A New Linkage for the Assessment of Prior Learning

Eportfolio2007: Employability and Lifelong Learning in the Knowledge Society

Maastricht (The Netherlands)
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Stations of my talk

- Problem Description
- Outlook & Discussion
- Role of the ePortfolio
- Assessment Issues
- LSA for APL
- State of the Art
- APL in brief
Current solutions: APL/RPL

Do you have relevant, current and authentic prior learning?

APPLY FOR CREDIT

Counsellor appointed

CERTIFICATED

Does a tariff exist

Yes

Submit evidence

ExPERIENTIAL

No

Summarise learning in the form of learning outcomes and link with pathway outcomes

Collect evidence and submit portfolio

Assessed by two independent assessors

Approved by the APL Panel

Approved by the School Assessment and Validation Panel

…and current problems
Prior Learning Analysis with LSA
Current focus in TEL for APL

Focus on prerequisite structures
Only applicable for formal education

Learning from user’s behaviour in adaptive systems
Not a useful approach when learners change their environments

Photo by randomduck@Flickr
Prior Learning Analysis with LSA

- Latent Semantic Analysis (Landauer, et al. 1998) is a vector-based technique that is suited well to compare the similarity of documents (even if these do not share keywords)
Prior Learning Analysis with LSA

Widdows 2003
Prior Learning Analysis with LSA

<table>
<thead>
<tr>
<th>LA/Docs</th>
<th>Doc 1</th>
<th>Doc 2</th>
<th>Doc 3</th>
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</thead>
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<td>Learning Activity 1</td>
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<tr>
<td>Learning Activity 3</td>
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</table>
Prior Knowledge Analysis with LSA

- We have evaluated LSA and compared results with expert opinions about prior knowledge in the psychology domain.
- Results look promising although we still need to test the influence of different corpus sizes on the results.
- Current work focuses on comparison of different applications as core for a webservice.
This work can support the observation side of assessment

The results still need interpretation and a definition of the underlying cognitive model

Focus on low-stakes & formative assessment

Pellegrino, Chudowski and Glaser (2001)
Role of the ePortfolio

- Current focus: Dossier-type of portfolio
- Future scenario: Tracing the cognitive development of learners through a personal development portfolio
- The ePortfolio as the basis for personalization of learning content for lifelong learners
Outlook & Discussion

• The presented technique has several limitations (e.g. limited to textual content)
• Results are based on trust and to some extent uncertainty
• Focus on a purely semantic technique does cover all knowledge representations in learner documents
• Research needs to be extended to other domains to see the domain-dependence of the current implementation
Thank you!

“I think you should be more explicit here in step two.”