

Personalization and User Modeling

Adaptive Hypermedia Systems

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28.04.2014

Exercise 1: Adaptive Hypermedia Systems (AHS)

Ikea wants to optimize its online store. They offer various furniture (like kitchens, furniture for the living room, bathroom accessories and tiny stuff like cutlery, bins, plants, pictures, toys...) in different styles and for a different target audience.

- 1** Can Adaptive Hypermedia Systems be applied? Please explain your answer.
- 2** Please define a hypermedia graph that fits the described scenario.
- 3** Identify possible user groups and give an example for an adapted hypermedia graph.

Exercise 2: Adaptive Educational Hypermedia Systems (AEHS)

Develop an AEHS for publications based on the *Simple AEHS*, as shown in the lecture. The AEHS uses red and green labels to illustrate whether a publication is relevant. Besides the functionality of the Simple AEHS, the following features shall be implemented:

- Categories are – like publications – hierarchically structured based on prerequisites (*preq*).
- Publications are structured by categories. The categories shall be labeled like the publications. A category shall be labeled green if it contains at least one relevant publication.
- We consider that a user *understood* a publication after reading.
- If a user read all publications from a category and all sub-categories are marked as understood, then the category shall be marked as understood.
- Understood publications and categories shall not be marked as relevant any longer.

Exercise:

- 1 Create an appropriate AEHS by specifying the Document Space (DOCS), User Model (UM), Observations (OBS) and the Adaption Component (AC).