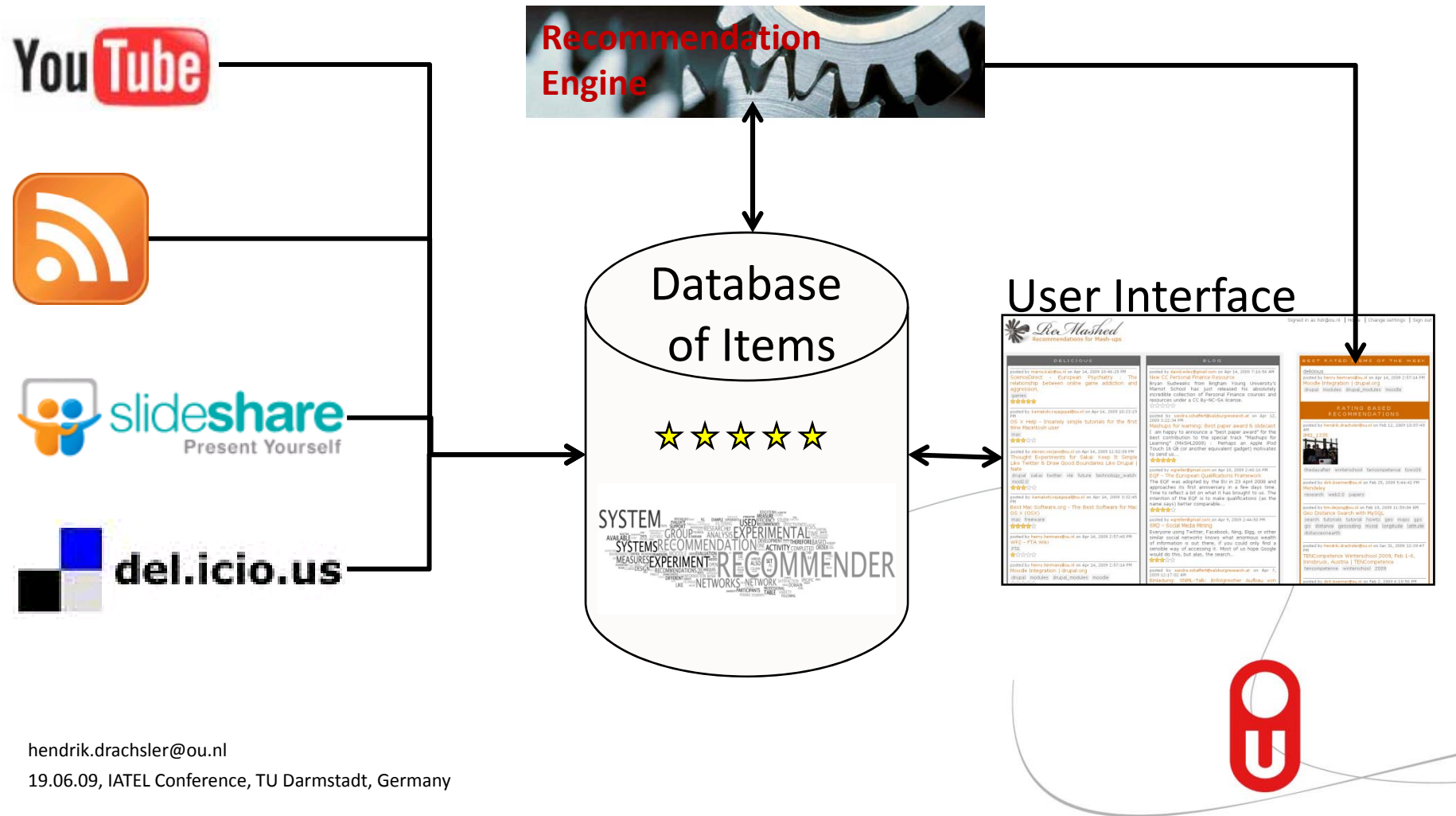


Adaptation in Informal Learning Environments



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Recommender System

- **Technologie:**
 - The main purpose of recommender systems on the Internet is to pre-select information a user might be interested in. Many of them use a technology called collaborative filtering to generate recommendations. Collaborative filtering works by matching together users with similar opinions about different resources. Each member in such a system has a 'neighborhood' of other like-minded users. Traditionally ratings from these neighbors are used to create personalized recommendations for a target user. A famous examples of this technology is the recommender system from *amazon.com* to direct the attention of their customers to other products in their collection.
- **Adaptation for the user:**
 - Every recommender system serves a specific purpose and functions in a specific context. Related to their purpose and context, they operate according to their own pre-defined recommendation techniques or strategies. Aggregated ratings of learning activities as awarded by other learners may provide valuable information (rated learning activities). Learners with the same learning goal or other preferences could benefit from ratings received from more advanced learners. Thus, beginning learners could benefit from history information about the successful study behavior of more advanced learners in the same learning environment (learning paths). From frequent positively rated learning activities and their sequence, most popular learning paths will emerge. Most successful learning paths regarding to efficiency and effectiveness could be recommended. The motivation for a recommender system for learning environments is to improve the 'educational provision'; to offer a better goal attainment and to spend less time to find suitable learning material.



Aspects of Adaptation

What	How	By what	Where
Selection of information based on preferences of users	Recommender System (i.e. Collaborative filtering)	Similarity measurement of items or user	Web Interface Widgets
		Ratings / Tags given by the user	RSS feed
	Bayesian models	User Stereotypes	
	Latent Semantic Analysis	Text Corpus	
	Data mining	Data Logs	

