

# *Building Communities to Advance Science*

## 2015 Community for Data Integration (CDI) Workshop

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### *Semantic Web Working Group Overview & Agenda: May 14, 2015*

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#### Semantic Web Working Group Overview

In the Semantic Web Working Group, we are laying the foundation for USGS to use semantic web technologies as a way of improving data management throughout the data lifecycle. During our group meetings we have presentations that demonstrate how other organizations are using semantic web, show-and-tell sessions for sharing the semantic web approaches that each of us is using, and discussions of how semantic web capabilities can meet USGS needs, which have twice resulted in funded working group projects. We are a group of beginners who are learning together, each of us contributing our knowledge, skills, and experience to move USGS into the semantic web era.

#### **What is the Semantic Web?**

- In the most basic terms the Semantic Web is the "Web of Data"
- The Semantic Web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries.
- The Semantic Web is a web that is able to describe things in a way that allows computers to correctly interpret data and take actions.
- Semantic Web is "a shift in thinking from publishing data in human readable HTML documents to machine readable documents" [www.linkeddatatools.com](http://www.linkeddatatools.com)

Please see the [Semantic Web Working Group](#) Webpage for more information.

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### Agenda

Moderator: Fran Lightsom

Time*	Session
10:30 AM –	Welcome to the Semantic Web Working Group (SWWG)
12:00 PM	<ul style="list-style-type: none"><li>➤ *** Time-out from the terminological grid experiment. ***</li><li>➤ Introductions</li><li>➤ SWWG's Past and Present Activities<ul style="list-style-type: none"><li>○ 2012 demonstration project: Semantic Technologies for Integrating USGS Data (OFR 2015–1004)</li><li>○ 2014-15 project: Vocabulary Services for USGS Thesauri</li><li>○ Round robin: What semantic web techniques have you incorporated into your work since joining SWWG?</li><li>○ Round robin: What real work challenges do you think semantic techniques could help you meet?</li></ul></li></ul>
12:00 PM –	Lunch as a group
1:30 PM	
1:30 PM –	Semantic Web meets Science Support Framework
3:00 PM	<p>The CDI Science Support Framework is online at <a href="https://my.usgs.gov/confluence/display/cdi/CDI+Science+Support+Framework">https://my.usgs.gov/confluence/display/cdi/CDI+Science+Support+Framework</a></p> <p>Similar “birthday cake” models of semantic web technologies are also online, for example at</p> <ul style="list-style-type: none"><li>• <a href="http://www.mkbergman.com/231/from-data-federation-pyramid-to-the-semantic-web-birthday-cake/">http://www.mkbergman.com/231/from-data-federation-pyramid-to-the-semantic-web-birthday-cake/</a></li><li>• <a href="https://earthdata.nasa.gov/esdswg/technology-infusion/semantic-web">https://earthdata.nasa.gov/esdswg/technology-infusion/semantic-web</a></li><li>• <a href="http://bnode.org/blog/2009/07/08/the-semantic-web-not-a-piece-of-cake">http://bnode.org/blog/2009/07/08/the-semantic-web-not-a-piece-of-cake</a></li><li>• <a href="http://mylabbook.org/?q=node/15">http://mylabbook.org/?q=node/15</a></li></ul> <ol style="list-style-type: none"><li>1. Can we compare and contrast these diagrams to discover opportunities for semantic web to contribute to USGS integrated science?</li><li>2. What about the call for science visioning from (USGS Director) Suzette Kimball – are there opportunities for semantic web techniques to enable USGS to pursue a critical answer or solution during the next 10 years? (See USGS Leaders Blog entry for April 30, 2015.)</li><li>3. Finally, what are the immediate and longterm opportunities and challenges for our CDI Semantic Web Working Group?</li></ol>

\*\*\* Terminological grid experiment resumes.\*\*\*

**Location:** See 2015 CDI Workshop Detailed Agenda for physical location of working group meeting.

### **Virtual Participation:**

Webex: (19) CDI Semantic Web Working Group Meeting

Link: <https://usgs.webex.com/usgs/j.php?MTID=m59334083fc118ba21dd97a58f20ad520>

Teleconferencing: 1-703-648-4848 (Toll Free: 1-855- 547-8255), Conference Code: 94636983#

\*All Times are in Mountain Time