

Cathrine Tømte

2015

# ***Educating Teachers for Digital Competence?***

*- Or the e-learning landscape in Norway in general and in teacher training institutions*

ASEM LLL HUB Meeting: Self-learning in a digital era

# NIFU - Nordic Institute for Studies in Innovation, Research and Education

- An independent social science research institute, organized as a non-profit foundation.
- Aim to be a leading European research organization for studies of innovation, research and education at all levels.
- Collect, analyses and disseminate national statistics and indicators for R&D and innovation, and are active participants in statistical cooperation at the European and international levels.
- Based in Oslo, the capital of Norway

# Agenda

- E-learning – understandings and scope
  - where / when -> from blended to online learning
- The e-learning landscape in Norway in general and in teacher training institutions (policy, infrastructure, competence, curricula)
- The emergence and uptake of MOOCs

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# ***E-learning – understandings and scope***

## Diversity of understandings ...



# Suggested approach to e-learning

e-learning		Where		When	
		Campusbased (classroom)	Distance (wherever)	Synchronous (real time)	Asynchronous (whenever)
	Blended	X	X	X	X
	Online		X	X	X
	MOOCs		X		X

Source: Fevolden & Tømte, 2015

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***The e-learning landscape in Norway***  
***- in general***  
***- in teacher training institutions***

## Context: Norway



Higher Education Institutions (HEIs) :

- Universities (8)
- Specialized institutions at university level (8)
- University Colleges (21)\*

\* Current fusions of HEIs

- Norway has the population in Europe that uses the Internet most frequently
- Learning Management Systems (LMS) were introduced 10 years ago
- In 2011 95% students & 90% staff use the LMS

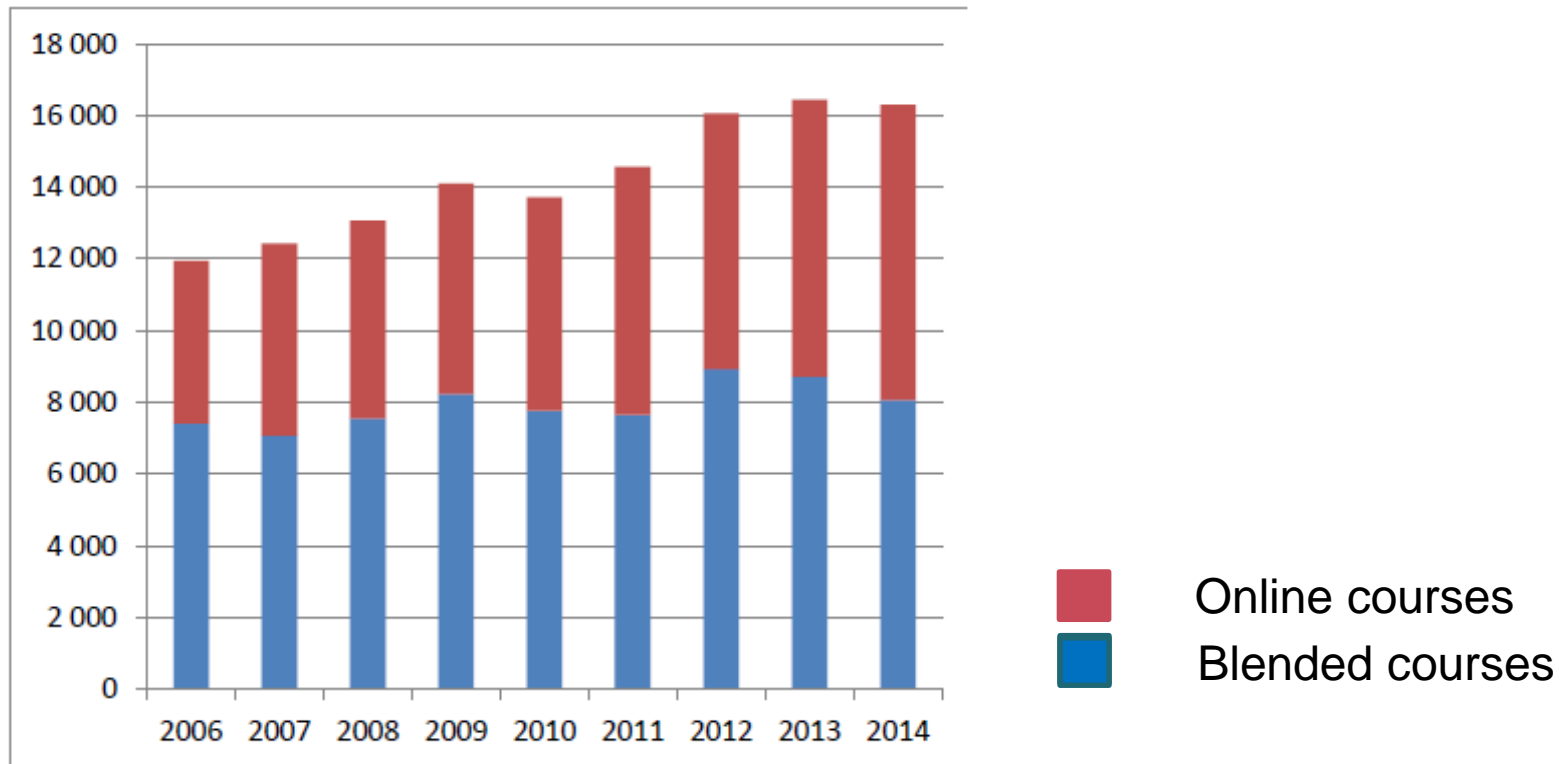


# Norwegian Opening Universities: Digital state of HEIs 2014: Key findings

- **9** out of **10** teacher staff still teach new curriculum in plenary on campus
- **4** out of **10** of them believe the use of digital tools in teaching helps to improve learning for students.
- **Every 3rd** student seems to prefer other types of educational opportunities than campus education.
- **Every 5th** student has participated in at least one online course, mostly within their own HEI.
- **Only 28%** of students think the teacher provides sufficient training in digital tools that are in use in teaching
- **79% of** managers think that teacher staff themselves must decide whether it is appropriate to use digital tools in their subject matters.



## Students in blended and online (conventional) courses 2006-2014



Source: Norwegian Social Science Data Services

# Teacher training institutions Norway

- Several programmes
  - 1-7 grade, 5-10 grade, vocational teacher training etc
- Offered by universities and university colleges, mainly public HEIs
- Fusion process & restructuring of the educational programmes
  - -> MA level from fall 2016

# Teacher training & digital competence

- 2006: The Knowledge Promotion Reform covering 10-year compulsory school and upper secondary education and training.
  - Digital competence as basic skills (along with oral, writing, reading and numeral competences)
- A study from 2008, based on the former curricula of teacher education, found that teacher education institutions were mostly just vaguely engaged with the ICT-issue (Hetland & Solum, 2008)
- 2010: New national curricula for teacher education - with an emphasis on basic skills
- 2013: The teaching profession and digital competence (NIFU-report)
  - Main finding: digital competence is poorly integrated in the teacher education programmes

# Digital Competence

*...a set of knowledge, skills and attitudes. These are required as a prerequisite for being able to use digital tools, media and resources appropriate and prudent to solve practical problems, communicate, gather and process information and create digital products.*

*Developing digital judgment by acquiring knowledge and good strategies for online use is an important part of digital competence*

(iktsenteret.no; downloaded 6.9.2012)

## Professional subject-based digital competence

... may involve preparation of curriculum, pedagogical use of ICT in teaching, administration and evaluation

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# ***The emergence and uptake of MOOCs in Norway***

# Recommendations

- National portal of Norwegian MOOCs; mooc.no
- Financial support to new MOOC-initiatives within HEIs
  - –continuing education
- SLATE: Centre for The Science of Learning and Technology, University of Bergen

Official Norwegian Reports NOU 2014:5

## MOOCs for Norway

New digital learning methods in higher education





## Kursoversikt

Gratis



Diversification Time/Space

Gratis

Exphil som nettkurs

# FlexPhil

UiO : Universitetet i Oslo

FlexPhil

Gratis

Kjemi på nett 2



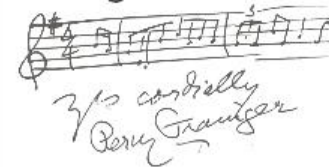
UiO : Universitetet i Oslo

Kjemi på nett 2

Gratis



# Digitale dirigentstudier



Digitale Dirigentstudier

Gratis

Kjemi på nett 1



UiO : Universitetet i Oslo

Kjemi på nett 1

Gratis



Læringsdesign

Gratis



SlechtsMOOC – gratis kurs

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Norges miljø- og  
biovitenskapelige  
universitet

Statistikk grunnkurs



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og kommunikasjonsteknologi

IKTMOOC – Innføring i IKT

# MOOC

over 1000 deltakere

IKT i læring



Gratis

**Matematikk MOOC**  
- matematikdidaktikk for lærere 1.-7. trinn

Matematikdidaktikk

Gratis



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**Animasjon  
og  
METODE**

# MOOC for teachers in Mathematics (1-7 grade)

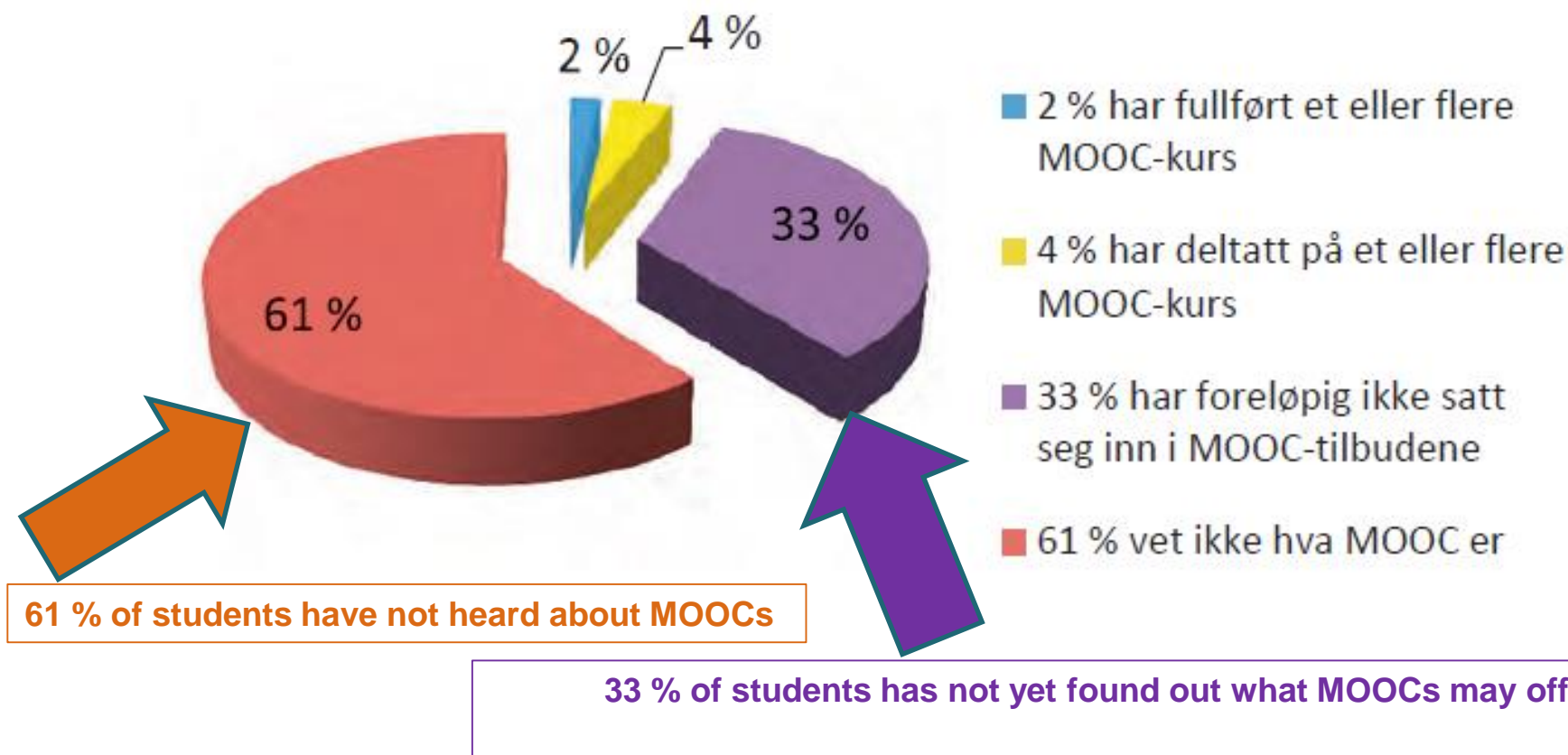
- Formal (closed) and informal (open) course for 1-7 grade Math-teachers held in Norwegian
- Fall 2015 - spring 2016
- 300 participants in the formal course
- Administered by two HEIs; Tromsø Arctic University & Sør-Trøndelag University College
- NIFU follows the initiative from a research perspective



... how do teachers  
and students  
approach MOOCs in  
general in Norway?

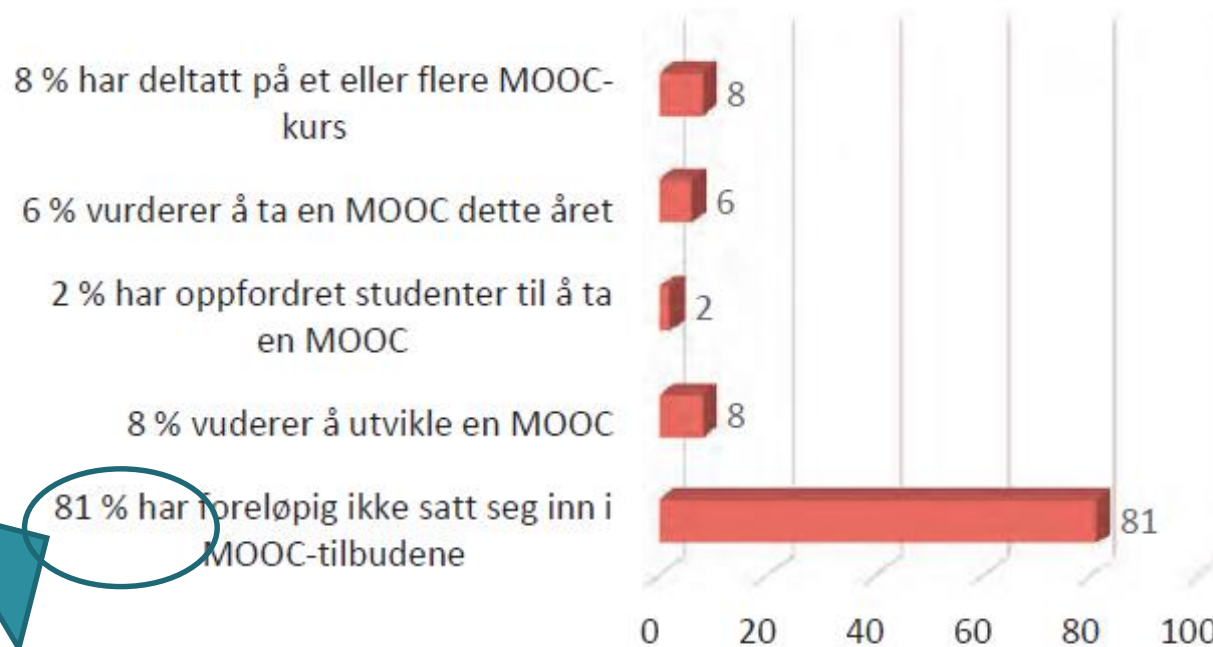
Translation of question to students: 'Have you participated in – and /or completed a MOOC'?

Figur 5.8: Spørsmål til studentene: «Har du deltatt på og/eller fullført et MOOC-kurs?»



# Teachers' approaches to MOOCs

Figur 5.9: Spørsmål til fagansatte: «Hvilke av følgende utsagn om MOOC passer for deg?» prosent.



81 % of teachers has not yet what MOOCs may offer to them

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## ***Preliminary conclusions & points for discussion***



# Preliminary conclusions & points for discussion

- E-learning – understandings and scope
  - where / when -> from blended to online learning
  - **Still diffusion of understandings and approaches**
- The e-learning landscape in Norway in general and in teacher training institutions (policy, infrastructure, competence, curricula)
  - **Still a way to go towards operationalizing digital competence**
- The emergence and uptake of MOOCs
  - **Still initial phase, but steps are taken; ‘the Norwegian path’ – focused on continuing education**

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# NIFU