

**Climate Scientists as Cassandra?
Complexity, Communication, and Democracy**

J. Robert Cox – March 22, 2011
Brigance Forum Lecture for Wabash College

Thank you. I am delighted to be here, and I would like to thank Dr. Jenny Hamilton and the faculty of the Rhetoric Department for inviting me; and, to the family, friends, and former students of the late William Norwood Brigance, I thank you for making possible this annual lecture. I'm deeply honored. Last September, at the Public Address Conference in Pittsburgh, I chanced to have dinner with two former Brigance Forum speakers. When I mentioned that I had been invited, one exclaimed, "You're giving the Brigance lecture! They're so friendly there." You clearly made an impression.

— Professor Brigance's work altered our field, and it is fitting on this occasion to remember a scholar, professor, and shaper of the 20th century movement to place the study of communication firmly within the humanities. I can recall the impression his groundbreaking text, *History and Criticism of American Public Address*, had on me as a junior at the University of Richmond in the late

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They come at us with great rapidity and great complexity. And whether or not the system -- the constitutional system --

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commentators for whom every snow storm is fodder for the failures of Al Gore or “proof” that global warming is a myth.

I’ve asked myself many times—though I have worked in this area for years—why is climate change or climate science—admittedly, areas of enormous complexity—so contentious, so prone to hyperbole, *ad hominem*, and cynicism in our public life? My broader question, however, is this:

Are democratic publics—committed to the idea that our best decisions arise from open scrutiny and debate—also capable of addressing great complexities? And if not, what then are the barriers to doing so, and where within the communicative spaces of our public life do these barriers arise?

I pose these because I believe, implicit in them, is a more troubling question about the adjudication of knowledge itself. In my time with you, then, I want to argue that there are *accelerating changes in the sites of production and the distribution of knowledge about science*

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policies have declined in salience? There is some evidence for the latter. A Pew Research poll finds that only 28% of Americans believe climate change should be a “top domestic priority;” putting it last, and behind jobs, the economy, and national security (Revkin, 2009). And a new Gallup (2011) poll last week found, only 51% said they "worry a great deal or fair amount" about global warming, down from 66% in 2008.

I believe it would be wrong, though, to attribute this simply to the economy. I believe something else is happening. Opinion polls also show that Americans *are uncertain about the basic conclusions of climate science and whether scientists themselves believe warming is occurring.*

For example, 48% of Americans believe that the seriousness of global warming is "exaggerated;" this is the highest skepticism in Gallup’s survey since it first asked this question in 1997. Similarly, in the last three to four years, there has been a growing uncertainty that human activities play any significant role in global warming. And, there has been increasing uncertainty as to whether scientists believe that such warming is actually occurring (Gallup, 2010).

Finally, a survey by Yale University finds a small, but disturbing trend—trust in scientists themselves has declined by almost 10% percent in just the last two years. Anthony Leiserowitz, the principal investigator for the survey told CNN that, along with the decline in those believing that global warming is happening, “these are steep drop offs and this is despite the fact that, if anything, the climate science is getting stronger” (“Americans Cooling on Climate Change,” 2010, para. 5). So what is happening?

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Complexities and Causes of Climate Shifts

First, let's be clear, climate science is hard to communicate: It *is* complex: Even the phrase "global warming" is misleading: We're invited to view it as *slow, occurring evenly and everywhere at the same time*. Hence, it seems counter-intuitive that, while winter snows can occur in the Midwest, record droughts are spreading in the Southwest and temperatures in northeast Canada and Greenland this winter are running 15-20 degrees *warmer* than average.

And then, add the complexities in the climate system itself:

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their grasp of the science. A full 52 percent would get an F (Leiserowitz, Smith& Marlon, 2010, p. 3).

If the problem were simply the public's lack of education, the answer would be clear—
better science communication, and media that competently translate scientific expertise for a lay

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production

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30% smaller than in 2000 (“Overview, p. 1). Pew concludes, this has left “the largest newsrooms in most American cities bruised and necessarily less ambitious than they were a decade ago” (“Key Findings,” p. 6).

And, while online versions are springing up, these still depend on news staff to produce content, and therein lies the problem. When the *Seattle Post-Intelligencer* moved online, for example, it slashed its news staff of 165 reporters and began operating online with only 20 (Yardley & Pérez-Pena, 2009). As a consequence, the Pew *State of the News Media* in 2010 found that, even the best of the online media sites “still have limited ability to produce content. [And that] capacity ultimately ... will depend on finding a revenue model far larger than what exists today.”

And as media cut staff, there is inevitably a loss of science expertise. Some are eliminating entire beats: The *San Jose Mercury News* reports that, “two decades ago nearly 150 papers had a science section. Now fewer than 20 are left, and [these] ... usually dedicate their scarce column inches to lifestyle and health” (Daly, 2010, para. 16). The Yale Forum on Climate Change and the Media put it bluntly: “The ranks of reporters best equipped to cover ... major environmental and climate change stories at most news outlets, particularly in local markets, are being decimated.” (Daley, 2010, para. 6).

And, the trend is similar in network and cable TV. In 2008, for example, CNN cut its entire science, technology, and environment news staff, and the Weather Channel cancelled its weekly climate program, "Forecast Earth." With its news staff cut, cable news is increasingly filling its time slots with opinion journalism.

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Alternative Sites of Production and Distribution

At the same time that newsrooms shrink, Pew's *State of the News Media* reports, the number of *non*-journalistic players entering the information and news field is growing rapidly. These newer players include corporations, ideological think tanks, activist bloggers, and online "pass-through" sites or "aggregators." Aggregators, like Yahoo and Google News, collect a wide variety of web content—headlines, podcasts, videos, tweets, and posts in the blogosphere—and re-post these in a single location for easy distribution to other media outlets.

As a result, the production of climate news (and commentary) is now generated increasingly in a milieu of alternative media platforms, sources of "knowledge" claims, and competing ideological agendas. Climate skeptics, especially, have proven adept at exploiting the decline in traditional science journalism and the explosive growth of online aggregator sites.

One of the most popular of these sites is the conservative Drudge Report. Drudge ranked 2nd in market share for political news websites recently. It's known for its provocative, daily headlines available for download by the producers from cable news and other outlets. Drudge is also a prolific aggregator of sensational news or opinion about climate change, often posting commentary from climate denialists' blogs and other marginal sites. Its headlines have included: "Obama climate czar has socialist ties" and "Global cooling? 30 years of warmer temperatures go poof!"

As a result, it is more likely that a cynical post about climate change—if it has enough "edge"—will be more quickly distributed by an aggregator like Drudge than a report from a leading science journal. For example, Drudge, one of the largest aggregators, gets over 2 million hits daily (and 14 million unique visitors monthly) from reporters, editors, cable TV news producers, and individuals, searching for headlines that attract audiences. Consider this headline,

used by Fox News, last January: “*30 Years of Global Cooling Are Coming, Leading Scientist Says*”:

From Miami to Maine, Savannah to Seattle, America is caught in an icy grip [which] one of the U.N.'s top global warming *proponents* says could mark the beginning of a mini ice age. ... It could be just the beginning of a decades-long deep freeze, says Professor Mojib Latif, one of the world's leading climate modelers. (FoxNews.com, 2010)

At the time of its report, Fox News placed at the top of the most-watched cable networks, logging the most viewers in prime time with 3.2 million. And, Dr. Latif is, in fact, one of the world's leading climate scientists. There was only one problem with the Fox News report: It was blatantly false. When a reporter phoned Latif to confirm the Fox story, Latif replied, "I don't know what to do. They just make these things up" (Romm, 2010, para. 1).

The source of the Fox News error was apparently an online post at the *Daily Mail*, a UK newspaper, titled “The Mini Ice Age Starts Here.” The blogger had misquoted Dr. Latif, but the post was picked up by the Drudge Report and other aggregators and quickly distributed to other papers, bloggers, cable news producers, and then posted by FoxNews.com.

Latif himself had previously objected to such misquoting. Two months earlier, he told National Public Radio that climate skeptics were misusing his work to suggest we were headed for a period of “global cooling.” His research, he explained, had merely suggested a few years “hold” in temperatures, when human-caused warming might be partly offset by ocean cycles; “these short-term changes,” he said, “are much smaller than the long-term warming trends. So ... we are not talking about a net cooling;” after this “hold,” warming would accelerate again (NPR, 2009, para. 14, 10).

general—did find that some of the scientists used intemperate language or, ridiculed climate skeptics; the most serious finding was that some scientists were overly cautious, refusing to share their data with critics. None of the inquiries, however, found anything in the emails to question the basic science (Gulledge, 2011).

Despite these findings, “many people were left wondering whether climate change was really as much of a threat as it had been made out to be” (Rigg, 2011). The reason is not hard to find.

On his CNN Sunday news show “Reliable Sources, Howard Kurtz pointed to the disparity between the amount of coverage that Climategate had received in the media when the controversy first broke in late 2009, and the amount of media attention it got after the investigations had cleared the scientists. Kurtz noted, for example, that when the hacked e-mails were first leaked, Fox TV’s Glenn Beck called global warming a “big hoax” and asked, with no trace of irony, “Why has no network covered this global warming fix?” Yet, after the inquiries exonerating the scientists, Beck had no comment (Rousey, 2010, para. 3).

While Climategate stories have died down, similar narratives of scandal, falsifying of data, and charges of unethical behavior by climate scientists continue to percolate in popular blogs and stirred by aggregators like Drudge. For example, top “news” feeds on the Drudge Report just two weeks ago included:

--“2010 tied for 'hottest' year?! Relax, it is 'purely a political statement’” and,

--“Close the EPA - 'It's time to stop funding carbon mysticism with taxpayer dollars,”

As a result, we confront what sociologist Ulrich Beck (2009) identified as the question of contemporary society: What counts as proof, he asked, “in a world where [both] knowledge and lack of knowledge ... are inextricably fused” (p. 320).

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The old model of news—a media monopoly, singular, authoritative—is dead. But is another model still possible? One that is open, pluralist, but that also serves a public well? The evidence to date is not promising. While information sources and opinion have proliferated, our

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In answering this, I can hear Professor Brigance reminding us, the rhetorical arts still

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