Mobile Learning Technology
Forschung | Entwicklung | Services

Christoph Igel
Mobile Learning Technology

1 Einführung
   Mobile Learning Engineering

2 Services
   eCampus Saar
   Université de la Grande Region

3 Entwicklung
   Medizin & Healthcare
   Intelligent Assessments

4 Forschung
   Safety & Security
   Intelligent Classroom
Mobile Learning Technology

1 Einführung

m-Learning
Wireless Learning | Ubiquitous Learning | Seamless Learning | Nomadic Learning | Pervasive Learning | Pervasive Education | u-Learning | Mobile Computer Supported Cooperative Learning | Wireless Internet Learning Devices ....

Lernen und Mobilität
„... m-learning is learning supported by mobile devices and intelligent user interfaces.“ (Sharma & Kitchens, 2004, Web Services Architecture for M-Learning, Electronic Journal on e-Learning)

„As mobile learning could be considered any form of learning (studying) and teaching that occur through a mobile device or in a mobile environment“ (Trifona, 2003, Mobile Learning- Review of Literature, University of Trento, Italy)
## Veränderung des Lernbegriffs

<table>
<thead>
<tr>
<th>Traditionell</th>
<th>Aktuell</th>
</tr>
</thead>
<tbody>
<tr>
<td>isolierte Qualifizierungsmaßnahmen</td>
<td>lebenslanges Lernen, arbeitsplatznahes Lernen</td>
</tr>
<tr>
<td>deklaratives Wissen, abstraktes Wissen</td>
<td>situiertes, kontextualisiertes, verkörperlichtes Wissen</td>
</tr>
<tr>
<td>vom Allgemeinen zum Besonderen</td>
<td>vom Besonderen zum Allgemeinen</td>
</tr>
<tr>
<td>Wissenanhäufung</td>
<td>Problemlösen</td>
</tr>
<tr>
<td>feststehende Curricula („one size fits all“)</td>
<td>adaptiv</td>
</tr>
<tr>
<td>individueller Wissensfortschritt</td>
<td>emergentes Wissen</td>
</tr>
<tr>
<td>isolierte Kompetenzbereiche</td>
<td>vernetzte Kompetenzen in untersch. Lebensumwelten</td>
</tr>
</tbody>
</table>
Mobile Learning Technology

- Instructional Design
- Software Engineering
- Knowledge Engineering
- Service-Engineering
- Usability Engineering
- Web-Engineering
- Content-Engineering
Mobile Learning Technology

Content vs. App
Content Mobile Devices (e.g. eLectures, Web-Sites)
Content Applications (e.g. Augmented Reality Browser)
Application Development (e.g. Native App | Hybrid App | Web App)
(M-) Learning Engineering Process
Mehrwert | Ziele | Funktionalitäten | Zielgruppe | Szenario
Fachlich-technologische Planung (Modellierung, Methodik, Prozesse)
Entwicklung (Agiles Engineering, Testing, Werkzeuge, Plattformen)
User Centered Design & Interface Development (Usability, Utility, Access)
### Mobile Learning Technology

<table>
<thead>
<tr>
<th></th>
<th>iOS</th>
<th>Android</th>
<th>Windows Mobile 7</th>
<th>Blackberry OS</th>
<th>HP WebOS 2</th>
<th>Nokia Symbian</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash Support</strong></td>
<td>NEIN</td>
<td>YES</td>
<td>NEIN</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>HTML5</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>ZES</td>
</tr>
<tr>
<td><strong>Programmiersprache</strong></td>
<td>Objective-C</td>
<td>Java/Flash</td>
<td>C#</td>
<td>Adobe Air</td>
<td>Javascript/HTML5</td>
<td>C/C++</td>
</tr>
<tr>
<td><strong>Handymodel</strong></td>
<td>Apple iPhone/iPad</td>
<td>Google Nexus, Motorola DROID X, etc.</td>
<td>HTC 7 Mozart, Samsung Omnia 7, etc.</td>
<td>Blackberry Playbook</td>
<td>Palm Pre 2</td>
<td>Nokia CS-03, Nokia E7-00, etc.</td>
</tr>
<tr>
<td><strong>App Store</strong></td>
<td>Apple App Store</td>
<td>Android Market</td>
<td>Microsoft Marketplace</td>
<td>BlackBerry App World</td>
<td>Palm App Catalog</td>
<td>Nokia Ovi Store</td>
</tr>
</tbody>
</table>
Mobile Learning Technology

1 Zusammenfassung

Mehrwerte
Always on | Permanent interconnected
Anywhere | Anytime | Anyhow | Anyone
Situiertheit | Kontextadaptivität | Internet of Things
Sensor Based Reception | Snap Mobile Content Development

Aufgaben
m-Learning Szenarien | Situated Learning Experience
Design, Implementierung, Testing von Mobile Learning Applications
Design, Implementierung, Testing von Snap Mobile Content Software
Einheitliche Infrastruktur | Integration in Education Architecture
Standardisierung | Sicherheit | Verfügbarkeit | Nachhaltigkeit
Übersichtskarte
Großregion SaarLorLux
Service | Université de la Grande Region

- Université de Liège
- Université du Luxembourg
- Université Nancy
- Université Paul Verlaine Metz
- Universität Trier
- Universität des Saarlandes
- Universität Kaiserslautern
Entwicklung | Intelligent Assessment Technology

PROFILE
Professional Profiling in Intelligent Learning Environments

Arbeitsmarktsegmente:
- Automotive
- Consulting
- Handel
- IUK
- Metallverarbeitende Industrie

Nur einen Klick entfernt von Informationen zu Branchen, gedruckten Arbeitsgehören, Kundenauftritten, Qualifikationsmöglichkeiten und interessanten, zukunftsweisenden Arbeitsplätzen!
Forschung | Intelligent Classroom
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Forschung | Entwicklung | Services

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