Types of adaptation

1. Interface-based
2. Learning flow-based
3. Content-based
4. Interactive problem solving support
5. Adaptive information filtering
6. Adaptive user grouping
7. Adaptive evaluation
8. Changes on-the-fly

IMS Learning Design and adaptation

1. Interface-based where elements and options of the interface are positioned on the screen and their properties are defined (color, size, shadow, etc)

<table>
<thead>
<tr>
<th>IMS LD support</th>
<th>Example UoLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No support</td>
<td>No example</td>
</tr>
<tr>
<td>Some kind or</td>
<td>Something</td>
</tr>
<tr>
<td>customization in</td>
<td>when</td>
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<tr>
<td>SLED</td>
<td>interface</td>
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<td>means</td>
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<td>content</td>
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2. Learning flow-based, where the learning process is dynamically adapted to explain the contents of the course in different ways.

- IMS LD support: Show/Hide elements in the learning flow, Sequence/selection, Providing new itineraries on-the-fly.
- Example UoLs: Learning to listen to Jazz, Geo Quiz 3, Cándidas II.

3. Content-based, where resources and activities dynamically change their actual content.

- IMS LD support: Link to XHTML and DIV layers, Content of pre-defined properties, Show/Hide Environments.
- Example UoLs: Learning Activities with conditions, From lesson plan to LD.

4. Interactive problem solving support, that guides the user about the next step to take in order to get the right solution of a problem.

- IMS LD support: Modifying specific arguments by the tutor, Execution of specific design-time rules.
- Example UoLs: What is Greatness, Free Style Assessment.

5. Adaptive information filtering, taking care of an appropriate information retrieval that provides only relevant and categorized outputs to the user.

- IMS LD support: No support, No example.
- Example UoLs: No support, No example.
6. Adaptive user grouping, that allows ad hoc group creation and collaborative support on carrying out specific tasks

***IMS LD support***
- Yes, dynamic creation of users in administration, but hard representation
- No, dynamic creation of roles

***Example UoLs***
- No example

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7. Adaptive evaluation, where the evaluation model, the actual content and the running of the test can change depending on the student and the tutor

***IMS LD support***
- Pre set-up properties, with actual data and calculations on-the-fly

***Example UoLs***
- Geo Quiz 3
- Quo Builder 2

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8. Changes on-the-fly, by a tutor or author in run-time, moving beyond the previous types which are set-up and defined in design-time

***IMS LD support***
- Yes, if it is pre designed
- No, if it implies changes on structure, method or basic parameters

***Example UoLs***
- Quo Builder 2

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**Summary**

<table>
<thead>
<tr>
<th></th>
<th>NO</th>
<th>50/50</th>
<th>YES</th>
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Inputs in adaptation

- User behaviour
  - Automatic decision By engine
  - Personal decision By User
  - Learning Designer/Author

Personal decision By teacher

User behaviour
- User decision
- Teacher
- Engine - Designer

Workshop, this afternoon

Example Units of Learning:
- Based on roles: user, teacher, engine
- Based on types: learning flow, content

Tools

- CopperCore Engine, www.coppercore.org
- Reload Learning Design Editor and Player, www.reload.ac.uk
- Sled player, http://sled.open.ac.uk
- CopperAuthor, www.copperauthor.org

Example Units of Learning and articles in IMS LD

- OUNL Dspace, http://dspace.learningnetworks.org
Hvala Lepa!
Thanks!
¡Gracias!
Bedankt!