Plug and play learning application integration using IMS Learning Tools Interoperability

Simon Booth (University of Stirling)
Susi Peacock (Queen Margaret University)
Stephen Vickers (The University of Edinburgh)

ascilite Conference, December 2011
Outline

• The ceLTIC project
• An online community of enquiry
• What is LTI?
• Impact of LTI in enabling the creation of an online community of enquiry
• Questions?
ceLTiC project

• Project:
  – “creating environments for Learning using Tightly Integrated components”
  – JISC funded (July 2010 – Dec 2011)

• Aim:
  – integration of elearning applications with VLE using IMS Learning Tools Interoperability

• Project partners:
  – The University of Edinburgh, University of Stirling, Queen Margaret University

• Commercial partners:
  – IMS, Blackboard Inc, Learning Objects Inc and Pebble Learning Ltd

• Case studies:
  – Elgg, WebPA, PebblePad, Campus Pack
Online community of enquiry

• “A group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding” (Garrison, 2011)

• Need for tutors to be able to create environments using appropriate sets of learning applications combining them in a seamless manner so the main focus can be on the learning and not the technology
• Face-to-face interviews
  – with developers, system administrators and academic staff
  – pilot (n=2)
  – main phase (n=6)
• Online questionnaire
  – promoted via mailing lists and project blog
  – 62 responses (so far)
Main benefits of linking applications to VLE

• Single sign-on (94%)  
• Ease of access  
• Seamless integration  
• Easier management  
• Fill shortfalls in availability of functions in VLE  
• 47% would like to see other tools linked to their VLE
“Plug-in to VLEs” learning environment model
What is LTI?

VLE

Blog

Gradebook
Announcements
Discussion board

Blog (with LTI)
LTI functionality

- Easily added to a course
- Simple launch of learning application
- Basic LTI unofficial extensions:
  - outcomes (to be included in LTI 1.1)
  - memberships
  - setting
- “Full” LTI (LTI 2):
  - greater access to data via web services
  - notification of events (such as course copy)
  - internationalisation
  - placement of links within VLE
WebPA case study: Memberships

### WebPA OS manage users

#### Users to be added

<table>
<thead>
<tr>
<th>username</th>
<th>Name</th>
<th>type</th>
</tr>
</thead>
<tbody>
<tr>
<td>mspark</td>
<td>Muriel Spark</td>
<td>student</td>
</tr>
</tbody>
</table>

#### Users to be updated

<table>
<thead>
<tr>
<th>username</th>
<th>Name</th>
<th>type</th>
</tr>
</thead>
<tbody>
<tr>
<td>agbell</td>
<td>Alexander Graham Bell</td>
<td>student</td>
</tr>
</tbody>
</table>

#### Users to be deleted

<table>
<thead>
<tr>
<th>username</th>
<th>Name</th>
<th>type</th>
</tr>
</thead>
<tbody>
<tr>
<td>scconnery</td>
<td>Sean Connery</td>
<td>student</td>
</tr>
</tbody>
</table>

[Update WebPA OS] [Update WebPA OS without deletions]

© Loughborough University and University of Hull, 2005 - 2011  Version: 2.0.0.4 [blii]
WebPA OS manage grades

This page allows you to update the source for this module with grades from a WebPA OSAssessment. Only one grade book column is associated with this module, so if there are multiple, marked assessments you will need to select one of them for this task.


New assessment
scheduled: Sat, 5th November, 2011 at 9:00 - Sat, 5th November, 2011 at 17:00
student responses: 1 / 5

Mark Sheet
 Algorithm: webpa.
 PA weighting: 50%
 Non-completion penalty: 5%
 Grading: Numeric (%)

© Loughborough University and University of Hull, 2005 - 2011 Version: 2.0.0.4 [blt]
WebPA case study: sharing contexts

WebPA OS view sharing data

Shared Source Contexts

You may share this module with users from other sources. These might be:

- other links from within the same course;
- links from other courses in the same VLE; or even
- links from a different VLE within your own institution or outside.

<table>
<thead>
<tr>
<th>Source</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>webct.testing.edu mightylink Demonstrations - celTic Project: WebPA</td>
<td></td>
</tr>
</tbody>
</table>

To invite another source to share this module:

1. Use the button at the bottom of this page to generate a new share key (you may choose to pre-approve the share or leave it to be approved once the key has been initialised, see below).
2. Send the share key to an instructor for the other source.

On receipt of the share key string (e.g. 'share_key=xyz'), the other instructor should:

1. Create an LTI link include the share key.
2. Initialise the share module.
3. If the share has not been approved, wait for the other source’s key string to arrive.

Once the share has been initialised:

Send this share key string to the other instructor:

share_key=stKcFydJg

Technical Problem?
If you have a problem, find a bug or discover a technical problem in the system, contact us to report it.

© Loughborough University and University of Hull, 2005 - 2011 Version: 2.0.0.4 (bb)

ceLTic
Benefits

• Benefits for learners and tutors:
  – seamless integration of VLE and learning applications
  – empowerment of tutors
  – collaboration between learners from different VLEs

• Benefit for administrators:
  – easier to deploy new applications
  – able to support “bleeding-edge” courses

• Benefit for developers:
  – single integration to support any VLE

• Benefits of the ceLTIC project:
  – exemplars/case studies
  – workflows
  – LTI evangelism
Email: stephen.vickers@ed.ac.uk

Project site: www.celtic-project.org

IMS: http://www.imsglobal.org/toolsinteroperability2.cfm