Personalisation and Contextualisation in TEL

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Open Universiteit Nederland, Bologna and Chiba building

by Chris Peeters

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Activities of CELSTEC

• Three programmes, each with three themes:
  – Learning and Cognition
  – Learning Networks for Professional Development
  – Learning Media

• Each programme integrates three activities:
  – Research Activities
  – Laboratory Activities for Open Innovations
  – Providing Solutions and Services to the market

• Institute for Education & Training
  – MSc Learning Sciences
  – Commercial Training (provided by the staff of 3 programmes)

• Temporary Strategic Programmes
  – Lifelong Learning Services
  – OUNL related programmes (e.g. IPO)
  – Open Educational Resources
Personalisation
for whom?
human communication is the best example, user centered design enables control, pace and lead, peer groups, motivation, accommodation and adaptation.
be aware of their reaction
user acceptance (PaperClip, vs CF),
user control, guidance, design
#1 give identity
ORDER DETAILS

ALERT:
Recent robbery: 173 Montrose Court

Date: Jul 1
Enable Identity

- Welcome
  - Pay attention to people
  - Flickr, MySpace
- Anonymity can be a death sentence
  - Lack of accountability & reputation
- Personal Branding
  - Nickname
  - About/URL
  - Images
- Accomplishments
  - Stuff I’ve Done
  - Rewards
- Social Incentive
  - “You’ve got mail!”

Luke Wroblewski, Yahoo Inc.
my personal plazes, reputation systems
Virtual identities are popular
Adaptive Leveling, Engagement, Personal Investment, Reputation

Here is the plot of the average accumulated play time by level.

Motivation, Quests and Tasks

- Coloring
- Adaptive Feedback
- Adaptive Rewarding, dependent on team activities
#2 give freedom
learning paths, exploration in adaptive systems, flexible content and systems
how much guidance?
how much freedom?
#3 take life as an example
Connect it to daily activities!
competition, gaming, communities, high scores, MMORPG, role models
#4 bring your friends
multiple perspectives, have you seen this?
Building Social Groups

July 14, 2006

Guild Membership and Stability Over Time

We then looked at how guild size and stability change over time. First, we looked at the percentage of characters who were in guilds. There was a mild positive increase over time.
Tooling and Machinery
#1 “give me lots of contents”
Metadata for Architectural Contents in Europe: MACE
Facetted Browsing
### Competence Matrix

<table>
<thead>
<tr>
<th>Competence Matrix</th>
<th>Urban Design</th>
<th>Landscape Architecture</th>
<th>Engineering</th>
<th>Quality management</th>
<th>Interior Architecture</th>
<th>Bio-Climatic Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of History</td>
<td>165</td>
<td>165</td>
<td>168</td>
<td>168</td>
<td>168</td>
<td>167</td>
</tr>
<tr>
<td>Ability to Create Architectural Design</td>
<td>561</td>
<td>565</td>
<td>572</td>
<td>576</td>
<td>577</td>
<td>577</td>
</tr>
<tr>
<td>Ability to match requirements and cost factors in</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Knowledge of Urban Design</td>
<td>126</td>
<td>130</td>
<td>134</td>
<td>133</td>
<td>135</td>
<td>134</td>
</tr>
<tr>
<td>Underst. people/building relations</td>
<td>523</td>
<td>524</td>
<td>532</td>
<td>535</td>
<td>533</td>
<td>532</td>
</tr>
<tr>
<td>Underst. of architectural profession</td>
<td>302</td>
<td>303</td>
<td>303</td>
<td>304</td>
<td>304</td>
<td>304</td>
</tr>
</tbody>
</table>

### Results

<table>
<thead>
<tr>
<th>2189 results for: Architecture</th>
<th>Bonnefantenmuseum</th>
<th>Bonnefantenmuseum: The Netherlands Maastricht</th>
</tr>
</thead>
</table>

**Classification Terms**

- konzeptionelles Erstwerden
- funktionelle Typologie
- Formtypologie
- Formcharakteristik
- Projektmaßnahmen
- Entwicklungsidee
- Kontextbezüge
- Wahrnehmungsqualität

**MACE taxonomy**
Mæve table application
by Maeve installation
2 years ago
#2 use the language of the educators for design
Project AUTC
Intended Learning Outcomes:
Development of a wide range of abilities appropriate for a beginning medical practitioner, clustered under 4 themes:
- basic and clinical sciences
- patient-doctor
- community-doctor
- personal and professional development.
<table>
<thead>
<tr>
<th>adaptive sequencing 1</th>
<th>what</th>
<th>to what</th>
<th>why</th>
<th>how</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sequencing learning activities</td>
<td>tested knowledge, quiz</td>
<td>compensation of deficits</td>
<td>user tracking</td>
</tr>
<tr>
<td>adaptive sequencing 2</td>
<td>introduction of interaction possibilities</td>
<td>level of expertise</td>
<td>usability, focus on learning activity</td>
<td>usage tracking</td>
</tr>
<tr>
<td>adaptive presentation</td>
<td>selection of media (DIVs)</td>
<td>preferences, learning style</td>
<td>compensation, acceptance</td>
<td>user input</td>
</tr>
<tr>
<td>adaptive navigation support</td>
<td>hyperlink annotation</td>
<td>knowledge</td>
<td>guidance</td>
<td>user tracking</td>
</tr>
<tr>
<td>adaptive navigation support 2</td>
<td>hyperlink annotation</td>
<td>community activities</td>
<td>social guidance</td>
<td>user tracking, clustering</td>
</tr>
</tbody>
</table>
#3 take into account relevant context
LISTEN: 3D Audio Augmented Environments for Art Exhibitions
Auditory Displays: Melodious Walkabout
Mobile Gaming: Locatory

Locatory - Cards
Contextualized Learning Support

- Action Aggregator Service
- Actuator/Indicator Layer
- Sensor Layer
- Positioning Service
- Tracking Service
- Collaboration and Recommender Service
- Feedback Strategy Editor
- Feedback Modelling Service
- Notification Modelling Service
- Graphical Feedback Engine
- Visualization Widget 1
- Visualization Widget 2
- Mobile Client
- Ubiquitous Display
- Audio Client
- IMS-LIP
- QTI
- TENC
- TENC
- Learning Network Actions and Interfaces
- Knowledge Resource Tracking Service
- UoL Tracking Service
- Positioning Service
- Collaboration and Recommender Service
- Ubiquitous Tracking and Interfaces
- Timer, Schedules
- Location Tracking
#4 use context indicators
Smart Indicators for Participation

(a) after accessing three items

(b) after accessing ten items

(c) after accessing 60 items

(a) learner is less active than the community and less active than last week

(b) Most active community member
Reflection Amplifiers
reflection about informal learning goals
Personalisation Basics
#1 give identity
#2 give freedom
#3 take life as an example
#4 bring your friends

Tooling and Machinery
#1 give me lots of contents to explore
#2 use the educators language for design
#3 take into account the relevant context
#4 enable reflection with context indicators