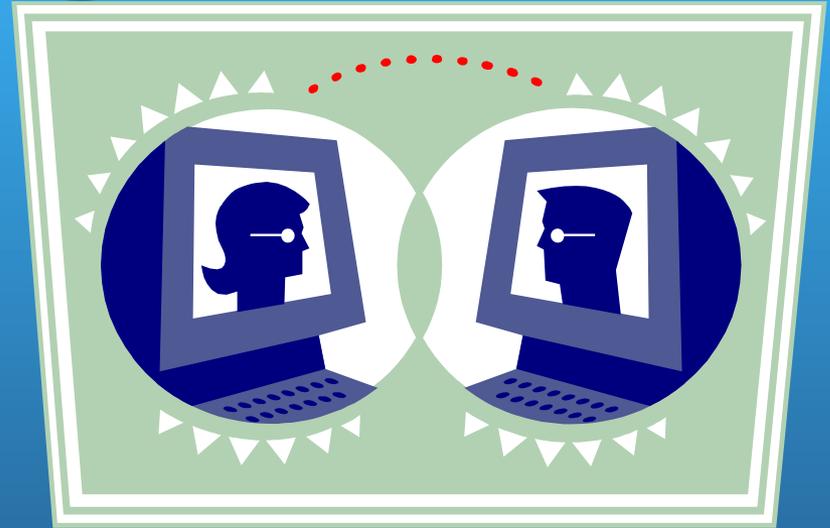


# Welcome to the NICE Community Discussion

January 23, 2013



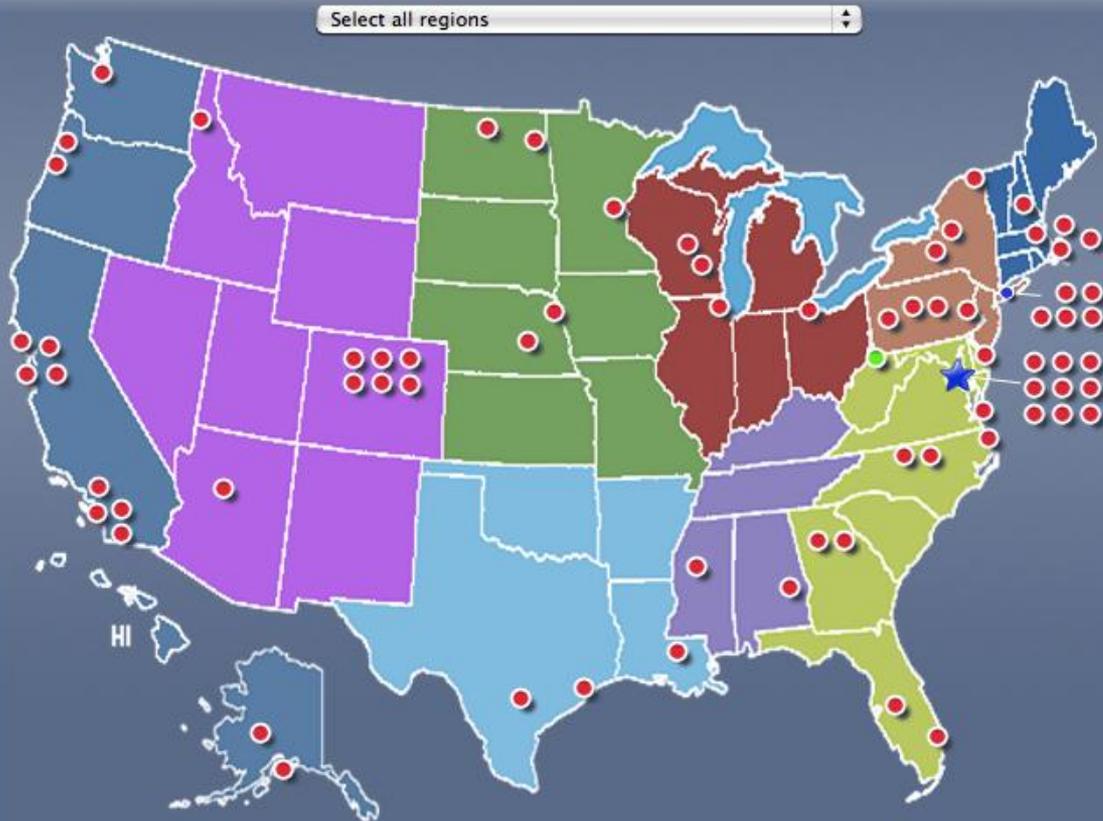
We will begin shortly.

Please help us control the amount of background sound. Mute your telephone after dialing in by pressing \*6 or by using a manual mute button on your telephone.

Today's Topic: What have you learned about engaging and retaining K-12 educators with your projects and materials?

# New Website Feature: Project Portfolio

<http://nice.larc.nasa.gov>



Wheeling Jesuit University  
Center for Educational Technologies  
Laurie Ruberg, Ph.D.



## Exploring Global Climate Change Through Problem-based Learning

Organization: Wheeling Jesuit University

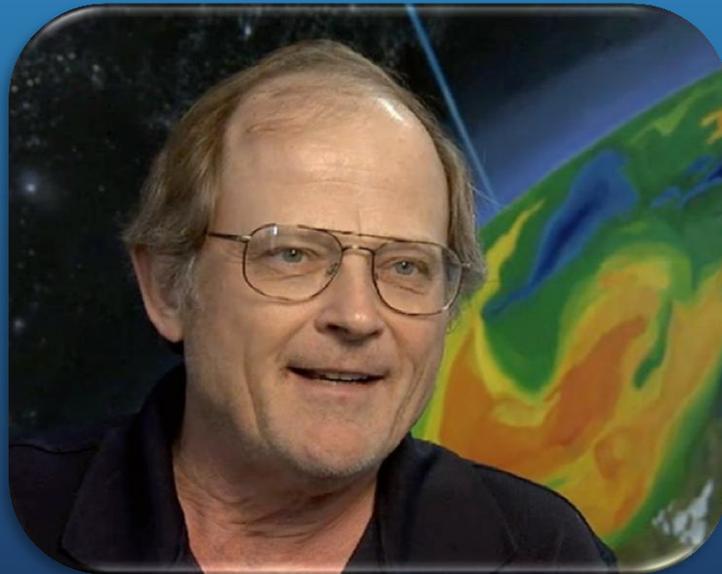
Funding Status: CURRENT

Point of Contact: Laurie Ruberg – [lruberg@cet.edu](mailto:lruberg@cet.edu)

Project Description: The leading geoscientists 200 years ago were confident that Earth's climate could not dramatically change in less than a 1,000-year cycle. Today's geoscientists tell a different story. Today we are in a new era, the Anthropocene Epoch, scientists say. [-- Learn More](#)

# Save the Date: NICE Virtual PI Meeting (more details to follow)

- Series of optional webinars  
Tuesday, April 23<sup>rd</sup> - Friday, April 26<sup>th</sup>
- Featuring: Dr. Bruce Wielicki  
Senior Scientist at NASA Langley in Hampton, Virginia



# Today's NICE webinar

*Discussion Topic: What Have you Learned About Engaging and Retaining K-12 Educators with your project and materials?*

Facilitators:

Susan Buhr, University of Colorado, Boulder



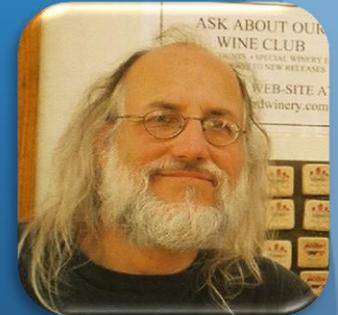
Dana Haine, UNC-Chapel Hill

# In the Chat Box

- Introduce yourself
- Type in a challenge you have encountered in engaging/retaining K-12 educators.

# Contributors

- LuAnne Thompson, U. of Washington
  - Dual-Credit STEM focused Climate Course in the High School
- Dan Zalles, SRI International
  - Data-enhanced Investigations for Climate Change Education
- Alan Gould, Lawrence Hall of Science
  - Lifelines for High School Climate Change Education
- Marina LaGrave, Centro Latinoamericano para las Artes (CLACE)
  - Nuestra Tierra Dinámica



# Questions to consider

- *How do we recruit and retain teachers?*
- *What is the best approach? Provide ready-made data and curricula or more open-ended professional development?*
- *How can we help teachers incorporate effective climate change lessons in the courses they teach?*

# Guide for discussion

- What strategies work well?
- What paths should be avoided (lessons learned)?
- What would be most helpful to you?



# *How do we recruit and retain teachers?*

**Project: Develop, Implement and Support the Teaching of a Dual-Credit STEM focused Climate Course in the High School**

**PI: LuAnne Thompson, University of Washington**

## **WHAT DREW THE TEACHERS INTO THE PROJECT:**

1. Topic of Climate as focus of PD
2. Opportunity to connect with UW scientists
3. Compensation/Credits for PD

## **KEEPING THE TEACHERS ENGAGED:**

1. Graduate student/high school teachers exchange expertise.
2. Give and take format of PD: teachers as partners
3. Environment of mutual respect: we were the experts on the science, but they were the experts on teaching
4. Opportunities for embedding content in other courses

## **CHALLENGES FOR IMPLEMENTATION :**

1. Educators' lack of background in climate science
2. Support for teaching class when budgets are declining

# *What is the best approach? Provide ready-made data and curricula or more open-ended professional development*

## DICCE Data-enhanced Investigations for Climate Change Education (DICCE)

Dan Zalles, PI



Issues the DICCE project has faced concerning engaging and retaining K-12 teachers

1. What are the trade-offs between constraining data access, which makes the data easier to use, and providing wider ranges of data querying options, which are more difficult to use yet more empowering?
2. To what extent should project resources be expended to develop data-centered pre-made curricula tools versus training teachers to query the data themselves, make wise plotting choices (e.g., pallets, ranges of values), and develop their own curricula?
3. To what extent should desktop tools such as Google Earth be relied on versus web-based data viewers?
4. To what extent is it educationally worthwhile to give K-12 science students access to interactive GIS functionality versus simply giving them non-interactive images or videos to study?

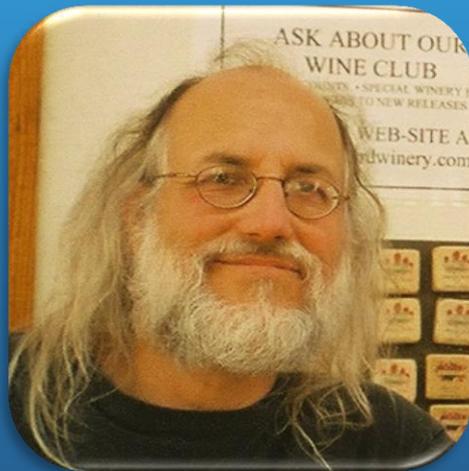


<http://dicce.sri.com>



## *How can we help teachers incorporate effective climate change lessons in the courses they teach?*

**Alan Gould - Lifelines for High School Climate Change Education**



*How can we help teachers incorporate effective climate change lessons in the courses they teach?*

This is the essential question of our NICE project.

One of the results of our efforts is the website where teachers share their course outlines, highlighting where climate change topics are in the course, and what activities and resources they have found most useful.

Go to:

<https://sites.google.com/a/globalssystemscience.org/courses-lifelines/>

# How can we make our programs sustainable?

## Nuestra Tierra Dinámica



Global Climate Change STEM  
Education Fostering Environmental  
Nuestra Tierra Dinámica

Question:  
How to make NTD a  
sustainable Program?



Marina La Grave  
PI/Program Director



# Wrap up

- Other feedback? Resources?
- What other topics are of interest for NICE webinars?  
Type in chat box.
- Discussion will be synthesized and sent out via list.

# Next Monthly NICE Community Discussion

Wednesday, February 27, 2013 @ 3:00 p.m. (Eastern)

Discussion Topic:

**“Engaging Under-Represented Groups”**

**PI Facilitators: Mary Droser & Anne Kern**

If this topic is up your alley, please send ONE (1) discussion-oriented slide with a question or insight of your own to spark conversation to Cassandra Small ([csmall@odu.edu](mailto:csmall@odu.edu)) by close of business on Wednesday, February 20, 2013. Please include your name, photograph, and email address on the slide. If this topic is not up your alley, please feel free to suggest an interesting topic for future conversation.