

CDI Monthly Meeting 20161012

CDI Monthly Meeting - October 12, 2016

The Community for Data Integration (CDI) meetings are held the 2nd Wednesday of each month from 11:00 a.m. to 12:30 p.m. Eastern Time.

WebEx:

<https://usgs.webex.com/> - Under the Meeting Center tabs, search for meeting name: "Community for Data Integration."

Audio:

USGS/DOI Dial In Number: (703) 648-4848 (for USGS and DOI offices)

Toll Free Dial In Number: (855) 547-8255 (for other offices and telecommute locations)

Conference Code: 47919# (same for both numbers)

Webex Recording

Webex recordings are available to CDI Members approximately 24 hours after the completion of the meeting. Please login to view the recording. If you would like to become a member of CDI, please email cdi@usgs.gov.

Agenda (in Eastern time)

11:00a Scientist's Challenge - Updates

Link to all Scientist's Challenge Posts: https://my.usgs.gov/confluence/label/cdi/scientists_challenge

11:05a Welcome and Announcements

[CDI 2017 Workshop, Submit a Session Proposal, Suggested Topics of Interest](#)

11:10a CDI Working Group Report Outs

[Slides of today's Working Group Updates \[.pdf\]](#)

How to find out more about CDI Working Groups:

- Working Group Wiki Page: bitly.com/usgscdiwg
- CDI Calendar: bitly.com/usgscdicalendar
- CDI Monthly Meetings: we post working group updates
- CDI Blog: bitly.com/usgscdiblog
- How to start a working group: email cdi@usgs.gov

11:20a **Funding and Partnership Opportunities through the USGS Innovation Center (IC)** - Jonathan Stock, USGS

Presentation: Slides are available to CDI Members. Please login to download the slides. If you would like to become a member of CDI, please email cdi@usgs.gov.

Abstract:

USGS Innovation Center hood ornament and Director Jonathan Stock will describe opportunities for USGS scientists to fund innovative ideas through the Innovation Fund, and meet technology partners at the Annual workshop. At the request of Director Suzette Kimball, the USGS established the Innovation Center (IC) to work with public and private technology partners in Silicon Valley and elsewhere to design, test, and bring into operation a new generation of technical and engineering tools to solve pressing national problems. The IC mission is to identify national scientific problems where USGS core interests are aligned with those of our external partners, and to pursue innovative technological solutions together, using scarce dollars to best serve the public. IC organizes an annual workshop focused on a theme of interest, and gathers scientists and engineers together in small groups to generate ideas and proposals for innovative new tools and technologies. Discussions at these workshops are one of the many ways to generate proposals for submission to the Innovation Fund (IF), or other funding resources. The Innovation Fund is a competitive proposal process open to all USGS scientists, administered by IC on behalf of the Director. Successful proposals address issues of national importance where a technology partner can bring an emerging tool or technique (often with in-kind funding) that solves a problem aligned with USGS science strategy plans and private and public interests.

Bio:

Jonathan Stock is a research geologist and director of the USGS Innovation Center (IC). The Center's goal is to identify national scientific problems where our core interests are aligned with our partners, and to pursue them jointly using scarce federal dollars to best serve the public. The Center works with technology partners in the Bay Area and beyond, including Carnegie Mellon University, NASA Ames, UC Santa Cruz and Monterey Bay Aquarium and Research Institute, to design, test and bring into operation the next generation of tools to address challenges from environmental pollution, sea level rise, earthquakes, landslides and other geologic hazards. In his role as a research scientist, Jonathan uses mapping, real-time monitoring, and modeling to understand the effects of climate and land use change on the hazards and evolution of steep landscapes. His previous work has been directed at constraining the relief of ancient mountain ranges, numerical calibration of landscape evolution laws, and the mechanisms by which Earth's steep valleys are cut by debris flows. He is currently working on real-time monitoring of shallow landslides and debris flows in the Bay Area and northern California, forecasting geologic hazards from future storms, the effects of land use on maintaining DoD training areas and on coral reef pollution in the Pacific, and the evolution and hazards of alluvial fans.

Jonathan Stock holds degrees from University of California, Santa Cruz, University of Washington, and University of California, Berkeley.

11:40a Introduction to the Powell Center - Jill Baron, USGS

Presentation: Slides are available to CDI Members. Please login to download the slides. If you would like to become a member of CDI, please email cdi@usgs.gov.

Abstract:

The John Wesley Powell Center for Analysis and Synthesis serves as a catalyst for innovative thinking in Earth system science research. Since 2009 we have supported scientist-driven collaborations that advance understanding of complex issues in science and society. We have hosted more than 800 people through 41 Working Groups and 7 workshops. I'll describe what we offer, how to participate in a Powell Center activity, and call out some of our Working Groups.

Bio:

Dr. Jill S. Baron is a senior scientist with the U.S. Geological Survey, and a Senior Research Ecologist with the Natural Resource Ecology Laboratory at Colorado State University. Her interests include applying ecosystem concepts to management of human-dominated regions, and understanding the biogeochemical and ecological effects of climate change and atmospheric nitrogen deposition to mountain ecosystems. She is founder and Co-Director of the John Wesley Powell Center for Earth System Science Analysis and Synthesis. Baron was President of the Ecological Society of America in 2014 and is a Fellow of the ESA. She was named a Woman of Vision in 2015 by Colorado Women of Influence for her work advancing women's role in science. Baron is active in US National Climate Assessment efforts, has given testimony to Congress on western acid rain and climate change issues, and was Editor-in-Chief of Issues in Ecology, an Ecological Society of America publication for non-scientists from 2009-2012. She is founder and Principal Investigator of the Loch Vale Watershed long-term monitoring and research program in Rocky Mountain National Park, an instrumented catchment with 34 years of continuous records. As Director of the North American Nitrogen Center, part of the International Nitrogen Initiative, she works at regional to global scales to maximize benefits while reducing pollution from reactive nitrogen. Dr. Baron received her Ph.D. from Colorado State University in 1991, and has undergraduate and master's degrees from Cornell University and the University of Wisconsin

12:00pm FY14-15 CDI Funded Project Presentation: mdEditor: A Modern, Accessible Application for Creating Metadata - Josh Bradley, US Fish and Wildlife Service

Presentation: Slides are available to CDI Members. Please login to download the slides. If you would like to become a member of CDI, please email cdi@usgs.gov.

Abstract:

The Alaska Data Integration working group (ADlwg) is developing a suite of tools to aid in the creation and dissemination of metadata. The tools include an ISO-compatible JSON metadata standard (mdJSON), metadata translator (mdTranslator), maintained codelists (mdCodes), and interactive documentation (mdTools). While these tools will aid the tech-savvy developer in generating metadata, they are generally unavailable to users less technically inclined. Recognizing this, ADlwg is developing a metadata editor (mdEditor) to make these tools available in a single, accessible, modern web application. Combining the capabilities of existing ADlwg tools, the mdEditor allows authors to write metadata once and translate to multiple existing metadata standards, including ISO 19115-2 (19139), 19115-1 (19115-3), and sbJSON (ScienceBase). The mdEditor supports both "project" and "data" metadata, save/open operations to/from the local filesystem, import of multiple spatial formats for resource extents (GeoJSON, ShapeFile, KML, etc.), reusable contacts and data dictionaries, context-sensitive help, and more. Like all ADlwg tools, the mdEditor is released under an open source license (GPL) and available on GitHub. This effort was funded in part by CDI (FY2014-15).

Bio:

Josh Bradley is the Data Manager for the Arctic Landscape Conservation Cooperative and one of the primary instigators in the Alaska Data Integration working group (ADlwg). The Arctic LCC and ADlwg share a common goal of improving data management, discovery, and

integration. When not working on data management for the Arctic LCC, Josh is currently focused building tools to help make metadata authoring more accessible, easier, and (maybe) less of a chore. He started his career in 2000 with the USFWS as a fish health biologist before being transmogrified into an IT Specialist.

12:30p Adjourn

Presentation Q/A

John Faundeen: Are submissions intended to only align to the current year's theme or are other ideas acceptable?

Jon Stock: Any theme is acceptable. We like to shine a light on a particular theme each year, but each year we fund projects from all themes.

Leslie Hsu: Sustainability of the groups or projects proposed? How does sustainability of the project or idea play into evaluating the proposals for each of the groups?

Jill Baron: It is all about collegiality. Once you get funded, you become part of the family. We do anything we can to make you successful. Sometimes we offer additional meetings if the project teams are really close to finalizing some synthesis and producing a publication. If groups say they need an extra year, we try as hard as we can to make that happen.

Jon: Most people find that it is not possible to complete in a year. Most groups come back to us for a second year of funding. How do we operationalize the tool or knowledge? This is an ongoing challenge. The Innovation Working Group is bringing this question to the USGS Leadership.

Jill: The ideas that get sent to Powell center are one and done. If there are more questions that arrive, we can help you synthesis center hop. There was a project looking at the economic value of organisms that winter in Mexico and summer in the U.S.. They didn't quite finish everything that they wanted to do, so we helped them go to another synthesis center. We also had a dam removal group synthesizing the science of dam removal studies. When they were finished, they came to CDI to build a database for the work that they did in Powell Center. We don't serve big databases, so groups will need to go back to the program or CDI to get those types of database projects funded.

Leslie: If you have an idea and you're not sure which funding opportunity would be most appropriate, all of the group leads would be happy to discuss it with you and figure out where it fits best.

Cian Dawson: How does this fit in the USGS datamanagement toolbox, for example compared to OME? Does this generate metadata that meets USGS data release requirements, or would the files require addl manipulation

Josh Bradley: I'm not completely familiar with USGS data release requirements, but my understanding is that it should meet USGS requirements just fine. The issue right now is that we are not outputting FGDC. We are concentrating on outputting ISO. I'm not sure if that makes a difference at all, but as far as being able to produce a complete ISO metadata record, you should be able to write out everything from distribution to data dictionary, so I would think that would meet the requirements. We received funding from the LCCs to integrate the mdEditor with ScienceBase, so you will be able to author metadata in mdEditor and push it out to ScienceBase, which will create an item and attach the mdJSON to the item, as well as use a translator to create an ISO record and attach that to the item as well. So, you'll be able to interact with ScienceBase that way.

Madison Langseth: Just to clarify, the USGS requirements allow for either FGDC Content Standard for Digital Geospatial Metadata or ISO, so this tool should comply with those requirements.

Attendees

A WebEx Participant Report is available to CDI Members. Please login to download the report. If you would like to become a member of CDI, please email cdi@usgs.gov.