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
E-learning – understandings and scope
Diversity of understandings ...
## Suggested approach to e-learning

<table>
<thead>
<tr>
<th>e-learning</th>
<th>Where</th>
<th>When</th>
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<tbody>
<tr>
<td></td>
<td>Campusbased (classroom)</td>
<td>Distance (wherever)</td>
</tr>
<tr>
<td>Blended</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Online</td>
<td></td>
<td>X</td>
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<tr>
<td>MOOCs</td>
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<td>X</td>
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</tbody>
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Source: Fevolden & Tømte, 2015
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
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
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?»**

- 61% of students have not heard about MOOCs
- 33% of students has not yet found out what MOOCs may offer
- 2% have completed one or more MOOCs
- 4% have participated in one or more MOOCs
- 33% have not yet set themselves in MOOC offers
- 61% do not know what MOOCs are
Teachers’ approaches to MOOCs

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