

ENVS 420/520 Interdisciplinary Perspectives on Nature and Society

*Why are we failing to respond adequately to climate change?  
What can we do to really make a difference?*

Winter 2008, Prof. Peter Walker, TuTh 10-11:50, 204 Chapman



Dolphins, cockroaches, and vampire bats understand that cooperation is the key to survival. Why don't we?<sup>1</sup> Even the US administration has moved from denial (see above) to acknowledging growing risks of catastrophic fires, drought, floods, and ecosystem damage around the United States predicted as a result of the atmospheric buildup of carbon dioxide and other heat-trapping greenhouse gases. Most Americans believe climate change is real, and that actions should be taken. Yet, effective collective actions to prevent possible mass global extinctions (including ourselves) seem to elude us. In the United States, emissions of gases that contribute to global climate change are growing at the same rate that they did a decade ago. So, why does a species that thinks itself the most intelligent on the planet seem incapable of acting to prevent its own possible destruction? Greedy businesses and shortsighted leaders are clearly a problem; but leaders get away with inaction because *the public, as a whole, does not see limiting climate change as an urgent priority.*

We need a massive change of public awareness, attitudes, and behavior. We can't afford to wait for political "leaders". It's up *us*. But what can we do to increase public awareness and action? As the brain trust of society, students, scholars and university campuses have traditionally been a key incubator of social change. If the public and the leaders they elect don't care enough about climate change to act decisively, we must ask, what are *we* failing to do? Why is this such a tough problem? *What can we do now to make a real difference?* These are the key questions that this course will examine.

Most importantly, **the class will act on these questions. This course is highly participatory.** Grades will be based on: 1) **student contributions in the classroom** discussing the practical lessons from key readings about science, climate change, and public action; 2) bi-weekly quizzes; and 3) participation in **class projects** to apply ideas from the class by **organizing and producing a real-life, public "teach-in" and related activities to raise public awareness of the issue and present ideas and information about how the campus community can stimulate public consciousness and action.**

<sup>1</sup> Julia Whitty 2006 "The Thirteenth Tipping Point" *MotherJones* Nov-Dec, 45-51, 100-101

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### Participatory projects:

The main class assignment for this course will be a participatory project instead of exams or term papers. The main class project will be a “teach-in” at the end of the term (we are aiming for the evening of March 13). We will invite prominent experts and political leaders to speak at a public event to which all members of the general public and campus community will be invited. We will also announce the teach-in to local newspapers and radio and TV news. All students will make some contribution to helping to organize and publicize the teach-in. At the beginning of the course, students will also break into smaller, focused project teams (see below) that will be their main course activities during the term. At the teach-in, each project team will make a 5-minute presentation and a poster about their team’s activities.

Small-team projects: At the beginning of the term students will choose to participate in one of the following projects. Students will be encouraged to request their preference of projects, and the instructor and GTF will try—but can’t promise—to give each student their first or second choice. Each team will focus on ways to apply the information, concepts, and lessons from our assigned readings (which represent an array of *interdisciplinary* scholarship on the topic of global warming) and in-class discussions to a “real world”, hands-on project. Teams will meet outside class at least once a week. The prospective tasks for our small-team projects include:

- Create and maintain a class web page with information sources about local climate change activities
- Create webcasts and/or podcasts of class activities and information about climate change
- Create a Facebook page for the class
- Organize a voter education drive to increase awareness and understanding of the issues involved in an upcoming ASUO ballot initiative on the UO’s response to climate change
- Conduct research on the retreat of glaciers on Mt. Hood
- Create a lesson plan for a K-12 classroom education project on climate change
- Organize a wind energy campaign for the UO dorms
- Conduct a campus-wide survey of climate change awareness and attitudes on campus
- Create a Spanish-language outreach campaign
- Other activities proposed by students in the class

### Grading:

Course grades will be assigned on the following basis: 1) in-class participation and discussion of required reading materials for each day’s class—25 points; 2) bi-weekly quizzes (5 x 5 points each = 25 ); 3) participation in the small-team projects and contributions to the end-of-the-term teach-in—50%.

Classroom participation: Your in-class participation will be assessed by Professor Walker and the graduate teaching assistant. As instructors, we understand that different students will come to the class with different levels of knowledge about the subject and different levels of comfort with public speaking. You will be graded on demonstrated effort and the quality of your contributions to the discussion (not merely on volume of words).

Quizzes: There will be an in-class quiz at the end of each two weeks. Each quiz will count for 5 percent of the final grade. The primary purpose of the quizzes is to enforce consistent reading of the required reading materials. Quiz questions will be taken directly from the readings. Rote memorization of readings is not required; rather, the quizzes will focus on the key “big picture”, “take-home” messages.

Participatory projects: Student grades in the participatory projects will be primarily based on *peer-evaluation* and individual student *activity journals* recording individual contributions to the team projects. Each member of each small-team project will anonymously evaluate the contributions of the other members of the project, and these anonymous evaluations will be handed in to Professor Walker. Each student will have an opportunity to read the peer evaluations of her/his contributions to the projects. If an individual student disagrees with the peer evaluations, s/he will have the opportunity to clarify their

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position to Professor Walker individually and anonymously. Further evaluation of individual student contributions to the participatory projects will be made on the basis of a journal/notebook in which each student will record each of their individual contributions to the small-group projects and to the teach-in. Professor Walker and the graduate course assistant will assign final project participation grades on the basis of peer evaluations, individual consultations with students as requested, and the quality of individual participation as recorded in individual journals. It is imperative to record every activity/contribution to the projects as these take place, rather than at the end of the course (when memories will have faded).

### Keeping it in the here and now:

Global warming/climate change is a topic that is in the news frequently as the science, culture, and politics of the issue develop and change. As scholars and activists, the quality of our work depends fundamentally on remaining well informed about recent developments on this topic. The quality of classroom discussions and contributions to the participatory projects in this course will be greatly enhanced by regularly monitoring recent events in the news from sources such as:

*Global Warming in the News:* <http://globalwarminginthenews.com/>

*Climate Wire:* <http://www.climatewire.org/>

*The Washington Post's* climate section:

<http://www.washingtonpost.com/wp-dyn/content/linkset/2006/05/03/LI2006050300853.html>

*The New York Times'* environment & earth science section:

<http://www.nytimes.com/pages/science/earth/index.html>

BBC's climate section:

[http://news.bbc.co.uk/2/hi/science/nature/portal/climate\\_change/default.stm](http://news.bbc.co.uk/2/hi/science/nature/portal/climate_change/default.stm)

For articles about business and climate:

[http://www.gsb.stanford.edu/library/articles/hottopics/climate\\_change.html](http://www.gsb.stanford.edu/library/articles/hottopics/climate_change.html)

Union of Concerned Scientists' global warming page: [http://www.ucsusa.org/global\\_warming/](http://www.ucsusa.org/global_warming/)

Intergovernmental Panel on Climate Change (IPCC): <http://www.ipcc.ch/>

ABC News global warming page: <http://abcnews.go.com/Technology/GlobalWarming/>

*Science Daily* global warming news:

[http://www.sciencedaily.com/news/earth\\_climate/global\\_warming/](http://www.sciencedaily.com/news/earth_climate/global_warming/)

In the project groups, each team member should be responsible for monitoring the news on at least one of these sites (or other proposed sites—check with Professor Walker or the graduate assistant) each week and reporting back to the group on any developments that are particularly relevant to the group project.

### Required texts:

There are three required books and a number of selected articles for this class. The required books are:

- ***The Rough Guide to Climate Change 2 (2008)*, by Robert Henson**
- ***Heat: How to Stop the Planet from Burning (2007)*, by George Monbiot**
- ***Fight Global Warming Now: The Handbook for Taking Action in Your Community (2007)*, by Bill McKibben;**

These books will be available at the UO Bookstore. All articles will be posted in PDF format on [blackboard.uoregon.edu](http://blackboard.uoregon.edu).

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COURSE OUTLINE

January 8: Introduction and organizing

January 10: Guest speaker Steve Mital, Environmental Leadership Coordinator, on group projects

**PART I: FRAGMENTED KNOWLEDGE, AND PUTTING THE PIECES BACK TOGETHER**

January 15: On interdisciplinarity and environmental knowledge

**Required readings:**

Norgaard, R. B., and P. Baer. 2005. Collectively seeing climate change: The limits of formal models. *Bioscience* 55 (11):961-966.

Lele, S., and R. B. Norgaard. 2005. Practicing interdisciplinarity. *Bioscience* 55 (11):967-975.

Norgaard, R. B. forthcoming. Finding Hope in the Millenium Ecosystem Assessment. *Science*.

**Recommended readings:**

Norgaard, R. B., and P. Baer. 2005. Collectively seeing complex systems: The nature of the problem. *Bioscience* 55 (11):953-960.

Latour, Bruno. 1993. *We have never been modern*. Cambridge, Mass.: Harvard University Press.

January 17: Humans and climate change in history

**Required readings:**

Gore, Albert. 2006. Earth in the balance: ecology and the human spirit. [New York]: Rodale. Ch. 3, "Climate and civilization: a short history"

Glantz, Michael H. 2003. *Climate affairs: a primer*. Washington, DC: Island Press. Excerpts: "Seasonality", pp. 32-41; "Three perspectives about climate", pp. 42-48; "Africa", pp. 89-98

deMenocal, P. B. 2001. Cultural responses to climate change during the Late Holocene. *Science* 292 (5517):667-673.

January 22: Politics of climate science and action

**Required readings:**

Henson 2008, Part 4, "A heated debate", pp. 235-313

Monbiot 2007, Ch. 1, "A Faustian pact", pp. 1-19

**PART II: PERSPECTIVES ON CLIMATE CHANGE SCIENCE**

January 24: **SPECIAL EVENT (recommended but not required):**

Video: *An Inconvenient Truth*, 7:00pm (100 Willamette Hall)

January 24: Global climate change science, Part I

**Required readings:**

Henson 2008, Part 1, "The basics"

Henson 2008, Part 2, "The symptoms"

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### January 29: Global climate change science part II

Henson 2008, Part 3, “The science”

### PART III: CLIMATE CHANGE POLITICS

#### January 31: Skeptics, politics, and solutions

Henson 2008, Part 4, “Debates and solutions”

Monbiot 2007, Ch. 2, “The denial industry”, pp. 20-42

#### February 5: The media

Boykoff, M. T., and J. M. Boykoff. 2004. Balance as bias: global warming and the US prestige press. *Global Environmental Change-Human And Policy Dimensions* 14 (2):125-136

Boykoff, M.T. (forthcoming) Lost in Translation? United States Television News Coverage of Anthropogenic Climate Change, 1995-2004 *Climatic Change*;

Tony Leiserowitz “Before and After The Day After Tomorrow” *Environment* November 2004, 22-44

#### February 7: Risk perception & response

Palfreman, Jon. 2006. A tale of two fears: exploring media depictions of nuclear power and global warming. *The Review of Policy Research* 23 (1):23(21).

Leiserowitz, A. 2006. Climate change risk perception and policy preferences: The role of affect, imagery, and values. *Climatic Change* 77 (1-2):45-72.

Monbiot 2007Ch. 3, “A Ration of Freedom”, pp. 43-58

### PART IV: SOLUTIONS

#### **Recommended:**

Scientific American magazine Sept. 2006, special issue: Energy’s future beyond carbon

*Science Magazine’s State of the Planet*, by Donald Kennedy (ed), 2006

#### February 12: Conservation

Monbiot 2007, Ch. 4, “Our leaky homes”, pp. 79-99

Monbiot 2007, Ch. 5, “Keeping the lights on”, pp. 79-99

#### February 14: Alternative technology & social organization

Monbiot 2007, Ch. 6, “How much energy can renewable supply?”, pp. 100-123

Monbiot 2007, Ch. 7, “The energy Internet”, pp. 124-141

#### February 19: Transportation

Monbiot 2007, Ch. 8, “A new transportation system”, pp. 142-169

Monbiot 2007, Ch. 10, “Virtual shopping”, pp. 189-203

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**PART V: CLIMATE CHANGE ACTIVISM**

**Recommended:**

*Dead heat: global warming & social justice*, by Athanasiou & Baer 2002; 2<sup>nd</sup> Ed. to be released in 2008

**February 21:**

McKibben 2007, Introduction-Ch.2

Lakoff, George. 2004. Winning words. *Sierra Magazine* (July/August).

**February 26:**

McKibben 2007, Chs. 3-5

**February 28:**

McKibben 2007, Ch.6-Afterword

**PART VI: CONCLUSIONS & PRESENTATIONS**

**March 4: Where there's a will there's a way?**

Monbiot 2007, Ch. 11, "Apocalypse postponed"

Schellenberger, Michael, and Ted Nordhaus. 2004. "The Death of Environmentalism"

**March 6: The need for collective action**

Whitty, Julia. 2006. The Thirteenth Tipping Point: Twelve Global Disasters and One Powerful Antidote. *Mother Jones*:44-51, 100-101. ([http://www.motherjones.com/news/feature/2006/11/13th\\_tipping\\_point.html](http://www.motherjones.com/news/feature/2006/11/13th_tipping_point.html))

Emanuel, Kerry. 2007. Can We Stop Global Warming? Phaeton's Reins: The Human Hand in Climate Change. *Boston Review* (January/February)

**March 11: IN-CLASS GROUP PRACTICE PRESENTATIONS**

**March 13: IN-CLASS GROUP PRACTICE PRESENTATIONS**

**MARCH 13 FINAL PROJECT PRESENTATIONS: 7:00-8:30PM 100 WILLAMETTE HALL**