

BODC from an International Perspective

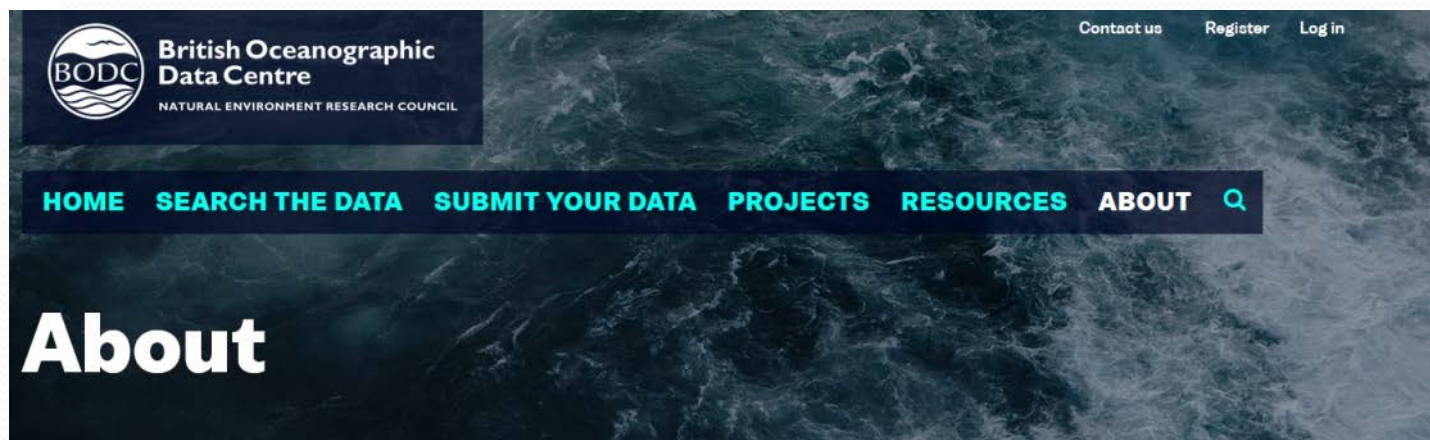
Cyndy Chandler
Woods Hole Oceanographic Institution

8 May 2019

BODC 50th Celebration Event, Bluecoat, Liverpool, UK



50 years young



[About](#) › [What is BODC](#) › [Our international role](#)

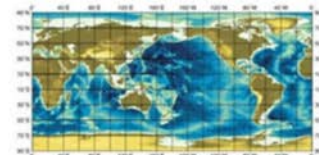
IN THIS SECTION

What is BODC?

- [Our history](#)
- [Our national role](#)
- [Our international role](#)
- [Freedom of Information](#)

Our international role

As the UK national marine data centre, BODC has a range of international roles and responsibilities, which include



Sample image obtained from the GEBCO One Minute Grid [@](#)

BODS at NIO, Wormley, UK (1969)



1969 – USA

New York State



**WOODSTOCK
MUSIC & ART FAIR**
presents
**AN
AQUARIAN
EXPOSITION**
in
WHITE LAKE, N.Y.

WITH

FRI, AUG. 15
Joan Baez
Arto Ochsian
Tim Hardin
Buck Ram
Incredible String Band
Ravi Shankar
Gry And The Furry Stone
Burl Imitator
Sweetwater

SAT, AUG. 16
Canned Heat
Creedence Clearwater
Grateful Dead
Karl Marlens
Janis Joplin
Jefferson Airplane
Mountain
Quill
Santana
The Who

SUN, AUG. 17
The Band
Jeff Beck Group
Blood, Sweat and Tears
Joe Cocker
Crosby, Stills and Nash
Jimi Hendrix
Iron Butterfly
Ten Years a Day
Johnny Winter

ART SHOW
The art show will feature the work of a number of leading artists, including a special exhibition of the work of the late artist Robert Rauschenberg. The art show will be held in the White Lake Pavilion on Friday, Saturday and Sunday.

SPORTS BAZAAR
The sports bazaar will feature a wide variety of sports equipment, including tennis rackets, golf clubs, and fishing gear. The bazaar will be held in the White Lake Pavilion on Friday, Saturday and Sunday.

FOOD
There will be a wide variety of food vendors, including a special section for vegetarian food. The food vendors will be located in the White Lake Pavilion on Friday, Saturday and Sunday.

HUNDREDS OF ACRES TO ROAM ON
The fair will be held on a beautiful 100-acre site, including a special section for children. The site is located in the White Lake area of New York State.

WOODSTOCK AT 500 P.M. ON FRIDAY AND AT 4:00 P.M. ON SATURDAY AND SUNDAY
The Woodstock Music & Art Fair will be held on Friday, Saturday and Sunday, August 15, 16, and 17, 1969. The fair will be held in the White Lake area of New York State.

AUGUST 15, 16, 17.

**3 DAYS
of PEACE
& MUSIC**

© 1969 Woodstock Music & Art Fair, Inc. All rights reserved. Woodstock, N.Y.

1969 – USA

American Astronaut Neil Armstrong (Apollo 11 mission) became the first human to set foot on the Moon.

"That's one small step for man, one giant leap for mankind."



R/V Neil Armstrong



Princess Polychaete



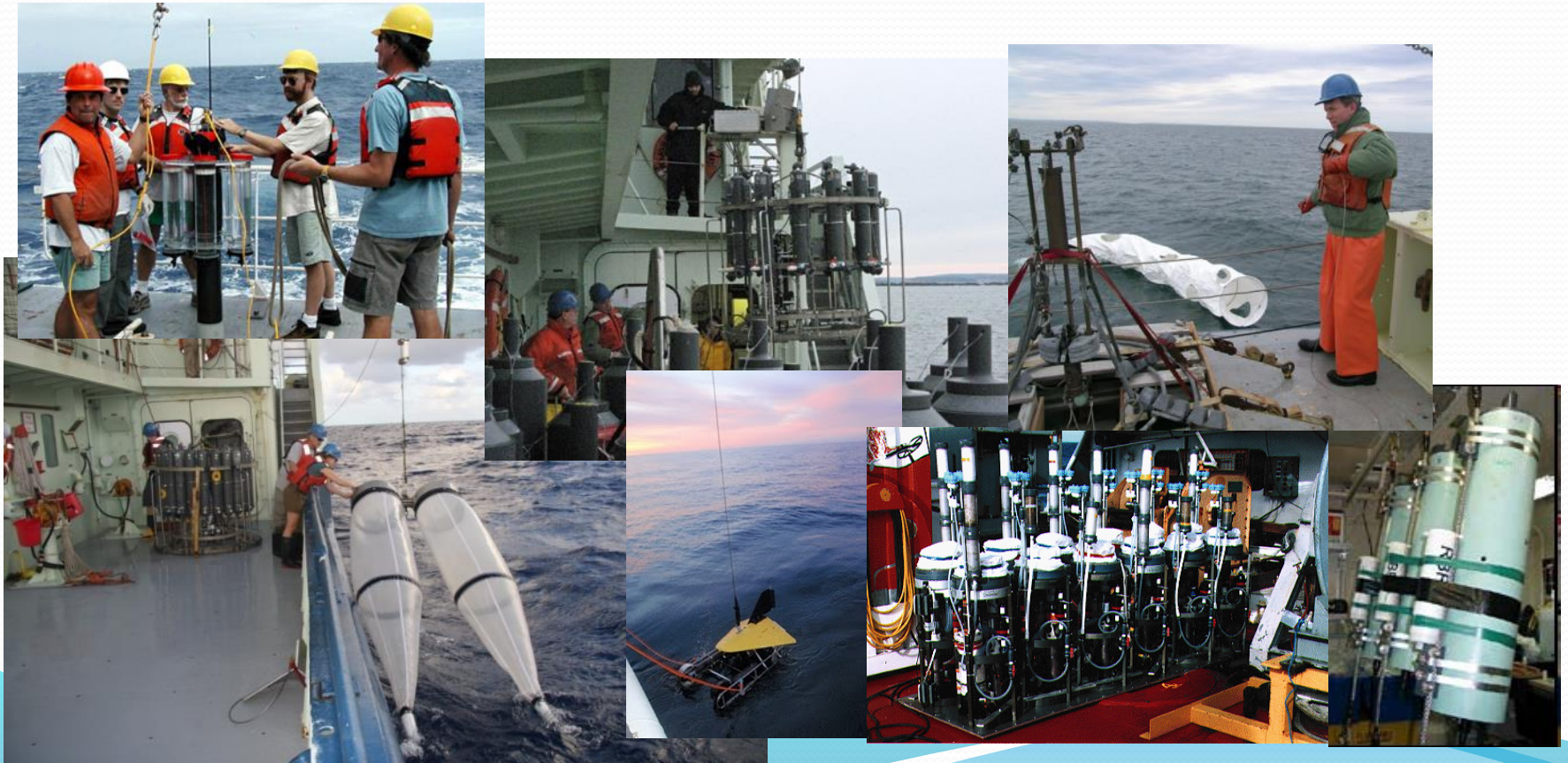
CTD technician



US JGOFS



U.S. Joint Global Ocean Flux Study Data Management Office





BODC . . . from an
International Perspective

RESPECT
GRATITUDE



When research assistants at WHOI are told to get data from BODC, they feel as though they've been commanded to go to Mt Olympus!

BODC . . . *respect and gratitude*

- ❖ **sharing** data management expertise
 - ❖ staff participation in activities, initiatives and programs outside the UK
- ❖ **courage** to seek out improvements
 - ❖ allocating resources for innovation – constant tension between providing robust services and exploring ways to innovate

BODC . . . *respect and gratitude*

BODC has set the bar very high



BODC and the NOC values



Sign on the door of the Robert H. Corkan Room (2015)

BODC . . . *respect and gratitude*

- ❖ **reputation** for excellence
developed, earned and sustained over time
- ❖ **leadership** in the UK, and globally

**BODC has inspired and helped others to
achieve excellence as well.**

From my perspective . . .



It's all
about the
people of
BODC.

AGU Poster #4136-1170
AGU Fall Meeting
December 17, 2006

Quality

AGU Poster #4136-1170
AGU Fall Meeting
December 17, 2006

Project Description

AGU Poster #4136-1170
AGU Fall Meeting
December 17, 2006

Mapping Data

AGU Poster #4136-1170
AGU Fall Meeting
December 17, 2006

Quality Control Certificate

1170

I will be at my poster
from 7:40 to 3:30 hrs



Rolling Deck to Repository III: Shipboard Event Logging

Corinna L. Chiodini¹, Robert A. Asko¹, Stephen P. Miller¹, David C. Fiaschi¹, Alexander Dorn¹, Scott McCue¹

Rolling Deck to Repository

The 1990s witnessed a significant increase in the number of marine geoscience researchers and their data sets. This trend has continued to this day, with the number of researchers and their data sets increasing significantly. This trend has led to a corresponding increase in the volume of data generated by these researchers. The challenge is to manage this data effectively and ensure its long-term preservation and availability to the scientific community.

Rolling Deck is a web-based system designed to facilitate the management of marine geoscience data. It provides a central repository for data sets, allowing researchers to upload their data and make it available to others. Rolling Deck also provides tools for data management, including the ability to search, filter, and download data sets. This system has been widely adopted by the marine geoscience community and has become an essential tool for data management.

The use of Rolling Deck has led to a significant increase in the amount of data available to the scientific community. This data has been used for a variety of purposes, including the study of climate change, ocean circulation, and marine geology. The availability of this data has also facilitated collaboration between researchers and has led to new discoveries.

Rolling Deck is a powerful tool for managing marine geoscience data. It provides a central repository for data sets and offers a range of tools for data management. The system has been widely adopted by the scientific community and has become an essential tool for data management.

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Why keep an event log?
What is an event log?

Sample from an ocean biogeochemistry research cruise

| Station | Date | Time | Lat | Lon | Depth | Parameter | Value |
|---------|----------|-------|-------|--------|-------|-----------|-------|
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | Temp | 10.5 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | Sal | 35.2 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | Chl a | 0.2 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | PChl a | 0.1 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl a + b | 0.3 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl c | 0.1 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl d | 0.1 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl e | 0.1 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl f | 0.1 |
| 71_0001 | 12/18/06 | 08:00 | 45.00 | 115.00 | 0 | chl g | 0.1 |

Best Practices

- 1. The data set should be organized in a clear and logical manner.
- 2. The data set should be accompanied by a detailed metadata file.
- 3. The data set should be accompanied by a data dictionary.
- 4. The data set should be accompanied by a data management plan.
- 5. The data set should be accompanied by a data access policy.
- 6. The data set should be accompanied by a data use policy.
- 7. The data set should be accompanied by a data privacy policy.
- 8. The data set should be accompanied by a data security policy.
- 9. The data set should be accompanied by a data backup policy.
- 10. The data set should be accompanied by a data recovery policy.

Sample from an ocean biogeochemistry research cruise

A sample from an ocean biogeochemistry research cruise. This sample was collected during a cruise in the North Pacific Ocean. The sample was collected from a depth of 1000 meters. The sample was analyzed for a variety of parameters, including temperature, salinity, and chlorophyll a. The results of the analysis are shown in the table below.



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117



Roy Lowry



Knowledge Transfer



Photo credit: Helen Glaves (BGS)

Gwen Moncoiffé IODE groups





United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission

Workshop Report No. 253

Second IODE Workshop on Quality Control of Chemical and Biological Oceanographic Data Collections

IOC Project Office for IODE
Oostende, Belgium, 22-24 October 2012



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission

Groups of Experts Working Groups and Task Teams

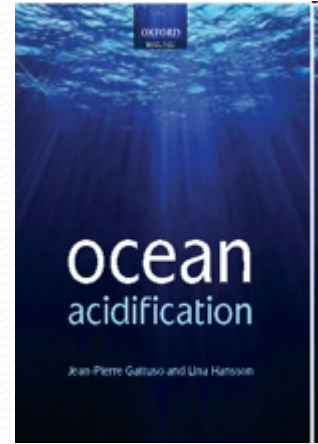




Lesley Rickards (BODC)
IODE co-chair (2005-2008)



Contributions to . . .



Integrated Marine Biogeochemistry and Ecosystem Research

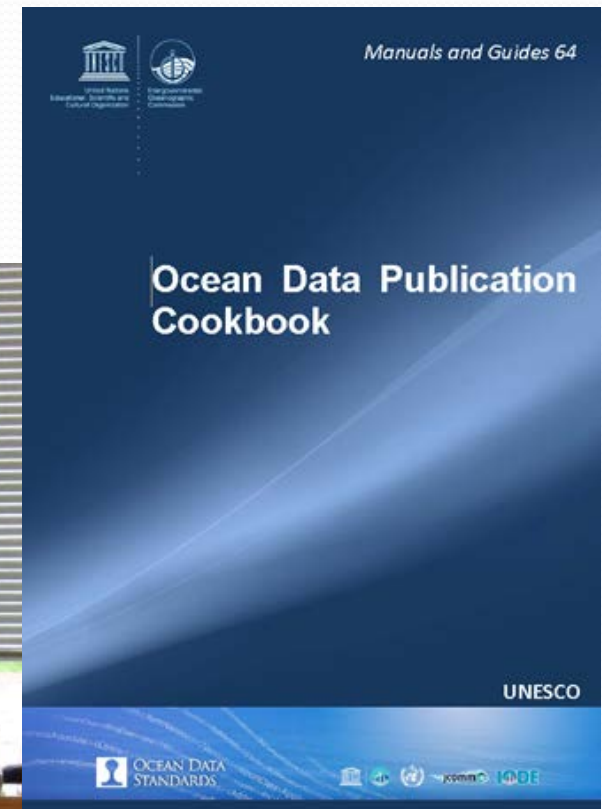


Helen Glaves (BGS)



*Bob Arko
(LDEO)*

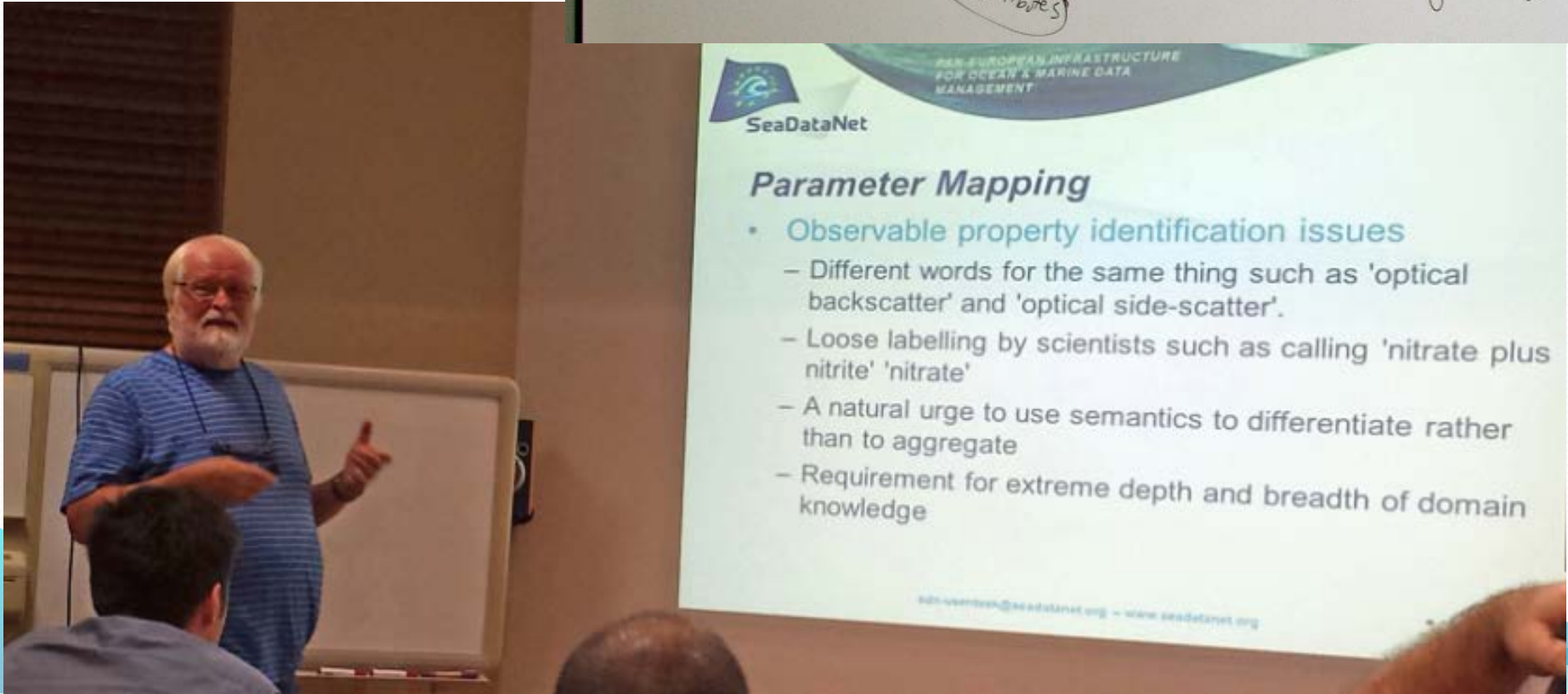
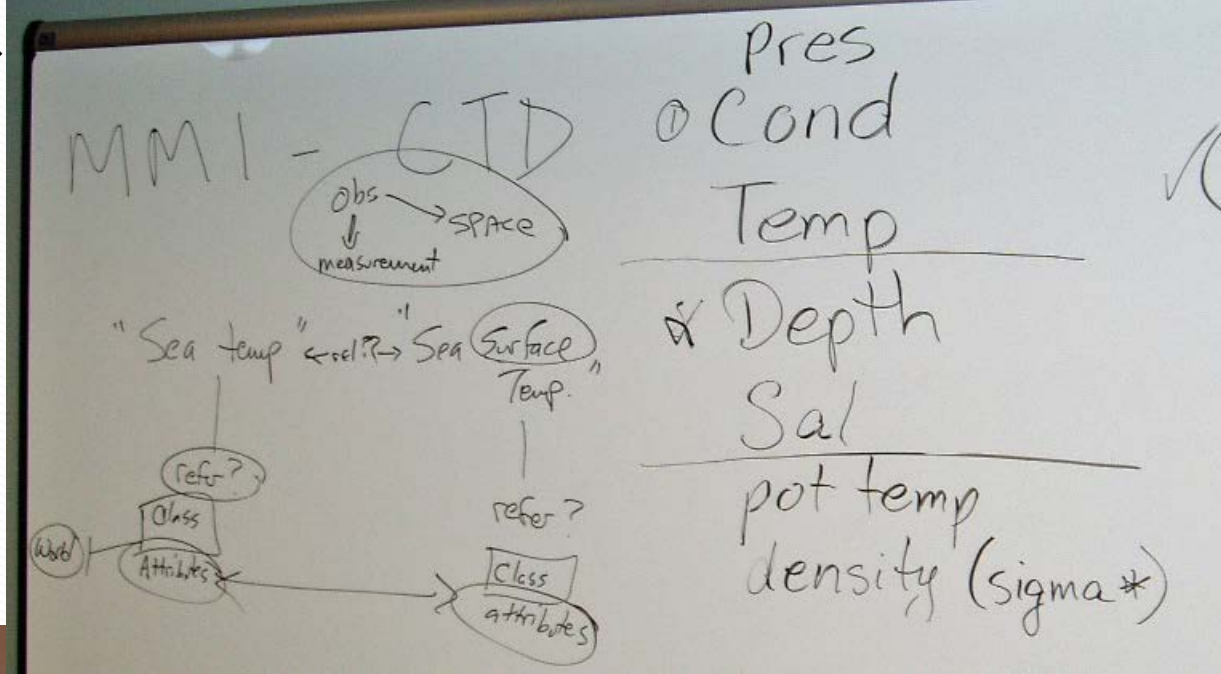
Data Publication



2005, Boulder, CO, USA →

Controlled Vocabularies

2015, Liverpool, UK



Vocabularies



Vocabularies



Semantics & Ocean Informatics

Semantics Smackdown 2014

JUNE 10 - 13th

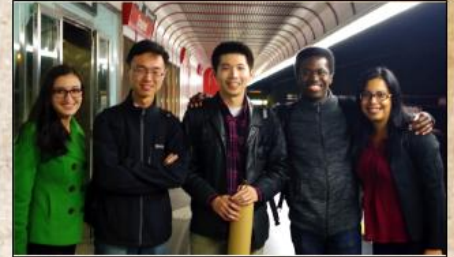
RPI/Tetherless World Constellation

".. an Agile exercise in Smacking down, and Marking up, Ocean Science research data"

TUESDAY

- 9:30 **Triplestore, SPARQL Review**
- Noon *Lunch (catered)*
- 1:30 Review cont'd
- 3:30 **Geospatial Linked Data**
- 4:30 **Schema.org Dataset**
- 7:00 *Dinner at Dinosaur BBQ*

FEATURING



Ocean Data Interoperability Platform (ODIP) Student Fellows

WEDNESDAY

- 9:30 **SAMOS Linked Data** by Nkem Dockery (FSU)
- 10:00 **Harmonizing Use of Common Vocabularies for Ocean Data**
- Noon *Lunch (catered)*
- 1:30 Harmonizing cont'd
- 3:30 **Prizms & PROV Pingback**
- 4:30 **Linked Data APIs** by Linyun Fu (RPI)
- 7:00 *Dinner at Finnbar's Pub*

with SPECIAL GUESTS
**Patrick West &
Stephan Zednick**

THURSDAY

- 9:30 **Semantic Entity Matching** by Yu Chen (RPI)
- 10:00 **O & M / PROV / EarthCube-OceanLink / Ocean Data Ontology**
- Noon *Lunch (Red & Blue Chinese Restaurant)*
- 1:30 **Linking actual oceanographic data** (not just metadata)
- 3:00 **R2R Vocabulary term matching** by Renata Ferreira (SIO)
- 3:30 **Persistent IDs for People & Organizations**
- 4:00 Closing: Wrap-up & Documentation
- 7:00 *Dinner at Jose Malone's*

FRIDAY

- 9:00 **S2S + BCO-DMO**

For more
information, see:



All are welcome

Informatics knowledge transfer



Vocabularies





Ocean Data Interoperability Platform

- Identify a common framework to facilitate the global exchange of oceanographic data and information
- EU funded project, coordinated by British Geological Survey (BGS), with technical coordination by Marine Information Service (MARIS)
- Originally (ODIP) included partners from Europe, USA and Australia and International Oceanographic Data and Information Exchange (IODE) committee of the International Oceanographic Commission of UNESCO (IOC of UNESCO)

BODC & RDA



Research Data Sharing
without barriers

- ❖ Justin Buck – ARGO float data use case
- ❖ Lesley Rickards – repository certification
- ❖ Adam Leadbetter, Rob Thomas, Alexandra Kokkinaki



knowledge transfer



The Roy Lowry Methodology



**Best wishes BODC
for the next fabulous 50 years**

**... and
THANK YOU !**

