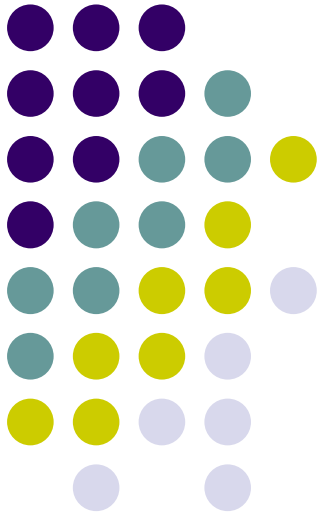
Evaluating Digital Library Information Models

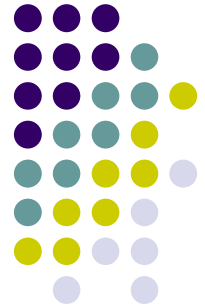
Trond Aalberg

Norwegian University of Science and Technology

Department of Computer and Information Science

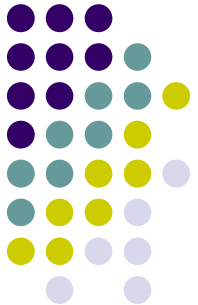


Overview



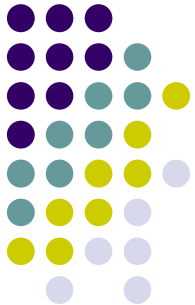
- Short introduction to FRBR and the BIBSYS FRBR project
- The evaluation needs of the project
- A broader context

The BIBSYS FRBR Project



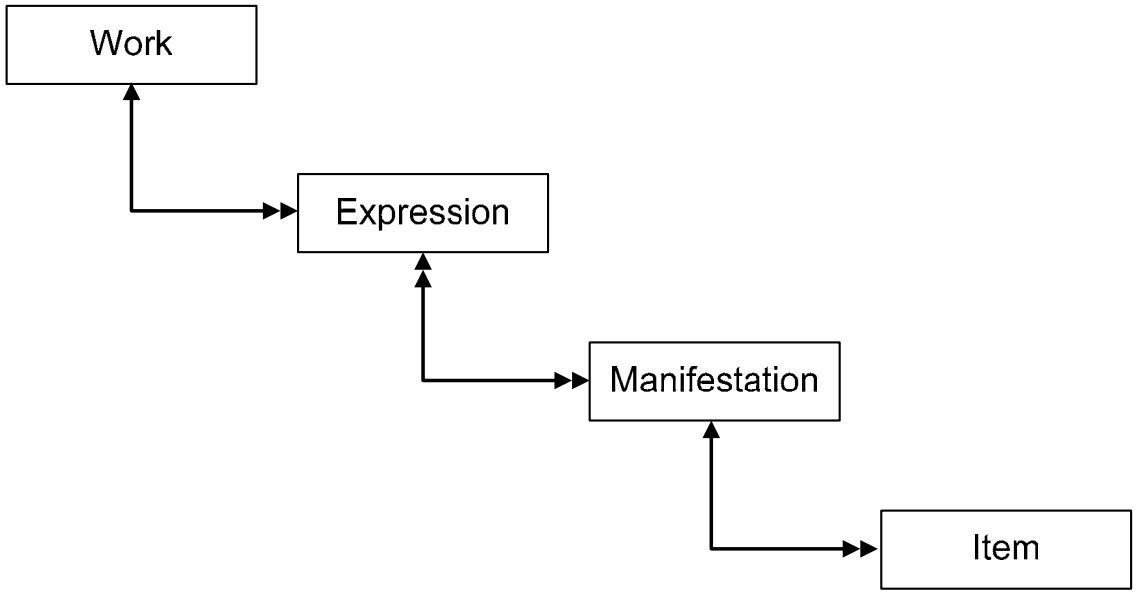
- Participants/cooperation:
  - BIBSYS, National Library of Norway, NTNU, OCLC, and others
  - Funded by the Norwegian Archive, Library and Museums Authority (ABM Utvikling)
- Motivation
  - Explore the use of the FRBR model in library catalogues
  - Large scale and realistic testcase
  - Develop, test, analyze and evaluate various aspects
- Major outcome
  - analysis and recommendations based on large scale and realistic data

The FRBR model

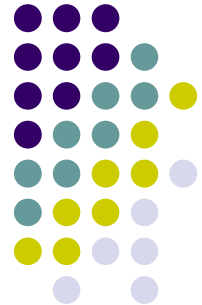


- Developed by the IFLA Study Group on the Functional Requirements for Bibliographic Records
- A conceptual model
  - Entities, attributes and relationships
- Considered to be the future information model for bibliographic systems

Group 1 entities

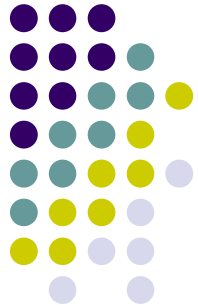


Project tasks



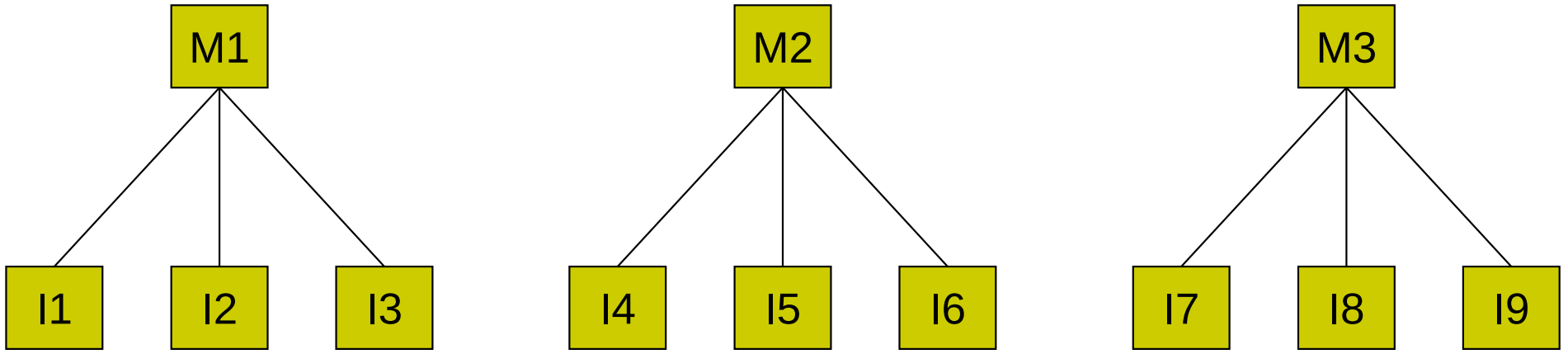
- Develop an implementation model of FRBR
- Define mapping tables between BIBSYS-MARC and FRBR
- Conversion strategy, rules, algorithms
- Convert the 3.7 mill. records of the BIBSYS database
- Search prototype

Evaluation issues

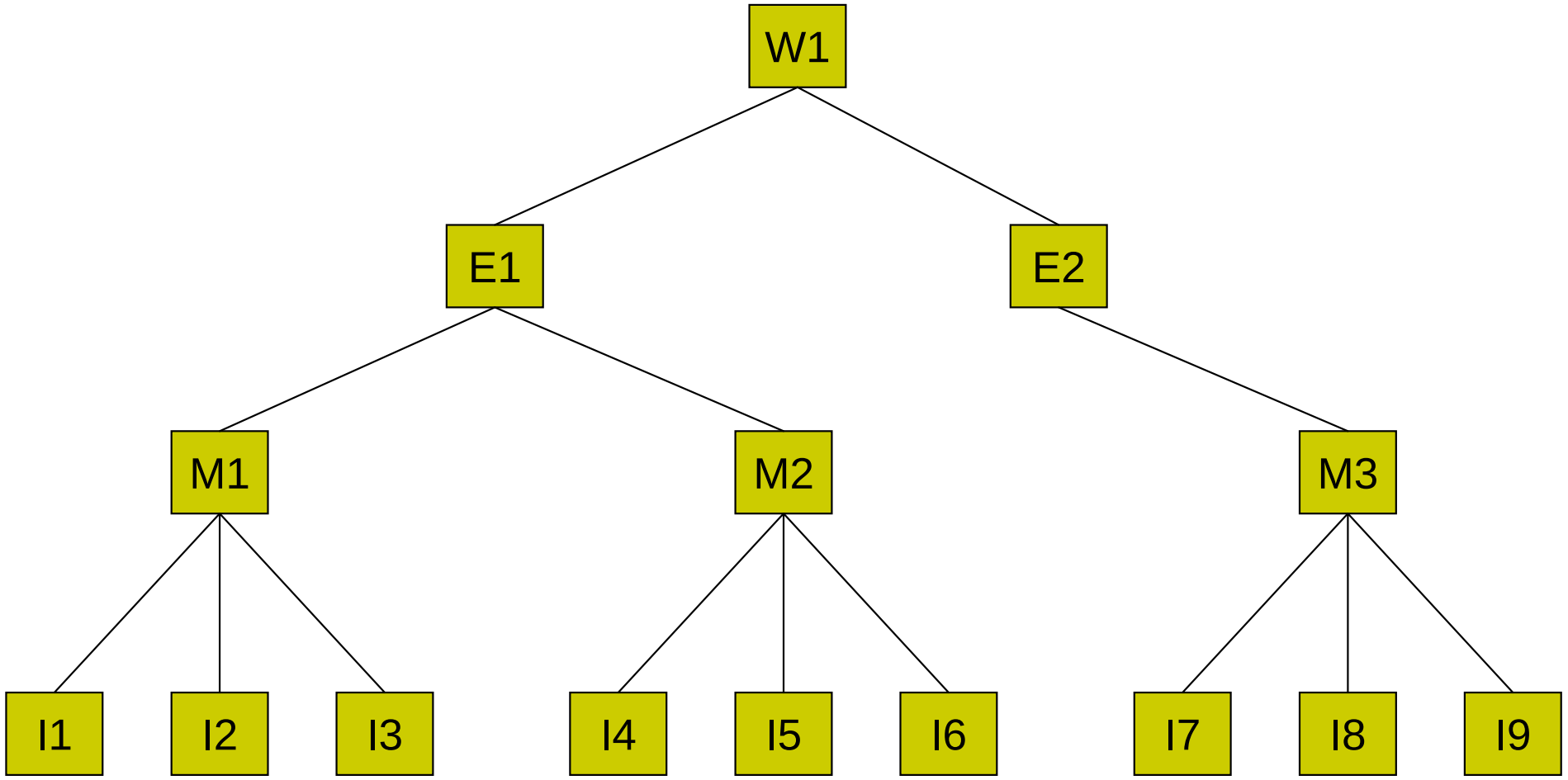


- Data quality of MARC records in context of conversion to FRBR
- The quality of mapping tables, conversion strategies/algorithms
- Structural characteristics of the FRBR test database*
- The usability of FRBR in user interfaces
- Interpretations of the model?
- Variations of the model?

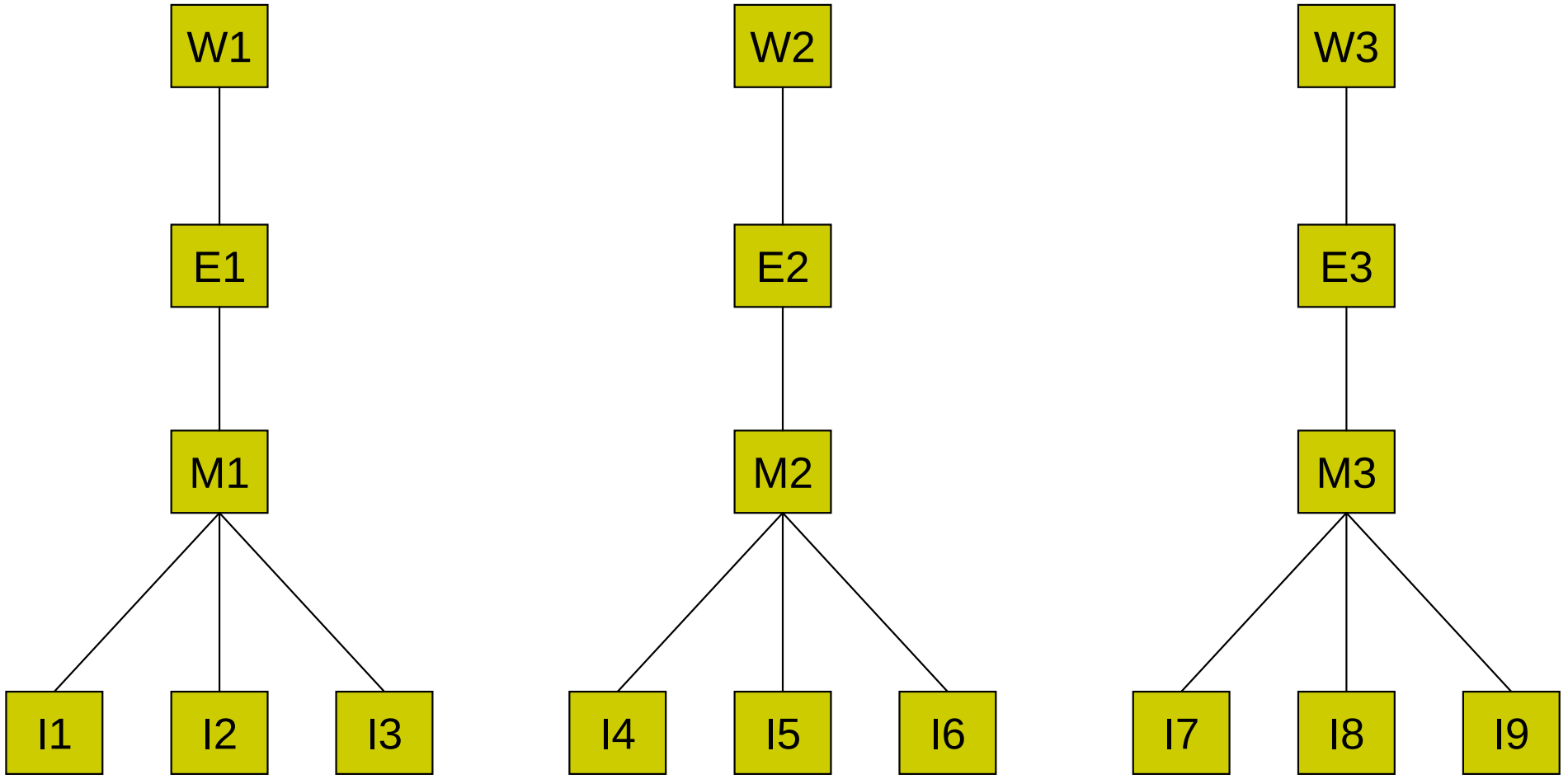
Example 1a
What we have:



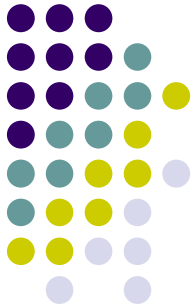
Example 1b
What we want:



Example 1c
What we may get:

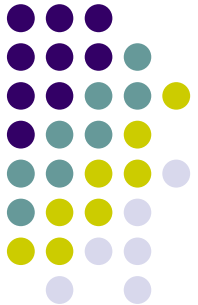


Generalizing



- Data quality
  - How to evaluate and how to express
- Mapping
  - The quality of structural and semantic interoperability
- Structural characteristics
  - What is the quality of information spaces
- Usability
  - What does the model or metadata format enable and what does it support

Conclusions



- Information models and metadata formats are important elements in digital libraries (and other information systems)
- Standards will have significant impact on future information systems
- A focus on advanced models/formats
- Testing and evaluation of information models and metadata formats is not very well supported yet
  - Vocabularies, testbeds, best practice