

Thinking through the Future of Climate Change with Fiction

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Overview: What happens when scientists use fiction to envision our future in a world radically altered by climate change? Who is most thoroughly to blame for our inability to sufficiently react to the horrific, even apocalyptic, future we're told is coming for our children and grandchildren? This module dives into these questions via the short book [*The Collapse of Western Civilization*](#), written by Naomi Oreskes and Erik M. Conway. In this short, reader-friendly essay, Oreskes, a science writer who [permanently changed how we talk about climate change](#), and Conway, a NASA historian, write a "history of the future" from the vantage point of 2093. The book offers a unique perspective on climate change and the future we're heading towards by using fictional narrative, rather than relying on models and graphs, and by adopting a tone equally shocking to readers accustomed to thinking about climate change in terms of numbers and to readers who envision our future as an apocalyptic wasteland. Of particular interest is the book's frank discussion of the failure of scientists to communicate their findings with the public and their commitment to hallowed principles like statistical significance and the burden of proof. Ultimately, the book and the module prompt fascinating discussions about what Oreskes and Conway call "the most startling aspect" of their story: "the people of Western civilization knew what was happening to them but were unable to stop it. Knowledge did not translate into power."

Goals: Some learning outcomes for this module include:

- Arriving at new ways of thinking about future climate change impacts
- Understanding the significance of real-world implications of scientific norms, such as "statistical significance," and their contingency
- Recognizing the profound gap between scientific knowledge and direct action that emerges from that knowledge
- Becoming more familiar with how energy is produced and regulated
- Considering how the form and genre through which scientific findings are conveyed influences how effectively they are understood

User Guide: The core of this module is its slideshow, which can be shortened or altered as you see fit. Each slide contains "Speaker Notes" that offer more context and explanation. Right now, it contains the following:

- Slides 2-4: Images that offer examples of how and in what forums climate change science is discussed, and images that offer popular examples of how we depict a future altered by climate change
- Slides 6-7: A super-brief introduction to the book *The Collapse of Western Civilization*.
- Slides 8-11 are intended to produce in-class discussion, either in groups or as individual reflective writing assignments
- Slides 12-15 present a guided group activity, during which students research a topic in class and then present their findings to the rest of the class

- Slides 16-20 contain a sample Writing Assignment that asks students to examine and compare different genres via which climate change can be communicated, discussed, depicted, and understood
 - Slide 17 contains hyperlinks to examples of various genres

Materials

- Reading:
 - *The Collapse of Western Civilization*
 - This book was chosen for this module because it is 104 pages (including “Lexicon of Archaic Terms” and an interview with the authors). The paperback is less than \$10 on [Amazon](#). And it is also available in an earlier, even more accessible form: the 19 page version published in *Daedalus* ([PDF](#))
- Slideshow
- TED talk by Naomi Oreskes: “[Why we should trust scientists](#)”
 - This 20 minute talk does a quick “history of science” lesson about how scientific consensus is achieved

Sample Implementation: This module could be used in a single 75 minute class period if students are able to read the short book ahead of time. It could also be extended over two or even three class periods if class time is also used for other things. The writing assignment could be altered so that it was instead a brief homework assignment, an in-class writing assignment, or even presentations.

I believe this module would work well in any environmental science course, especially ones focused on issues related to climate change or global warming. The book, while a work of fiction, is not at all “literary” and makes for a quick read.

One other option would be to summarize some of the key arguments of Oreskes and Conway’s book without having students read it, and then have them discuss various ways of communicating scientific information that they are themselves aware of.