What are you interested in?
„Mobile Learning – ‘new’ visions beside E-Learning“?

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AGENDA

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1 Educational Technology – historical abstract

What is educational technology?

(educational) TECHNOLOGY

“Techne“ – skills, technique, handcraft and “Logos” – the teaching of.

Teaching of the application of available techniques and methods in Educational processes.
1 Educational Technology – historical abstract

Timeline

Tools

knowledge engineering tool

To amplify

To exonerate

To produce

Communication tools vehicle Toys

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„Readingmachine“

Readingmachine
(Source: copper engraving from a book of Agostino Ramelli (1531-1600) about machines of late renaissance)

Forerunner of the Webbrowser?
2 Introduction in mobile learning

- 10 years of researching in mobile learning
- First conferences in 2002
- International Association for Mobile Learning (IAMLearn)
- Projects funded by EC and national agency (BMBF)
  - University of Passau, University Hagen

- Only a small community in Germany
- Large communities at UK, USA, Asia
3 Definition of mobile learning

What is mobile learning?

“We talk about Mobile Learning or M-Learning [...] when mobile, wireless networked terminal is used for learning and teaching.[...]” (HELBACH, A. 2008)

Mobile learning is characterised “as the processes of coming to know through conversations across multiple contexts among people and [...] interactive technologies’.“ (SHARPLES, TAYLOR UND VAVOULA, 2007).
3 Definition of mobile learning
How to divide it from e-learning?

- "Mobile Learning is basically not E-Learning on smaller, portable devices. It exists unlucky used terms like 'E-Learning light’, which refer to small displays and bad input options." (PIMMER, C. 2008)
- the changing physically, virtual and social contexts of the learner caused by the mobility
- Small chunks of Learning content

- Only consume learning content
- no interaction
4 Potentials of mobile learning

- most of teenagers are familiar with mobile phones
- like „digital natives“ there are „mobile natives“
- decreasing costs of mobile communication and devices
- real ubiquity (time and place independent)

- usable at different levels of education
- using short and unplanned time frames
- learning while doing the job

- analogy to micro learning
4 Potentials of mobile learning
Sample: Biology K12
4 Potentials of mobile learning
Sample: electro engineer studies at university
4 Potentials of mobile learning
Sample: German Railway
5 Developing of learning contents

Problems

- Many devices
  - Different display-resolutions, memory
- Many operating systems
  - webOS, iOS, Symbian, Android, Blackberry, Windows mobile
- Many programming languages
  - Java, Objective C, JavaScript, Flash/Actionscript (combination possible)
5 Developing of learning contents

Advantage

- most devices use webkit-based browsers
- viewing HTML and PDF is possible
- new interactive features and video in HTML 5
- no Flash is needed anymore (Apple hope so)
- no programming of specific applications necessary
- using HTML-tools for developing content
- distribute learning content via internet, no special need of Apple App-Store or Android market place
6 First steps in researching mobile learning

- Start researching 4 month ago

1. step: getting familiar with the different devices
2. step: get in touch with techniques of development
3. step: transfer user experiences
4. step: creating first applications (web-app)
5. Generating ideas for large projects
7 Conclusion

In short

- young scientific field
- mobile learning is a part of e-learning
- usable at different levels of education

- mobile devices are designed for communication not for learning
- difficulty in developing learning content and special applications
- using normal HTML and mobile internet connection (decreasing costs)
»Knowledge builds bridges.«