Aspect
Adopting Standards and Specifications for Educational Content

Educational Resources Packaging Standards SCORM and IMS Common Cartridge - Users point of view

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Tests with teachers (in real contexts) to check implementation of standards and specifications on LRE content leads to greater interoperability and cross-border re-use of the content.
Tests: why / how / who

Google form - test

Moodle test

Tests - Discovery

Tests - Reuse

Tests - Packaging

1. LRE_vs_Google_tests.doc
2. questionnaire_1.doc
3. lesson_plan.doc
4. questionnaire_2.doc
5. exercises.doc
6. questionnaire_3.doc
7. open_questions.doc

Aspect LRE (1st ed)

National Workshops:
- Gent, Sat 3 Oct 2009
- Lisbon, Sat 10 Oct 2009
- Vilnius, Sat 24 Oct 2009
- Bucharest, Sat 31 Oct 2009

Aspect LRE (winter edition)

Online testing (Mar 2010)

Aspect LRE (spring edition)

Summer workshop (May 8 2010)

Final deliverables

Reports

ASPECT
Adopting Standards and Specifications for Educational Content

Sep 28, 2010
SE@M 2010
Barcelona, Catalonia – Sep 27-28, 2010
Aspect - Packaging – Users view
The Learning Resource Exchange Repository (LRE):

- http://lreforchools.eun.org
- open educational resources and assets from many different countries and providers, including 16 Ministries of Education
- Many ~ 140 000 resources + assets pen to all.

Aspect version of the LRE

1. closed portal
2. contains content from 30 providers and contains > 200 k resources and assets
3. it has been adapted to support the LREv4.0 application profile
4. authomatically translated metadata available in 6 languages
5. integrated SCORM player and Common Cartridge platform
Tests: why / how / who

<table>
<thead>
<tr>
<th>Focus teachers</th>
<th>General teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>1</td>
</tr>
<tr>
<td>PT</td>
<td>1</td>
</tr>
<tr>
<td>LT</td>
<td>1</td>
</tr>
<tr>
<td>RO</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>
Discovery:
- Resource in LRE and Google – found? time?
- Search: Use of tagging, keywords, favourites
- ...

Reuse:
- Trust: tagging, favourites, colleagues
- National resources found?
- ...

Packaging:
- Use of “Non packaged”, SCORM and Common Cartridge content (Moodle)
- ...

Tests: why / how / who
Test 3: Content packaging

• Task 1: lesson plan in Moodle x 4:
  1) Using non-packaged content
  2) Using the entire SCORM
  3) Using an entire IMS Common Cartridge package
  4) Picking up parts from the IMS Common Cartridge package

• Task 2: digital rights management – non-free resources.

• Task 3: SCORM and IMS CC packages - benefits
Thermodynamics is involved with the study of the macroscopic properties of matter arising from the fact that it is made of a very large number of particles. The basic concepts in THERMODYNAMICS will be introduced through a simulation of the simplest system: an IDEAL GAS that occupies a region of volume V.

An ideal gas is composed of a large number of particles that move continuously, suffering elastic collisions between them and with the container walls.

Non-packaged
Initial results from Summer School

Packaging

Termodinâmica Scorm

Contents

- Thermodynamics
  - Introduction
  - Pressure
  - Temperature
  - Internal Energy
  - Heat
  - Work
  - First Law
  - Entropy
  - Velocity Distribution
  - Specific Heat

SCORM
Initial results from Summer School

Packaging

Topic outline

- Thermodynamics
  - News forum
  - Lesson 1
    - Teachers Notes for Lesson 1
    - Some Examples from Everyday Life
    - Global Warming Movie
    - Introduction
    - Pressure
    - Temperature
    - Temperature - Test Your Knowledge
    - Internal Energy
    - Internal Energy - Test Your Knowledge
    - Heat
    - Heat - Test Your Knowledge

IMS Common Cartridge
Initial results from Summer School

Packaging
Initial results from Summer School
Packaging

Preview Entropy - Test Your Knowledge

1. Marks: 1

The entropy of a system:
- a. Depends only on the number of particles of the system.
- b. Is directly related with the number of ways of distributing the particles according to the specifications on the system.
- c. It is independent of the energy of the system.

Submit

2. Marks: 1

The entropy of a system:
- Depends only on the number of particles of the system.
- Is directly related with the number of ways of distributing the particles according to the specifications on the system.
- It is independent of the energy of the system.

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Evaluation methodology

- Data gathered with mix-method approach, so results would complement each other.
  - Online Surveys after each task
  - Interviews with teachers
  - Observation

Caveat: sample of teachers small (n=44) and slightly above average ICT users, ==> results ~ initial testing.
Interface preference

- Web page
- SCORM Player view
- Common Cartridge player view
- SCORM package in Moodle
- IMS Common Cartridge package in Moodle
- I think they are basically the same and I don't care which one I use

...you are just showing the materials to the students in your class?
...you are going to teach an entire online course?
...you are giving them online homework/extra credit work?
How easy or hard was it to create a lesson plan? Using...

- Using normal web page
- Using a SCORM package
- Using an IMS Common Cartridge package
- Taking parts of an IMS Common Cartridge package
Preference of use

In the light of the workshop, what would you rather use?

- Normal web pages: 7%
- The SCORM Packages: 9%
- The IMS Common Cartridge packages: 84%
Initial results

• Teachers were generally very excited about the possibilities of IMS Common Cartridge

• This was due to 2 issues:
  – Re-Use of materials in their on LMSs have become easier (In moodle, you can edit as you like, add, remove or alter)
  – Icodeon CC platform’s functionality of being able to embed parts of the package into blogs, social media, web pages…
Would you use it?

• Almost 100% of the teachers said that if high quality educational resources would be available in Common Cartridge format, they would use them

BUT - these are above average teachers and they still need training.
Initial results from Summer School
Packaging

http://www.aspect-project.org/node/88
More info..

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Gràcies! - Thanks!