HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

Web-based education

Annukka Koivunen
8.10.2008

Palmenia Centre for Continuing Education
ICT Learning Team

Lecture topics

- Web-based education
- Web-based learning environment
- Social media
- Pedagogical models and methods

- Case-examples
    - Inquiry-based learning in web-based education
    - Social media in collaborative learning

2

Web-based education

- Using information and communication technology (ICT) in education
    - Part of contact teaching
    - Web-based course
    - A mixture – blended learning

- Computers, internet and other media (tv, radio…)
- Web-based learning environments (Moodle, Blackboard)
- Social media (wikis, blogs, virtual communities…)

3

Web-based learning environment

- A web-based learning environment is a place where users can:
    - Find and use study materials
    - Take part in online discussions with other learners
    - Obtain real-time or delayed support, advice and guidance
    - Work on different assignments and essays
    - Receive and return assignments and online tests

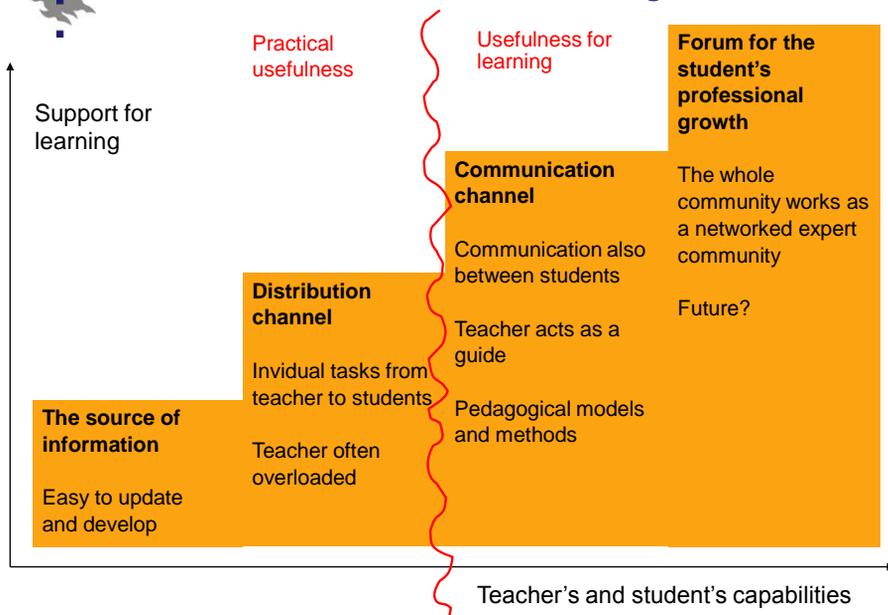(Manninen et al. 2007)

4

Web-based learning environment

- Different ways of using web-based learning environment:

  1) Independent studying in the web

  2) Supporting contact teaching (material, timetables, assignments)

  3) Web-based course (communication, guidance)

  4) Learning portal (long-term studying)

5

Different roles of a web-based learning environment

Practical usefulness

Usefulness for learning

Forum for the student's professional growth

The whole community works as a networked expert community

Future?

Support for learning

Communication channel

Communication also between students

Teacher acts as a guide

Pedagogical models and methods

Distribution channel

Invidual tasks from teacher to students

Teacher often overloaded

The source of information

Easy to update and develop

Teacher's and student's capabilities

6

3

Teacher-centered and student-centered web-based education

Distributing information:

- Invidual tasks that teacher evaluates

- Material and links that teacher collects

- Teacher searches and selects the information

Collaborative methods:

- Tasks that students do together

- Material and links that students collects and teacher guides

- Students search and select the information
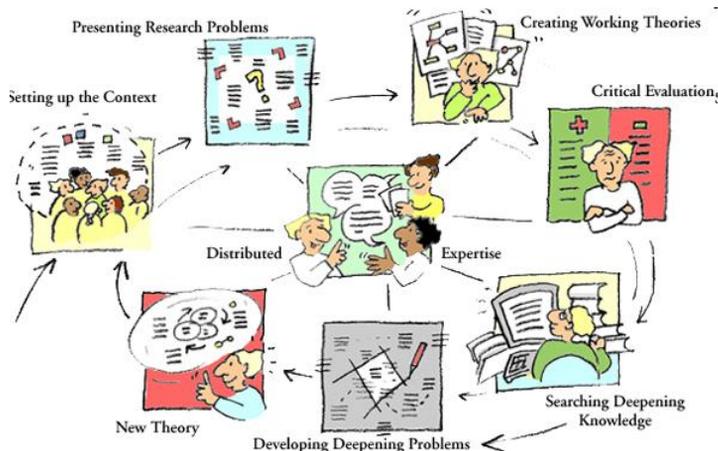
- Guided interaction

- Self and peer evaluation

7

Pedagogical models and methods

- Theoretical descriptions of a learning process
  – how does learning occur
- Support teacher to plan and phase the teaching and learning process

- Often used models in web-based education:
  - Meaningful learning
  - Problem-based learning
  - Progressive inquiry / inquiry-based learning

8

Progressive inquiry model

9

Case 1:
Inquiry-based learning in web-based education

■ Continuing education course for teachers, 20 participants
■ Funded by the National Board of Education
■ The course was implemented three times at 2006–2007
  (each course lasted ca. 3 months)

■ Aims of the course were:
    ■ To get familiar with inquiry-based learning in
      web-based education
    ■ To learn how to use a web-based learning
      environment (*Moodle*) and inquiry learning in
      web-based education

10

Case 1: Inquiry-based learning in web-based education – implementation of the course

1. Orientation period (incl. face to face meeting)
   - Course introduction
   - Getting to know each other and the web-based environment

2. Own questions
   - Own research questions and presumptions

3. Getting familiar with inquiry learning
   - Answering research questions in groups (wikis)

4. Planning of web-based education

11

Case 1: Inquiry-based learning in web-based education – implementation of the course

5. Own plans
   - Every participant planned their own course and commented on others' plans

6. Guidance in web
   - Discussion about how to teach and guide inquiry-based learning process

7. Own applications
   - Every participant made their own inquiry-based learning environment in Moodle (alone / in group)

8. Evaluation

12

KAUNIAINEN
Grankulla

TUTKO ryhmä 3
Moodle   Tutko3

Henkilöt
👥 Osallistujat

On-line käyttäjät
(viimeinen 5 minuuttia)
👤 Annukka Koivunen

Ylläpito
✏ Muokkaustila päälle
📄 Asetukset
🔧 Muokkaa tietoja
👥 Ohjaajat
👥 Osallistujat
👥 Ryhmät
🔧 Varmuuskopiointi
📁 Palauta
📁 Tuo
🔧 Nollaa
📈 Tilastot
❓ Kysymykset
📊 Arviointiasteikot
📋 Arvioinnit
📁 Tiedostot

Aiheen kuvaus

Inquiry-based learning in web-based education

HELSI

Tutkivan verkko-oppimisen verkkokurssi

👥 Uutiset foorumi — Discussion forums
📄 Pulmia ja pulmien ratkomista
📖 Tutkivan oppimisen sanasto

1 **Orientointivaihe** 30.8.–7.9.
👥 Tullaan tutuiksi
📄 TVTn käyttökartoitus
📝 Käyttökartoituksen palautus — Tasks
📄 Opetusprojekteihin tutustuminen
📊 Orientointitapaaminen300807 — Study material

2 **Omat kysymykset** 10.–14.9.
📄 Ohjeet Omat kysymykset -vaiheeseen — Instructions
📄 Tutkimusongelmia ja ennakkokäsityksiä
📄 Hyvä tutkimusongelma

13

Social media in education

■ Social media is part of a larger, fast growing phenomenon, referred to as Web 2.0
  ■ Blogs, wikis, podcasting, social bookmarking…
  ■ Interactive environment where participants can receive and produce information at the same time
  ■ Shift from consumers to producers

  → Same shift has happened in education as well!

(See e.g. O´Reilly 2005 and
YouTube videos from mwesch and leelefever)

14

Social media changes education

- Reduces teacher's role as an authoritative information source – increases equality in teaching
- Changes sharing the information more horisontal – students can learn also from each other
- Changes producing the information more collaborative – knowledge is produced together

- Changes the roles of the teacher and the students:
    - Teacher as a guide of a learning process
    - Student as an active manager and producer of the knowledge

(Laitinen & Rissanen 2007)

15

Case 2: Social media in collaborative learning

- Continuing education course for teachers and other participants, 20 participants
- Funded by the National Board of Education
- Supported learning environment projects
- The course was implemented at spring 2008

- Aims of the course were:
    - To get familiar with social media and web2.0
    - To learn how to use social media in teaching, collaborative learning and networked working

16

Implementation of the course

- The course lasted 6 weeks
  - 4 contact days and invidual and collaborative working in the social media environment (*Ning*)

- During the course every participant planned how they could use social media in their teaching or projects

- Some themes of the course:
  - Introduction to social media and it's applications
  - Web 2.0 and social media in education
  - Second Life in education
  - Guidance in social media

17

18

9

Some observations

- Instructors were no longer giving all the information

- Participants were able to add discussion forums, blog articles, pictures, videos etc. to the environment
    - Increased activity, some participants were very active
    - One participant made instantly his own Ning-environment where he taught mathematics to his students in high school (see http://holumaa10.ning.com/)

19

Other possibilities and future visions

- Using different kind of mobile technology to documenting, taking photos and videos, and voice recording
    - Laptops
    - Digital cameras
    - Mobile phones
    - PDAs (*personal digital assistants*)

- Using videoconference and web conferencing systems

→ *More possibilities and more interaction to teaching and learning!*

20

Thank you for your attention!

Any questions?

More information

- Laitinen, K. & Rissanen, M. (eds.) 2007. Virtual communities, thoughts and openess – social media supporting teaching and learning (in Finnish). Kuopio: University of Kuopio.
  http://www.smoot.fi/dokumentteja/SMOOT-julkaisu.pdf
- Manninen, J., Burman, A., Koivunen, A., Kuittinen, E., Luukannel, S., Passi, S. & Särkkä, H. 2007. Environments that Support Learning: An Introduction to the Learning Environments Approach. Helsinki: Finnish National Board of Education.

- Centre for research on networked learning and knowledge building:
  http://www.helsinki.fi/science/networkedlearning/eng/background.html
- Jan-Marie Kellow
  - http://inquiringmind.co.nz/
  - http://ictinfusedinquiry2.wikispaces.com/

Contact information

Annukka Koivunen
tel. + 358 9 191 54050
annukka.koivunen@helsinki.fi