BIOMEDICAL ONTOLOGY IN THE MEDICAL INFORMATICS DOMAIN

FDA/CDER/OTS Workshop

Monday November 3rd, 2014 – 9:00 AM to 4:30 PM

Building 2, CSU 2031 - 10903 New Hampshire Avenue, Silver Spring, MD 20993

To join the meeting remotely

Adobe Connect: https//collaboration.fda.gov/biomedical/

Conference Number: 301-796-7777

Participant Code: 665106

Password: 10099

Overview

Ontology is a computational infrastructure that allows linkages across the different data categories. In biomedical research, these data may include a wide range of clinical submission data, EHR, basic science research, experimental readings, laboratory values, etc. Creating the links provide the capability to "reason" with information in different domains, which will then lead to a new knowledge discovery. Ontology utilizes semantic web technology through an XML schema and the transformation of database to create a knowledgebase containing RDF (Resource Description Framework) triples. This workshop will introduce the basic concept of data integration by semantic rules, and the current challenges. We aim to bring the clinical-domain experts and the biomedical ontology community together to initiate a discussion that will lead to a solution of "shared understanding" when working in the medical informatics domain.

Agenda

9:00 – 9:10	Mitra Rocca	Opening remarks and introduction
9:10 – 9:30	Sirarat Sarntivijai	Overview: Ontologies and linked data as the working unit in a data analysis model
9:30 – 10:00	Lynn Schriml	The Human Disease Ontology: a tool for integrating and standardizing disease data
10:00 – 10:30	Darren Natale	PRO: A Protein Ontology to connect proteoforms to disease
10:30 – 11:00	Jie Zheng	Metadata standardization and collection based on the Ontology for Biomedical Investigation (OBI)
11:00 – 11:30	Evan Bolton	Use of linked data with HL7 data models (CDISC/BRIDG)

Time	Speaker	Topic
11:30 – 12:00	Sivaram Arabandi	An ontologist's experience with CDISC/HL7
12:00 – 12:30	Panel discussion	Current challenge in linking bioontologies to clinical data
12:30 – 13:30		LUNCH BREAK
13:30 – 14:00	Brian Athey	Augmenting tranSMART v1.2 with domain-specific knowledge services for FDA relevance
14:00 – 14:30	Lloyd McKenzie	Overview of HL7 FHIR
14:30 – 15:00	Sam Hume	Overview of CDISC-SHARE
15:00 – 15:30	Wayne Kubick	Working CDISC-to-RDF
15:30 – 16:00	Mitra Rocca	PhUSE Semantic Web Workgroup
16:00 – 16:30	Panel discussion	The different perspectives of data standards – "Where do we go from here?"

Speaker	Affiliation	Domain
Mitra Rocca	FDA/CDER/OTS	Medical Informatics
Sirarat Sarntivijai	FDA/CDER/OTS	Biomedical Informatics
Sivaram Arabandi	OntoPro	OBO Ontology
Lynn Schriml	University of Maryland - Baltimore	Disease Ontology (DOID)
Darren Natale	Georgetown University	Protein Ontology (PRO)
Evan Bolton	NIH/NLM/NCBI	PubChem
Jie Zheng	University of Pennsylvania	Ontology for Biomedical Investigation (OBI)
Brian Athey	University of Michigan	tranSMART
Lloyd McKenzie	HL7	HL7-FHIR
Sam Hume	CDISC	CDISC
Wayne Kubick	CDISC	CDISC