

User Modeling and Personalization 1: Adaptive Hypermedia

Markus Rokicki. Patrick Siehndel

L3S Research Center / Leibniz University of Hanover Hannover, Germany

13 April 2015



Adaptations is useful if:

...the Hypertext is sufficiently large This is the case in our scenario: There is a large amoung of furniture available in the shop, additional information like description of the different Ikea shop locations and further information about Ikea complement the hypertext.

...it is used by people with different goals and backgrounds. This holds as well in the scenario. The following user groups might be considered:

- ► Online-shopper: Users, who buy their stuff online.
- ➤ On-site-shopper: Users, who first get information about the nearest lkea store and products online to finally buy the furniture in the store.



► **Assemblyman:** User, who bought furniture and need support for the assembly.

► **Ikea-Interested:** Users, who are interested in general information about Ikea (Job applicants for example).

▶ ...

As both requirements are fulfilled, we can assume that adaptive Hypermedia Systems can be applied successfully for the online store of Ikea.



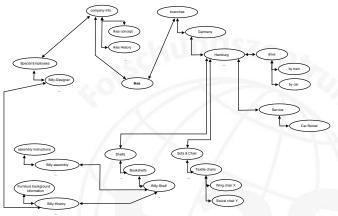
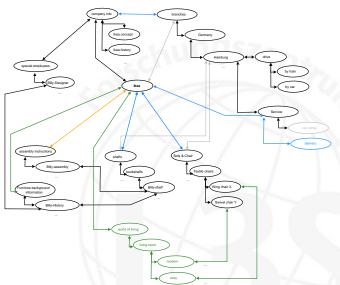


Figure: Example of a Hypermedia graph

A part of a possible Hypermedia graph for the Ikea store is depicted in Figure 1. The central vertex (could be interpreted as home page) is *Ikea*.









The graph from Figure 1 fits well for on-site-shoppers. To fit the needs of the other user groups we identified in part 1., we extended the Hypergraph as depicted in Figure 2. Explanation:

Online-shopper (blue): The online-shopper does not care about the locations of the Ikea stores: Therefore, we removed the edge to the branches (light-grey) and added new edges to the products. Further, the online-shopper is not interested in renting a car but in delivery conditions. Thatswhy we replaced car rental with delivery.

Assemblyman (orange): additional edges that link directly to the assembly instructions.

Ikea-Interested (green): The new subgraph "world of living" gives
Ikea-Interested a feeling about different living styles that Ikea
offers