



# E-learning and Free Software – issues and applications

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# Introduction



- What we should talk about today:
- ◆ The use of Free Software in Schools
  - ◆ E-learning applications
  - ◆ COVCELL Project for language training

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## Why Free Software?

- *Everyone* uses computers, all the time, from preschool to retirement
- Hammer and nails of the future is a keyboard and mouse (they are our new tools!)
- We need to be able to understand and adapt our tools

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# Software as knowledge

- A large part of our knowledge is stored through or in a computer
- Computer software is a knowledge asset and a cultural artifact for the future

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# Knowledge

- When we store knowledge in computers, we use software to access that knowledge
- Access to the software controls our:
  - ◆ ability to study, work,
  - ◆ free time and vacations,
  - ◆ ability to participate in a democratic process

# Why Free Software?

- Schools should encourage learning, and Free Software removes the barriers for learning
  - ◆ Equal access for all to knowledge
  - ◆ No limitations on what you can study
  - ◆ Can even study the software used to study!
- Software is as important today as the printing press before it: it's a cultural technique

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## Getting it right

- Our values are impressed upon us by our parents
- We may think we know, but we don't
- Confucius says: Real knowledge is to know the extent of ones ignorance
- Real power of freedom and collaboration will only be realised in the next generations!

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## The role of the school

- Schools play an important role in shaping this
- Schools ought to:
  - ◆ Use Free Software in administration and teaching
  - ◆ Allow students to use the same software at home
  - ◆ Teach Free Software
  - ◆ Encourage sharing and cooperation generally
  - ◆ Use Free Software e-learning tools



# Saving money?

- It's popular to implement Free Software to save money, for instance by reusing old computers
- Today's tip:
  - ◆ Don't use the new computers for Microsoft Windows!
  - ◆ Use the old computers for Windows, and the new ones for Free Software!
  - ◆ Which would you rather work with?

# E-learning applications

## → Moodle

- ◆ Extensible e-learning platform with support for common e-learning features, such as:
  - Assignments
  - Chats and forums
  - Lessons
  - Quizzes
  - Wiki
  - Workshop

# Moodle and SELF

- Moodle is built around a “social constructionist” learning philosophy
- Learning is not a static transfer of knowledge: information received is tested against previous knowledge and used to form new knowledge

# Constructionism

- Explaining to someone else how to do something increased your learning potential
- The process of taking notes is an interesting example of this



# Social Constructivism

- Social groups building together, and for each other
- Moodle courses collaboratively create cultural artifacts with shared meaning
- Students and teachers alike immersed in a course with a social constructivist approach learn by teaching each other

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## Connected and separate

- In discussions, people with separate behaviour tries to remain objective and distant, defending their own position.
- Connected behaviour is more understanding of differences
- Moodle encourages a healthy amount of connected

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# Covcell

- Cohort-Oriented Virtual Campus for Effective Language Learning
- Implements several useful tools for language learning and learning generally
- Shows the extensibility of Moodle

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## User presence and chat

- Instant Messaging within Moodle
- Shows the currently online students within the environment of the course you study
- Encourages quick and efficient communication between students and students, and students and teachers



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# Whiteboard

- Collaborative work between two or more students around a common workspace, whiteboard
- Coupled with the chat features to provide real-time discussions



# Audio/Video conferencing

- One-to-one or multi-person video and audio chats
- Often coupled together with the Whiteboard
- Especially useful in language learning
- Allows for moderated chats and efficient online courses

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## Audio recordings

- Extension to the assignment module to allow for the submission of audio recordings
- Records and plays directly through the web browser
- Allows for feedback and grading by the teacher

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## Summary

- Schools should use Free Software
- Moodle is an example of an e-learning platform with a compatible philosophy with the SELF Project
- COVCELL shows the extensibility of Moodle to facilitate language learning online