

Turning Up the Heat on Research Integrity Lessons from 'Climategate'

2nd World Conference on Research Integrity
Singapore, 21-24, July 2010

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Research Integrity is...

“the trustworthiness of research....”

Draft Singapore Statement

Research and Policy

“The public must be able to trust the science and scientific process informing public policy decisions.”

President Barak Obama, March 9, 2009

guardian.co.uk

'Climategate' was 'a game-changer' in science reporting, say climatologists

Fred Pearce, 4 July 2010

"Trust has been damaged," said Hans von Storch of the KGSS Research Centre in Geesthacht, Germany. "People now find it conceivable that scientists cheat and manipulate,..."

The New York Times

British Panel Clears Scientists

Justin Gillis

July 7, 2010

“The e-mails don’t at all change the fundamental tenets of the science,” said Roger Pielke Jr., a professor of environmental studies at the University of Colorado. “But they changed the notion that people could blindly trust one authoritative group, when it turns out they’re just like everybody else.”

William Shakespeare
Hamlet, Act 3, Scene 4
~1600

"For tis the sport to have the engineer
Hoist with his owne petard"

Nature,

December 2, 1999

Science's New Social Contract with Society

Michael Gibbons

“science and society...have each invaded each other's domain, and the lines demarcating the one from the other have virtually disappeared. As a result, not only can science speak to society,...but society can now ‘speak back’ to science....knowledge...may be sharply contested, and no longer remains within the controlled environment of scientific peers”

“Experts must respond to issues and questions that are never merely scientific and technical, and must address audiences that never consist only of other experts....science must now be sensitive to a much wider range of social implications.”

BBC

News

'Show Your Working': What 'ClimateGate' means

Mike Hulme and Jerome Ravetz, December 1, 2009

“In certain areas of research - and climate change is certainly one of these - the authenticating of scientific knowledge now demands two further things: an engagement with expertise outside the laboratory, and responsiveness to the natural scepticism and desire for scrutiny of an educated public.”

“It is no longer tenable to believe that...trusted scientific knowledge can come into existence inside laboratories that are hermetically sealed from such demands.”

The Independent Climate Change Emails Review

July 2010

- One of the most obvious features of the climate change debate is the influence of the blogosphere.
- An important feature of the blogosphere is the extent to which it demands openness and access to data. A failure to recognize this and to act appropriately, can lead to immense reputational damage by feeding allegations of cover up. Being part of a like minded group may provide no defence. Like it or not, this indicates a transformation in the way science has to be conducted in this century. (p. 15)

Nature, 1 July 2010, p. 7

“A Question of Trust,” Editorial

“people – politicians included – make decisions on the basis of self-interest and their own hopes, fears and values, which will not necessarily match what many researchers deem self-evident.”

Complexity, Distance and the Power of Perception

- People generally too far removed from a situation to truly understand the “facts” or the potential consequences they portend.
- How people decide when not familiar with a situation depends on their comfort level (self-interest, hopes, fears).
- In such circumstances, facts matter, but not necessarily because of the knowledge they presumably convey. What matters is how they are perceived by others because that is what controls how they will act.



House of Commons

Science and Technology Committee

31 March 2010

The disclosure of climate data from the Climatic Research Unit at the University of East Anglia

“A lack of willingness to disseminate scientific information may **infer** that the scientific results or methods used are not robust enough to face scrutiny, **even if this conjecture is not well-founded**. This has far-reaching consequences for the reputation of science as a whole, with the ability to undermine the public's confidence in science.” (Quoting climate scientist Peter Fox, pp. 42-43)

Reputation does not, however, rest solely on the quality of work ... It also depends on **perception**. It is self-evident that the disclosure of CRU e-mails has damaged the reputation of UK climate science and, as views on global warming have become polarised, any deviation from the highest scientific standards will be pounced on. (p. 44)

guardian.co.uk

- **Scientists offered cash to dispute climate study**
Ian Sample, 2 February 2007

THE TIMES

- **Lord Oxburgh, the climate science peer, ‘has a conflict of interest’**
Ben Webster, 23 March 2010

The Times of India

- **Pachauri slams charges about conflict of interest**
Amit Bhattacharya, Dec 21, 2009

“The mere perception of conflict of interest may be enough to cast significant doubt on an exemplary research program.”

**AMA Council on Scientific Affairs &
Council on Ethical and Judicial Affairs**

JAMA, 1990

The Washington Post

Whose war on science?

Michael Gerson

December 11, 2009

- “professional objectivity is precisely what the hacked e-mails call into question. Some of these scientists are merely activists, deeply invested in a predetermined outcome.”

WeeklyStandard.com

Scientists Behaving Badly

Steven F. Hayward

December 14, 2009

- The emails do not in and of themselves reveal that catastrophic climate change scenarios are a hoax or without any foundation. What they reveal is something problematic for the scientific community as a whole, namely, the tendency of scientists to cross the line from being disinterested investigators after the truth to advocates for a preconceived conclusion about the issues at hand.

Advocacy is a central issue of research integrity and public accountability.

- How can/does advocacy detract from the objectivity and dispassion typically expected of scientists? What are the implications for the public's need for reliable and independent advice on highly technical matters?
- When do scientists cross the line from being an independent source of valued information to designing or using their research to support some preconceived policy preference?
- What is meant by “responsible advocacy”? How do we teach it? How do we achieve it?