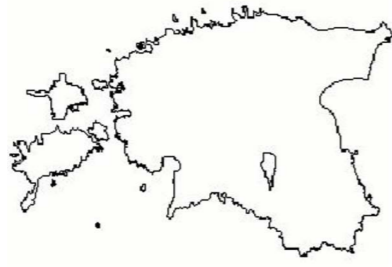




Innovative teaching methods at Tallinn University of Technology

Prof J. Kübarsepp Prof T. Kaps

TREE Seminar at University of Valladolid 26.-27.05. 2006



Estonia

- is a small country
 - by area ~ Denmark, Switzerland, the Netherlands
 - by population 8% of the Netherlands
- 11 universities (5 private)
 - public universities have 11 colleges
 - 67,325 students (2004) – 50% Estonian governmental financing
 - TUT: 10,327 students
 - Distant learning is not long distance learning

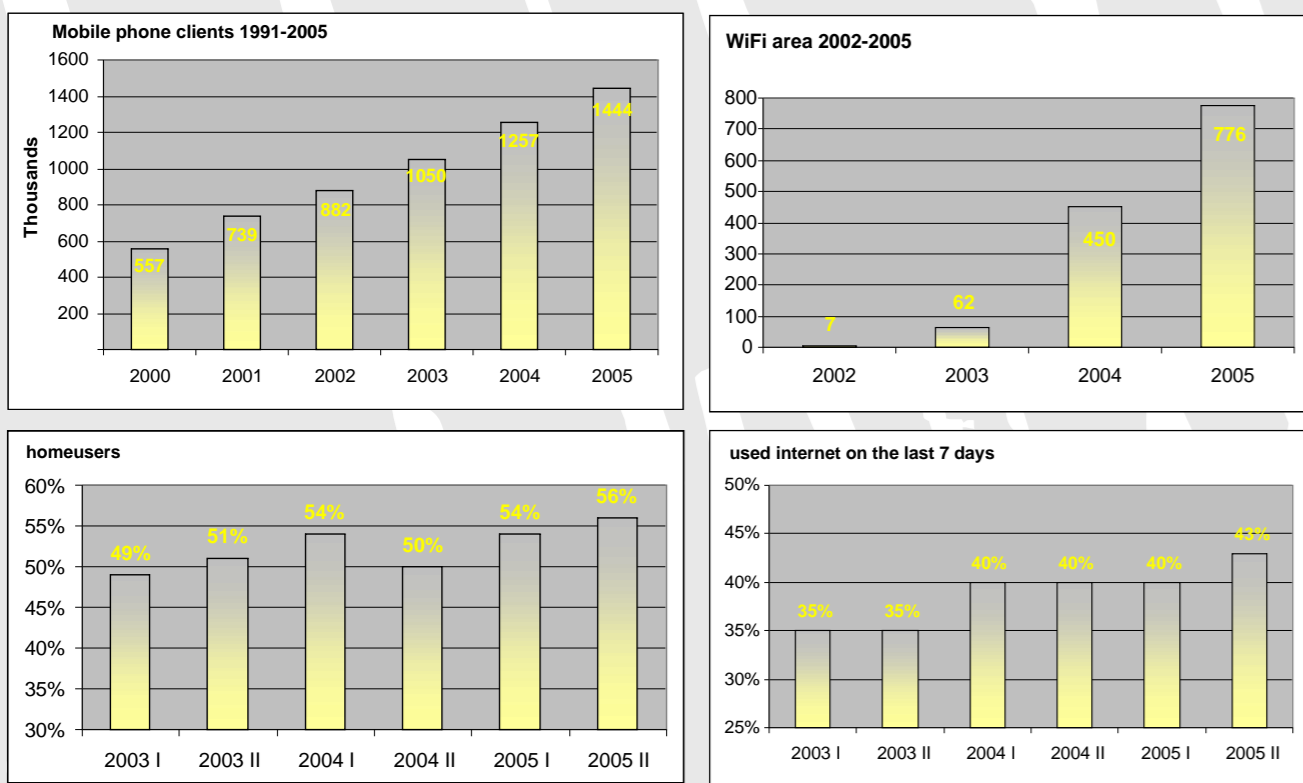
Estonia & IT

- numerous wide-spread Internet and mobile applications:
 - banking
 - parking
 - ticketing
 - car security
 - positioning
 - Skype
 - voting



Estonia & IT (2005)

- Mobile phones: 107 per 100 inhabitants
- 776 free WiFi zones
- 54% of population uses the Internet (90% at the age of 10-24)
- 34% of homes have computers at home, 82% connected to the Internet
- 90% students reported they use their own computer



Estonian e-University

- Estonian e-University is a consortium of universities and universities of applied sciences.
- Estonian e-University was founded in February 2003.
- Membership: Ministry of Education and Research, IT Foundation, 4 public and 4 private universities

e-University: functions

- Coordination of e-learning activities
- Financial support (through universities)
 - training teachers
 - course development
- Projects
 - UNIVE ("Creating network-based e-university model for the small countries in the context of e-learning in Europe")
 - REDEL ("Regionally accessible qualitative higher education via e-learning development")

e-Learning at TUT

- WiFi at TUT campus 100%
- WebCT Campus
- Moodle
- other (incl local designs)



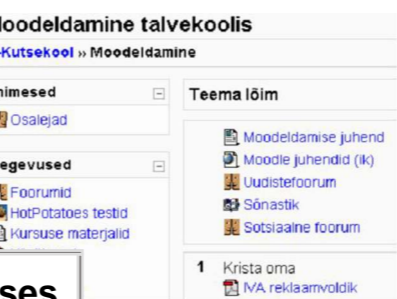
WebCT Campus

Faculty	users	e-courses
Preparatory Courses Office	50	5
Civil Engineering	6	1
Power Engineering	44	5
Humanities	247	7
Information Technology	695	15
Kuressaare College	112	3
Economics and Business Administration	79	5
Science	972	4
Mechanical Engineering	300	9
Tallinn College	225	4
Virumaa College	27	2

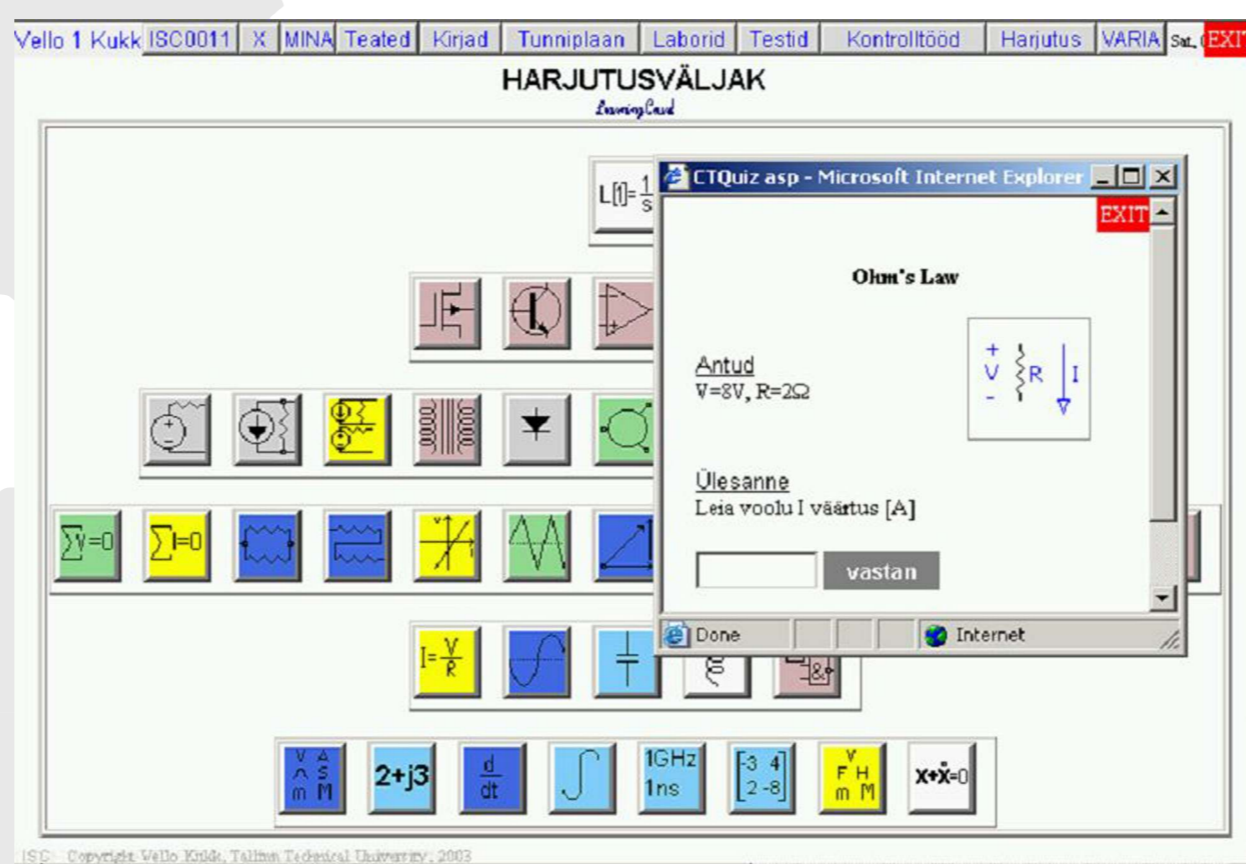
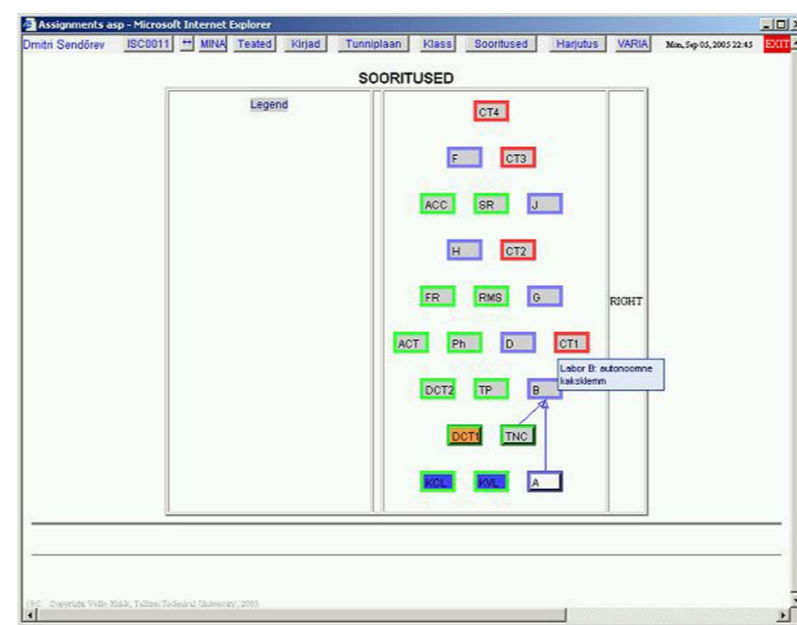


Moodle

Faculty	users	e-courses
Power Engineering	44	1
Humanities	57	7
Economics and Business Administration	617	48



Local LMS



Problems with e-learning

- Complexity of lab tasks encountered in transfer to e-learning environment
- High quality software packages are typical of very high volume. Thus, they need powerful servers.
- e-learning leads to a demand for optimization of contact hours

Video in different forms at TUT

- Videoconference
- Videostreaming
- Video materials

Vide Conferencing equipment



Polycom VX7000



Picture from: <http://www.teamsolutions.co.uk/>

Videostreaming

- TUT promotional events
- TUT news
- Research and development conferences
- Lectures
- Study materials

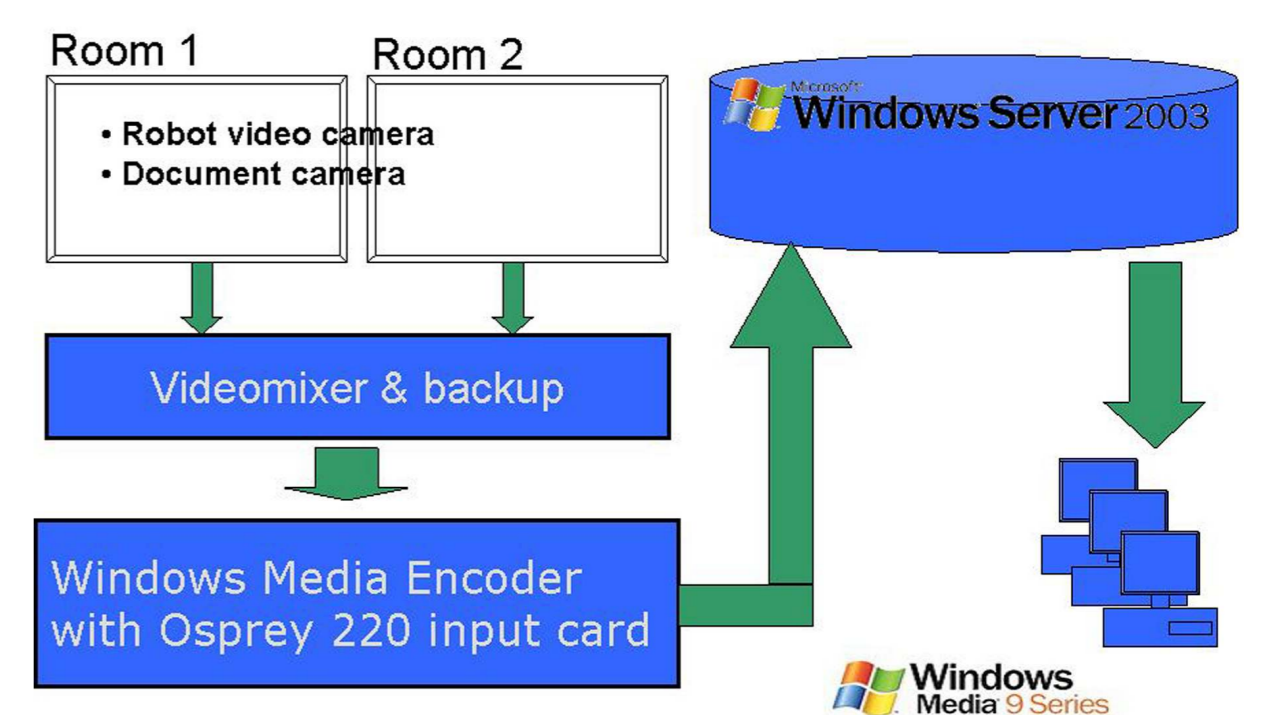
VIDEO TRANSMISSION OF LECTURES 2004/2005

- 8 courses transmitted and stored
- 123 lectures transmitted
- 246 hours of lecture transmissions
- 10 743 viewers of stored lectures
- 123+67=190 stored video clips
- video clips viewed for 48 290 times

Meetings



Videostreaming equipment



Labs

- Conventional
- Home labs
- Remote labs
- Virtual labs



TUT's e-learning strategy 2006-2010

- indicators
 - percentage of e-support courses from the total of courses - 90%
 - cp percentage acquired in e-learning from total cps - 50%
- TUT's e-learning strategy