Learning Objects on the Semantic Web
Explicitly Modelling Instructional Theories and Paradigms

Abstract:

Motivation

A new form of Web content that is meaningful to computers will unleash a revolution of new possibilities just in time access to training

and information

Scenario: Learning Services within the Semantic Web

Life-long learning will be a learner's own decision (...) the learner is mature (...) he will identify and define his own needs and preferred ways of learning (...) he will learn to learn self-organized, self-determined, and independent from predetermined curricula and institutional forms of organization.

Learning Services within the Semantic Web
What is a Learning Object?

Explicitly Modelling Diverse Learning Theories, Paradigms and Principles

Interactivity Level
A Simple Datastructure to Describe Learning Objects

**Instructional Roles**

**Roles**

**Instructional Roles**

- **Instructional Roles (IR)**
- **IRs**

**IR**

**Tutor**

**IRs Expository Situated**

**IR**
### Instructional Roles

<table>
<thead>
<tr>
<th>Category</th>
<th>Vocabulary</th>
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<tbody>
<tr>
<td>General</td>
<td></td>
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<tr>
<td>Expository</td>
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<tr>
<td>Technical</td>
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</tbody>
</table>

**Table 1**: Instructional Roles

### Further Work

### References

- **The 2nd International Conference on Computational Semiotics for Games and New Media**
- **Scientific American: Feature Article: The Semantic Web**
- **Ästhetisierung des Denkens. Zur Postmoderne-Rezeption der Pädagogik**
- **Reusable Learning Object Strategy**
- **Kognitionswissenschaft**
- **Neue Studien zur Bildungstheorie und Didaktik**
- **Modeling Units of Study from a Pedagogical Perspective – The Pedagogical Meta-Model behind EML**
- **Draft Standard for Learning Object Metadata**
- **First Principles of Instruction. Educational**
- **Das Essener-Lern-Modell (ELM): Ein Vorgehensmodell zur Entwicklung computerunterstützter Lernumgebungen**
- **Lehrbuch Allgemeine Didaktik. München**
- **Tele- Tutoren. Qualifizierung einer neu entstehenden Profession**
- **Modellierung mit Rollen**
- **New Technologies for Collaborative Learning**