

Requirements for a Digital Library System: A Case Study in Digital Humanities

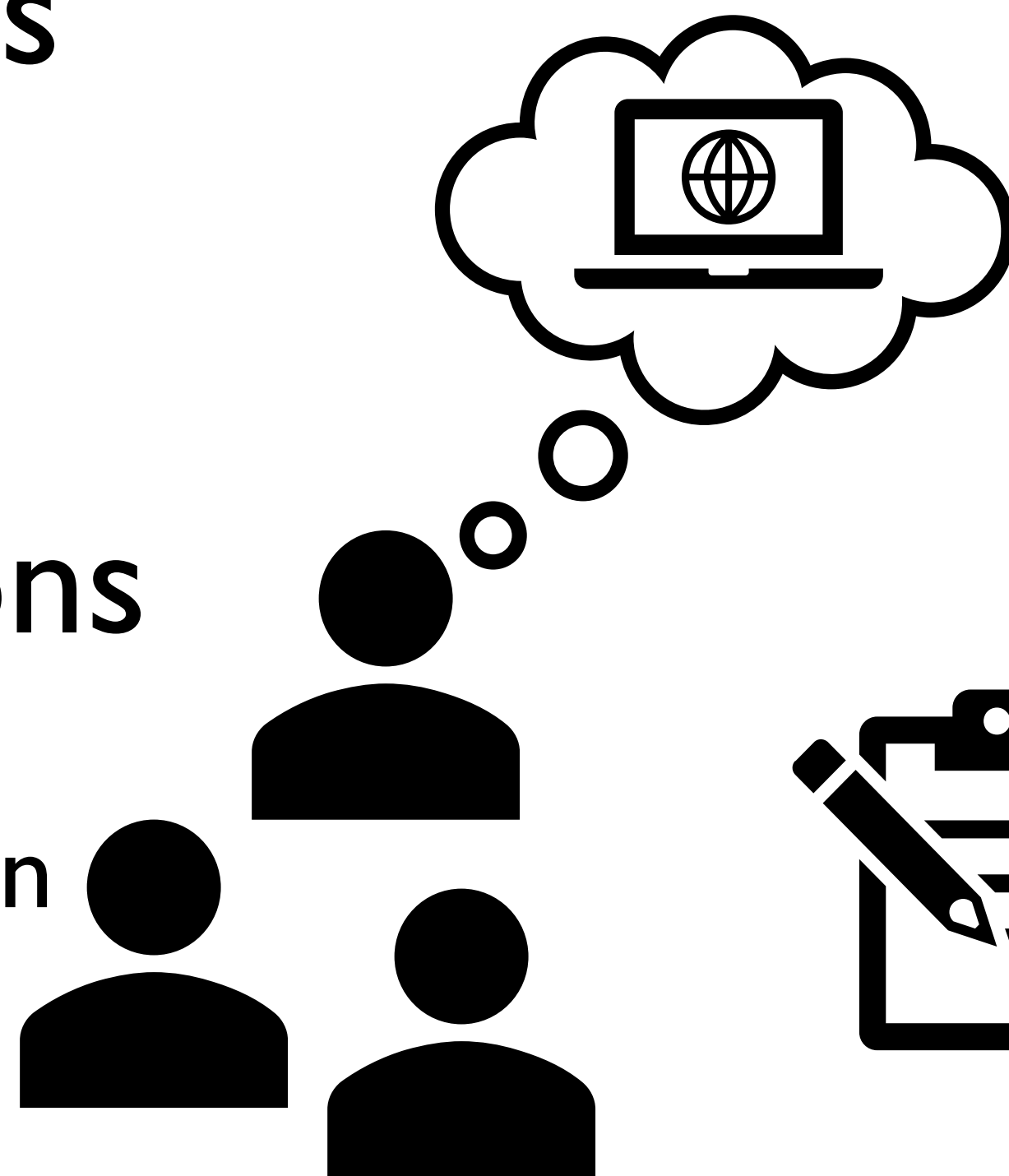
Hermann Kroll, Christin K. Kreutz, Mathias Jehn and Thomas Risse

Problem Statement

How can a digital library design effective access paths to their underlying collections?

User Study

- **Seven** senior researchers from digital humanities
- **30-minute** online sessions
 - 5 min. study introduction
 - 15 min. workflow description
 - 10 min. semi-structured interviews
 - Questions about their 1) workflows 2) ideal conditions and 3) challenges



- **User workflows:**
 - Several information sources
 - Searching with keywords
 - Result lists and relevancy
 - Working with the material
- **Users disliked:**
 - Missing linkage of archives
 - Finding the correct archive
 - Self-scans in libraries
 - Searching for multiple languages

Concluded System Requirements

- **Digitizing the Context**
Scanning and OCR processing
- **Keyword-based Search**
Apache Solr, Elastic Search
- **Federated Search**
Allow search for metadata of multiple connected systems
- **Multilingual Retrieval**
Rewrite queries with vocabularies/
multi-lingual embeddings
- **Language Translation**
LLMs come with a reasonable quality but low-resourced languages and hallucinations exist
- **Context Exploration**
Metro maps, connected papers, advanced access paths
- **Arrangement and Structuring**
Area scanning (similar article topics)

Thanks!

Technical
Report:



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