Agenda

• Trend reports
• Mobile Learning Objects (mLO) – State of affairs – Why mLO – Interaction with mLO

• What do content repositories support mobile access?
• What features are content repositories offering for mobile devices?
Trends relevant for content
Boost of mobile technologies

Ubiquitous learning

Learning objects &
Mobile learning objects
Learning Object

Learning Object

• small units of learning
• self-contained, can be taken independently
• reusable, may be used in multiple contexts for multiple purposes
• can be aggregated
• are tagged with metadata

Dimensions of Mobile Context

Mobile devices are equipped with capabilities *text editor, audio recorder, video recorder, sensors, internet access, apps, etc.* that facilitate enormously the possibilities to *create, publish, discover, acquire, access, use and re-use* of educational resources.

Sustainable to adapt traditional desktop contents to the mobile setting?
Desktop to mobile adaptation
Desktop to mobile adaptation

Pilots and frameworks

Su, Tseng, Lin & Chen (2011) personalized mobile content delivery based on mobile capabilities, learners, preferences, and network conditions.

Yang M-C. (2007) a pilot framework for aggregating and editing mobile learning materials from the existing web-based eLearning materials
Desktop to mobile adaptation

Experiments

Bradley, Haynes, Cook, Boyle & Smith (2009)

‘LOs were developed to tackle a series of pedagogical challenges, such as facilitating learner engagement, and aiding students in dealing with problems of abstraction and complexity. These learning objects use a number of constructivist principles provided by rich interactive visualizations or learner controlled pacing’
Is sustainable to adapt traditional desktop contents to the mobile setting? NO
What do content repository owners think about supporting mobile access?
A survey to content repository owners on mobile usage

1,583,000 resources
Do you know any suitable app for accessing content repositories or open content?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>NA</th>
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<tbody>
<tr>
<td>4</td>
<td>12</td>
<td>7</td>
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Would you consider providing an application interface (API) for accessing to your repository from other sites and apps?

<table>
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<th>Yes</th>
<th>No</th>
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<tr>
<td>17</td>
<td>2</td>
<td>4</td>
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What kind of functionalities would be beneficial to provide state of the art access to content repositories?

- Location based services: 6 Yes, 77 No, 5 Don't know
- Augmented reality: 9 Yes, 4 No, 5 Don't know
- Reading voice service: 8 Yes, 5 No, 5 Don't know
- Help documentation: 10 Yes, 3 No, 5 Don't know
- Ranking of the contents: 15 Yes, 0 No, 5 Don't know
- Social collaboration: 14 Yes, 9 No, 5 Don't know
- Cloud storage: 13 Yes, 8 No, 6 Don't know
- Version control: 7 Yes, 6 No, 6 Don't know
- Schema representing tools to: 12 Yes, 6 No, 6 Don't know
- Voice-enabled search: 12 Yes, 8 No, 5 Don't know
What features are content repositories offering for mobile support?
How can we address mobile OER using our smartphone capabilities?
Conclusions

- repository
- API
- Web-services
- HTML 5
- Specific type of content

mobile client
Contact

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• What features are content repositories offering for mobile devices?