Mobile Learning in Higher Education: The Corvinus case

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Online Educa Berlin 2007
Introduction

• IT Foundation of the Hungarian Academy of Science  www.mtaita.hu

• Administration
• Content development

• Department of Information Systems, Corvinus University of Budapest  www.informatika.uni-corvinus.hu

• Mainstream Education

• Corvinno Technology Transfer Center  www.corvinno.hu

• mLearning environment
eLearning facts:

- Department of Information Systems
- WBL applications in education from the late ’90s.
- Synchronous / asynchronous systems (CooSpace, Centra)
- Mobilised academic content
- ~3000 users each year (faculty of business)
- Cross-national activity with partner universities
- International usage: University Selye, Komarno, Slovakia
Expertise: mLearning projects

The role of mobile learning in European education, European Socrates-Minerva Project

www.ericsson.com/socrates2006

Mobile Learning in Mainstream Education - European Leonardo da Vinci Project

www.ericsson.com/mlearning3

Mobile Learning: the next generation of learning - European Leonardo da Vinci Project

http://learning.ericsson.net/mlearning2
Blended mLearning

- Anytime, anywhere
- Enhanced eLearning
- New pedagogy
- Flexible Knowledge transfer

mLearning

- Blended learning
- Adaptive knowledge testing
- Virtual Collaboration
- LMS

eLearnig

- Core teaching activities
- Traditional classroom teaching
- Educational Ontology
- Content development

F2F

10/13/2007 Taking learning mobile
Educational ontology

Group of tasks

Scope of Activities

- is part of
- serves
- specifies

Task

- is part of
- serves
- requires

Competence

- prerequisite
- requires
- ensures

Knowledge Area

- is part of

Theorem

- premise
- conclusion
- refers to

Competence Module

- prerequisite
- requires
- element of

Curriculum Module

- prerequisite
- requires
- knowledge of

Basic concept

- is part of

Example

Refers to

- Test questions

R. Vas, 2006

Taking learning mobile
Starting from the spring semester of the year 2006/2007 more than 3000 students can reach and use mobilized learning content with their mobile devices.

Requirements: Opera Mini capable mobile device, mobile internet access, access to the department’s LMS

Costs: approx. 0.04 EUR/10Kb,

Demand driven usage – there was no real promotion (except by the focus course) behind the mLearning services.
The focus course

- Introduction to Business Informatics, 1. year Business BA programme
- Spring semester, 2007
- ~ 650 students, 14 weeks
- Lecture notes, adaptive tests, questionnaires were accessible with mobile devices
- the size of contents: 6 Kb - 500 Kb
- Questionaire was sent out, 244 replies were recieved.
Mobile learning increases the quality of e-learning

- Strongly agree
- Agree
- Uncertain
- Disagree
- Strongly disagree

10/13/2007
The cost of downloading mobile course materials was acceptable

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series1</td>
<td>28.76%</td>
<td>25.22%</td>
<td>26.99%</td>
<td>14.16%</td>
<td>4.87%</td>
</tr>
</tbody>
</table>

Taking learning mobile
# mLearning survey results, 2007

## Course learning objectives can be met by mobile learning

<table>
<thead>
<tr>
<th></th>
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<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series 1</strong></td>
<td>10.46%</td>
<td>13.39%</td>
<td>21.76%</td>
<td>22.59%</td>
<td>31.80%</td>
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</table>

10/13/2007  Taking learning mobile
Individual log-ins via the mobile interface
Student reflections - pros

- „It was easy to access the materials”
- „It’s easier to use this, as I’m not bonded to a computer.”
- „Who tried out this way of learning, got expertise in using a mobile internet browser (Opera Mini), which – I think – is a very useful Java application”
- „It’s practical – I don’t have to carry around my books.”
Student reflections - cons

- „The quality of handheld devices is important in order to deliver graphics and animations properly. Students without proper equipment had failed to access the content.”
- „The user guide for mLearning was not clear enough.”
- „It was easy to use, but the visualisation and the readability of the graphs were sometimes poor.”
- „The installation and the customization of Opera Mini was difficult.”
- „Unfortunately my phone is not good enough for this…”
- „The size of the text was too small!”
- „My phone can’t handle Hungarian characters, which made the reading quite difficult”
- „Navigation is slow and complicated”
- „It’s too exhausting to learn on my phone.”
Student recommendations

- „It should be simple, easily accessible for everyone. The size should be as small as possible (skip illustrations) in order to decrease the cost of downloading.”
- „Provide more audio based content!”
- „Improve the design of the system!”
- „This way of learning is not very well known. You need to put more effort on promotion and dissemination.”
- „Implement more functions using communication features of mobile phones!”
- „Build up projects, which push people towards using wap in their everyday life.”
- „I don’t see any other meaning of this than cheating on exams.”
Conclusions

• Students have no money
• mLearning is more acceptable if students use only the mobile devices without network connection (low cost)
• Students don’t possess the latest technology
• During the development, use widely accepted solutions
• mLearning should support F2F activities
• The structure of the teaching material must be clear and simple
• Provide simple, easy to use working environment, navigation
Conclusions

• More effort should be put on promotion!

  1. Majority of students still can’t use technology (corporate – academic cooperation?)
  2. Therefore they need loads of support.

• Significant amount of students use mobile technology already in their studies (without any promotion).

• We have to be careful - the story is more important than technology!

• “Strategy without action is a day-dream; action without strategy is a nightmare.” (Old Japanese proverb)
Thank you for your attention!

Questions?