Case-oriented Semantic Enrichment of Bibliographic Entities

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<u>Context</u> Evolution of Digital Libraries towards Semantic technologies requires to migrate and enrich the existing bibliographic records. Yet building theses processes is still a very challenging task...

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Challenges

- Tuning of FRBRisation tools
- Information Extraction
- Entity Matching
- Knowledge Fusion

Contributions

- Benchmark for the interpretation of bibliographic records
- Design of a Case-oriented model
 - Based on FRBR and bibliographic patterns
 - Hierarchical dependency between cases
- Case-based enrichment process with Linked Open Data

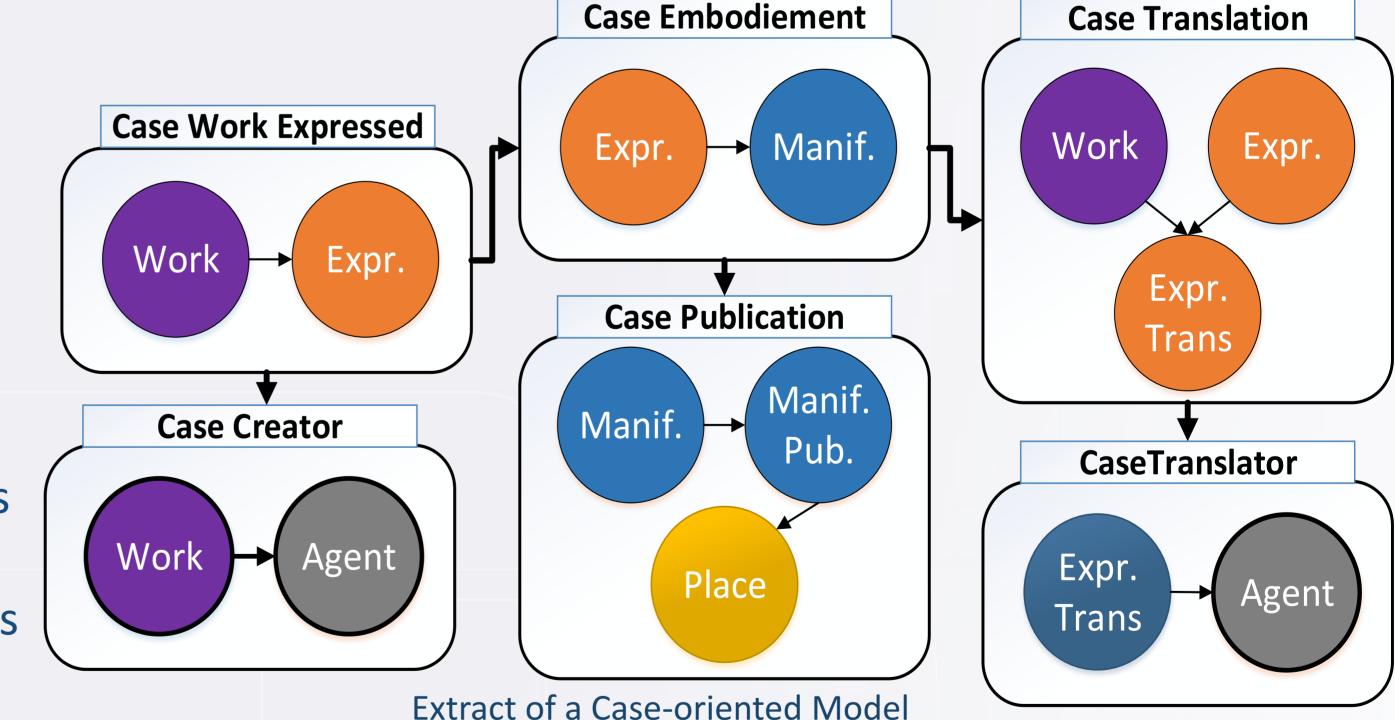
Focus on the Case-oriented model

Characteristics of a case

- Describes a bibliographic pattern
- Contains conditions and mappings
- Managed independently

Benefits of the model

- Eases the design of migration rules
- Prevents useless computations
- Facilitates the extraction of entities from catalog or external sources



References

- Decourselle, J., Duchateau, F., & Lumineau, N. (2015). A Survey of FRBRization Techniques. International Conference on Theory and Practice of Digital Libraries (pp. 185-196)
- Riva, P. (2004). Mapping MARC 21 linking entry fields to FRBR and Tillett's taxonomy of bibliographic relationships. *Library resources & technical services*, 48(2), 130.
- Aalberg, T., & Žumer, M. (2013). The value of MARC data, or, challenges of frbrisation. Journal of documentation, 69(6), 851-872.
- Decourselle, J., Duchateau, F., Aalberg, T., Takhirov, N., & Lumineau, N. (2016). Open Datasets for Evaluating the Interpretation of Bibliographic Records. Joint Conference on Digital Libraries (pp. 253-254).







