



**Tutorial 1B Title: Introduction to
Ontology Concepts and
Terminology**

14:30–18:00 — Monday, 2
September 2013



Tutorial Lead: Steven Miller

Steven Miller is a Senior Lecturer at the University of Wisconsin-Milwaukee School of Information Studies. He teaches graduate courses on Metadata, Information Architecture, and RDF and Ontologies for the Semantic Web. Steven worked as a professional cataloger and as later Head of the Monographs Department at the UWM Libraries before moving into teaching full time. He is a member of the Editorial Board of the *Journal of Library Metadata* and the author of the book *Metadata for Digital Collections*, published by Neal-Schuman in 2011. In the past he has served as the Chair of the ALA ALCTS Metadata Interest Group and Co-Chair of the Wisconsin Heritage Online Metadata Working Group. He has taught numerous metadata and cataloging workshops and created training resources for the Library of Congress and OCLC.

Abstract: This tutorial will provide an beginning-level introduction to basic RDFS and OWL ontology concepts and terminology. It will approach ontology modeling within the context of the RDF data model and the Linked Data and Semantic Web visions, viewing RDFS and OWL ontologies as methods of providing machine-actionable structure to RDF triples. The tutorial will focus on the concepts of classes and subclasses, properties and subproperties, property domains and ranges, class inheritance, and various logical inferencing capabilities that can enable RDF instance data. It will include illustrative examples, and, if possible, briefly show the use of the Protégé ontology software. It will include an overview of OWL, with its greater potential inferencing power based on various property and class specifications, as listed in the outline.

Who Should Attend: This tutorial is intended for information professionals who have little or no prior familiarity with ontologies, RDFS, or OWL and who want to gain an introductory level understanding of basic ontology concepts and terminology. Many working information professionals fall into the scope of this intended audience and competency level.

Learning Outcomes:

At the conclusion of the tutorial, participants will:

1. Understand basic RDFS ontology concepts such as classes, properties, instances, domain and range.
2. Understand how ontologies provide structure to RDF triples.



3. Be able to create a basic, beginning-level RDFS-compatible ontology.
4. Determine logical inferencing capabilities based on specific class, property, domain and range specifications.
5. Gain initial exposure to more complex OWL property and class specifications and their greater potential inferencing power.
6. Better understand: existing RDF-based ontologies such as BIBO, BIBFRAME, the BBC ontologies, and the Europeana Data Model; DCMI Metadata Terms specifications; and conceptual models such as the Dublin Core Abstract Model.
7. Be better able to understand and contribute to professional discussions about ontologies, ontology concepts, and ontology terminology on discussion lists, at conferences, and the like.