The teachers’ role in the changing landscape of technology rich environments

Trine Fossland & Cathrine Tømte
Norwegian Agency for Digital Learning in Higher Education: 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 courses 2006-2014

Source: Norwegian Social Science Data Services
Models of technology-rich Learning environments

- CAMPUS MODELS
  - SAME PLACE
- BLENDED MODELS I
  - DISTRIBUTED
- BLENDED MODELS II
- ONLINE MODELS
  - ASYNCHRONOUS

SYNCHRONOUS
How can we understand teachers professional digital competence within higher education?
Digital competence (Ferrari, 2012, p. 4):

**Information management**
- identify, locate, access, retrieve, store and organise information

**Collaboration**
- link with others, participate in online networks & communities, interact constructively

**Communication and sharing**
- communicate through online tools, taking into account privacy, safety and netiquette

**Creation of content & knowledge**
- integrate and re-elaborate previous knowledge and content, construct new knowledge

**Ethics & Responsibility**
- behave in an ethical and responsible way, aware of legal frames

**Evaluation & Problem-solving**
- identify digital needs, solve problems through digital means, assess the information retrieved

**Technical operations**
- use technology and media, perform tasks through digital tools

Our focus: Teachers’ professional digital competence
Teachers’ Professional digital competence?

Methods and selection
- Qualitative case studies
- Biographical interviews

various study programs and disciplines

teachers professional digital competence within higher education
Student-centered approaches
Teachers’ role in technology-rich environments
Teachers’ role in technology-rich environments

Source: Kahoot
Teachers’ role in technology-rich environments
Professional digital competence for teachers: The TPACK-framework

Our focus: Teachers’ professional digital competence

Source: TPACK.org
Teachers ‘ various use and adoption of ICT = digital competent teachers?

foundational ICT practices

developing ICT practices

skill-based ICT practices

digital pedagogies

Prestidge, 2012
Models of technology-rich Learning environments

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Barriers towards digital competence

- Access to ICT
- Professional development of teaching with digital resources
- Beliefs & self-efficacy
To conclude...

- How can we understand teachers professional digital competence within higher education?
  - Digital pedagogies - > students become active in their own learning - > student-centered approaches -
  - Multiple approaches
  - Cooperation

- Quality issues
  - Institutional support
  - Peer support?
  - Institutional bodies on ICT and pedagogy
  - Peer review systems for teaching and the use of technology?
Teachers’ professional digital competence
References