Ogmius

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CENTER FOR SCIENCE AND TECHNOLOGY POLICY RESEARCH
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CIRES

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Inside this issue:

Introduction to Ogmius Exchange

This issue of Ogmius features an article by Center for Science and Technology Policy Research ("Policy Center") director William (Bill) Travis about the conundrum faced by city managers trying to prepare for infrequent but severe snowstorms. Bill Travis is also an Associate Professor of Geography at the University of Colorado, Boulder. His teaching and research focus on human behavior in the environment, including studies of the human dimensions of climate change, land use and the interaction of people and ecosystems. His current projects focus on the theme of potential social response to extreme climate change, including warning systems, the most transformative and difficult adaptive choices, and geo-engineering responses in the face of a "climate emergency."

Comments welcome!
info@sciencepolicy.colorado.edu

Ogmius Exchange
Snowmageddon Policy and Politics
By William R. Travis

The Policy Center's seminar series this year has focused on how individuals and groups deal with uncertainty and risks. Seminar topics range from decisions about global change and geo-engineering to the use of weather forecasts and whether to evacuate in front of hurricanes. While we grappled with theory and case studies, decision-makers from London to New York to Atlanta were struggling with one of the oldest policy conundrums of city management in the mid-latitudes: how to clear the streets, rails, and runways of snow. While these newsworthy snowfalls inevitably fed the debate about climate change, they tell us little or nothing about such trends and instead remind us of a more prosaic problem known to any student of decision making: sometimes the problem is not as much about uncertainty as it is about the absence of good choices.

After a December snowstorm brought the city to a standstill, New Yorkers were not shy in criticizing officials, especially the mayor, for the slow recovery, and, alas, some were equally quick with the jokes when city officials appeared over-prepared for the next threatening storm, which fizzled. Ungrateful citizens, who felt that snowplows were rather too scarce in the blizzard two weeks earlier, poked

Ogmius Exchange Continued

the city for fielding "one truck for every flake" (http://cityroom.blogs.nytimes.com/2011/01/07/early-on-about-one-truck-for-every-snowflake) for less than an inch. At least New York has the equipment. When Atlanta had its own snowpocalypse in mid-January, that city's handful of sanding and plowing trucks, which spend many a winter unused, also couldn't cope. The mayor apologized, but in response to reporters' persistent questions about whether the city had properly prepared in advance given weather forecasts of a serious storm, the mayor put his decision-making quandary bluntly: the city, he said, "shouldn't purchase mass amounts of equipment that we may never use again" (http://news.blogs.cnn.com/2011/01/11/amid-growing-criticism-atlanta-increases-snow-response-fleet-from-10-to-58-pieces). He also noted that just before the storm he had doubled the city's available equipment, from 10 to 20 plows or sanders. The unusually deep and persistent snowfall for a southern metropolis had Atlanta out-bidding other municipalities to hire more equipment. But it wasn't enough.

The dilemma of maintaining adaptive capacity that rarely gets utilized is a very old one, faced by electric utilities and many other service providers. It is the natural condition of all emergency response systems which are designed to operate only in rare circumstances, and are often neglected during routine times. The pendulum from being caught unprepared, to over-preparedness, is the stuff of late-night talk show jokes, and also the history of hazards and disaster planning. Extreme events demand preparedness, but also occur infrequently enough that the long "waiting time" between them simply erodes preparedness.

Atlanta's mayor is right: a big investment in snowplowing equipment is simply not justified by the city's climate, but that logic won't help if, as he rolls the dice next winter, nature produces another paralyzing coat of ice and snow. Many a mayoral career was cut short by unplowed snow. A similar policy conundrum faces British transport managers who also took a public shellacking this year as a winter storm laid down persistent snow and ice. All these snowstorms were perhaps one in 20- to 25-year events, an awkward period ill-suited to cycles of capital equipment and emergency preparedness. And all the affected bureaucracies are now considering greater investments in snow-fighting so that planes, trains and cars can go on through the storm. But it is telling that Atlanta doubled its snow-fighting fleet ahead of the storm, a 100% increase, and eventually, by calling in contractors from all over, put over 58 pieces of equipment to the task, a five-fold bump that still left the residents dissatisfied. Just how much snow-fighting capacity would they need?

Early in natural hazards research a group of economists,

geographers, engineers, sociologists and psychologists grappled with the conundrum of preparing for rare events, of decision-making and investment under uncertainty (White and Haas, 1975). In some cases, like earthquake and flood, they argued that reducing the uncertainty and exposure could aid mitigation: map flood plains and calculate earthquake risks, then build in ways that put less value at risk. But when it came to the hazard of the occasional big snowstorm, they identified the dilemma faced by New York, Atlanta, London and dozens of other places not subject to routine big snows: the investment in equipment, consumables, labor, and command and control systems necessary to keep airports and city streets clear in big events was simply not justifiable for the risk (Howe and Cochrane, 1974). One solution was what Atlanta tried not very successfully: seek supplementary and temporary resources. Another was: don't fight it, don't spend more to control the snow, but expect less and simply absorb the lost mobility (Cochrane and Knowles, 1974). The inefficiencies of preparing for the big event whose return period was roughly the lifetime of capital stock needed to fight it are hard to avoid, so they called for more use of the soft alternative: snow holidays. We should plan to temporarily forego customary mobility, providing only emergency services while most institutions simply shut down. The federal government in DC, another city in the awkward position of mostly mild winters punctuated by the rare big storm, has applied this lesson for several years now, to good effect during its own snowmageddon last winter. The airlines are still learning it, increasingly cancelling flights in advance of snowstorms rather than waiting for the system to come to a screeching halt with people and equipment everywhere.

But the pressure to keep going is strong, bad decisions are still made, and those early hazard researchers recognized a barrier to their proposed snow holiday: when city officials call a "snow day" they will be blamed for lost business and forced days off, but if they fight it, then when the snow finally piles too high and the last snowplow driver is forced back to the maintenance shed exhausted and defeated, citizens will blame

Ogmius Exchange Continued

nature, not decision-makers. No doubt city leaders apologizing for poor snow removal this year are looking, in these tight fiscal times, for budget lines to raid for more snow plows. Probably not good policy, but maybe good politics.

Cochrane, H.C. and B.K. Knowles (1974) *The Urban Snow Hazard in the United States: A Research Assessment*. Natural Hazards Research and Applications Information Center monograph 18, University of Colorado, Boulder, 60 pp.

Howe, C. W. and H.C. Cochrane (1976) A Decision Model for Adjusting to Natural Hazard Events with Application to Urban Snow Storms. *The Review of Economics and Statistics* 58: 50-58.

White, G.F. and J.E. Haas (1975) *Assessment of Research on Natural Hazards*. MIT Press, Cambridge, Mass.

William Travis
william.travis@colorado.edu

Research Highlight
Media and Climate-Related Responsible Behavior

Introduction

This Research Highlight describes the work of Gesa Lüdecke, a Ph.D. student at the Institute for Environmental and Sustainability Communication, Leuphana University, Lüneburg, Germany, who visited the Center for Science and Technology Policy Research last semester. Gesa's research examines the impact of TV coverage of climate change issues on "climate-related responsible behavior" among German adolescents.

Gesa studied Environmental Sciences with an emphasis on informal learning, sustainable development, and media communication. After graduating she worked on an EU co-financed multinational project concerning coastal flood and erosion management between coastal management authorities in five North Sea countries (Denmark, Germany, Netherlands, Belgium and United Kingdom), focusing on developing a communication strategy for the coastal population in the federal state of Schleswig-Holstein, Germany.

Media and Climate-Related Responsible Behavior by Gesa Lüdecke

This research has explored how television programs that focus on climate change issues have impacted German teenagers' actions regarding climate protection (so called "climate-related responsible behavior"). The work will be completed in September 2011.

As climate change has emerged as a critical 21st century challenge, public discussions in Germany have focused on achieving a fundamental transformation of the relationship between society and the environment. Besides political/ governmental adaptation or mitigation strategies to tackle global warming (e.g. technological innovations), significant transformations at the individual level have also been deliberated.

In this work, individuals have indicated a willingness to tackle climate change. However, an absence of incentives in Germany has made the gap between awareness, intended behavior and action-related behavior highly visible. In this context, incentives for action have been deemed necessary to encourage active sustainable behavior.

Public discourses on climate change in Germany have taken place significantly through the media, and have supported the individual as well as societal formation of beliefs and attitudes toward climate change. In this context, television has been the primary medium to gather information. With origins in media socialization literatures, this research has interrogated how television has carried, contested and communicated normative and cultural values of young adults, as deeply linked to their social reference systems ("peer-group").

In this context, this research pursued questions such as the following: What is the significant role that television plays as the mainly used mass medium (in Germany) in forming public

Research Highlight Continued

opinion, particularly among adolescents? How has it fostered or impeded individual climate-related responsible behavior? Concerning young adults, what is the role of interpersonal communication, social norms or group dynamics in the individual's rethinking and redefining of values, opinions, and attitudes, and in taking action regarding climate protection?

Numerous studies on climate change in the media have asked if and how issues like environment, sustainability, and climate change have been represented in the media. Other studies have dealt with the question of media genesis of climate change over the past three decades and how the issues have been framed in media broadcasting. Largely, there has been a focus on print media, and television research has scarcely been considered in that context. In addition, little thought has been given to behavioral intent and patterns for climate protection and the connection with media use.

Therefore, this project has examined what influence media have had on people's behavior concerning climate issues. This has been particularly important in terms of public broadcasting in Germany that has an educational mandate to inform and educate people about climate change and climate protection issues.

This research has included a content analysis of a significant selection of television broadcasting about climate change, as well as interviews with teenagers. This empirical approach has sought to, first, disclose television's way of telling the public about climate change, and second, to understand teenagers' appraisal of the relevance of television formats on climate change, considering their own predisposition to climate-related responsible behavior.

Gesa Lüdecke
luedecke@uni.leuphana.de

Center News
The Climate Fix

Roger Pielke, Jr.'s book "The Climate Fix" has been listed as one of the best books of 2010 by The American Society of Landscape Architects: http://dirt.asla.org/2010/12/08/best-books-of-2010.

Roger went on a book tour this fall to promote The Climate Fix which included stops in Rome and Bergamo, Italy; Washington, DC (National Press Club and Embassy of Austria); San Francisco, CA (SF Club Office); Seattle, WA (Town Hall Seattle); Tempe, AZ (Changing Hands Bookstore); Ann Arbor, MI (University of Michigan); West Lafayette, IN (Purdue University); Madison, WI (University of Wisconsin); and London, UK (The Legatum Institute's Book Forum; LSE Mackinder Programme for the Study of Long Wave Events). Webcasts from some of the events are available here: http://sciencepolicy.colorado.edu/publications/special/climate_fix/tour.html.

Center News
Mike Hulme Visit

Professor Mike Hulme, professor of climate change in the School of Environmental Sciences at the University of East Anglia and internationally recognized climate change expert, visited the Center in November. Professor Hulme participated

in several events while in Boulder including a roundtable discussion with graduate students, a noontime seminar series talk titled "How Climate Models Gain and Exercise Authority", and a CIRES Distinguished Lecture titled "Why We Disagree about Climate Change." For more information: http://sciencepolicy.colorado.edu/news/seminars_hulme.html.

Center News

David Cherney Awarded McDougal Prize

CSTPR graduate student David Cherney was awarded the 2010 McDougal Prize of the Society for Policy Science for his article (co-authored with Susan G. Clark), "The American West's Longest Large Mammal Migration: Clarifying

and Securing the Common Interest." The article was published in *Policy Sciences*, http://www.springerlink.com/content/t8074h1247574148.

Center Events

Center Faculty Talks and Presentations

Benjamin Hale presented on Moral Hazards and Geoengineering at the October 2010 workshop on "The Ethics of Geoengineering: Investigating the Moral Challenges of Solar Radiation Management" held in Missoula, MT. View Ben's presentation here: http://sciencepolicy.colorado.edu/news/announcements/2010-2011/hale_presentation_2010.pdf.

Max Boykoff and **Benjamin Hale** participated in a panel titled "Climate change and cities: Science for adaptation and mitigation" at the Sixteenth Conference of the Parties (COP16).

The Office of Science and Technology at the Embassy of Austria hosted a "bridges Lecture Series" event. **Roger Pielke, Jr.** was joined in the debate by experts David Goldston and Alexander Ochs, to discuss the challenges of addressing climate change effectively from a US, European, and global perspective.

Roger Pielke, Jr. appeared on the Patt Morrison show on Southern California Public Radio with Al Teich of the AAAS to discuss the guidelines for scientific integrity recently released by the Obama Administration. Download the discussion here: http://www.scpr.org/programs/patt-morrison/2010/12/21/separating-the-politics-from-the-science-obama-adm.

Center Events

Noontime Seminar Series Spring 2011

The Center's spring 2011 noontime seminar series will again focus on the theme "Decision Making under Uncertainty." All talks are at noon and are free and open to the public. Please check the CSTPR events calendar at http://sciencepolicy.colorado.edu/news/seminars_spring2011.html -- or join our events email list at http://sciencepolicy.colorado.edu/outreach -- for updates. All talks are in the CSTPR Conference Room (directions: http://sciencepolicy.colorado.edu/about_us/find_us.html) or Room S274 in the CIRES main campus building (directions: http://cires.colorado.edu/contact/maps.html).

January 20: ***Reports Card for the Environment: 1C, 3Bs 1A and 1 Incomplete***
CSTPR Conference Room
Michael Glantz, Consortium for Capacity Building, INSTAAR, University of Colorado

Mickey Glantz, January 20, 2011

January 27: ***Quantification of the Treatment of Uncertainty by the IPCC AR4***
CSTPR Conference Room
Roger Pielke, Jr., Center for Science and Technology Policy Research, University of Colorado

Center Events Continued

February 17: ***Enhancing the Resilience of Small High-Latitude Fishing Communities to Climatic and Marine-Ecosystem Change***
CSTPR Conference Room
James McGoodwin, Department of Anthropology, University of Colorado

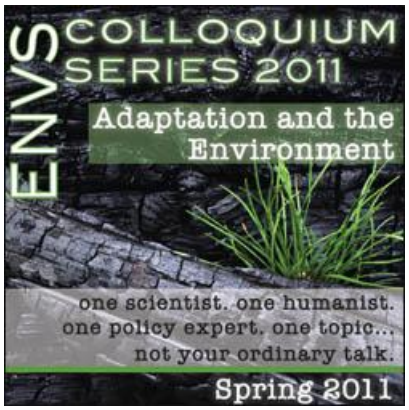
March 3: ***Global Earthquake Fatalities: Nature vs. Human Nature***
CIRES S274
Roger Bilham, CU Geological Sciences and Cooperative Institute for Research in Environmental Sciences

March 17: ***Gaining from Losses: Using Disaster Loss Data as a Tool for Appraising Natural Disaster Policy***
CSTPR Conference Room
Shali Mohleji, CU Environmental Studies and Center for Science and Technology Policy Research

March 31: ***Dryness and Desperate Measures: Ranching, Land Tenure, and Drought Coping in the Rocky Mountain West***
CSTPR Conference Room
Kristin Gangwer, CU Department of Geography and Center for Science and Technology Policy Research

April 7: ***Inundation or Ignorance? Public Perception of Storm Surge Risk***
CIRES S274
Jeffrey Lazo, Societal Impacts Program, National Center for Atmospheric Research

Center Events
ENVS Colloquium Series Spring 2011



The theme for the ENVS Spring 2011 Colloquium Series is 'adaptation and the environment'. In the interdisciplinary spirit of environmental studies, one main speaker gives a more extensive talk. Then, two commentators from varied and complementary disciplines offer insight on some other dimension of the issue at hand. The aim has been to have representation from faculty and grad students on the panels. All sessions are scheduled for the CIRES auditorium from 4-6pm (with refreshments preceding the talks, 4-430pm). For Directions see: http://cires.colorado.edu/contact/maps.html. Contact ami@cires.colorado.edu if you wish to be added to our mailing list to receive notices of future talks. For an updated schedule see: http://sciencepolicy.colorado.edu/news/envs-colloquium.html. The series is being co-sponsored by the Environmental Studies Program at the University of Colorado and the Center for Science and Technology Policy Research.

January 19: ***COP16 Roundtable Panel on Climate Adaptation***
William Boyd (CU Law), Ben Hale (CU Environmental Studies and Philosophy), Marilyn Averill (CU Environmental Studies), Mickey Glantz (Consortium for Capacity Building, INSTAAR), and Jorge Rafael Figeroa (Western Resource Advocates)

February 23: ***Burning Through the Roots: Mythos and Meaning in Wildfire***
by Dawn Adams, Tapestry Institute, CU Environmental Studies and Geology
Commentators: Tom Yulsman, Center for Environmental Journalism and Mari Elise Ewing, CU Environmental Studies Program

March 30: ***Planning for Climate Change Mitigation and Adaptation in Boulder County***
by Will Toor, Boulder County Commissioner
Commentators: Carol Cleland, CU Philosophy and Katie Clark, CU Environmental Studies Program

April 27: ***Adapting to Climate Change: How Television News Directors and Weathercasters Report the Science***
by Kristopher Wilson, School of Journalism, University of Texas at Austin
Commentators: Mike Nelson, Chief Meteorologist Channel 7 News Denver and Kelsey Cody, CU Environmental Studies Program

Recent Publications

Media presentations of climate change

by M.T. Boykoff and J. Smith
Chapter in: *Routledge Handbook of Climate Change and Society*
pp. 210-218, Routledge (2010)
http://sciencepolicy.colorado.edu/admin/publication_files/2010.31.pdf

Climate quarrels: 'It's not you, it's me ... well it's us'

by M.T. Boykoff
Forum review for "*Why We Disagree About Climate Change. Understanding Controversy, Inaction and Opportunity*" by M. Hulme
The Geographical Journal Vol. 176, No. 3 (2010)
pp. 267–269, doi: 10.1111/j.1475-4959.2010.00371.x

Excerpt: In Why we disagree about climate change, Professor Mike Hulme concludes that (spoiler alert!) 'the sources of our disagreement about climate change lie deep within us, in our values and in our sense of identity and purpose' (p.364). He argues that, 'our disagreements should, at best, always lead us to learn more about ourselves' (p. 364). Thus, improving our considerations and understanding of these elements can help us collectively get to the root of our climate quarrels. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.27.pdf

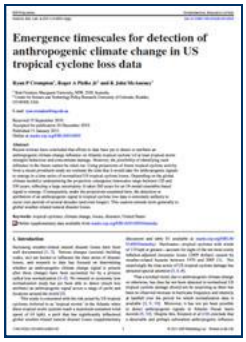
Influence of location, population and climate on building damage and fatalities due to Australian bushfire: 1925-2009

by R.P. Crompton, K. J. McAneney, K. Chen, R. A. Pielke Jr., and K. Haynes
Weather, Climate, and Society Vol. 2 (2010)
pp. 300-310, doi: 10.1175/2010WCAS1063.1

Abstract: This study reevaluates the history of building damage and loss of life due to bushfire (wildfire) in Australia since 1925 in light of the 2009 Black Saturday fires in Victoria in which 173 people lost their lives and 2298 homes were destroyed along with many other structures. Historical records are normalized to estimate building damage and fatalities had events occurred under the societal conditions of 2008/09. There are relationships between normalized building damage and the El Nino–Southern Oscillation and Indian Ocean dipole phenomena, but there is no discernable evidence that the normalized data are being influenced by climatic change due to the emission of greenhouse gases. The 2009 Black Saturday fires rank second in terms of normalized fatalities and fourth in terms of normalized building damage. The public safety concern is that, of the 10 years with the highest normalized building damage, the 2008/09 bushfire season ranks third, behind the 1925/26 and 1938/39 seasons, in terms of the ratio of normalized fatalities to building damage. A feature of the building damage in the 2009 Black Saturday fires in some of the most affected towns—Marysville and Kinglake—is the large proportion of buildings destroyed either within bushland or at very small distances from it (10 m). Land use planning policies in bushfire-prone parts of this country that allow such development increase the risk that bushfires pose to the public and the built environment. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.41.pdf

Emergence timescales for detection of anthropogenic climate change in US tropical cyclone loss data

by R.P. Crompton, R.A. Pielke Jr., and K.J. McAneney
Environmental Research Letters 6 (2011)
doi: 10.1088/1748-9326/6/1/014003



Abstract: Recent reviews have concluded that efforts to date have yet to detect or attribute an anthropogenic climate change influence on Atlantic tropical cyclone (of at least tropical storm strength) behavior and concomitant damage. However, the possibility of identifying such influence in the future cannot be ruled out. Using projections of future tropical cyclone activity from a recent prominent study we estimate the time that it would take for anthropogenic signals to emerge in a time series of normalized US tropical cyclone losses. Depending on the global climate model(s) underpinning the projection, emergence timescales range between 120 and 550 years, reflecting a large uncertainty. It takes 260 years for an 18-model ensemble-based signal to emerge. Consequently, under the projections examined here, the detection or attribution of an anthropogenic signal in tropical cyclone loss data is extremely unlikely to occur over periods of several decades (and even longer). This caution extends more generally to global weather-related natural disaster losses. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2011.02.pdf

Recent Publications Continued

Economic impacts of tropical cyclones

by R.P. Crompton, S. Schmidt, L. Wu, R. Pielke, Jr., R. Musulin, and E. Michel-Kerjan

Seventh International Workshop on Tropical Cyclones (2010)23 pp.

Excerpt: Global natural disaster losses have risen dramatically in recent decades and tropical cyclones have contributed significantly to this trend. Tropical cyclones account for nine of the ten most costly inflation-adjusted insurance natural disaster losses (2009 dollars) between 1970 and 2009 (Swiss Re, 2010). Of these nine, eight impacted the US and surrounding areas and one impacted Japan. In original loss values, tropical cyclones account for two of the five most costly economic losses and four of the five most costly insurance losses from natural disasters over the period 1950 to 2009 (Munich Re, 2010). All hurricanes in the top five of both original loss lists impacted the US and Hurricane Katrina tops the original and inflation adjusted loss lists. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.34.pdf

Creating usable science: Opportunities and constraints for climate knowledge use and their implications for science policy

by L. Dilling and M.C. Lemos

Global Environmental Change December (2010)

doi: 10.1016/j.gloenvcha.2010.11.006

Abstract: In the past several decades, decision makers in the United States have increasingly called upon publicly funded science to provide "usable" information for policy making, whether in the case of acid rain, famine prevention or climate change policy. As demands for usability become more prevalent for publicly accountable scientific programs, there is a need to better understand opportunities and constraints to science use in order to inform policy design and implementation. Motivated by recent critique of the decision support function of the US Global Change Research Program, this paper seeks to address this issue by specifically examining the production and use of climate science. It reviews empirical evidence from the rich scholarship focused on climate science use, particularly seasonal climate forecasts, to identify factors that constrain or foster usability. It finds, first, that climate science usability is a function both of the context of potential use and of the process of scientific knowledge production itself. Second, nearly every case of successful use of climate knowledge involved some kind of iteration between knowledge producers and users. The paper argues that, rather than an automatic outcome of the call for the production of usable science, iterativity is the result of the action of specific actors and organizations who 'own' the task of building the conditions and mechanisms fostering its creation. Several different types of institutional arrangements can accomplish this task, depending on the needs and resources available. While not all of the factors that enhance

Recent Publications Continued

usability of science for decision making are within the realm of the scientific enterprise itself, many do offer opportunities for improvement. Science policy mechanisms such as the level of flexibility afforded to research projects and the metrics used to evaluate the outcomes of research investment can be critical to providing the necessary foundation for iterativity and production of usable science to occur. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.40.pdf

A democracy paradox in studies of science and technology

by E. Lövbrand, R.A. Pielke, Jr., and S. Beck
Science Technology Human Values (2010)
doi: 10.1177/0162243910366154


A Democracy Paradox in Studies of Science and Technology

Eva Lövbrand[1], Roger Pielke, Jr.[2], and Silke Beck[3],

Abstract: Today many scholars seem to agree that citizens should be involved in expert deliberations on science and technology issues. This interest in public deliberation has gained attraction in many practical settings, especially in the European Union, and holds the promise of more legitimate governance of science and technology. In this article, the authors draw on the European Commission's (EC) report "Taking the European Knowledge Society Seriously" to ask how legitimate these efforts to "democratize" scientific expertise really are. While the report borrows from deliberative democrats' normative accounts of legitimacy, the authors identify a tension between the principles for legitimate rule prescribed by deliberative democratic theory and the report's celebration of diversity and dissent. While this inconsistency suggests that the legitimacy of deliberative governance arrangements is justified on empirical rather than normative grounds, it remains an open question whether studies of science and technology offer enough empirical support for such a justification. In this article, the authors address this pressing question and propose three possible responses. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.28.pdf

Climate denier, skeptic, or contrarian?

by S.J. O'Neill and M.T. Boykoff
PNAS August (2010)
doi: 10.1073/pnas.1010507107
http://sciencepolicy.colorado.edu/admin/publication_files/2010.26.pdf

Success is not guaranteed

by R.A. Pielke, Jr.
Bridges Vol. 27 (2010)


Success is not Guaranteed

Excerpt: "Technology-led" proposals funded by a low-but-rising tax are spelled out in far greater detail in my book, in "The Hartwell Paper" (a collaboration led by the London School of Economics and Oxford University that I participated in earlier this year) and, in particular, in the work of economists Isabela Galiana and Chris Green at McGill University. These ideas are often the subject of discussion and debate on my blog, providing a useful opportunity for critique. In such discussions I have found an interesting objection to the proposals, which comes both from those who favor the conventional, top-down targets and timetables approach as well as from those who are opposed to efforts to intentionally seek to accelerate the decarbonization of the economy. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.33.pdf

The role of new media in engaging the public with climate change

by S.J. O'Neill and M. Boykoff
Chapter 13 in: L. Whitmarsh, S.J. O'Neill, and I. Lorenzoni (eds.), *Engaging the Public with Climate Change: Communication and Behaviour Change* (2010) Earthscan


13
The Role of New Media in Engaging the Public with Climate Change

Saffron O'Neill and Maxwell Boykoff

1. Introduction

2. Discovering new media

Excerpt: 'New media' are defined in this chapter as media which are integrated, interactive and use digital code (as van Dijik 2006). Defined as such, new media have been touted as 'one of the greatest tools in achieving a true democracy' (Dawson, cited in Head, 2009). Malone and Klein (2007, p26) go some way to showing a potential shape of this democracy, in their web-based forum thought experiment the 'Climate Collaboratorium'; describing it as 'a kind of Wikipedia for controversial topics, a Sims game for the future of the planet, and an electronic democracy on steroids'. Yet others have called for a more critical reading of the use of new media in facilitating democracy (Sunstein, 2007); with Dietz and Stern (2008) stating that there is still some way to go in understanding the dynamics of new media engagement. With these conflicting positions in mind, this chapter reviews and

Recent Publications Continued

critically evaluates the current role, and potential future roles, new media could play in engaging the public with climate change. This chapter also contains a more detailed examination of two climate engagement approaches (one a community-based emissions-reduction programme, the other a climate contrarian engagement approach) that have successfully utilised new media to engage audiences with climate change. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2011.04.pdf

A positive path for meeting the global climate challenge

by R.A. Pielke, Jr.
Yale Environment 360 October 18 (2010)
http://e360.yale.edu/content/feature.msp?id=2329;
http://sciencepolicy.colorado.edu/admin/publication_files/2010.32.pdf

Beyond the annual climate confab

by R.A. Pielke, Jr.
Bridges Vol. 28 (2010)

Excerpt: Woody Allen once famously said that 80 percent of life is just showing up. A similar calculus might be applied to the global climate negotiations, the annual confab that brings together activists, politicians, and other interested parties to discuss how the world might deal with the threat of climate change… Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2010.39.pdf

Effective media reporting of sea level rise projections: 1989–2009

by U.K. Rick, M.T. Boykoff, and R.A. Pielke, Jr.
Environmental Research Letters Vol. 6, No. 1 (2011)
doi: 10.1088/1748-9326/6/1/014004

Abstract: In the mass media, sea level rise is commonly associated with the impacts of climate change due to increasing atmospheric greenhouse gases. As this issue garners ongoing international policy attention, segments of the scientific community have expressed unease about how this has been covered by mass media. Therefore, this study examines how sea level rise projections—in IPCC Assessment Reports and a sample of the scientific literature—have been represented in seven prominent United States (US) and United Kingdom (UK) newspapers over the past two decades. The research found that—with few exceptions—journalists have accurately portrayed scientific research on sea level rise projections to 2100. Moreover, while coverage has predictably increased in the past 20 years, journalists have paid particular attention to the issue in years when an IPCC report is released or when major international negotiations take place, rather than when direct research is completed and specific projections are published. We reason that the combination of these factors has contributed to a perceived problem in the sea level rise reporting by the scientific community, although systematic empirical research shows none. In this contemporary high-stakes, high-profile and highly politicized arena of climate science and policy interactions, such results mark a particular bright spot in media representations of climate change. These findings can also contribute to more measured considerations of climate impacts and policy action at a critical juncture of international negotiations and everyday decision-making associated with the causes and consequences of climate change. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2011.03.pdf

Regional climate service

by H. von Storch, I. Meinke, N. Stehr, B. Ratter, W. Krauss, R. A. Pielke, Jr., R. Grundmann, M. Reckermann, and R. Weisse
4th International Perspective on Water Resources & the Environment Meeting (2011) National University of Singapore, January 4-6

Abstract: In this article, we discuss the advisory capacity of climate science for political, economical and societal decisions. To provide options, open up perspectives and to enhance the understanding for the dynamics of climate is a task we name climate service. After a general discussion, experiences of providing this service on a regional and local scale during the last few years are reviewed. Key components of this regional climate service are the establishment of a regional climate office, the coordination of regional IPCC-like assessment reports on knowledge about regional and local climate change, and the integration of detailed homogeneous data sets describing regional changing weather statistics (i.e., climate) in past decades and in perspectives for the next several decades. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2011.01.pdf

Alumni News

Former Center fellow Kevin Vranes recently joined E Source as a Senior Manager for Enterprise Energy Management Services. There he will be developing GHG inventory/analysis/ management products for E Source's Enterprise Energy Management division and managing E Source's GHG inventory practice. Congrats Kevin!

Former Center graduate student Joel Gratz has turned his considerable talents in meteorology, business and skiing to running ColoradoPowderForecast.com. As Joel describes it,

"the Colorado Powder Forecast is an entertaining (and dare I say educational? please don't run away…) weather forecast for snow lovers in Colorado. It started as an informal, weekly email among friends in 2008. Now it is downright official with a website and an email distribution list. Awesome. If you want the real-deal about snow and weather conditions for Colorado, this is the place." Joel 's website was recently featured in the Denver Post article "Your ski forecast: Joel Gratz is powder's new guru," http://www.denverpost.com/lifestyles/ci_17059302#ixzz1AlikCsZ6

Center in the News

Max Boykoff was quoted, cited, or referred to in the following media:

- 10 January Columbia Journalism Review article: Climate Conundrums Slack coverage, quality issues stir debate, by Curtis Brainard.
- 9 January Boulder Daily Camera article: Paddling down the River Denial, by Anne B. Butterfield.
- 5 January NY Times Dot Earth Blog article: Climate News Snooze? by Andrew C. Revkin.
- 16 September ClimateWire: Women more likely to believe the science on global warming – study, by Dina Fine Maron.

Ben Hale was quoted, cited, or referred to in the following news media:

- 7 December Twin Cities Daily Planet article: Climate Change as a Human Dilemma, by Nathan Shepherd.

Roger Pielke, Jr., was quoted, cited, or referred to in the following news media:

- 21 January Financial Times article: A disastrous truth, by Simon Kuper.
- 19 January Australian International Business Times article: Who is to blame for the Queensland floods: Man or nature? by Xien Jana Vencio.
- 18 January Nature News article: Media: Reporters get it right, by Alastair Brown.
- 13 January Reuters article: Climate change link in hurricane losses decades away-study, by David Fogarty.
- 20 December Nature News article: Integrity policy unveiled at last, by Eugenie Samuel Reich.
- 17 December National Public Radio: Long Wait May Be Over For Science Guidelines, by Scott Horsley.
- 20 December Weekly Standard Magazine article: Book Review The Climate Fix, by Steven F. Hayward.
- 10 December US News & World Report article: Redefining the Global Warming Debate, by Danielle Kurtzleben.
- 2 December ABC News: Bob Ryan reviews global-warming screed "The Climate Fix".
- 22 November European Business Review: Interview with Roger Pielke, Jr.
- 15 November Sarasota Herald Tribune: Insurers' computer models deeply flawed, by Paige St. John.
- 14 November Sarasota Herald Tribune: Florida insurers rely on dubious storm model, by Paige St. John.
- 5 November NPR's All Things Considered: Energy Policy Explored After Cap-And-Trade Dies.
- 4 November Journal & Courier: Politics of climate science fuel talk, by Justin Mack.
- 28 October The Economist: Climate change The iron lawyer.

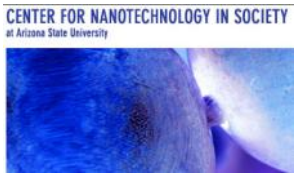
Center in the News Continued

- 20 October Florida Independent: Oil spill roundup: Six-month anniversary edition, by Travis Pillow.
- 13 October Nature News: Speaking out about science, by Emily Waltz.
- 12 October ABC News Bob Ryan.
- 12 October Colorado Arts and Sciences Magazine: Refocusing policy on causes rather than consequences shows more promise than Kyoto-style approach, prof contends, by Clint Talbott.
- 6 October Houston Chronicle Interview: Roger Pielke Jr. on why a small tax is our best hope in climate change fight, by Eric Berger.
- 5 October Independent UK: Kill a schoolchild. How hilarious, by Dominic Lawson.
- 4 October Financial Post: The iron law of climate policy, by Financial Post Staff.
- 4 October Financial Post: The UN carbon fiasco: New book calls for reform of climate agency as thousands of delegates meet in Tianjin, China, by Terence Corcoran.
- 27 September Southern California Public Radio Program on Geo-Engineering and Climate Change Investments.
- 9 September Christian Science Monitor: Climate-change study: Today's power plants aren't the problem, by Pete Spotts.
- 8 September Nature News: 'Climate wars' claims disputed, by Quirin Schiermeier.
- 6 September Nature News: Climate change not linked to African wars, by Quirin Schiermeier.

S&T Opportunities

Societal Aspects of Nano-Scale Science and Engineering
Arizona State University

Post-Doctoral Associate
Societal Aspects of Nano-Scale Science and Engineering
Arizona State University



The Center for Nanotechnology in Society at Arizona State University (CNS-ASU) seeks to fill one Post-Doctoral Associate position in the societal aspects of nano-scale science and engineering (NSE) starting October 2011.

The post-doctoral associate is expected to collaborate closely with CNS-ASU researchers on the Center's ongoing research and outreach activities, perform significant independent research, and contribute to educational programs. The fellowship is available for one year and renewable for additional years.

Required qualifications for the post-doctoral fellowship include: a doctorate in a related area; demonstrated interest in the societal aspects of scientific and technological advance in general and nanotechnologies in particular; and evidence of high achievement in both research and teaching. Desired qualifications include interest and/or experience in: urban sustainability, equity issues, outreach and informal science education.

Closing date is February 28, 2011; if not filled, every Friday until search is closed.

A complete application consists of a detailed letter of application stating qualifications, experience, research plans, and teaching interests; curriculum vitae; and the names and contact information of three references. Please submit to: Regina Sanborn, Program Manager, Center for Nanotechnology in Society at Arizona State University at regina.sanborn@asu.edu (**applications by email ONLY**). Applications missing any of the required documents will not be considered.

Complete job description here: http://www.cspo.org/documents/job_Post-Doc-Job-Posting-new-starting-October-2011.pdf

This appointment is dependent upon funding from a specific source other than state appropriations (i.e., a cooperative agreement and supplementary awards from the National Science Foundation for CNS-ASU). As such, this appointment may terminate if funding is not available.

The Center for Nanotechnology in Society at Arizona State University (CNS-ASU) (http://cns.asu.edu) is a federally-funded research, education, and outreach center dedicated to understanding the legal, ethical, and other societal implications of nanotechnology. CNS-ASU works intimately with the Consortium for Science, Policy and Outcomes (http://www.cspo.org), which offers an innovative, interdisciplinary environment for developing and testing research and teaching ideas related to the governance and conduct of science and technology in the public interest.

ASU conducts pre-employment screening for all positions, which includes a criminal background check, verification of work history, academic credentials, licenses, and certifications.

S&T Opportunities
California Council on Science and Technology
Science and Technology Policy Fellowships

California Council on Science and Technology
Science and Technology Policy Fellowships

Offered by the California Council on Science and Technology (CCST), the California Science and Technology Policy Fellowships place professional scientists and engineers in the California State Legislature for one-year appointments. These professional development opportunities will enable fellows to work hands on with policy -makers to develop solutions to complex scientific and technical issues facing California through their interaction with the legislative process. The fellowships are ideal for qualified applicants who are interested in improving the interface between science and legislative decision-making and who want to learn the public policy decision-making process. Fellows will be placed, for one year, in various offices of the California State Legislature.

With increasingly complex science and technological issues facing society today, the effective interface of science and public policy is becoming ever more important. Building on the successful and highly acclaimed national model of the Science and Technology Policy Fellowships offered by the American Association for the Advancement of Science (AAAS) in the federal public policy arena, the California Science and Technology Policy Fellowships will create a similar interface in the California Legislature. The fellows will learn the intricacies of the California legislative process and will provide legislators and their staffs with clear and unbiased advice, answers to technical questions, and clarification of policy options for issues with science and technology related attributes.

CCST is pleased to acknowledge the valuable input of the American Association for the Advancement of Science to help launch the California Science and Technology Policy Fellowships and the CCST Executive Oversight Committee for their guidance.

More information is available at: http://fellows.ccst.us or by email: info@fellows.ccst.us.

The application period for the 2011-2012 program will open on December 1, 2010 and close on March 31, 2011.

S&T Opportunities
NRC Research Associateship Programs

National Research Council
Research Associateship Programs

The mission of the NRC Research Associateship Programs (RAP) is to promote excellence in scientific and technological research conducted by the U. S. government through the administration of programs offering graduate, postdoctoral, and senior level research opportunities at sponsoring federal laboratories and affiliated institutions.

In these programs, prospective applicants select a research project or projects from among the large group of opportunities listed on this website. Prior to completing an application, prospective applicants should contact the proposed Research Adviser to assure that funding will be available if their application is recommended by NRC panels. Once mutual interest is established between a prospective applicant and a Research Adviser, an application is submitted through the NRC WebRap system. Reviews are conducted four times each year and review results are available approximately 6-8 weeks following the application deadline.

Prospective applicants should read carefully the details of the program to which they are applying. In particular, note eligibility details. Some laboratories have citizenship restrictions (open only to US citizens and permanent residents) and some laboratories have research opportunities that are not open to senior applicants (more than 5 years beyond the Ph.D.). When searching for research opportunities you may limit your search to only those laboratories which match your eligibility criteria. In addition, note the application deadlines, as not all laboratories participate in all reviews.

There are four review cycles annually. Deadlines for 2011 are:

- February 1
- May 1
- August 1
- November 1

Detailed program information, including instructions on how to apply online and a list of participating laboratories, is available on the NRC Research Associateship Programs Web site at: http://www.national-academies.org/rap.

About Us

Ogmius is the newsletter of the Center for Science and Technology Policy Research which is published four times a year. The Center is within the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado-Boulder. The mission of CIRES, which was established in 1967, is to act as a national resource for multidisciplinary research and education in the environmental sciences. CIRES is jointly sponsored by the University of Colorado-Boulder and the National Oceanic and Atmospheric Administration.

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Editor: William Travis (william.travis@colorado.edu)
Managing Editor: Bobbie Klein (bklein@colorado.edu)
Associate Editor/Web: Ami Nacu-Schmidt (ami@cires.colorado.edu)

CENTER FOR SCIENCE AND TECHNOLOGY POLICY RESEARCH

University of Colorado/CIRES
1333 Grandview Avenue
Campus Box 488
Boulder, CO. 80309-0488
Ph: 303-735-0451 Fx: 303-735-1576
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Endowment fund: Contact Bobbie Klein (bklein@colorado.edu)

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