System requirements and the unobtrusive ontology

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“Ontology Quality and Large-Scale Systems”

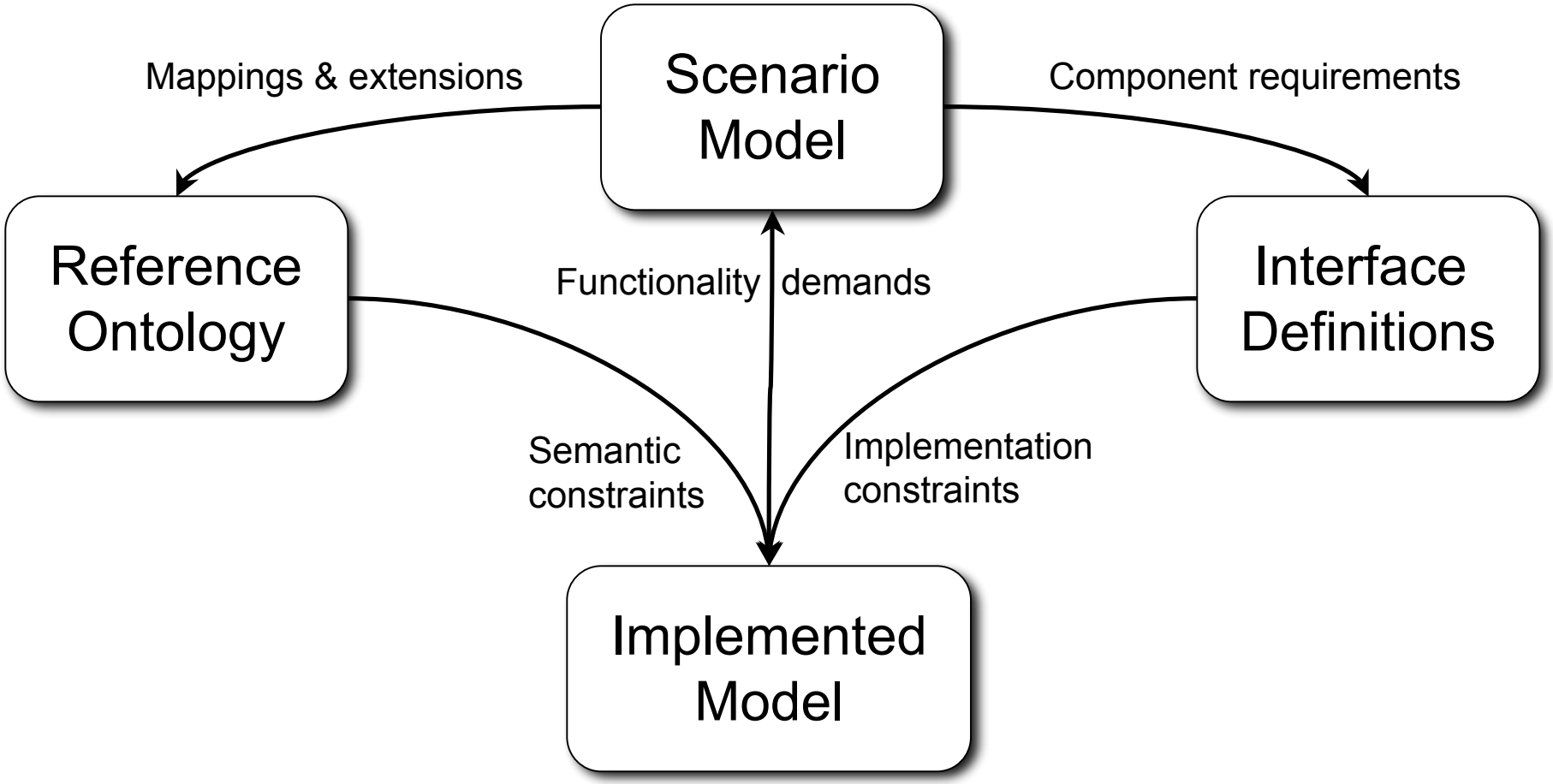
Context for this talk

- "Implementing Ontology Quality Measures in Big Systems Engineering"
- "[assuring] ontology "quality" in its systems engineering sense: the degree to which an ontology meets the requirements of a particular systems application"
- Our approach: the *ontology* doesn't, directly.
- The ontology constrains & defines the artifacts that do meet such requirements.

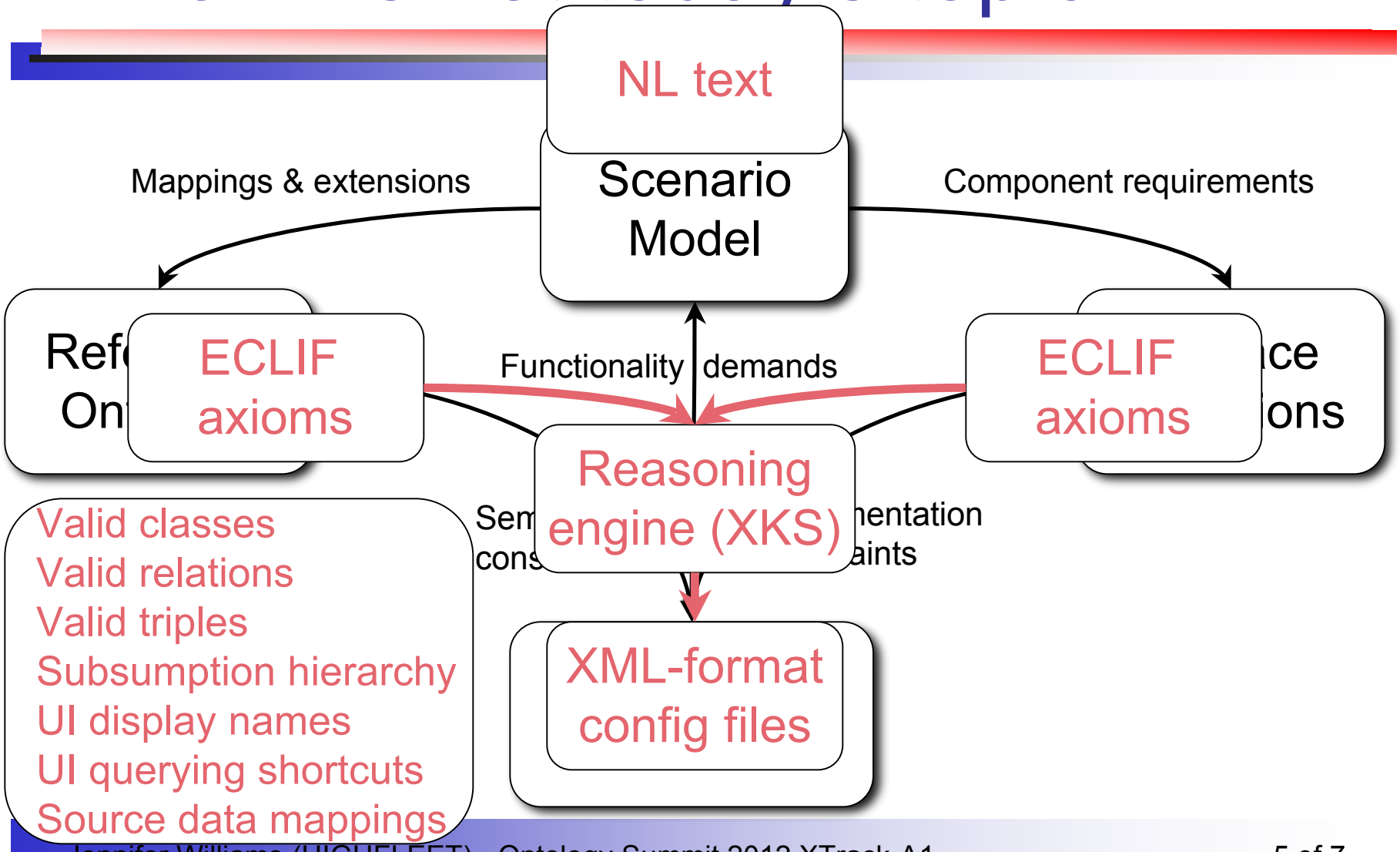
The Knowledge System

- Federation effort for a large-scale analytic application
- Modeling team involved in
  - System requirements analysis
  - Build/maintain Reference Ontology
  - Build/maintain system interface definitions
  - Scenario models
  - Scenario model + RO + interface definitions = Implemented Model

Implementation Model



“How” is not today’s topic



Lessons learned

- Use model early for user acceptance
- Modeling team responsibility for data semantics throughout system
- “Throw the model over the wall” = fail
- Provide configs, not physical models
- Interface definitions support testing

Lessons not yet learned (TBD)

- Process not quite as smooth as discussed
- QA gaps (consistency OK, completeness not guaranteed)
- Thorough understanding of system operation needed at parts of the process