

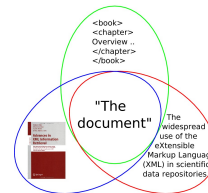
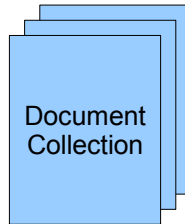
# Combining Cognitive and System-Oriented Approaches for Designing IR User Interfaces

A new generic framework for designing user interfaces for interactive IR

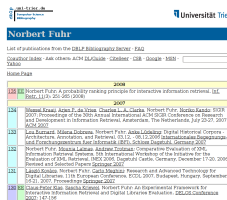
Norbert Fuhr, Matthias Jordan, and Ingo Frommholz

- Four-stage **workflow model of search**
- Extends the **ISS classification** of Belkin and Cool by a new dimension.
- Describes the **aspect** of the documents considered
- Supports the concept of **polyrepresentation** as formulated by Ingwersen.

**Dimension Values**  
 Method of Seeking: Scanning, Searching  
 Mode of Seeking: Recognition, Specification  
 Goal of Seeking: Learning, Selecting  
 Resource Used: Information, Meta-information  
**Aspect Considered: Content, Structure, Layout**



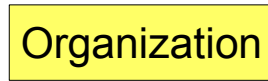
Selection based on meta-information on structure (author), then projection on structure (DBLP)



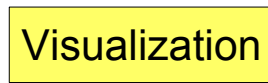
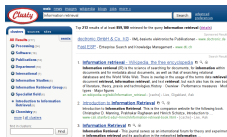
Selection based on information on content (search terms), then projection on content (Google)



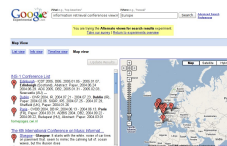
Projection on structure and layout, then visualization including the thumbnail (Amazon)



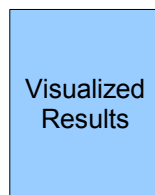
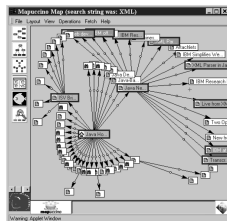
Organization scheme „clustering“ (Clusty)



Organization in 2D-space, then map-based visualization (Google)



Graph organization, then visualization, displaying links between pages (Mapuccio)



## Outlook

- Framework for interactive information retrieval interface to support all ISS and workflow steps shown here.
- System with a single, integrated but flexible

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