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Greening the global classroom: Experiences using MOOCs to advance sustainability education

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Greening the global classroom:

EXPERIENCES USING MOOCS TO ADVANCE SUSTAINABILITY EDUCATION

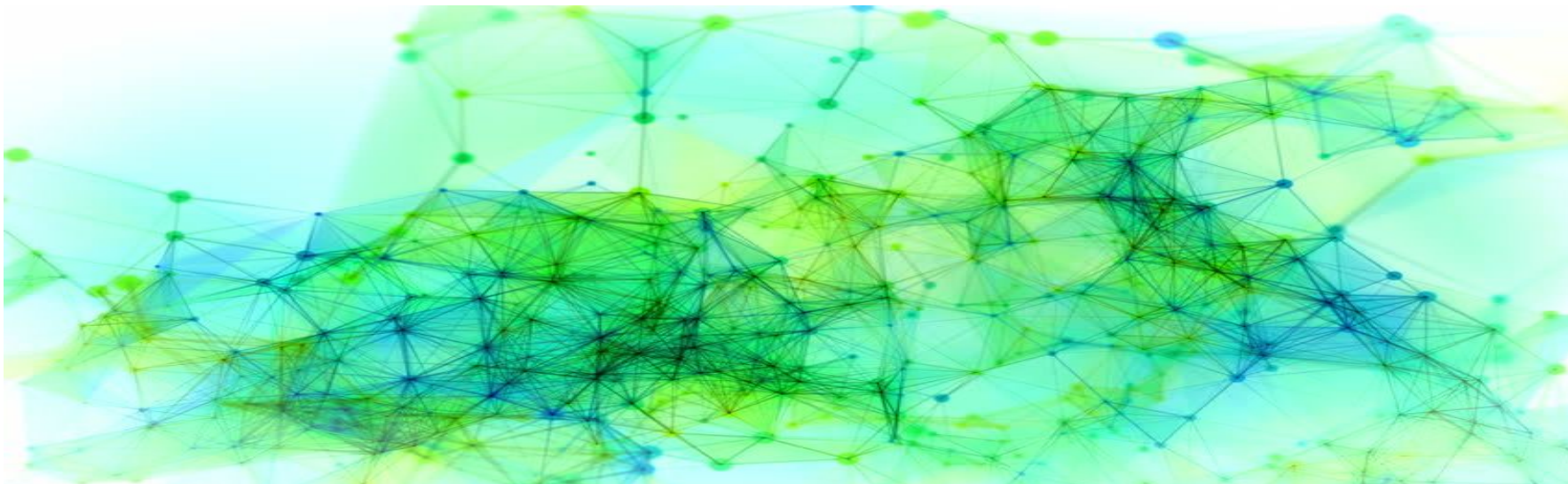
Jessika Luth Richter and Charlotte Leire

Peter Arnfalk, Kes McCormick, Håkan Rodhe



Why a MOOC for sustainability education?

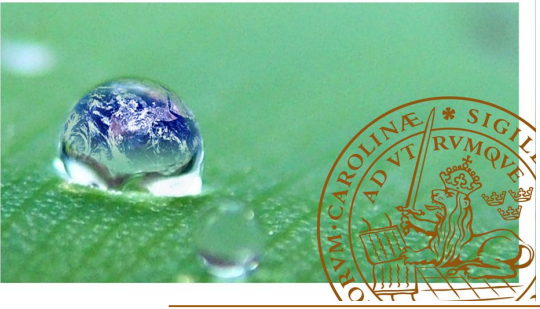
- Outreach for sustainability institutions/programmes on a larger scale
- Maintain capacity of online sustainability education
- Public service purpose of higher education
- To engage and connect learners interested in sustainability (including educators)
- Build an online sustainability educational community



Sustainability Education @ International Institute for Industrial Environmental Economics (IIIEE)

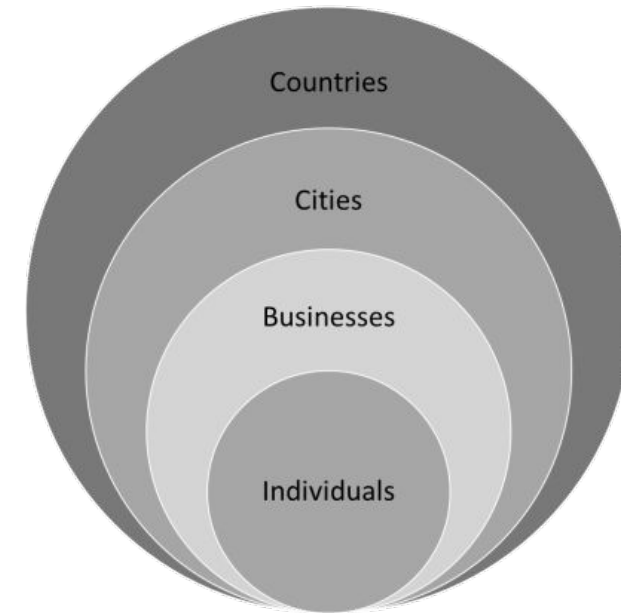
- Since 2005, two Masters programmes in Environmental Management and Policy (EMP) and Masters in Environmental Science, Policy and Management (MESPOM)
 - First year of EMP delivered online since 2006
- 2005-2010 IIIEE hosted the Energy for Sustainable Development online course (www.e4sd.org)
- Until 2012 IIIEE hosted the Young Masters Program (YMP, www.goymp.org)
- IIIEE Sustainable Consumption topic lectures on iTunes University





Greening the Economy: lessons from Scandinavia

- The topic...
 - is of high theoretical and applied relevance
 - is recognized by UNEP and by governments
 - reflects the IIIEE research agenda



- The course
 - examples and perspectives from Scandinavia
 - encouraged sharing examples and perspectives from the globe

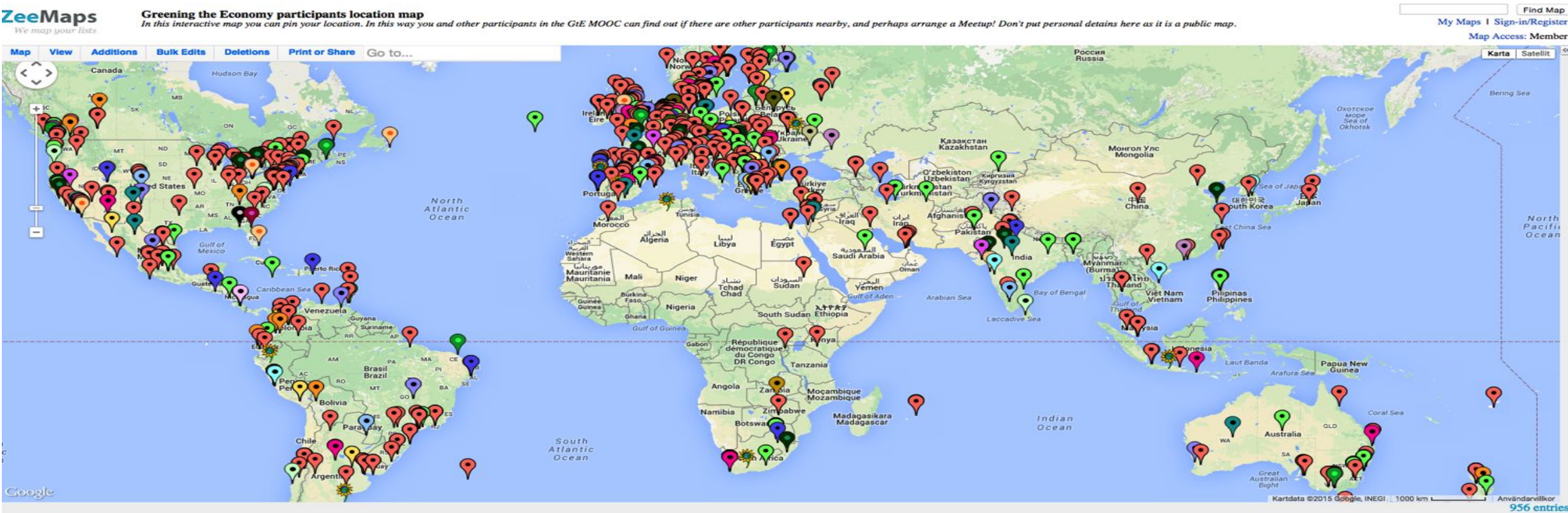
<https://www.coursera.org/learn/greening-the-economy>



Greening the Economy: lessons from Scandinavia

Readings*	Complementing video lectures with written material and additional external links
Quizzes*	Testing knowledge from video lectures and compendium
Forum discussions*	Stimulating learner discussions on the key concepts, deeper learning and application
Course assignment*	Requesting learners' own reflections and choice of greener initiatives for deeper learning and application
Peer assessment*	Evaluation of other learner assignment work, reflection upon own approach
Hangout	Allowing for instructors involvement/in-depth explanations, discussions and responses to learner discussions
In-video polls	Soliciting data from the learners
Community engagement	Promoting a feeling of a learner group
Additional literature	Offering more specific information on the key concepts; introducing learners to academic readings

Global Classroom



- > 20 000 signed up
- 34 % from emerging economies
- 26% full-time students, 13%, part-time students, 61% not students
- From 176 countries
- 48% had not heard of Lund Univ.

Student Activity

- Close to 10,000 learners active
- Close to 1,500 learners completed
- 367 learners chose signature track

Greening the Economy: Lessons from Scandinavia

by Dr. Kes McCormick, Dr. Luis Mundaca, Prof. Oksana Mont, Prof. Lena Neij, Dr. Thomas Lindhqvist, Dr. Håkan Rodhe

Overview

Reach

Engagement

Content

Polls

Classic Tools

Exports

Content Activity
All Time ▾

166,500
lectures viewed

22,761
exercises submitted

10,127
forum posts made

...viewed 57 000
times

Number of times our 40
lecture videos and
interviews have been
watched

Number of quizzes and
assignments submitted

Number of forum entries –
posts and comments

Impact on students: feedback

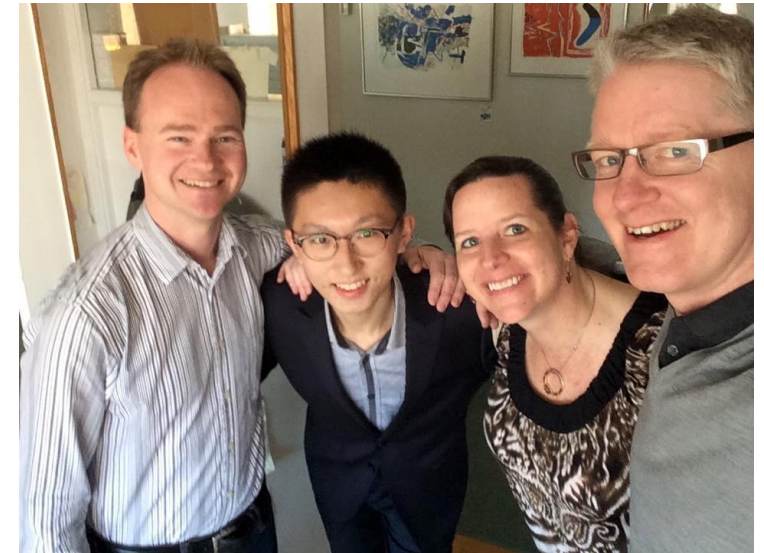
95% - course material quality "good or excellent"

90% - video lectures "valuable or extremely valuable"

77% - improved understanding "quite a lot/very much"

75% - more or much more favourable view of Lund University and IIIEE

73% - would like, or maybe would like, to study the topic at a university



- Some learners have volunteered to work for the course as veteran forum moderators
- Discussion in forums about how students would integrate learning into their lives
- Compendium is downloaded and distributed

Impact on our Institution: reflection

- From skepticism to enthusiasm
- Library of video resources for on-site courses
- Missing interaction between course and lecturers
- Time still an issue
- Insight into links between research, education, and society



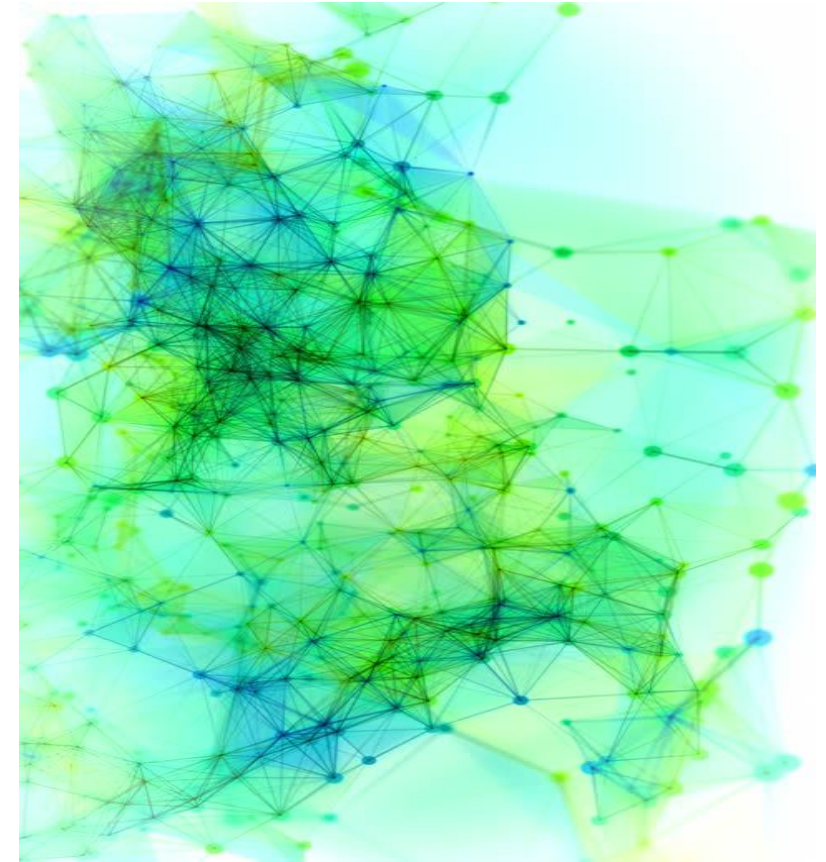
Future considerations for IIIEE MOOCs



- Placing MOOCs in the educational context
- Level of the course?
- What are the limits of “massive”?
- A need to examine learner motivations more in depth, and in the context sustainability education
- Strengthen link between the MOOC and research-both ways

MOOCs for sustainability

- **Potential advantages**
 - Scale and reach
 - Open resources
 - learners, educators, organisations
 - Lifelong learning
 - Mobile learning
 - Networking
- **Potential challenges**
 - Embeddedness
 - Deeper learning
 - Learner/Educator roles and responsibility



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lessons from Scandinavia
<https://www.coursera.org/learn/greening-the-economy/>



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