

Multimedia Applications: The Difficult Part is Yet to Come



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Current Research



- ❑ Search on images and videos are based on some metrics defined on some vectors that represent the visual features.
 - ❖ Limited set of application
- ❑ The solution is to integrate more semantics
 - ❖ How?

Problems with Semantics



- Acquisition (extraction) of semantics
- Representation and exploitation of semantics

Acquisition of Semantics



□ How?

- ❖ Automated approach for all purpose images and videos have not (yet) lived to expectations
- ❖ Manual extraction is tedious

□ Semantics may be context-dependent

- ❖ Are there “generic” semantics with context being captured by “views”?

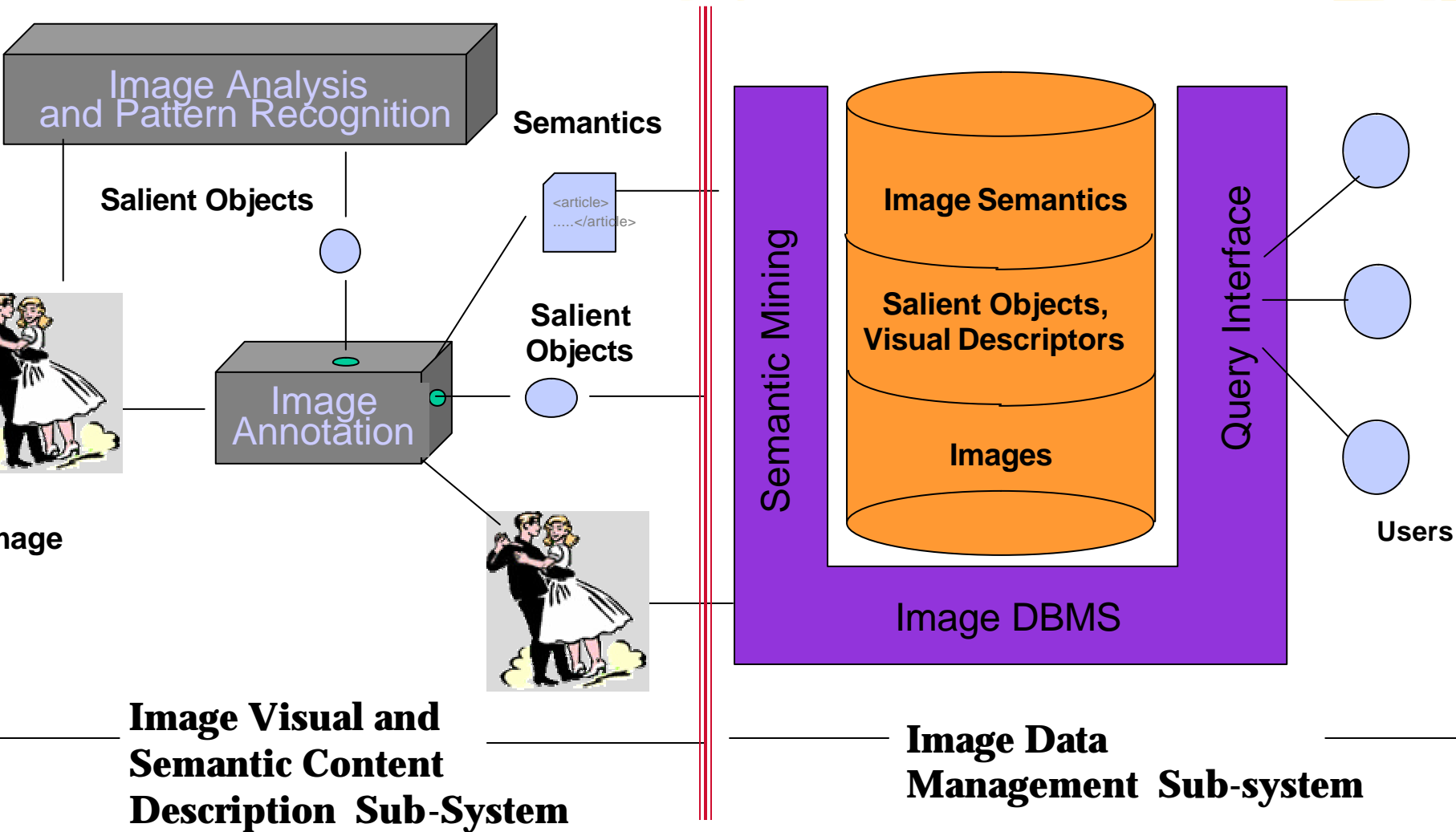
□ Semi-automatic?

- ❖ How to minimize human interventions?

Representation & Exploitation of Semantics

- Database representation (Limited)
 - ❖ Relational Databases
 - Table name
 - Column name
 - ❖ XML
 - Tags
 - RDF
- Role of MPEG-7?
- Queries with semantics-based predicates
 - ❖ Completeness
 - ❖ Semantic re-writes

Images "Databases"



Multimedia "Database" Architecture: Video

