

## STEAMed Planet Shared Document – March 5, 2021

**Tell us about some of the highlights/most exciting ideas that came out of your discussion and how they may impact what you do in the future.**

Please select one person to record your responses in the space below your table number. Plan to choose one or two items to share with the whole group when we return from break-out rooms.

**Table 1:** Visual Depictions of Climate Change: How Can Art Show Human Impact? — Amanda Miller (Art) and Gillian Backus (Biology, NVCC)

Comments

Visualizing statistics through graphs #showyourstripes can be a helpful tool for teaching students.

What can we do creatively with data to communicate with our audiences? Keeping attention with creatively, but focus on the data.

The Northern Michigan University study (<https://affectiveclimateimages.weebly.com/>) of climate change images could be shared with students. Images are rated by relevance, arousal, and valence based on survey of non-experts. Students could discuss images with a consideration for bias.

Keeping visuals local for students. Find local examples that will resonate with students. This will help them connect with data better. It can be powerful to see images that effect your local area, compared with an image of a polar bear that is far away.

Consideration of participatory art and public art, addressing flash flooding, pollution. For example, highwaterline project.

Invite artists and art students to create public art around climate change for ArtWalk.

Field trips to help students identify with local resources.

Propose art on site to show the history of flooding and other disasters. Ellicott City flooding, for example. An emphasis on preserving the history.

**Table 2:** The Texas Deep Freeze: Can the Free Market Adequately Cope with Climate Crises? — Arthur Grinath (Economics) and Diane K. McDaniel (Geology)

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### **How does an individual adapt?**

Make a home generator

Solar power

Migration

Pay for more reliable service

Keep firewood around (and a store of other stuff)

Live with it! (or not)

Warm clothing

Buying home insurance

Winterize home (pipes)

Invest in home improvement (open your own shop!)

How about: buy a gun (suggested by presenter)?

### **Disadvantages of individual adaptation:**

Life in a state of anarchy isn't wonderful

Storing all of this stuff is expensive

Favors the wealthy

### **What can government do?**

Regulation: Make sure grids are reliable

FEMA, provide emergency assistance

Note need for more transparency (customers need to have good information to compare services).

Note on role of government to assure the safety of its citizens.

**Table 3:** Documenting and Displaying Climate Change Using Proxy Data Sources — Chip Gladson (English) and Bill Krayner (Meteorology)

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It's fascinating that [musical] notes can correlate to the different temperatures in on the planet to communicate climate change.

In the climate change **musical composition**, the proxy data, we learn that the poles are warming at a greater rate than other parts of the globe. Why is that?

Proxy data possibilities from participants:

- **Coral bleaching** can offer evidence of climate patterns...
- Peruvian anchovy fishermen in the early 20<sup>th</sup> century found no anchovies in the Pacific Ocean off the coast of South America for them to catch.
- Listeria outbreaks in Maryland initiated a call among public health officials. They looked for answers in the climate.
- Movies like *Happy Feet*, about penguins losing their habitat in the Arctic, can communicate one key threat of climate change to young viewers.
- Integrating climate change in primary and secondary education can promote the field among young people.

- Ice skaters in Amsterdam (watch the epic fail videos on YouTube) could have learned from proxy data (old paintings of frozen canals before climate change resulted higher winter temperatures).

**Integrative studies** and **inter-disciplinary communication** between marine biologists, oceanographers, climate scientists, educators, fisherfolk, and movie makers (and Dutch ice-skaters?) can create a fuller picture of climate change.

**Table 4:** Teaching Climate Change — David Fallick (ELAP) and Teresa Peachy (Meteorology)

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Interdisciplinary area on Blackboard to share resources on Climate Change

Every class should connect in some way to climate change

Students want to know more about the topic of climate change and actions they can take to work on the issue.

How health professionals can treat patients differently with knowledge of how climate is affecting health

Find ways in our classes to connect to the problem – then they will care

**Table 5:** Human Ecodynamics and Integrating Humanity into Environmental Science — Kevin Gibbons (Anthropology) and Alejandra Morales Picard (Psychology)

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Invite psychologists to be involved in making environmental policy.

- Conservation psychology – focus on human behavior/motivations.
- Ultimately: implementing widely-effective policies and changing behavior.

How to integrate these sorts of topics into broader primary/secondary education?

- Bridging the growing divide between the majority of sub/urban dwelling humans and the natural world.

Focus on personal relevance.

**Table 6:** Ocean Acidification — Anita Mohan (Chemistry, NVCC) and Rita Kranidis (English)

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How does this kind of collaboration exist in everyday life?

How can we participate in this conversation?

Interdisciplinary thinking

There is plastic in the ocean—harming sea life; is there something we can do, some way to bring world's attention to the ocean's acidification?

What can we point to, to have an impact? Maybe the disappearing shells and impact of this on seafood as nutritional source, entire species affected by these changes—be more vulnerable to predators, etc

Critical point in terms of acidification is at the end of the century  
Is it too late for prevention/correction?

**Table 7:** Global Ecotourism — Craig Benson (Chemistry) and Greg Malveaux (English and Study Abroad)

**Tell us about some of the highlights/most exciting ideas that came out of your discussion and how they may impact what you do in the future.**

Yamen and Craig—Student awareness of Ecotourism opportunities with global studies

Greg—Clearly current limitations with physical nature of global studies. Alternatives?

Elizabeth—A digital story presentation on MCTV, and the effects the study abroad program has had on their perception and future endeavors. Gives them a new outlook. Get student voices out—learning and sharing. Student newspapers. Emily mentions The Advocate.

Emily—Bit size pieces on social media. Local related component. DC, New York, etc.

James Sneizek noted a Tik Tok video could be streamed to students here—communications from abroad (a page) for students to follow and material to watch to draw increased interest. MC Communications may be interested in assisting.

Instagram page. Have more visibility though a Is it possible to have college page?

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**Table 8:** Climate Change in Literature — Cinder Cooper Barnes (English) and Victoria Schneider (Environmental Biology)

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- Western based focus on literature in climate change
- Need to be more mindful of other countries/areas with this topic
- Literature offers many different ways of looking at climate change (fiction and nonfiction) Examples: Rachel Carson and Silent Spring for nonfiction and different genres for fiction
- Ecocriticism is a way to analyze literary works and climate change is only one aspect of that
- Scientific accuracy of literature and films??? How accurate are they? Does it matter?
- Take all the ideas to alter the future for climate change

**Table 9:** Making Teachers out of Students: Optimizing Action and Expression through Project-based Learning — Brandon Wallace (Education) and Ingrid (Van) Scott (Mathematics)

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- *These types of projects build leadership skills, specifically the ability to adapt.*

- *Communication is another power skill that can be developed for projects like this; we have to do better with enhancing communication skills, especially in our virtual communities.*
- *There can be a convergence between this work and the importance of embedding OERs into coursework.*
- *Students should be able to utilize this, e.g., peer-to-peer work and project-based learning because students have first-hand knowledge of the impact of global warming.*
- *Project-based learning: Allow sufficient time for planning, in-class work, and student check-ins.*
- *Resources have to be considered to cement students' understanding, specifically in the area of scaffolding and supporting students who may not have the technology to work alongside their more privileged peers.*