

Class 1: Introduction to e-Science and Semantic Web August 31, 2011
(make up due to Hurricane Irene cancellation of Monday August 29 class)

Assignment 0: Semantic eScience Fall 2011 (5 points of overall credit score for the class)

Due: September 9, 2011 (by 10am eastern standard time)

Submission method: email to Deborah - d1m@cs.rpi.edu AND Weijing - chenw8@rpi.edu

Late submission policy: First time with valid reason -no penalty, otherwise 20% of score deducted each late day.

Please note the naming scheme – please use this scheme for all assignments. It is <courseName>_<Assignment number>_<YourName>.<fileTypeExtension>.

Naming scheme: SemEScience_Asg0_YOUR_NAME.ext
(example SemEScience_Asg0_DeborahMcGuinness.doc)

Note - If you do your work in word or some straight text format, please submit in that over pdf –it makes adding notes easiest.

Readings:

Ontologies 101, Semantic Web, e-Science, RDFS, OWL Guide, NYT Article.

Assignment 0: Turn in a ONE PAGE description of the reading you liked best, two main points, and why you thought the points were interesting and useful.

Note: We will begin the next class by having everyone present one of the points they found interesting.

Also, note of the readings, the first one – Ontologies 101, will be very useful for this class so spend a bit more time on that than the other papers if that material is new to you. I realize this is a lot of reading thus make sure you look at all of the papers but it is OK to skim them but make sure you know what is in them so that when you need them – later for building ontologies – you know where to go for examples and source material.

Class 1 Reading Assignment:

1. Ontologies 101 Natalya F. Noy and Deborah L. McGuinness. Ontology Development 101: A Guide to Creating Your First Ontology. Stanford Knowledge Systems Laboratory Technical Report KSL-01-05 and Stanford Medical Informatics Technical Report SMI-2001-0880, March 2001.

<http://ksl.stanford.edu/people/d1m/papers/ontology-tutorial-noy-mcguinness-abstract.html>

2. "Sharing of Data Leads to Progress on Alzheimer's," By GINA KOLATA, New York Times, August 12, 2010

http://www.nytimes.com/2010/08/13/health/research/13alzheimer.html?_r=1

3. Semantic Web: T Berners-Lee, J Hendler, O Lassila. The Semantic Web. Scientific American, 2001. <http://www.sciam.com/article.cfm?id=the-semantic-web>. Alternative link <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.115.9584&rep=rep1&type=pdf>

4. Semantic Web Primer: Grigoris Antoniou and Frank van Harmelen
<http://www.ics.forth.gr/isl/swprimer/>.

5. e-Science: Hey, T., and Trefethen, A. Cyberinfrastructure for e-Science. Science 308, 5723 (2005), 817-821 <http://www.sciencemag.org/cgi/reprint/308/5723/817.pdf>

6. RDFS: RDF Vocabulary Description Language 1.0: RDF Schema. World Wide Web Consortium (W3C) Recommendation. February 10, 2004 <http://www.w3.org/TR/rdf-schema/>.

7. OWL Web Ontology Language Guide <http://www.w3.org/TR/owl-guide/>, Michael K. Smith, Chris Welty, and Deborah L. McGuinness. World Wide Web Consortium (W3C) Recommendation. February 10, 2004.

8. World Wide Web Consortium (W3C) Recommendation. October 27, 2009 <http://www.w3.org/TR/owl2-overview/>.

*note 7 and 8 are overviews to OWL – some say that they like the examples from the first version better – that is why we included both.

Optional

Common Logic: John Sowa, Common Logic Controlled English, March, 2007 www.jfsowa.com/clce/clce07.htm. (The previous link is an updated Section 7 of <http://www.jfsowa.com/clce/specs.htm> Common Logic Controlled English (the full) Common Logic Controlled English draft.