Educational Scenarios

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Overview

1. The Need for a New Categorization Scheme
2. Levels of Abstractions
3. The Categorization Scheme
4. Examples of Educational Scenarios
5. Examples of Interaction Patterns
6. Conclusions
Index of LMSes

Auswahl von Lernplattformen

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http://www.peter.baumgartner.name/directory/32/~27~
What tool to choose from?

- Product Evaluation
  - LMS
  - CMS
  - Authoring Tools

- Disadvantage
  - Market oriented
  - Technically driven
  - Product based (not user based)

http://www.virtual-learning.at

http://lms.virtual-learning.info
Proposition I

(Inglehart 1997)

The predominant educational assumptions of a society are not invented freely but reflect the predominant cultural values of this society.
Proposition II

(Baumgartner/Payr 1999)

Every piece of Educational Software, Authoring Tool or Learning Management System (LMS) implements a certain kind of learning theory.

Every function of the software has underlying (tacit) pedagogical assumptions.
3 Levels of Abstraction

Educational Scenarios

Educational Interaction Patterns

LMS, CMS and other Tools
Categorization scheme

Norbert Meder: Didaktische Ontologien (Didactical Ontologies)
Educational (Meta) Scenarios

- Learning Discussion
- Working Groups
- Learning Conference
- cooperative objects
  - Role Playing
  - Online-Tutoring

Norbert Meder: Didaktische Ontologien
An example (detailed)

- Small Group Learning Dialog
- Reflective Questioning
- Hands-on Training
- Open Discussion
- Guided Discussion
- Discussion <= 10
- Assertion-Discourse
- Brainstorming
- Roundtable Discussion
- Group-rally
- Mind-mapping
- Learning Dialog
- Group-puzzle
- Emotional Poll
- Learning Discussion

Workgroups

cooperative objects

Learning Conference
An example (detailed) II

- Open Discussion
- Guided Discussion

- Learning Discussion
- Workgroups
- Learning Conference
- cooperative objects
An example (detailed) III

Educational Scenarios

- Open Discussion
  - read a contribution
  - write a contribution
  - post a contribution
  - answer to a contribution
  - create new topic
  ...

- Discussion Forum
  - read a contribution
  - write a contribution
  - post a contribution
  - answer to a contribution
  - create new topic
  ...

- Guided Discussion
  - read a contribution
  - write a contribution
  - send a contribution to the moderator
  ...

Educational Interaction Patterns
From scenario to tool

Educational Scenarios (~60-80)

Educational Interaction Patterns (~200-300)

LMS, CMS and other Tools
Research Agenda

1. Define and categorize learning scenarios according to the underlying educational interaction pattern (iterative process)

2. Explore the variety of educational interaction patterns which are the components of educational scenarios

3. Discover the reflexive relationship between higher (scenario) and lower (interaction pattern) level.
1. Not all combinations of patterns create meaningful scenarios. The relationship between patterns is a factor in a scenario also.

2. The educational interaction patterns make certain learning scenarios possible, but you cannot simply reduce the scenarios to the patterns. The scenarios “organize” the patterns into meaningful units.
The pattern which connects is a metapattern. It is a pattern of pattern. (Mind and Nature 1979, p.11)
Connoisseurship, like skill, can be communicated only by example, not by precept. (Personal Knowledge 1962, p.54)
Conclusions

Advantages

Cost Reduction through Reusability

Reduction of Complexity

Thinking and use of tools are educationally motivated

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Thanks for your attention!

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