

Telling Stories from Ocean Observing Systems

a workshop for OOS Professionals

Maryland Science Center, Baltimore, MD

Thursday, January 8, 2009

8:00 am Registration and Continental Breakfast

8:30 am Welcome and Workshop Goals

Janice McDonnell (COSEE NOW) and Josie Quintrell (NFRA) will lay out the foundation for this workshop, including how it came to fruition and the desire to help IOOS and OOI educators and scientists to improve their outreach efforts through the use of written and visual storytelling techniques. Zdenka Willis (NOAA) and Elizabeth Rom (NSF) will provide brief perspectives as program managers of the IOOS and OOI efforts.

9:00 am Storytelling as Best Practice

Andy Goodman, a nationally recognized expert in storytelling, will lead the group in a hands-on experience that will explore how we can improve our ability to effectively write stories about ocean observing systems science.

Through this process, participants will learn effective practices of storytelling and will work to improve their personal storytelling skills by drafting a short story based on their own OOS work. In two follow-up conference calls after the workshop, Andy will assist participants in revising their stories. The finished stories will be assembled into a web/print publication for all to use.

1:00 pm Lunch

1:45 pm Using Data to Tell Ocean Stories

Participants will learn effective practices of data visualization and engage in a hands-on experience that will explore how we might improve our OOS data displays and interpretations for public audiences.

Drawing The Big Picture – Panel members from government agencies and industry will share their experiences developing compelling visualizations for specific audiences. Each will reflect on the best practices they have adopted and describe the development and storytelling processes they use when creating new visual displays of information.

- Laura Allen, American Museum of Natural History
- Ned Gardiner, NOAA Climate Visualization Project
- David Herring, NOAA Climate Program Office
- Hannah Fairfield, New York Times
- Dan Pisut, NOAA Environmental Visualization Program
- Panel Moderator: Sage Lichtenwalner, Rutgers University

Information Visualization – The stories of science are told with data. But data displays are only engaging if they are accessible and intuitive for their intended audience. In this session, we will conduct the first step of a *charrette* on data visualization.

Visualization panel members will facilitate collaborative breakout groups in which participants will draft a solution to predetermined data design problems. Each group will focus on a thematic subject of interest to IOOS. Participants will identify an appropriate audience to focus their visualization towards, and will refine the story by reviewing and identifying appropriate datasets and other scientific information that should be included. After the goals of the visual narrative are identified, panel members will discuss how they turn a storyboard into visual sketches and ultimately a final product.

Proposed Visualization Challenges

- 1) *Global Change in Local Habitats* – The effects of global climate change will have widespread implications on local habitats. For example, sea grass beds and marshlands serve as prime nurseries for numerous species but as sea level raises these habitats will be lost. (Hannah & David)
- 2) *Impacts of Coastal Storms* – Storms and hurricanes can cause tremendous damage on land, but they also greatly affect ocean habitats. Sea level, coastal currents and satellite data can be used to show the impacts these storms have on both human and marine environments. (Dan & Sage)
- 3) *Harmful Blooms and Beach Closures* – Harmful algal blooms and poor water quality are responsible for increasing illnesses among coastal residents. Monitoring these conditions and helping people make choices to abate or avoid these hazardous situations is a pressing concern. (Laura)
- 4) *Ecosystem-based Fisheries Management* – A tremendous effort is now underway to use OOS data to help understand, monitor and protect marine ecosystems. For example, fisheries researchers in Alaska and New York are using ocean currents (from radars and ADCPs) and vertical profiles of water column properties to better understand the transport and fate of fish larvae. This new information will help policy makers better manage fish stocks. (Ned)

The Visual Storytelling Process

Each group will present its work to the full group as material for future dialogue. This initial charrette will serve as a way of quickly generating possible design solutions while engaging the aptitudes and interests of a diverse group of people. The ultimate goal of this exercise is to familiarize participants with the design process demonstrated during this charrette and how participants can play a role in developing storyboards to tell visual stories. Other discussion areas include: How can participants take this process back to their organization (RA, RCOOS, etc.)? What part can participants play in this process, and how can they take a leadership role in their design teams? How can resources be identified (i.e. data experts in federal agencies and other institutions charged with helping IOOS)?

5:30 pm First Day Reflection and Wrap Up

Friday, January 9, 2009

8:00 am Continental Breakfast

8:30 am Welcome Back and Round Table Discussion

Our second day will start off with reflections and questions on the previous day's work (facilitated by Janice McDonnell and Josie Quintrell). Followed by an idea sharing session consisting of informal presentations (about 5 minutes, no power point slides) on education and outreach activities in the RAs and the NOAA IOOS Office. Discussion topics include: products you have developed, plans you have for the future, ideas or topics to discuss with other outreach coordinators, or ideas for collaboration.

10:00 Break

10:15 Discussion on Possible Collaborative Projects

This workshop is only the first step. Are there joint projects people are interested in pursuing (such as funding opportunities for the outcomes of this workshop, developing an ocean observing kiosk for the Smithsonian's Ocean Hall, etc.)?

10:45 am Next Steps

This workshop is the starting point a new community of collaborators who can continue to work together to develop engaging stories and visualizations for OOS.

- January strategic communication phone/web conferences (Janice McDonnell)
- Building an online community of OOS scientists and educators (Sage Lichtenwalner)
- OOS Science in the Media (Ari Shapiro, WHOI)
- What can we do to keep our momentum going as a community of scientists and educators in OOS? (Chris Parsons)

12:00 pm Workshop Wrap Up

12:30 pm Informal Tours of the "Science on a Sphere" and "Ocean Today Kiosk"

This workshop is sponsored by COSEE Networked Ocean World and NSF