

Towards a Flexible Integration of Clinical Guideline Systems With Medical Ontologies and Medical Information Systems

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Outline

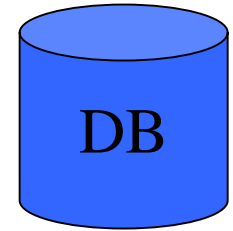
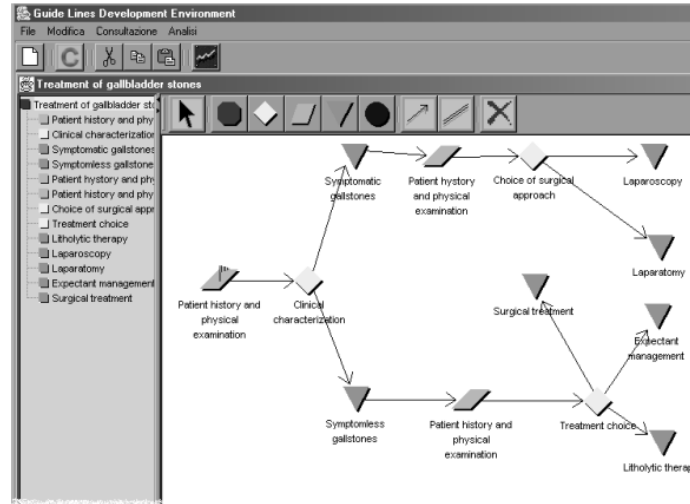
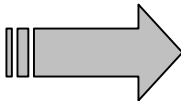
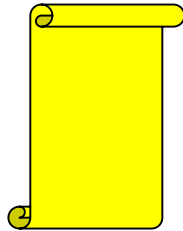
- Need for data integration
- Knowledge Sharing
- Guideline standardization
- External ontology integration
- GLARE proposal
- Translation Services
- Comparisons

Need for Data Integration

Clinical
Guideline

GLARE Execution
Environment

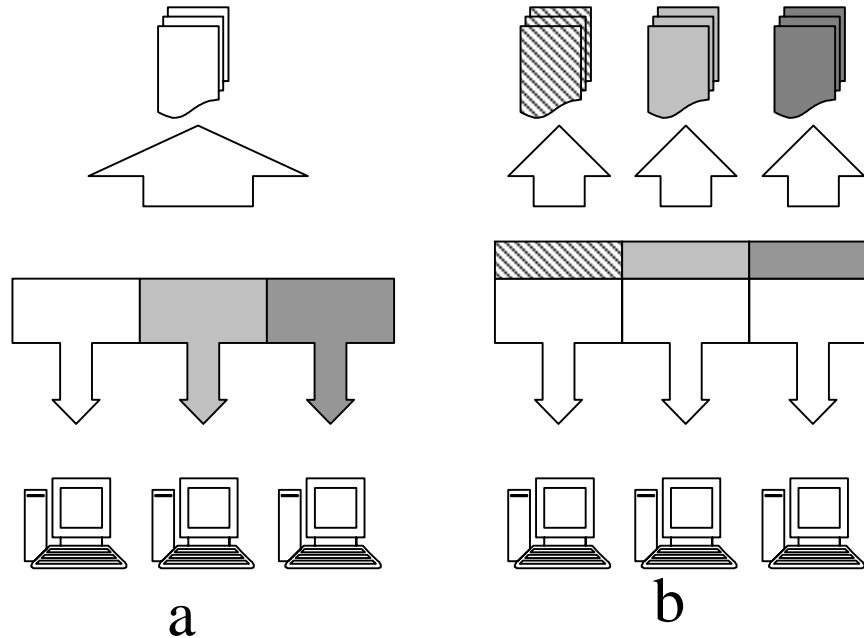
Patients'
Data



If ECG is
altered for
patient then
...

```
SELECT exam  
FROM ... WHERE  
...
```

Knowledge Sharing



a) Centralized View:

- One Ontology
- Every IS adheres to it

b) Decentralized View:

- Different Ontologies
- Every IS particularize its data access in order to adhere to the choosed ontology

Guidelines Standardization

Different Standard
Vocabularies

GLARE

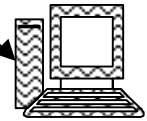
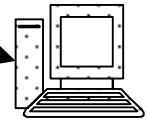
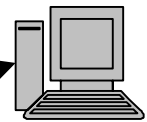
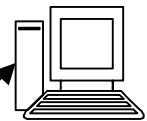
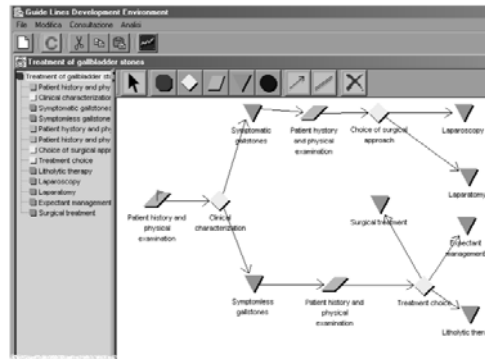
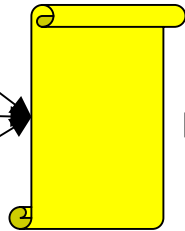
Different IS

SNOMED

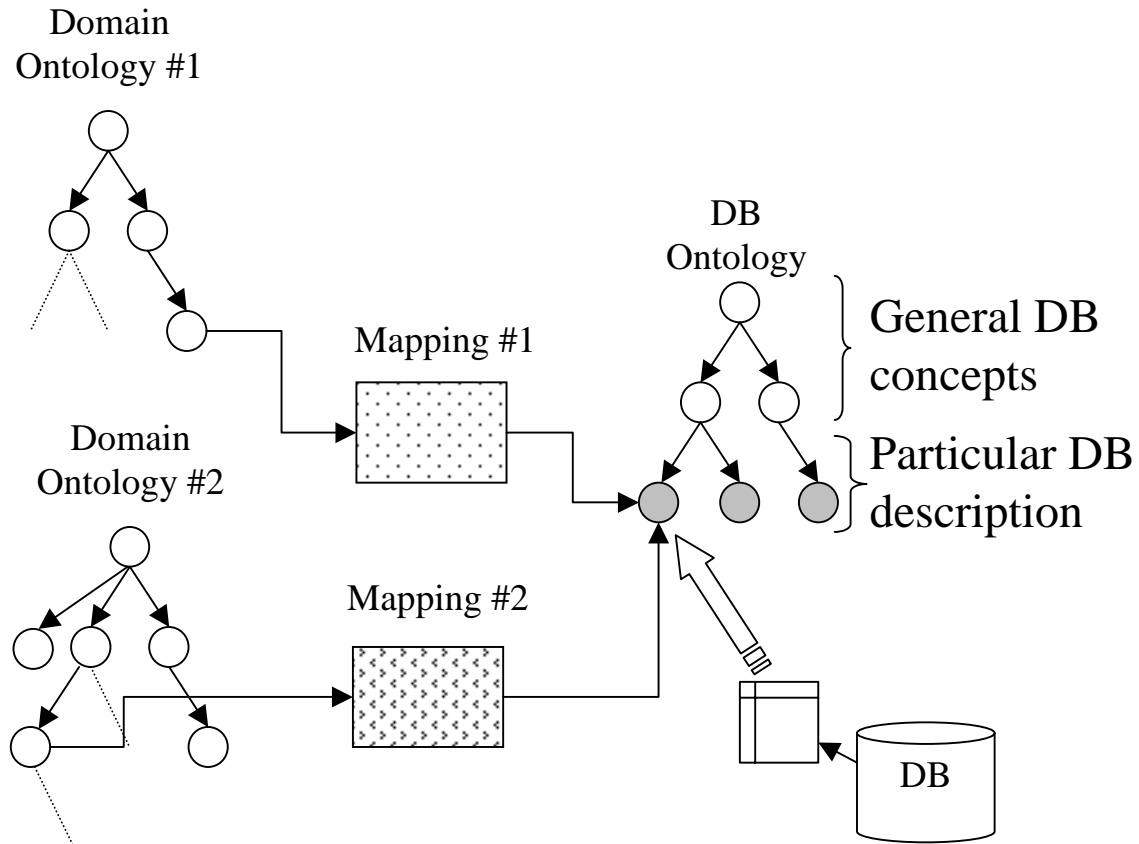
UMLS

ICD-9

-
-
-



External Ontology Integration

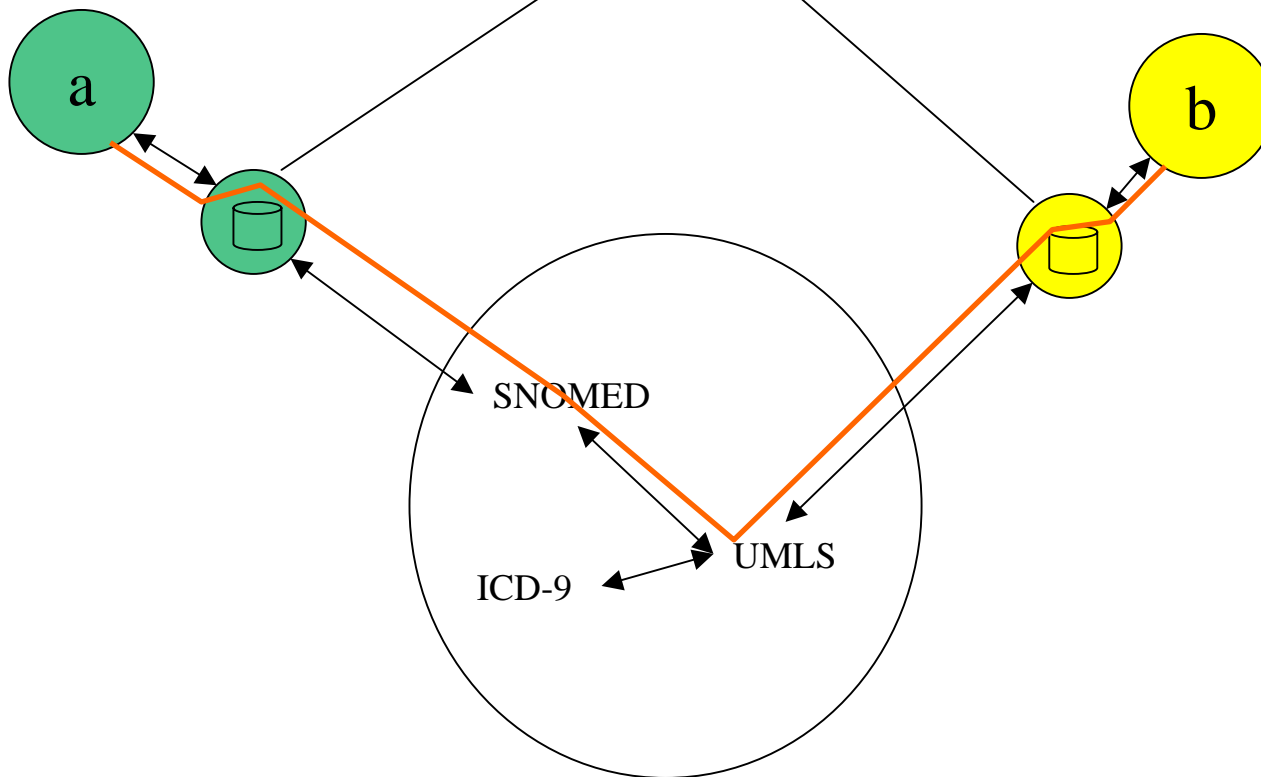


Knowledge Sharing

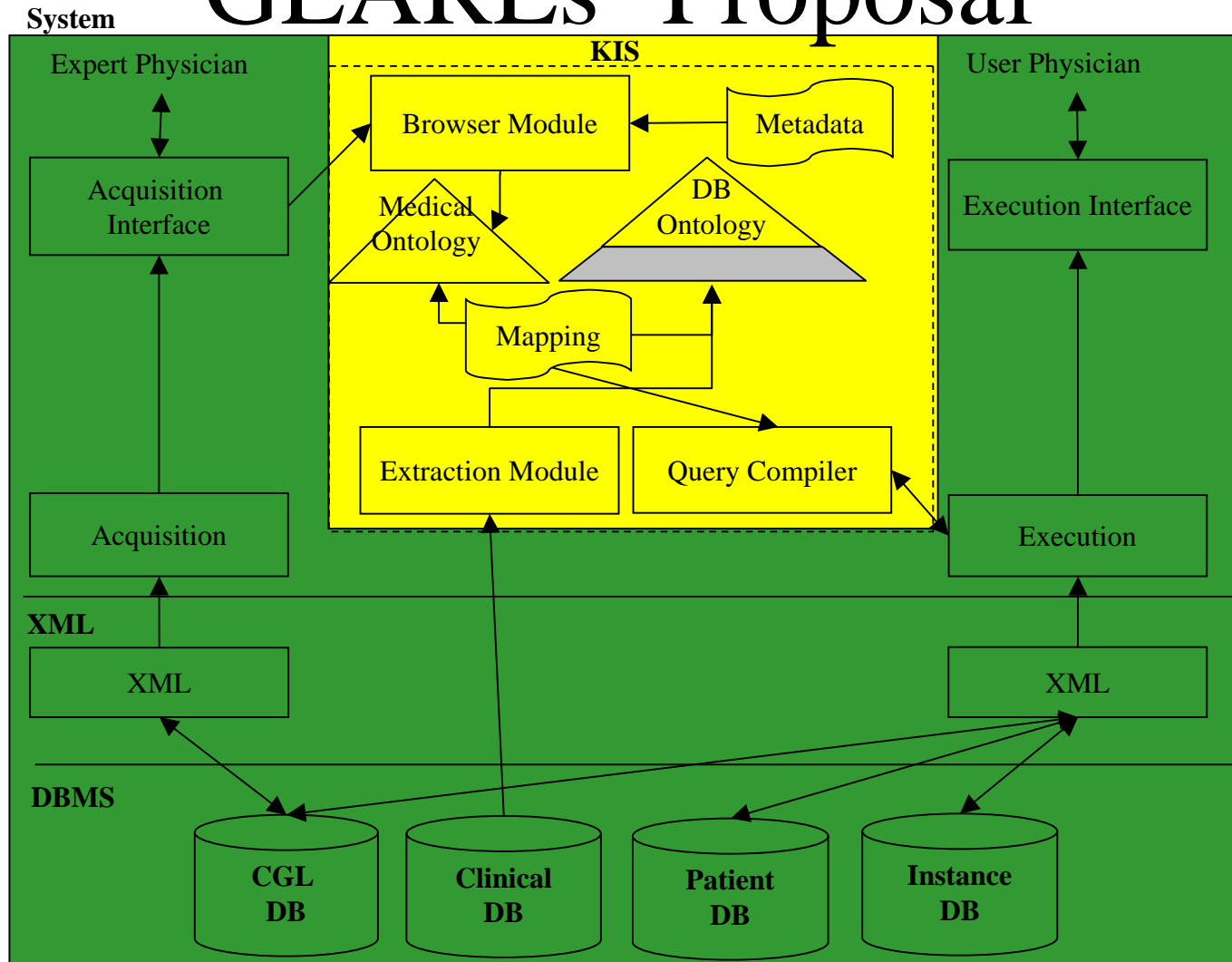
Information
System **a**

Personal DB Ontology

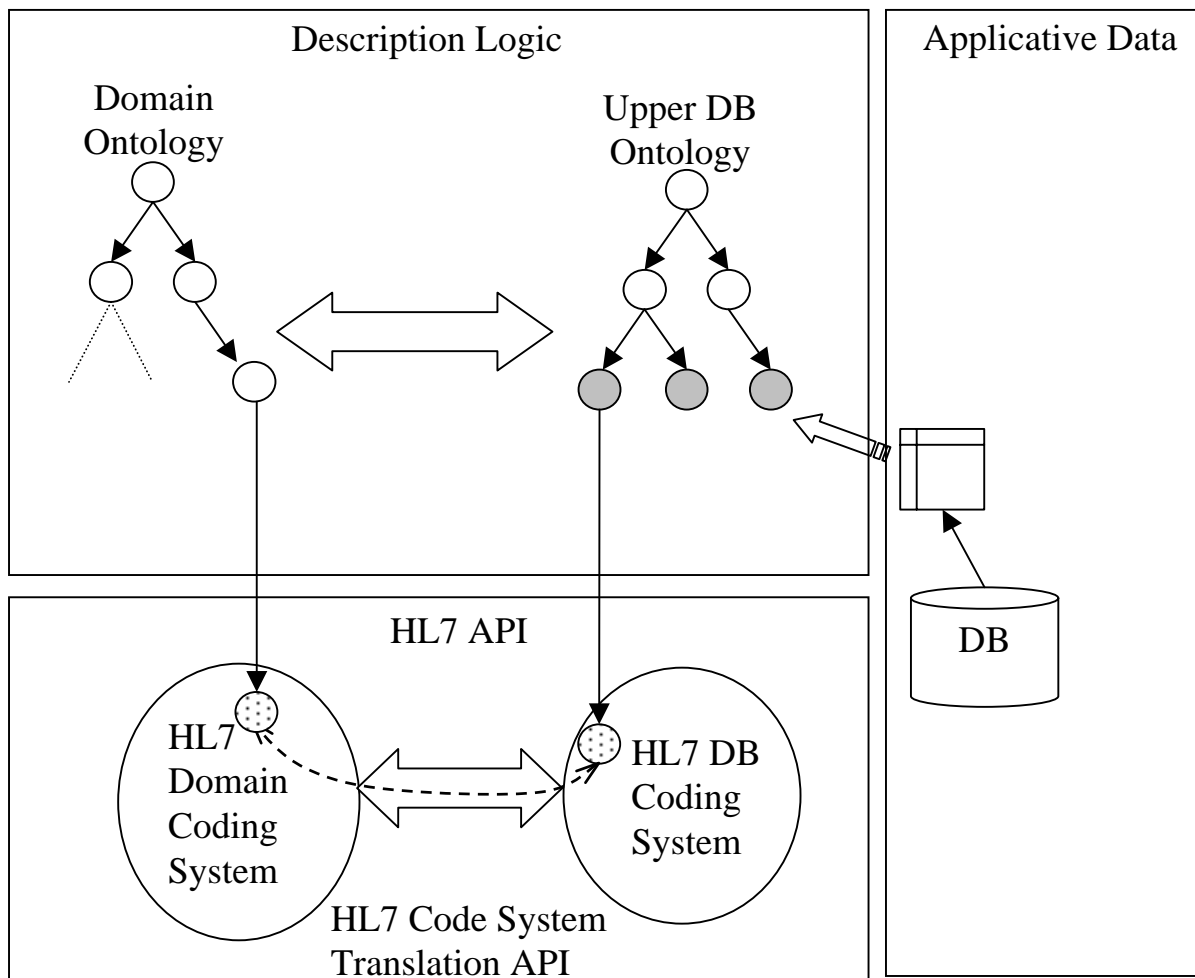
Information
System **b**



GLAREs' Proposal

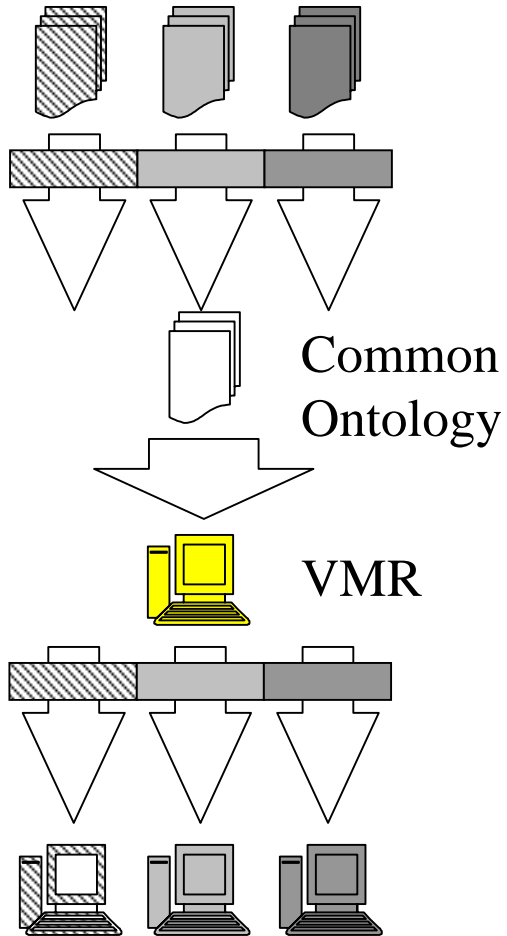


Mapping Services

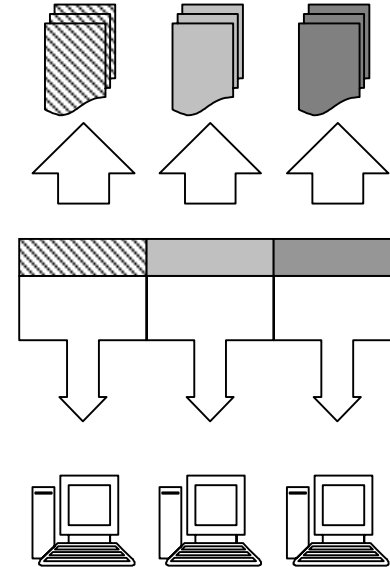


Comparisons

SAGE

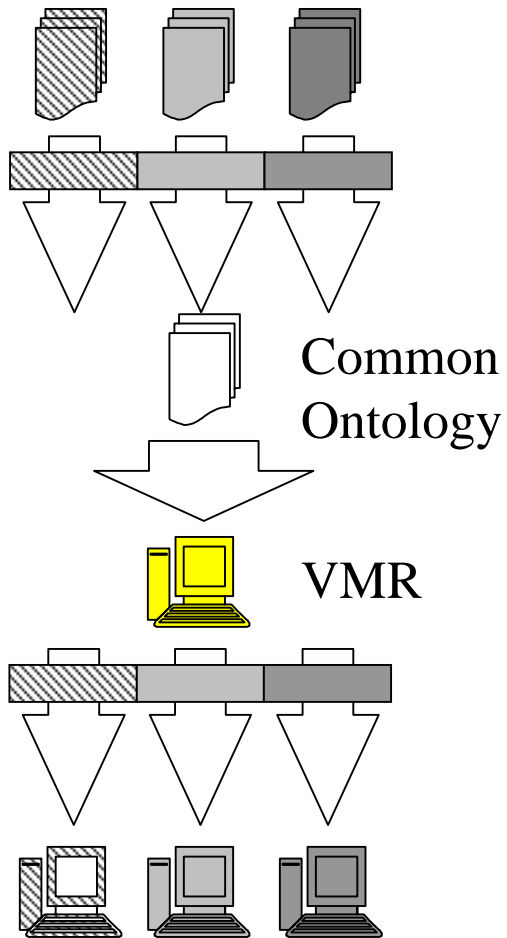


GLARE



Comparisons

SAGE



GLARE

