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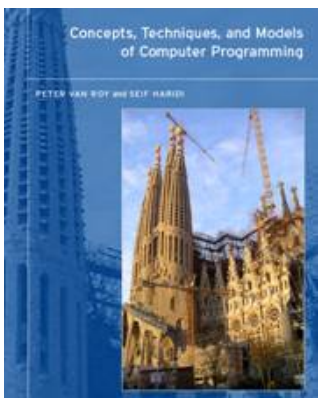
- Mature course
- Taught since 2005



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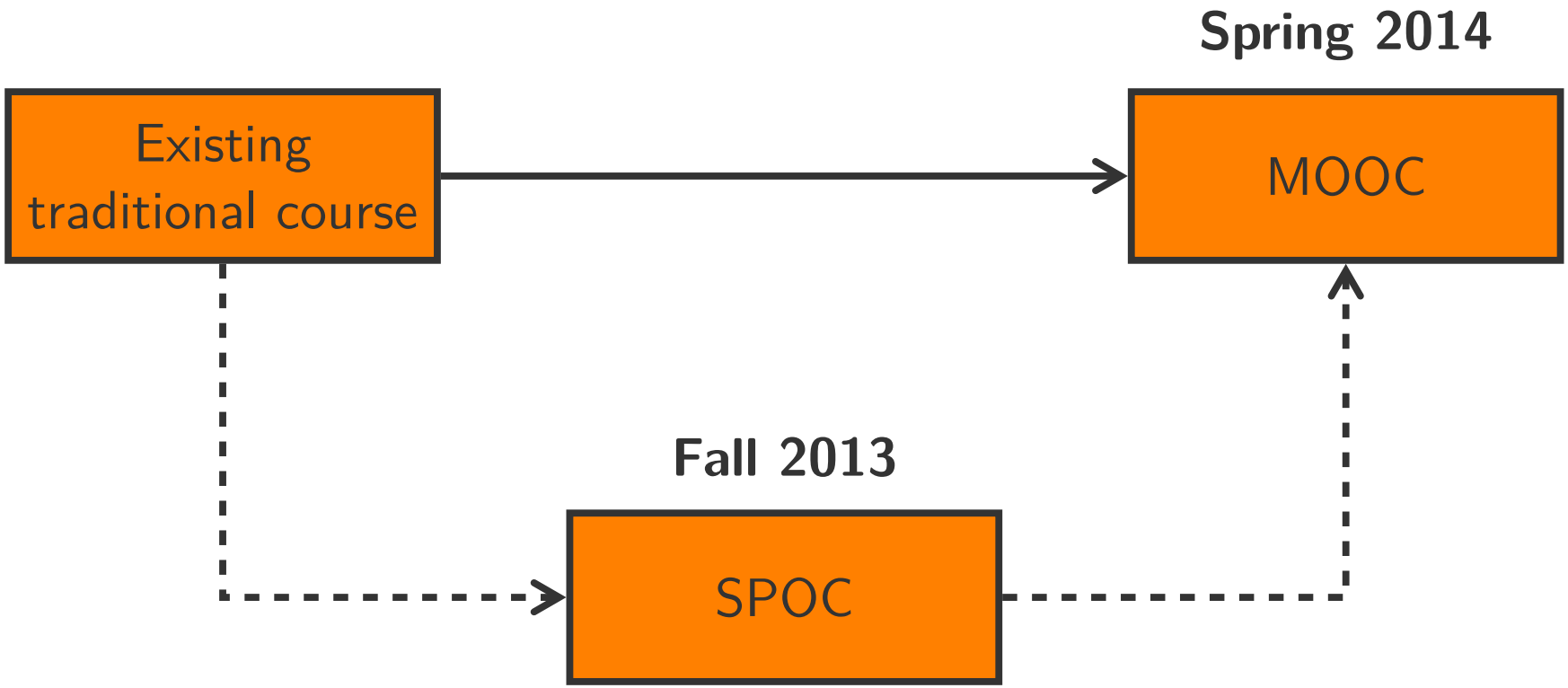

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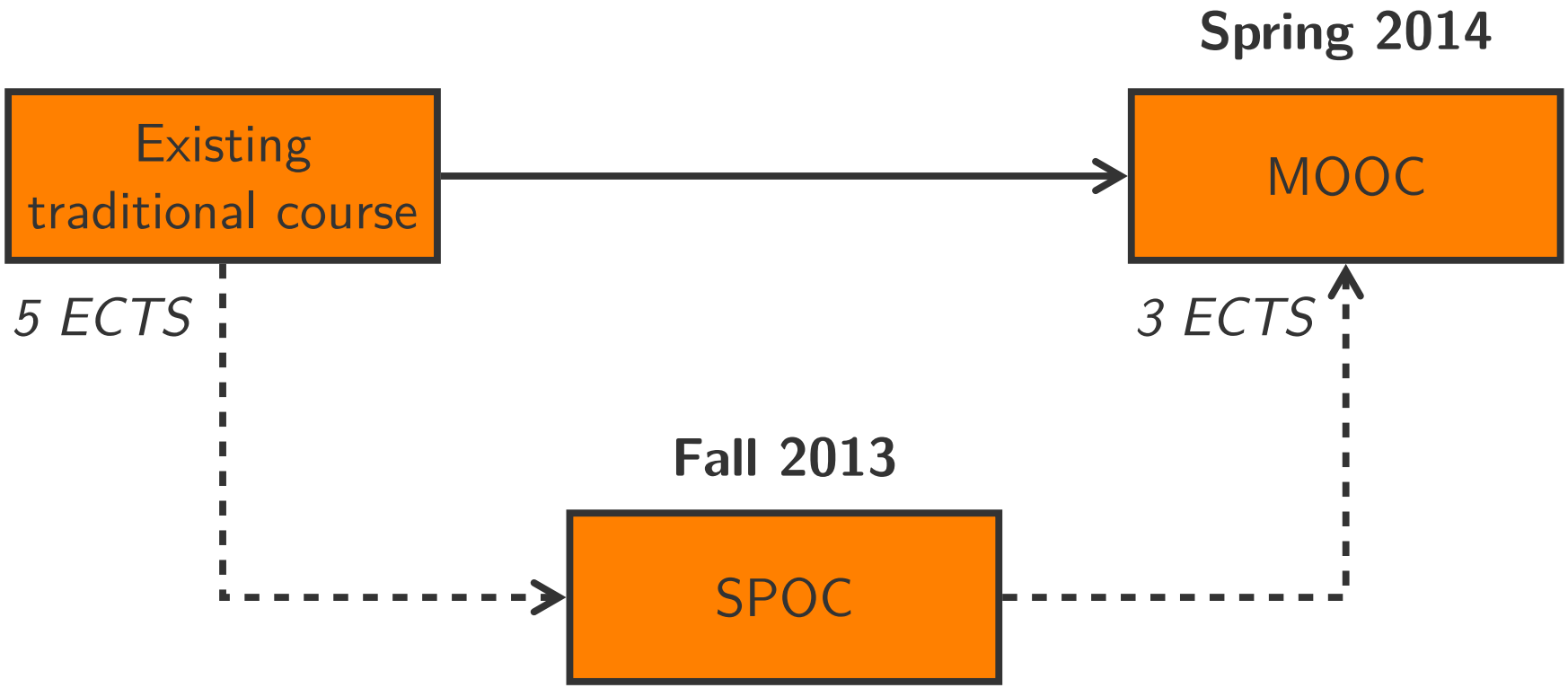


Motivation

- Gaining experience with MOOCs minimising workload/risks
- Having the opportunity to test the MOOC before the launch
- Enriching the learning experience of on-site students

Some numbers

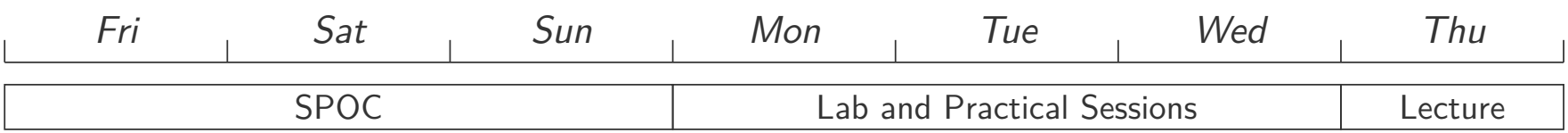
- All 2nd year bachelor engineering students
- 300 on-site students, 21.000+ MOOC registered students
- 1 professor,
  1/2 MOOC assistant, 1/2 research assistant,
  4 teaching assistants,
  and 11 student monitors (tutors)

Institutional support

- MOOCs steering committee at university level
- One part-time MOOC assistant
- Pedagogical support for the design of the course
- Audiovisual center for the course trailer

First challenge

- Integrating the SPOC into the existing course
- Flipped classroom approach



- Discussion forum
- MOOC assistant

- Student monitors (tutors)
- Teaching assistants

- Professor

Second challenge

- Covering all the material needed for on-site students
- Two tracks running in parallel

	SPOC	Practical Session	Lecture
SPOC Track	*Video + exercises* (i)	*Feedback* (i)	*Restructuring* (i)
Traditional Course Track		*Advanced exercises* $(i-1)$	*Advanced concepts* (i)

Third challenge

- Evaluating students, in particular for programming skills
- Pythia: an automated code grader with intelligent feedbacks

Evaluating students

- Midterm/final written exam, programming project
- Incentivisation scheme for the SPOC part
- Midterm and final exam on the SPOC serve as review exercises

“Good” practices

- Short videos (less than 5 minutes) followed by short quizzes
- Coding exercises with contextualization
- Permanent feedback grasping
- Trying to be two weeks ahead of the students

Conclusion

- Big success for the MOOC team
- Students globally satisfied, but high workload
- Many trials needed for some coding exercises
- 100% MOOC for on-site students next year

Conclusion

"Hofstadter's Law: It always takes longer than you expect, even when you take into account Hofstadter's Law."

Louv1.01x grand opening: February 17, 2014