

Teaching Climate Change Across Disciplines

Session 1, Changing Planet Workshop, June 27 – 30, 2011, Dickinson College

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Summary of the Session: Drawing on arguments put forth in Mike Hulme's book *Why We Disagree About Climate Change*, we will examine sources of disagreement about climate change causes, consequences, and solutions and consider how they can inform our teaching. The discussion will be facilitated to produce a matrix (or framework) for teaching about climate change.

Background: This 90-minute session is part of a four-day workshop that brought together faculty from multiple colleges and diverse disciplines to work collaboratively on developing new and revised courses, explore engaged learning pedagogies, and add to their knowledge for interdisciplinary teaching about climate change within a liberal arts curriculum. The workshop was held twice on the campus of Dickinson College, first in summer 2010 and again in summer 2011. Participants came from more than 20 colleges and universities and with expertise in disciplines that span the sciences, social sciences and humanities. The workshops are part of a NASA supported project Cooling the Liberal Arts Curriculum, A Campaign for Climate Change Education (<http://communities.earthportal.org/changingclimate/>).

Objectives for the Session

- 1) Use Mike Hulme's *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity* as a starting point for a discussion about the teaching of climate change in a variety of undergraduate settings.
- 2) Move from small-group discussions of individual chapters in Hulme's book to a full-workshop discussion of the link between Hulme's thinking and a matrix (framework) for climate change pedagogy across the disciplines.

Agenda for the Session

- Presentation: Why did the Planning Group choose Mike Hulme's *Why We Disagree About Climate Change* as our single-source reference for introducing the issue of teaching climate change across the disciplines: humanities, social science, natural science. (5-10 minutes)
- Small Group Sessions: We will break into six small-groups to focus on specific topics in Hulme's book. These are the chapters that seemed particularly relevant as we considered the link between Hulme's ideas and the introduction of climate change into the undergraduate curriculum.

Each group will try to locate those parts of the “Changing Planet Matrix” with special relevance to the content of their chapter. (40-45 minutes)

- Reconvene: After each small group has a chance to discuss the elements of their chapter that seem most relevant to the effort to introduce the teaching of climate change into the undergraduate curriculum, we will reconvene for a facilitated discussion of the links between Hulme’s thinking and the matrix (framework) listed below (under “Topic Overview”). See also the current full “Changing Planet Matrix”—attached as an appendix before “References” (below).

Chapters and Groups

Participants were asked to read *Why We Disagree About Climate Change, Understanding Controversy, Inaction and Opportunity* by Mike Hulme prior to the workshop. Each participant was pre-assigned to one of the following five discussion groups:

Group 1

Chapter 1: “The Social Meaning of Climate.”

Chapter 10: “Beyond Climate Change”

Group 2

Chapter 2: “The Discovery of Climate Change.”

Chapter 3: “The Performance of Science.”

Group 3

Chapter 5: “The Things We Believe.”

Chapter 6: “The Things We Fear.”

Group 4

Chapter 7: “The Communication of Risk.”

Group 5

Chapter 8: “The Challenges of Development.”

Chapter 9: “The Way We Govern.”

Topic Overview

These nine chapters from Hulme’s book form an excellent starting point for thinking about climate change in relation to the undergraduate curriculum. The goal of the session is to connect Hulme’s ideas and analyses about the underlying reasons for disagreement about climate change with the organizing framework of our workshop, represented by the Changing Planet Matrix (see attachment), and consider how Hulme’s ideas and the matrix can inform our teaching. Through our discussions, we will seek to create a shared (organizers and participants) sense of how the entire group thinks about these matters and our multiple disciplinary ways forward into them. The product at the end of the session will be version of the Matrix with clear points of emphasis and with ideas that have been

reconsidered based on Hulme, our new thinking, and the input of the entire group.

Resources and References

1) Hulme, Mike. *Why We Disagree About Climate Change: Understanding Controversy, Inaction, and Opportunity*. Cambridge: Cambridge UP, 2009. The primary shared text for the Changing Planet Faculty Study Group at Dickinson. One of the best introductions to the broad issue of climate change and its connections to undergraduate teaching and learning.

2) Hulme, Mike. "Five Lessons of Climate Change: a personal statement." 28 March 2008. <http://www.mikehulme.org/wp-content/uploads/the-five-lessons-of-climate-change.pdf>

Hulme responds to criticism of his "pronouncements on climate change": "I have spoken out against the use of exaggerated language in the description of climate change risks; I have spoken about the limits and fragility of scientific knowledge; I have suggested that we should focus on nearer-term policy goals to improve human welfare rather than be so pre-occupied with one large longer-term goal of global climate management. As a consequence I have been accused of burying my head ostrich like in the sand; of undermining the power of science; of lacking passion about 'solving' the 'problem' of climate change."

3) Hulme, Mike. "The Science and Politics of Climate Change: Science never writes closed textbooks. It does not offer us a holy scripture, infallible and complete." *Wall Street Journal*. 2 December 2009. Web. <http://online.wsj.com/article/SB10001424052748704107104574571613215771336.html>. Hulme responds to criticisms of the recent "climategate" controversy which took place at the University of East Anglia in Norwich, England, his own university. Some of the emails involved were Hulme's.