Cases for Teaching Responsible Communication of Science

Extreme weather, extreme communication? Annotated bibliography

These readings are short, often opinionated, and mostly available online.

Potential readings for all groups:

Forum: Is extreme weather linked to global warming? (2011, June 2). *Yale Environment 360*. Retrieved from http://e360.yale.edu/feature/forum_is_extreme_weather_linked_to_global_warming/2411/

Eight scientists give short and diverse replies to the question: Is human-caused global climate change contributing to an increased incidence of extreme weather?

Pielke, Roger. (2007). The Honest Broker. *Bridges, 13* (April). Retrieved from http://cstpr.colorado.edu/admin/publication_files/resource-2518-2007.15.pdf

Four roles that scientists can play when communicating with the public.

Safina, Carl. (2012). Why communicate science? *APS News, 21*(9), 8. Retrieved from http://www.aps.org/publications/apsnews/201210/backpage.cfm

A rousing call for scientists to engage with the public, primarily to promote trust and open conversations.

Potential readings for A.C. Scientists group: stressing the value of accurately conveying scientific results, complexities, caveats, limitations and all

Lombrozo, Tania. (2012, October 24). Should scientists promote results over process? *NPR Cosmos & Culture.* Retrieved August 17, 2013, from http://www.npr.org/blogs/13.7/2012/10/24/163551623/should‐scientists‐promote‐results‐over‐process

More important than communicating scientific information is communicating about the scientific process—including the uncertainties and doubts.

Nielsen-Gammon. (2013, February 11). Scientific meta-literacy. *Climate Abyss.* Retrieved from blog.chron.com/climateabyss/2013/02/scientific-meta-literacy/

Ordinary citizens aren't equipped to judge which purported scientific statements are true. Instead, they need "meta-literacy" to figure out which scientist to trust; and scientists can help by avoiding politicization.

Potential readings for Brady Bernays group: stressing the value of vivid, high-impact communication, especially on extreme weather events

Climate Nexus. (2012). Connecting the Dots: A Communications Guide to Climate Change and Extreme Weather. Retrieved from http://climatenexus.org/wp-content/uploads/2012/02/connectingthedots.pdf

Detailed advice about how use the occasion of extreme weather to communicate a powerful message about climate change.

 This material is based upon work supported by the National Science Foundation under Grant Number 1237495. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Nisbet, Matthew C. (2009). Communicating Climate Change: Why Frames Matter for Public Engagement. *Environment, 51*, 514–518. Retrieved from http://www.environmentmagazine.org/Archives/Back Issues/March-April 2009/Nisbet-full.html

In today's partisan environment, is not enough to communicate factually—to be effective, communication must frame information to ensure that audiences perceive its relevance to their interests and needs.

Potential readings for Chris Critic group: stressing the need for scientists to avoid policy advocacy, and for caution in communicating about extreme weather

Edwards, Tamsin. (2013, July 31). Climate scientists must not advocate particular policies. *The Guardian*. Retrieved from http://www.theguardian.com/science/political-science/2013/jul/31/climate-scientists-policies

A recent and vigorous opinion piece, responded to by Rennie, below, and many others.

Luers, Amy. (2012, November 13). Tread carefully linking extreme weather to climate crisis. *The Daily Climate*. file://localhost/Retrieved from http/::www.dailyclimate.org:tdc-newsroom:2012:11:opinion-sandys-climate-caution

Relying on extreme weather events to arouse attention and concern about climate change may backfire; what is needed is not short-term anxiety but a long-term cultural shift.

Potential readings for Dale Director group: stressing the importance of advocacy by scientists

Hoffman, Andrew. (2011, June 24). Don't ignore climate skeptics – talk to them differently. *Christian Science Monitor*. Retrieved from http://www.csmonitor.com/Commentary/Opinion/2011/0624/Don-t-ignore-climate-skeptics-talk-to-them-differently

Climate science has been caught in a "culture war." More information will not solve the problem. Nor should skeptics be ignored. Instead, it is possible to communicate with skeptics on their own ground.

Rennie, John. (2013, August 9). The inevitable politics of climate science. *The Gleaming Retort*. Retrieved from http://blogs.plos.org/retort/2013/08/09/the-inevitable-politics-of-climate-science-part-1/

A defense of advocacy by scientists, in response to Edwards, above.