Mobile Learning @ the Corvinus University of Budapest

Gábor Kismihók
PhD student

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Introduction

- IT Foundation of the Hungarian Academy of Science
  - www.mtaita.hu
  - 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
Corvinus University Of Budapest

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

- Using wireless technologies for context sensitive education and training
- The role of mobile learning in European education, European Socrates-Minerva Project
- Mobile Learning in Mainstream Education - European Leonardo da Vinci Project
  - [www.ericsson.com/mlearning3](http://www.ericsson.com/mlearning3)
- Mobile Learning: the next generation of learning - European Leonardo da Vinci Project
  - [http://learning.ericsson.net/mlearning2](http://learning.ericsson.net/mlearning2)
Janos Fajo - POP

Nora Soos – Party Shoe
The present
Scope of mLearning

Learning infrastructure
- Providing technology for being a mobile learner
  - mLMS
  - Adaptive testing
  - Ontology editor
  - Content management
  - Administration system

Collaboration
- Providing services to enhance student – teacher and student – student communication
  - Mobile forums
  - Mobilized notice boards
  - Administrative SMS communication

Content - pedagogy
- Providing content, which makes students mobile
  - Mobilised F2F materials
  - Location based materials
  - Standardised content
  - Teacher trainings
Blended mLearning

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

eLearning

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

F2F

- Core teaching activities
- Traditional classroom teaching
- Educational Ontology
- Content development
• Several successful pilots have been done, but the pick up rate is very low

• Teachers, educators are afraid of technology, they can’t handle the emerging challenges

• This means limited support from the professors, who are responsible for courses

• Amount of students in F2F education is decreasing

• The structure of the programs offered by the university is outdated, too rigid, there is no room to integrate innovative learning technology
mLearning in F2F education

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, I. 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
- Questionnaire was sent out, 244 replies were received.
Mobile learning increases the quality of e-learning

- Strongly agree: 60.00%
- Agree: 40.00%
- Uncertain: 20.00%
- Disagree: 10.00%
- Strongly disagree: 0.00%
### The cost of downloading mobile course materials was acceptable

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>28.76%</td>
</tr>
<tr>
<td>Agree</td>
<td>25.22%</td>
</tr>
<tr>
<td>Uncertain</td>
<td>26.99%</td>
</tr>
<tr>
<td>Disagree</td>
<td>14.16%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4.87%</td>
</tr>
</tbody>
</table>
mLearning survey results, 2007

Course learning objectives can be met by mobile learning

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>10.46%</td>
</tr>
<tr>
<td>Agree</td>
<td>13.39%</td>
</tr>
<tr>
<td>Uncertain</td>
<td>21.76%</td>
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<tr>
<td>Disagree</td>
<td>22.59%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>31.80%</td>
</tr>
</tbody>
</table>
Indiidual 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!
Thank you for your attention!
Questions?

gkismihok@corvinno.com