

FIBO Metadata in Ontology Mapping

For Open Ontology Repository

OOB Metadata Workshop VIII – 02 July 2013

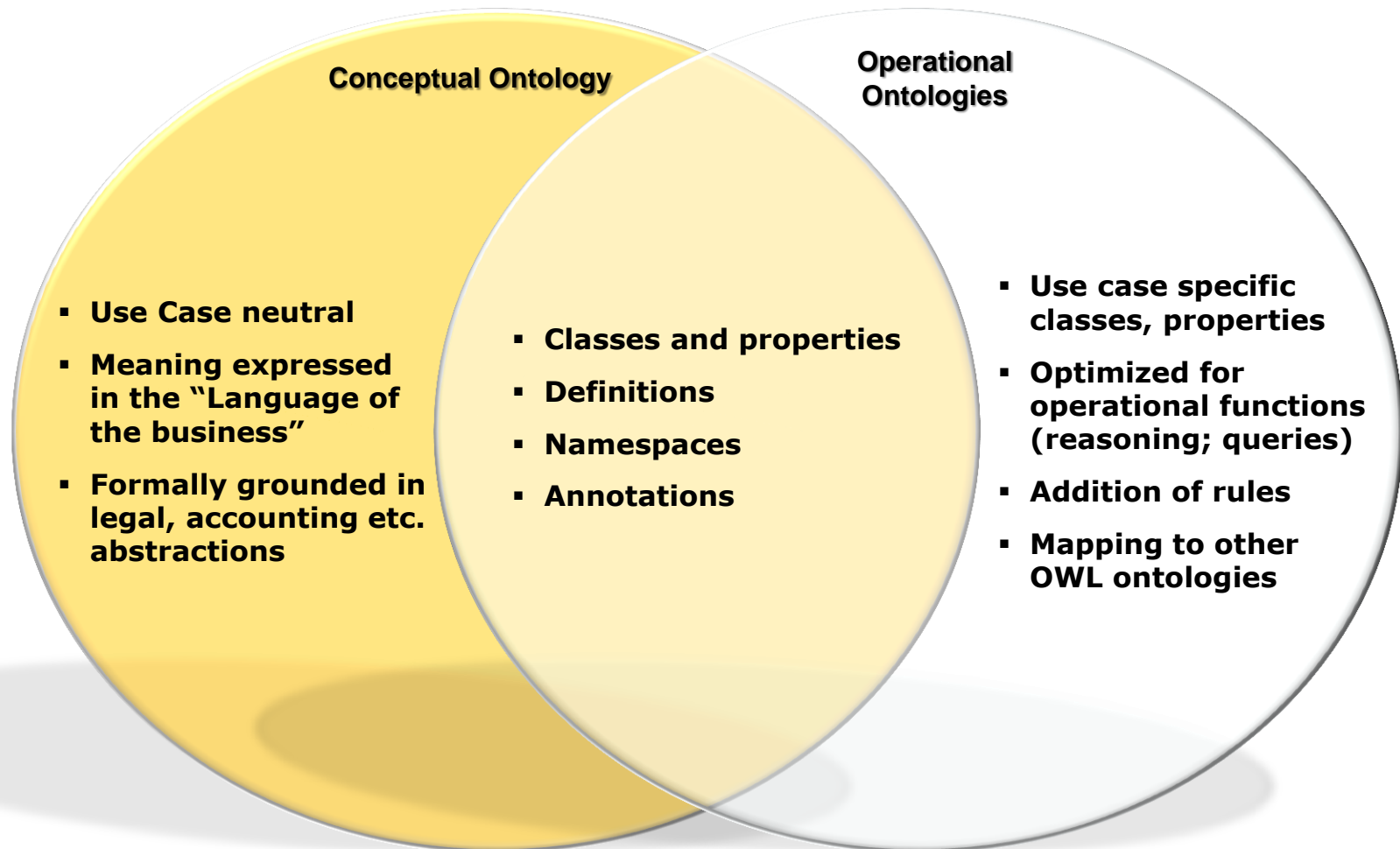
Overview

- The Financial Industry Business Ontology
 - Introduction
 - FIBO Business Entities
 - FIBO Foundations
- OMG Standardization
- Metadata
 - Ontology level
 - Element level
- Open questions and considerations

Introducing FIBO

- The Financial Industry Business Ontology is a conceptual model of industry terms, definitions and relationships
 - Framed in Semantic Web syntax (OWL)
 - Model elements represent things in the world
- FIBO Business Entities captures the nature and meaning of legal entities, formal organizations etc. (legally grounded)
- FIBO Foundations provides a small set of foundational terms semantics for reference by FIBI-BE

Intersecting Ontologies: Conceptual and Operational



- Inevitable by-product of the semantics questions:
 - What sort of Thing is This =>
taxonomy of things outside of financial realm
 - What distinguishes it from other things? =>
 - Subject-predicate-Object where objects largely non financial
 - Countries, jurisdictions, time, accounting etc.
 - Transactions
 - Social Constructs Ontology – John R Searle

FIBO Foundations

FIBO Foundations Ontology

Common business modeling framework

Common relations

Roles

Goals, Objectives

Agents, People

Organizations

Agreements

Law

Control, Ownership

Accounting

- FIBO Foundations provides the basic conceptual “Glue”
- Common abstractions grounded in law and business

FIBO Business Entities

FIBO Business Entities Ontology

Entity Types

Legal Persons

Formal Organization

Corporations

Partnerships

Trusts

Ownership

Control

By Function

Legal Entity ID

- Types of corporate structure
- Organizational hierarchies / relationships

OMG Standardization

- FIBO Being submitted as a set of formal standards through the Object Management Group (OMG)
 - Formal written document (specification)
 - Tool-neutral, machine readable files for Business Conceptual Ontology
- Submitting in stages as several proposed standards
 - First: Foundations + Business Entities
 - Second: Securities, Derivatives, Loans
 - Later: Corporate Actions, Market data etc.

OMG Metadata – Ontology Level

- Sets of ontology level metadata defined in FIBO Specification
 - Specification Metadata
 - Specification Version Metadata
 - Curation and Rights Metadata
- These are all defined in www.omg.org/techprocess/ab/20130301/SpecificationMetadata.owl

Specification Metadata

- 1: Specification Metadata
 - Uses terms in OMG SpecificationMetadata.owl

Metadata Term	Value
sm:specificationTitle	Financial Industry Business Ontology (FIBO) Foundations Specification
sm:specificationAbbreviation	FIBO-F
sm:specificationURL	http://www.omg.org/spec/FIBO/Foundations/
sm:specificationAbstract	This vocabulary is a component of the foundations ontology, and provides high-level concept definitions for use in other FIBO specifications.

Specification Version Metadata

- 2. Specification Version Metadata
 - Also defined in SpecificationMetadata.owl

Metadata Term	Value
sm:thisVersion	1.0
sm:specificationVersionURL	http://www.omg.org/spec/FIBO/Foundations/1.0/
sm:specificationVersionStatus	<p>Revisions will be managed per the process outlined in the Policies and Procedures for OMG standards, with the intent to maintain backwards compatibility to the degree possible.</p> <p>The RDF/XML serialized OWL corresponding to the ODM/OWL model has been checked for syntactic errors and logical consistency with Protege 4 (http://protege.stanford.edu/), HermiT 1.3.6 (http://www.hermit-reasoner.com/) and Pellet 2.2 (http://clarkparsia.com/pellet/).</p>
sm:addressForComments	http://www.omg.org/issues/

Curation and Rights Metadata

- Also in SpecificationMetadata.owl

Metadata Term	Value
sm:copyright	Copyright (c) 2013 EDM Council, Inc. Copyright (c) 2013 Object Management Group, Inc.
dct:license	The MIT License: Permission is hereby granted, free of charge, to any person obtaining a copy of this software and assoc... <snip>.
dct:license	http://opensource.org/licenses/mit-license.php
sm:responsibleTaskForce	http://fdtf.omg.org/

Element Level Metadata

- Definitions
 - Skos:definition
- Additional narrative notes
 - skos:editorialNote
 - skos:scopeNote
 - etc.
- Term and Definitions Provenance
 - Uses sub-properties of dct:source
- Synonyms
- FIBO-specific metadata
 - Classification facets
 - Archetypes

Open Questions and Considerations

- Alignment of FIBO Foundations abstractions to terms defined in the relevant communities of practice
 - As ontologies
 - As industry standards
- Evolution of those ontologies and emergence of ontological representations in industry standards
- Reuse of FIBO concepts by others
- Versioning, URIs etc.
- Mapping v Provenance