

Developing a MOOC at Chalmers:

Motivation and first experiences from a teacher's perspective



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January 15th, KUL 2015, Gothenburg



Will computers replace schoolteachers?

By Gregory Ferenstein, Special to CNN
June 9, 2011 -- Updated 1751 GMT (0151 HKT)

How California's Online Education Pilot Will End College As We Know It

Posted Jan 15, 2013 by Gregory Ferenstein (@ferenstein)

Free online MIT courses are an education revolution

› 15 July 2013 by Alison George

LEADERSHIP 7/17/2012 @ 4:31em

Is Coursera the Beginning of the End for Traditional Higher Education?

The year of the MOOC

These 'massive' online courses have been around for a while, but this year, more elite universities want in

MOOC

Will computers replace schoolteachers?

By Gregory Ferenstein, Special to CNN

**SAY MOOC ONE MORE
TIME**

**I DARE YOU, I DOUBLE DARE
YOU**

memegenerator.net

elite universities want in

Free o

15 July 2

LEADERS

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Higher Education?

A teachers perspective on MOOCs:

- Chalmers and MOOCs
- Motivation and expectations
- Pedagogic idea
- First experiences

Why MOOCs at Chalmers?

- Branding of global significance
 - Areas of Advance
 - Sustainability

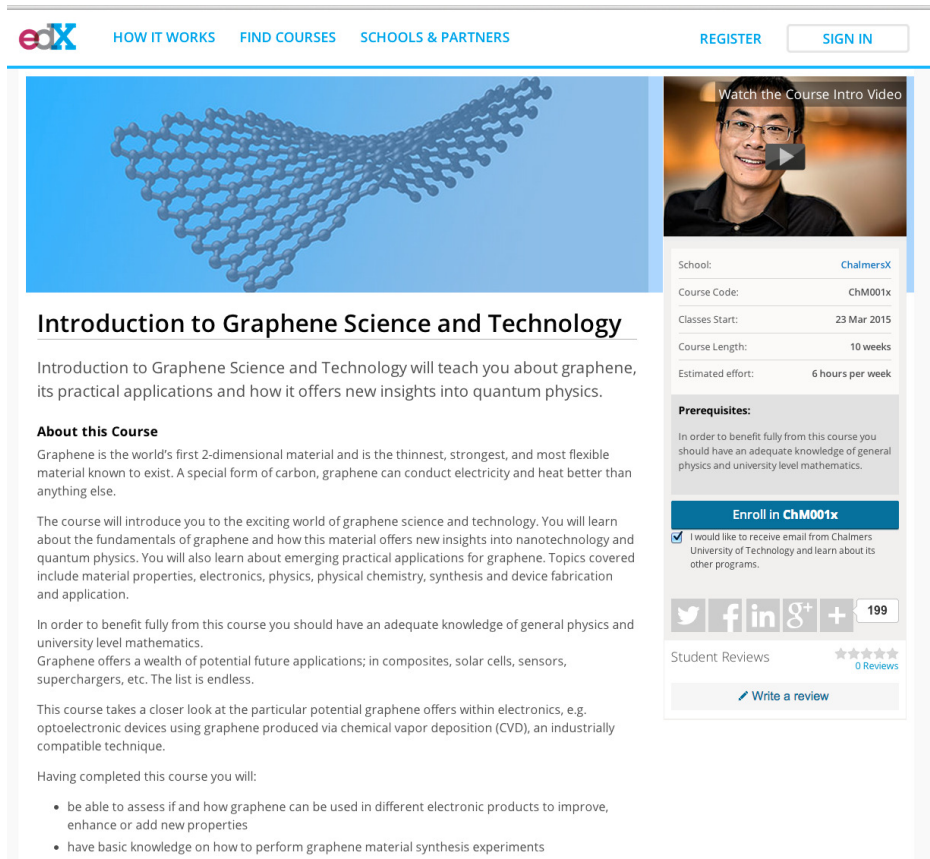
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Why MOOCs at Chalmers?

- Branding of global significance
 - Areas of Advance
 - Sustainability
- Open up education for a global audience (3rd mission)
- Build up further experience at Chalmers in developing, implementing and evaluating MOOCs

The development has started...



The screenshot shows the course page for 'Introduction to Graphene Science and Technology' on the ChalmersX platform. The page features a large image of a graphene lattice structure at the top left. The course title is prominently displayed. Below the title, there is a brief description of the course and its practical applications. A section titled 'About this Course' provides more details, including the course's focus on the fundamentals of graphene and its emerging practical applications. The page also includes a 'Prerequisites' section, a 'Watch the Course Intro Video' button, and a 'Write a review' button. The course details table is as follows:

| | |
|-------------------|------------------|
| School: | ChalmersX |
| Course Code: | ChM001x |
| Classes Start: | 23 Mar 2015 |
| Course Length: | 10 weeks |
| Estimated effort: | 6 hours per week |

The prerequisites section states: 'In order to benefit fully from this course you should have an adequate knowledge of general physics and university level mathematics.'

The 'Enroll in ChM001x' button is highlighted in blue. Below it, there is a checkbox for 'I would like to receive email from Chalmers University of Technology and learn about its other programs.' which is checked. The page also shows social media sharing icons for Twitter, Facebook, LinkedIn, and Google+, along with a '199' count. The 'Student Reviews' section shows a star rating of 0/5 and a '0 Reviews' count. A 'Write a review' button is located at the bottom of the reviews section.

— Introduction to Graphene Science and Technology (March 23rd 2015)

— **Sustainability in Everyday Life** (June 2015)

— two more

There is support...

course design
and pedagogic
support

technical
production
support

Edx platform
support

administrative
support

marketing
support

legal issues & CR
support

documentation

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**MOOC
Teacher(s)**

documentation

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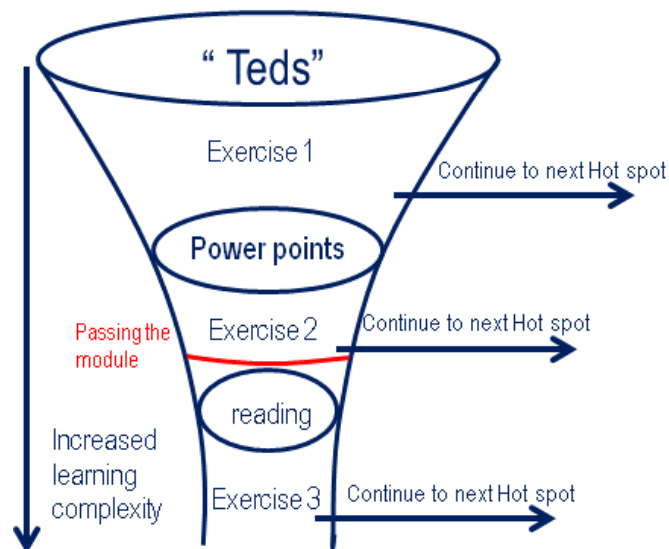
marketing
support

The very early days

- How did we learn about the MOOC initiative?
 - Open call
 - Information seminar
- Why did we decide to apply?
 - An interesting opportunity
 - Sounded like fun
 - Teach “the man in the street”

The proposal: “Sustainability in everyday life”

- Targeted audience → The informed citizen
- We have defined so-called hotspots



- Climate change
- Energy in society
- Chemicals in society
- Food
- Globalization

- Overall learning outcomes → Systems thinking, citizen stewardship

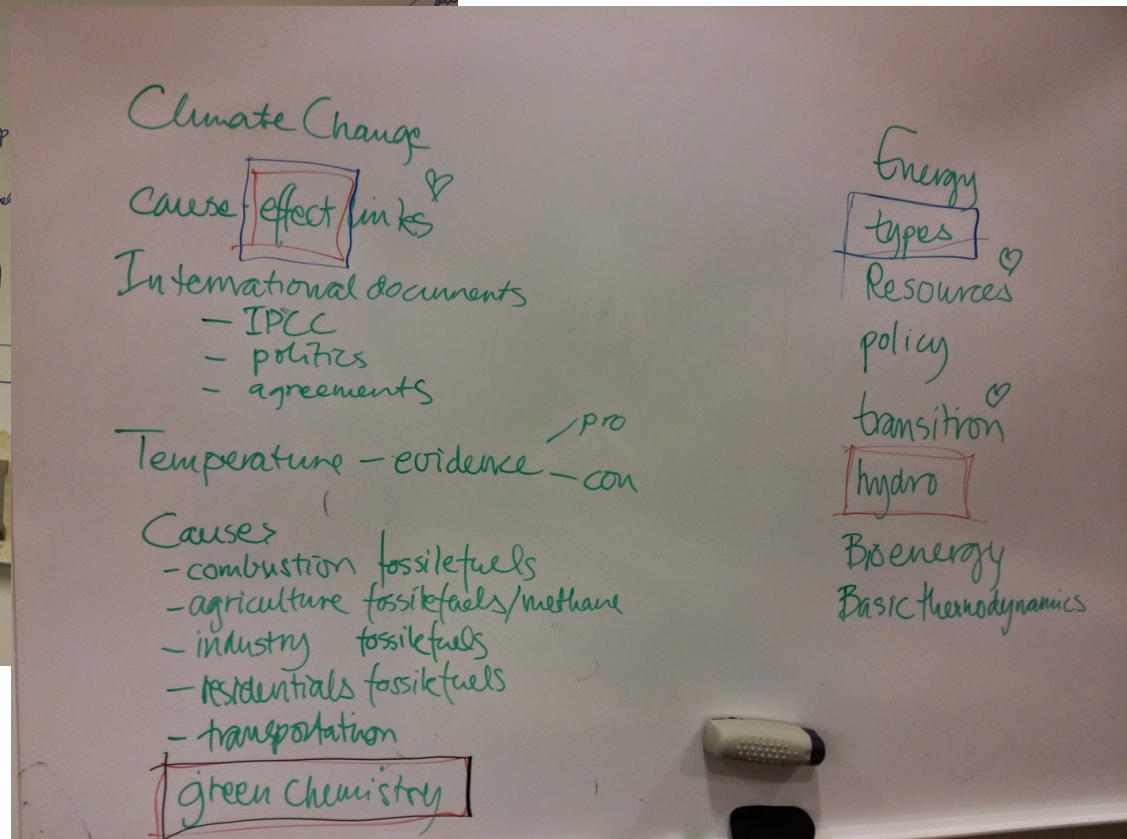
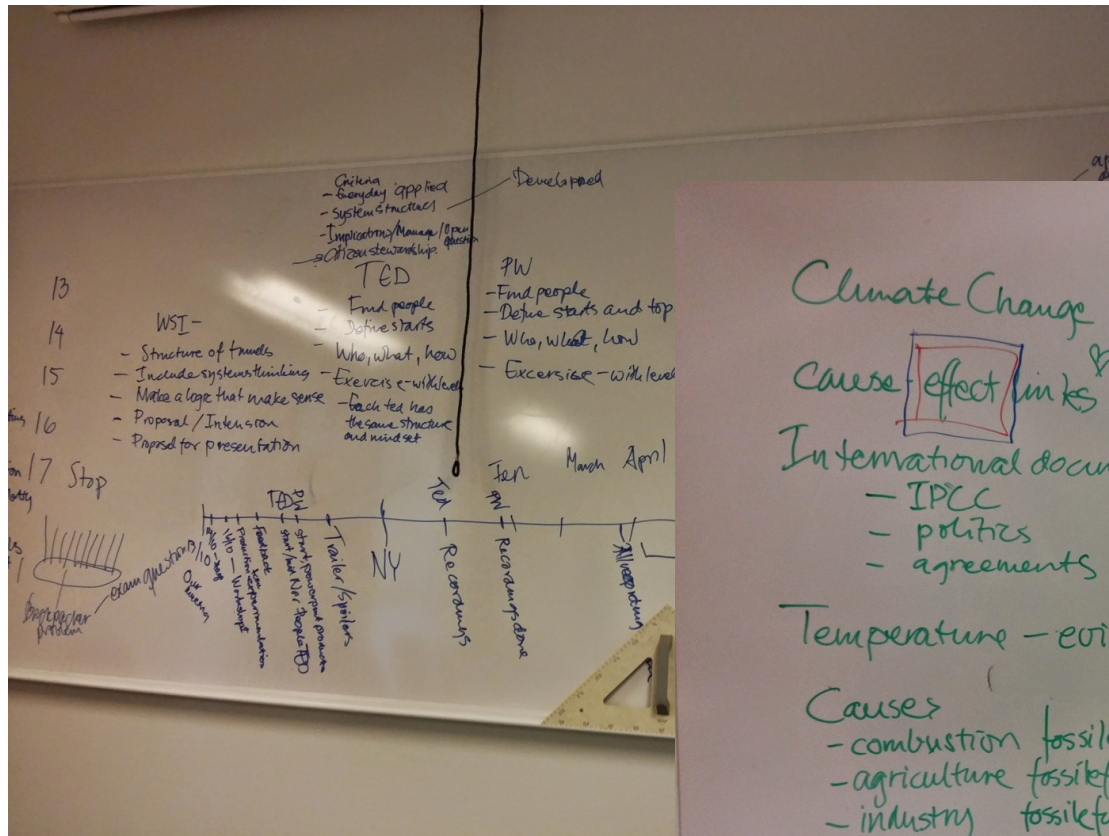
Motivations for the proposal

- "Man in the street" → "Informed citizen"
- Topics → Survey of news sources
- The funnel
 - Modular design
 - MOOCies can choose how deep to go into the course material
 - But, requirements need to be met to pass the course
- Systems thinking → Everything is connected

Expectations beforehand

- To try something new, and be creative
- To not design yet another MOOC
- To explore and learn about the possibilities offered by MOOCs
 - On-line
 - On-campus

What have we done to date?



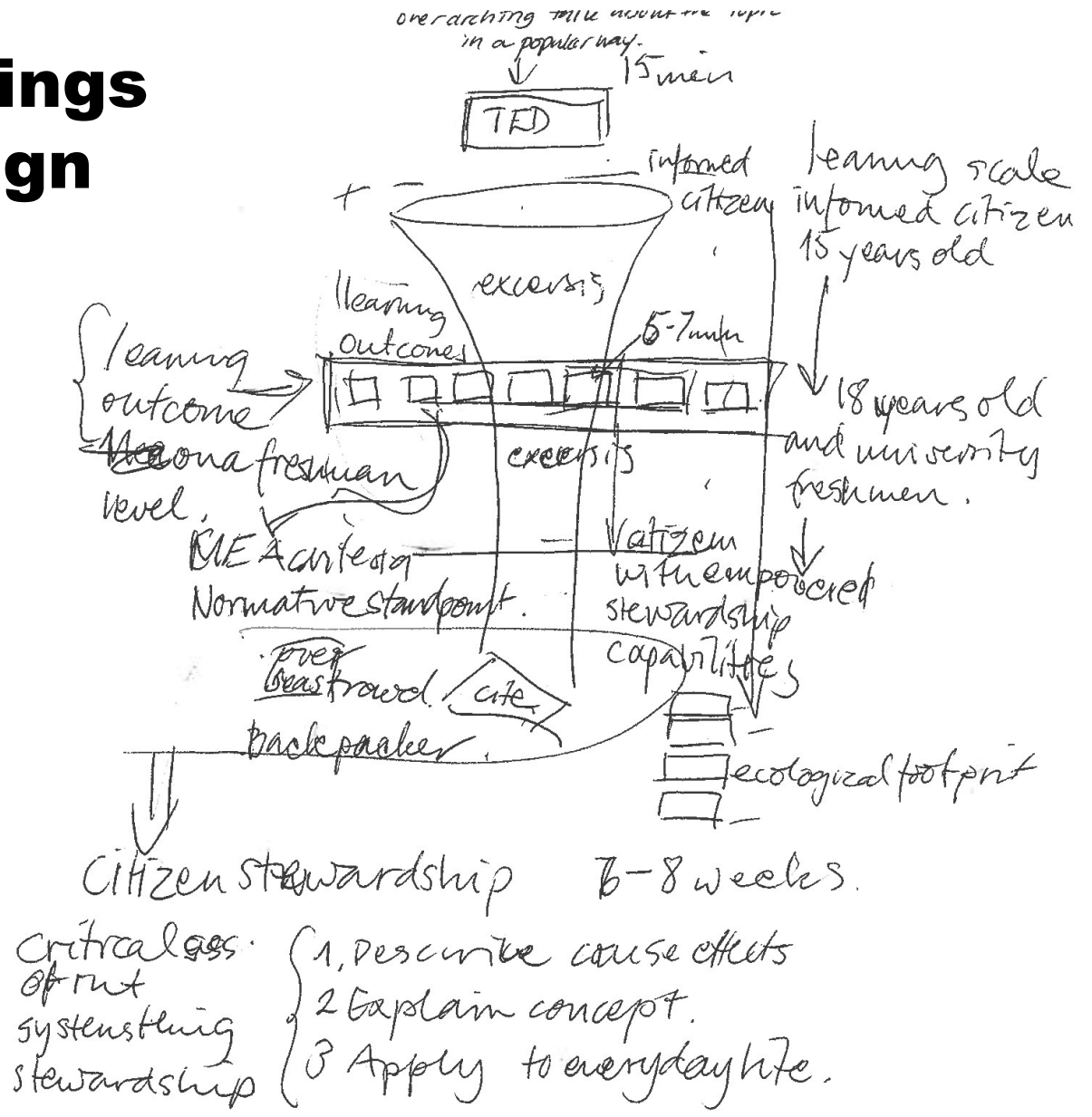
Expectations met so far

- We are actually doing something different
- It is a very creative process
- Steep learning curve

But...

- The real implementation still has to start
- Challenges during more detailed design
 - Mini-lectures
 - Assessment

Latest scribblings on MOOC design



Challenges during more detailed design

- Mini-lectures
 - Different formats
 - Length of lectures
 - Ethos, logos, pathos
- Assessment
 - Different formats
 - Peer assessment (or not)
 - Design of the final exam



Bartok, A. (Photographer). 2010. Good thing cows are curious. (Photograph). January 14, 2015. from <https://www.flickr.com/>

**Thank
you!**





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