ISO JTC1 SC32 WG2
Ontology Based Metadata
Overview

Denise B. Warzel

ISO JTC1 SC32 WG2 Convenor
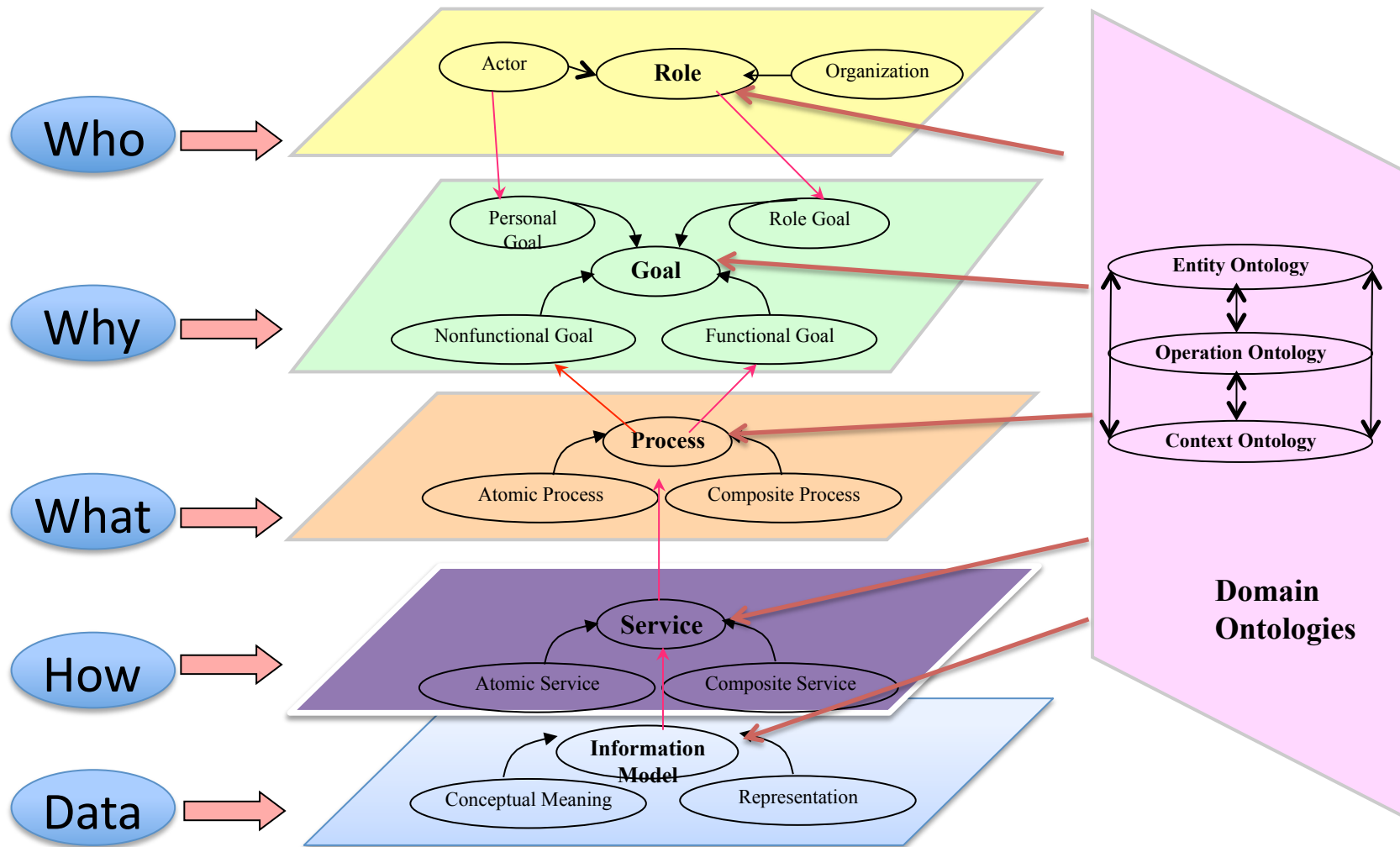
Oct. 25, 2012

ISO JTC1 SC32 WG2 Metadata Standards and Ontologies

- ## Related Area of Work:

- Metamodels for registration of various types of information artifacts
    - ISO/IEC 11179 Metadata Registries (MDR)
    - ISO/IEC 19763 Metamodel Framework for Interoperability (MFI)
    - Both rely on Ontologies for anchoring the meaning of metamodel objects
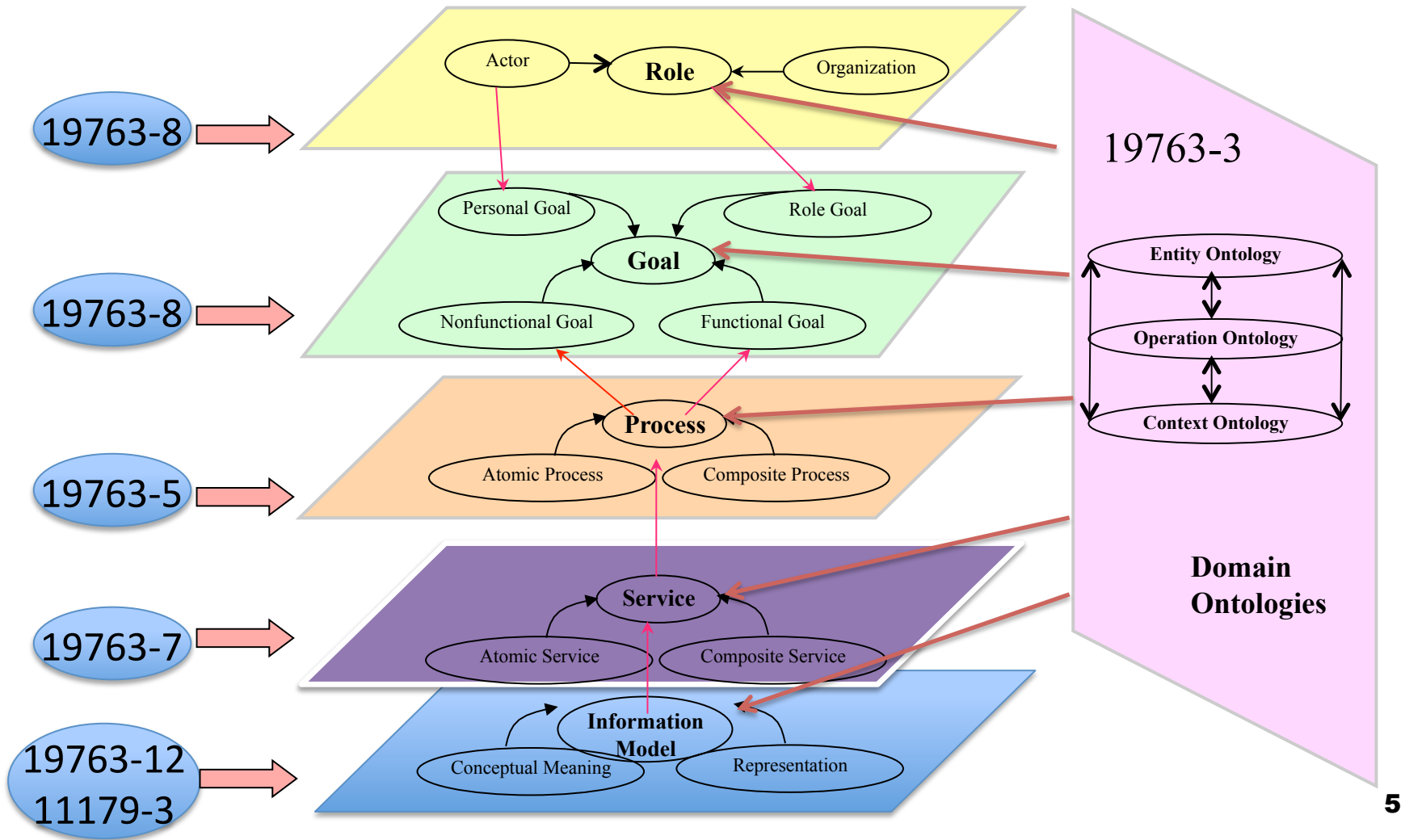
Basic Attributes of SC32 WG2 Registered Metamodel Objects

- **Attribute Categories:**
  - Identifying
    Definitional
  - Relational
  - Representational

- **Mandatory**
  - Identifier, Version, Name, Definition
  - A few object specific attributes
- **Optional**
  - Classifications, related references, additional names and definitions
- **Conditional**
  - Defined by business rules

3

From the Perspective
Domain Specific Ontology

From the Perspective
Domain Specific Ontology

5

ISO JTC1 SC32 standards related to Use of Ontology

- ISO/IEC 11179 MDR

ISO/IEC 11179, Information Technology -- Metadata registries (MDR)

The 11179 standard is a multipart standard that includes the following parts:

- Part 1: Framework
- Part 2: Classification
- Part 3: Registry metamodel and basic attributes
- Part 4: Formulation of data definition
- Part 5: Naming and identification principles
- Part 6: Registration

ISO/IEC standards related to Use of Ontology

- Building on 11179…

ISO/IEC 19763, Information Technology -- Metamodel Framework for Interoperability (MFI)

The 19763 standard is a multipart standard that includes the following parts:
- Part 1: Reference model
- Part 2: Core model (merged with basic mapping from part 4 to become Part 10)
- Part 3: Metamodel for ontology registration
- Part 4: Metamodel for model mapping (split between Parts 10 and 11)
- Part 5: Metamodel for process model registration
- Part 6: Registry Summary
- Part 7: Metamodel for service registration
- Part 8: Metamodel for role and goal registration
- Part 9: On Demand Model Selection (ODMS) [Technical Report]
- Part 10: Core model and basic mapping
- Part 11: Structured model registering (Technical report)
- Part 12: Metamodel for information model registration
- Part 13: Metamodel for forms registration

Links

- 11179 is freely available
  - http://standards.iso.org/ittf/PubliclyAvailableStandards/index.html
- 19763 has been requested to be made freely available
- Development information is available from WG2 web site:
  - http://metadata-standards.org/11179/
  - http://metadata-standards.org/19763/
- INCITS
  - ANSI's Technical Advisory Group for ISO/IEC Joint Technical Committee 1. JTC 1
  - DM32.8 is the US working group participating in WG2
  - https://standards.incits.org/a/public/groups