

The science of scientific advice

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Workshop on Scientific Advice
for Policymaking,
Tokyo, 22/23 October 2013



Scientific advice has never been in greater demand; nor has it been more contested

From climate change to cyber-security, poverty to pandemics, food technologies to fracking, the questions being asked of scientists, engineers, social scientists and other experts continue to multiply. At the same time, the authority and legitimacy of these experts is increasingly scrutinised...In this talk, I want to:

- Outline some of the most striking recent developments in institutions and processes of scientific advice around the world;
- Highlight current debates, tensions and areas of opportunity in national & international advisory systems;
- Propose ways of improving and making more systematic 'the science of scientific advice'.

I THOUGHT I WAS
INTERESTED IN UNCERTAINTY
BUT NOW I'M NOT SO SURE





“There is growing interest in the way in which the policy process is informed by objective evidence and science. Countries have developed diverse models and the rationale behind this diversity is not always clear...There is a need to study empirically the strengths and weaknesses of different approaches within the context of different cultures.”

Sir Peter Gluckman, Chief Science Advisor to the PM of New Zealand



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Robert Doubleday, chief scientific adviser, has been a vocal critic of science advisers in many departments of the British government.

Beyond the great and good

Chief scientific advisers need better support and networks to ensure that science advice to governments is robust, say Robert Doubleday and James Wilson.

As the UK government's chief scientific adviser contemplates the end of his term of office this December, he could be forgiven a sense of nostalgia. During the five years in the post, John Houghton, a population biologist, has navigated the 2009 swine flu outbreak and the volcanic ash cloud in 2010. He has led the Strategic Science Committee over climate science and deep-sea and offshore oil projects – usually his concept of 'policy advice' of necessity over food, energy and water. He has also presided over the spread of 11 departments that currently advise it, but have never cornered the British government, even the Treasury's Treasury, when economists have historically held sway. Houghton's legacy extends further afield

as a result of the international support he built for the UK's concept. Houghton's post has been created in New Zealand and at the European Commission in the past five years, and are proposed to Japan and other G8 nations. For those in the scientific community who have long advocated better structures for policy advice, his exit marks the CIA's re-emergence. But, as recruitment of high-quality scientists begins, and with another set of decisions being rolled out elsewhere, it is timely to reflect on the strengths and weaknesses of this world.

There is an excellent volume on science advice. The CIA, in fact, has been shaped by a particularly British

approach to expertise, which focuses on the credibility and character of the individual. The UK model is working well, but it has its limitations, and they are increasingly clear.

A focus on the personal standing of the CIA, as in the United Kingdom, tends to be followed by greater attention to the role of skills, structure and staff required for high-quality policy advice. There needs to be a more open discussion by policy-makers of the trade-offs between independence and influence, and of the weight given to different disciplines and perspectives within the advisory system. Governments should be more transparent about the growing body of scholarship on science policy and expert advice. There is a need for international networks that enable science

“The theory and analysis of scientific advice needs to better inform its practice. There is now a wealth of empirical research into how advisory processes operate...scientific advisers would benefit from processes of learning and reflection that are more systematic....”

Stronger international networks are required for CSAs to exchange ideas. The main forum is currently the Carnegie Group of Science Advisers, which was established in 1991 to enable CSAs and science ministers from the G8 nations to meet annually...A more open global network is now required.”

Nature Vol. 485: 301, 17 May 2012

FUTURE DIRECTIONS FOR SCIENTIFIC ADVICE IN WHITEHALL

Edited by Robert Doubleday and James Willson
April 2013



In the UK:

Sir Mark Walport took over on 1 April 2013; 11th GCSA since 1964;

Departmental CSAs now in every government department;

Scientific advice, evidence-based policy & civil service reform.





JOSÉ MANUEL BARROSO

President of the European Commission



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CHIEF SCIENTIFIC ADVISER



Welcome to my website which will provide you with some background on my role and on me and my team.

It is an enormous pleasure for me to be the first Chief Scientific Adviser to the President of the European Commission and to be in a position to talk about the excellence in science, engineering and technology that is generated across Member States. Our big challenge in Europe is translating that knowledge into better environments, better health, more rewarding lifestyles and a sustainable future and I look forward to contributing to this effort.

I would also like to convey that science is a fundamental part of our culture in Europe, it's exciting, it's full of opportunity and also fun.

I look forward to working with as many people as possible to deliver our common goal for the European Union. We can remind ourselves that Europe, through science, engineering, technology and philosophy, invented the modern world and it's also in our power to invent the future.

Professor Anne Glover CBE



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‘For governments, the advantage of having a government science adviser is to speak to one person, ideally close to the respective head of government, who serves as a knowledge broker and is able to synthesise the scientific evidence in easy-to-understand terms... A precondition for this relationship to work is that the person chosen as science adviser is credible, respected and trusted both in the scientific community and in government...

[S/he] is a “voice of science” also in the public sphere, and promotes a positive image of science and technology, while promoting public dialogue about the evidence.’

‘The Value of a Network of National Science Advisers’, EC BEPA, Sept 2013

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21/10/13

EU fishing fleet profitable again in 2011
Less fish landed but higher market prices helped the EU fishing fleet stay profitable in 2011. Indeed, the economic performance of the EU fleet has improved gradually over recent years, from a net profit margin of 1% in 2008 to 6% in 2011. These are some of the main findings of the 2013 Annual Report.
18/10/13

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Scientific advice across the EU member states

“Everything is in flux”

EC itself and 3 member states (UK, Ireland and Czech Republic) have CSAs;

In other member states (e.g. Denmark, Poland, Hungary) the role is fulfilled by President of the National Academy of Science;

Others (e.g. Germany) have one or more science advisory boards;

Slovakia has recently appointed a ‘Plenipotentiary of the Slovak Government for the Knowledge Economy’;



Spain and Sweden have nominated senior Ministry representatives to play this role;

France is “thinking about” a CSA;

Anne Glover presented the idea of an EU network of government science advisers at the Competitiveness Council in Dec 2012.

The idea received strong support. The network will be launched as soon as 10 EU Member States have appointed one (probably before the end of 2013).

White Paper on Science and Technology

Towards a Robust and Resilient Society

www.cabinetoffice.gov.uk/scienceandtechnology

Department for Business, Innovation and Skills



SCIENCE AND SOCIETY

Rebuilding Public Trust in Science for Policy-Making

Alan Sokal* and Howard Kunz†

Until recently, there was little recognition within Japan's science policy circles of the need to discuss the role of science in government policy-making. A major reason for this was the established

technology and creation of extensive social science paper-based research organisations.

The great earthquake, tsunami, and nuclear accident that occurred in March 2011 induced a critical re-evaluation of such a stance, opening the door to science in policy-making. In discussion, there emerged the necessity, scientific consensus and confidence by applying stringent and comprehensive recommendations on evacuation, food safety and cleanup. Public confidence in the legitimacy of science declined when people suspected the scope of these were too early, arbitrary government claims. Scientific expertise did not have access to critical information and failed to be systematically involved in the national effort. While here shows that public trust in science is fragile and fragile can be lost (1).

It is a characteristic of emerging scientific community in the government is highly sensitive. That is not just a problem for future national organisations. In fact, science is a broad range of fields is deeply built into the complex operation of today's government. Governmental policy-making has grown over time, important to most areas. In parallel with the changes towards science policy and uncertainty of the scope of what science and technology research can do and uncertainty in the local, national, and global levels. Building a paper framework for working in effectiveness and integrity in responsible, merit and respect of science is becoming an important subject.

Introduction

Looking back, many nations have found similar situations since the 1980s and have advanced to strengthen their science

*Sokal worked closely with MEXT, 2008-2010. National Institute of Advanced Industrial Science and Technology, 2010-2012. National Institute of Advanced Industrial Science and Technology, 2012-2013. National Institute of Advanced Industrial Science and Technology, 2013-2014.

†MEXT, 2008-2010. National Institute of Advanced Industrial Science and Technology, 2010-2012.

policy-making, mainly by establishing principles of government science governance.

In the United Kingdom, a systematic re-structuring began significant strengthening by taking 1980s proposed public information science and policy-making. In response to mounting criticism the scientific knowledge was not properly reflected in national policies, the British government launched a set of nine formal science-based policy-making and then updated them several times, to provide the framework for the (2). In addition, the British government issued a document in 1991, laying down general principles governing science-government relations (3). It stated that the government should respect the professional expertise of scientific advisors and ensure scientific advice is based on rigorous evaluation processes in discussion and application the advice is only part of the evidence that government must consider in policy-making.

In the United States, the 1980s Administrative Reorganization Commission report (4) to the government. On the basis of the commission's study, various of science, technology, and innovation, were taken to be a key priority under the Bush Administration. Characterised in its landmark "Science in America: A 21st Century Vision" (5) have efforts to work effort, to create a memorandum outlining the administration's science policy (6) scientific integrity by the science advisory (6). This effort, included a more detailed guidelines (7) (8). In cooperation with national experiments and agencies, most of which have or are intended that new guidelines for ensuring scientific integrity to build the new (9).

The scientific advisory role emerged after the government's science policy-making process. The European Union has been concerned about the issue since it drew up its own guidelines in 2002 (10). In Germany, the Berlin-Bonn Working Academy of Science and Technology issued a guideline in 2008, after conducting extensive studies for several years (11). The Netherlands and Canada have also taken similar actions to support. This effort is based on the effectiveness and integrity of

science policy effectiveness and integrity of science-based policy-making's high priority to build a nation.

science-based policy-making have made significant progress during August 12 years.

Japan's effort

Following the March 11th Great East Japan Earthquake, Japan's Prime Minister's office has begun significantly re-evaluated the need to use a team approach with regard to the science of science and technology in policy-making (12). The Science Council of Japan reported its resolution to strengthen its own scientific advisory activities (13). The Japanese government is now working toward enhancing the capacity for scientific advice, including the appointment of scientific advisors from the private sector and other institutions, the advancement of the role of science advisory, and the strengthening of ties with the international level of Japan.

Recently, the Japan Science and Technology Agency's Center for Research and Development Strategy (CRDS) completed its first and second cycle for project funding to encourage to ensure the effectiveness and integrity of science-based policy-making in Japan (14). The project focuses a total of general principles or science-government relations. The relatively following in design, complexity and also taking into consideration Japan's particular situation, the list includes 10 principles.

The role of scientific advice in policy-making, scientific knowledge is an essential element in the policy-making process, and the government must clearly express its role in the process, especially when faced with uncertainty. The scientific knowledge is not directly used in government decision-making.

Building scientific advice into a timely and professional response. The government should acknowledge scientific policy-making that requires scientific knowledge is a timely and professional manner and an appropriate response to scientific knowledge.

Ensuring the independence of scientific advisors. The government must ensure that the activities of scientific advisors, who are made from non-governmental sources, are strictly advisory and that studies have not been conducted.

Statement of responsibility as scientific



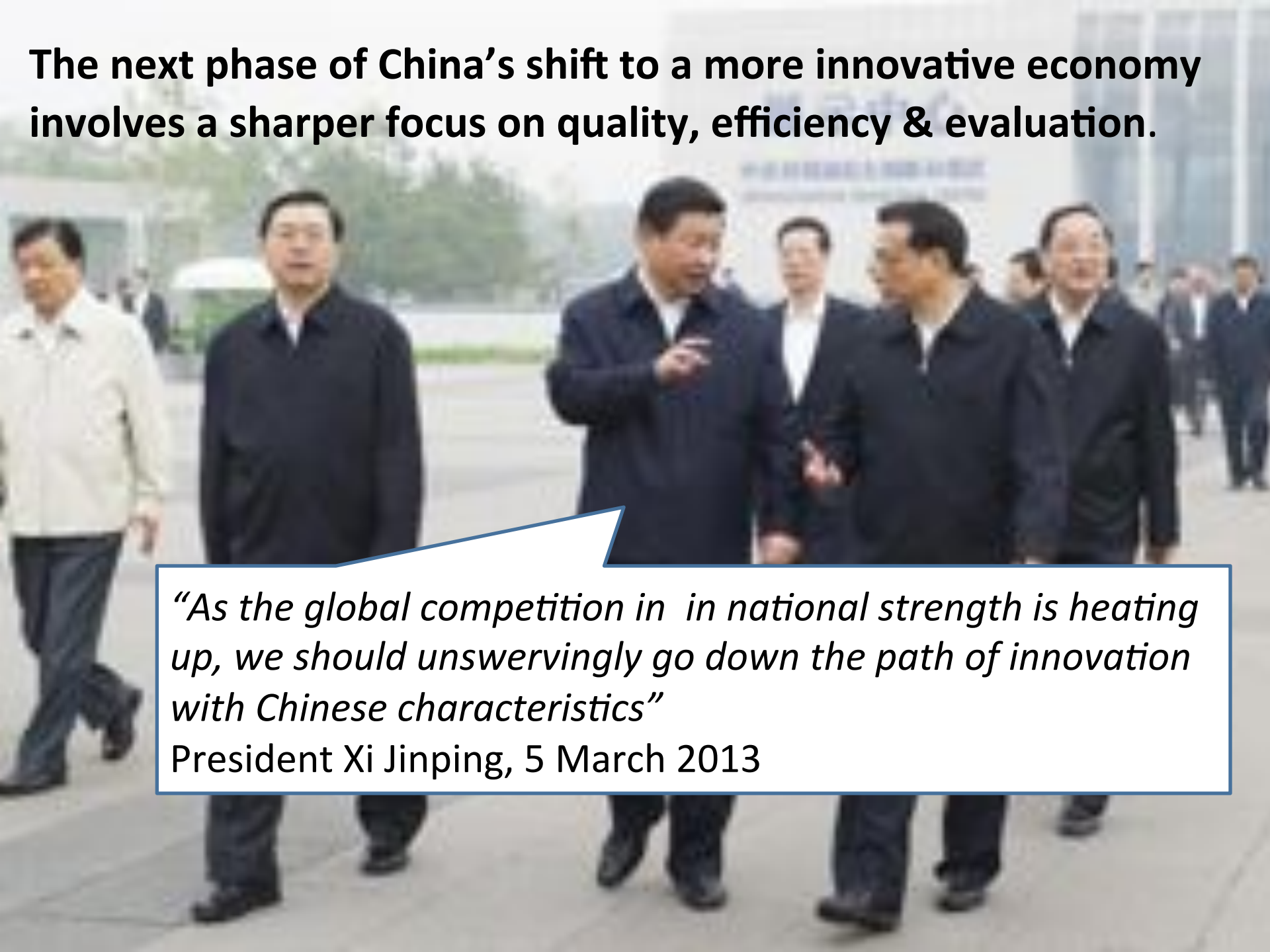
**Scientific advice in
Australia is also in
transition...**



 Australian Government
Department of Industry, Innovation, Science, Research and Tertiary Education

APS200 Project
The Place of Science in Policy Development in the Public Service

The next phase of China's shift to a more innovative economy involves a sharper focus on quality, efficiency & evaluation.

A photograph showing President Xi Jinping in the center, wearing a dark blue jacket, walking and talking with several other men in dark jackets. They are outdoors on a paved area, possibly a walkway or plaza, with a modern building in the background. The image is slightly blurred, suggesting movement.

“As the global competition in national strength is heating up, we should unswervingly go down the path of innovation with Chinese characteristics”

President Xi Jinping, 5 March 2013

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UN launches new sustainable development body

UNIC/Vishvuti Sharma

Speed read



- The UN high-level political forum aims to get more science into the SDGs
- It replaces a UN commission that was set up in 1992 but whose influence waned
- Despite an inaugural meeting, the forum needs to have its exact work defined

A new UN entity was inaugurated last week (24 September), the

03/10/13

Yojana Sharma



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25.09.2013 - ODG

UN Secretary-General Calls on UNESCO to Establish Scientific Advisory Board

To inform the debate on sustainable development, UN Secretary-General Ban Ki-moon announced on the first day of the UN General Assembly (24 September) his decision to create a Scientific Advisory Board that he entrusted UNESCO's Director-General to establish.

He made the announcement during the inaugural meeting of the High Level Political Forum on Sustainable Development, a platform created to realize the vision adopted at Rio +20. "The forum can be a catalyst for a strengthened global partnership for sustainable development, providing political leadership grounded in solid science," said Mr Ban, also underlining the need to strengthen the interface between science and policy in order to ensure that the latest scientific findings are reflected in policy discussions.

The Secretary-General said the Board would be comprised by renowned scientists representing various fields of natural, social and human sciences, and underlined the need to strengthen the interface between science and policy so that the latest scientific findings are reflected in high level policy discussions.

He also indicated that UNESCO would host the Secretariat of this Scientific Advisory Board.

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In Focus

IPBES-2 on 9-14 December 2013, Antalya, Turkey. Annotated agenda available [here](#).

Members views on the admission of new observers by 25 November. More [here](#).

Follow this [link](#) to apply for a visa to attend IPBES-2.

IPBES Membership

IPBES now counts 114 Members, with Madagascar recently joining. The full list of current IPBES Members is available [here](#).

Latest News

Announcement on the IPBES-2 venue

Created on Friday, 27 September 2013 13:27

The second Plenary session of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services will be held at Rixos Sungate Hotel, Antalya, Turkey. For details of the accommodation reservation with the hotel, please see [here](#).

Draft agenda for the stakeholder meeting at IPBES-2 available

Created on Tuesday, 01 October 2013 08:58

A draft agenda is available for the stakeholder meeting to be held ahead of IPBES-2, on 7 and 8 December 2013 in Antalya. Please see [here](#) for further detail of the meeting.

Report from the Indigenous Local Knowledge Workshop now available

Created on Tuesday, 24 September 2013 10:50

InterAcademy Council

Review of the IPCC

An evaluation of the procedures and processes of the Intergovernmental Panel on Climate Change

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The InterAcademy Council conducted an independent review of the processes and procedures of the Intergovernmental Panel on Climate Change. Based on this review, the IAC issued a report with recommended measures and actions to strengthen IPCC's processes and procedures so as to be better able to respond to future challenges and ensure the ongoing quality of its reports.

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14 May 2011

Statement by IAC

InterAcademy Council comments on the adoption of many of committee's recommendations by IPCC on May 13 in Abu Dhabi.

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Statement by Dr Pachauri

Statement by Dr Rajendra Pachauri at the Opening of the UNFCCC meeting (COP16), 29 November 2010, Cancun, Mexico.

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Decisions taken by the Panel with regards to the recommendations by the InterAcademy Council.

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 - utilize traditional and institutional knowledge as appropriate
 - co-chairs – one each if international – developed and developing country
- Conduct using an open, transparent, representative and legitimate process, with well defined principles and procedures
 - Peer-reviewed by all relevant stakeholders
 - Peer-review comments and author responses open for everybody to review
 - Review editors to ensure appropriate response by authors
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- Identify areas of certainty, uncertainty and areas of controversy
- Outreach-communications strategy – starting at the beginning of the process

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The Scotch Fir tree from the 1776 edition of 'Sylva, Or A Discourse Of Forest-Trees And The Propagation Of Timber In His Majesties dominions', which was first published in 1664

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A case study of Egypt's science and innovation system, which was prepared as part of the *Atlas of Islamic-World Science and Innovation* project.

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Thinking, Fast and Slow

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IAC CO-CHAIRS' Statement on the IPCC's Fifth Assessment Report

The release today of the first part of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) marks another important achievement in the advancement of climate change science.

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IAP and its member academies believe that science, scientific knowledge and scientific progress are an essential part of human culture and are vital to advance human welfare and well being. They also believe that the scientific method has much to offer in the pursuit of just and fair societies. These beliefs are the foundation of IAP and all it does. IAP is therefore committed to making the voice of science heard on issues of crucial importance to the future of humankind.

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21 OCTOBER 2013

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Eradication and Sustainable
Development

Current debates, tensions & opportunities

Too many chiefs?



Sir Mark
Walport,
GCSA



Prof John
Perkins BIS



Prof Robin
Grimes,
FCO



Dr James
Richardson
HM Treasury



Prof
Chris Whitty
DFID



MI5



Prof David
Mackay
DECC



Prof Vernon
Gibson MoD



Prof Dame
Sally Davies
DH



Prof Bernard
Silverman
Home Office



Prof Ian
Boyd
Defra



Prof John
Harries
Wales



Prof Muffy
Calder
Scotland



Prof Jeremy
Watson
CLG



Carole Willis
DCFS



Dr Bill
Gunnyeon
DWP



Patrick
McDonald
HSE



Anita
Charlesworth
DCMS



Prof Peter
Freer Smith
Forestry C.

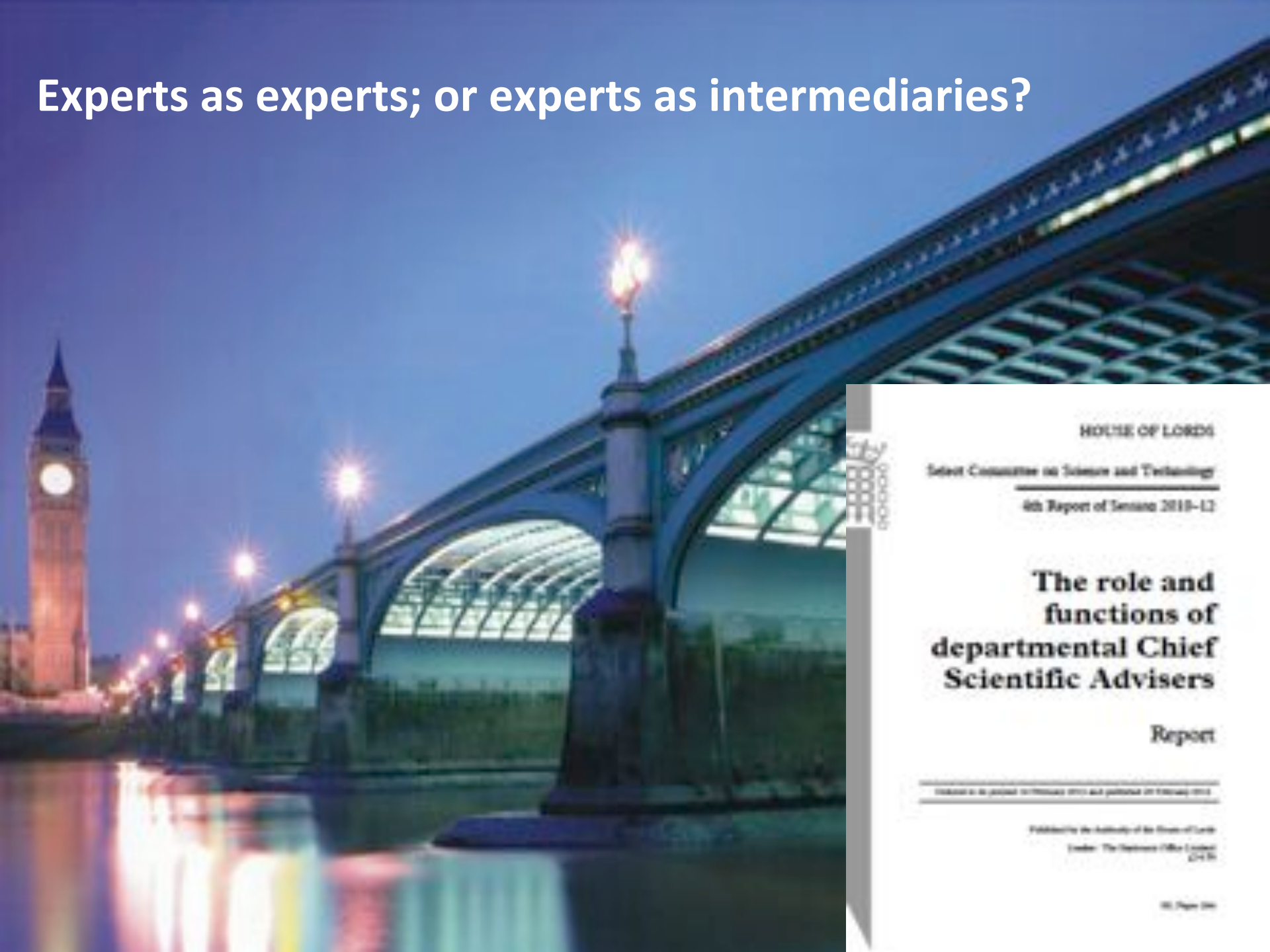


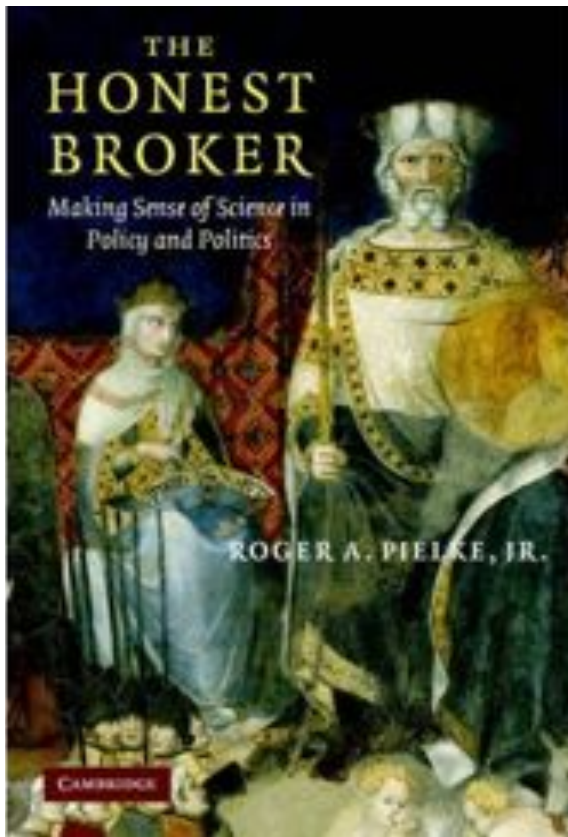
Rebecca
Endean
MoJ



Dr Andrew
Wadge
FSA

Experts as experts; or experts as intermediaries?





How to recognise the politics & limitations of scientific advice?



4 roles for scientists in policy:

- Pure scientist
- Science arbiter
- Issue advocate
- Honest broker

PHILIP E. TETLOCK

EXPERT



POLITICAL



JUDGMENT

How Good Is It? How Can We Know?

Philip E. Tetlock
"Terrific... has the clarity of Malcolm Gladwell"
—Douglas Brinkley

future
babble

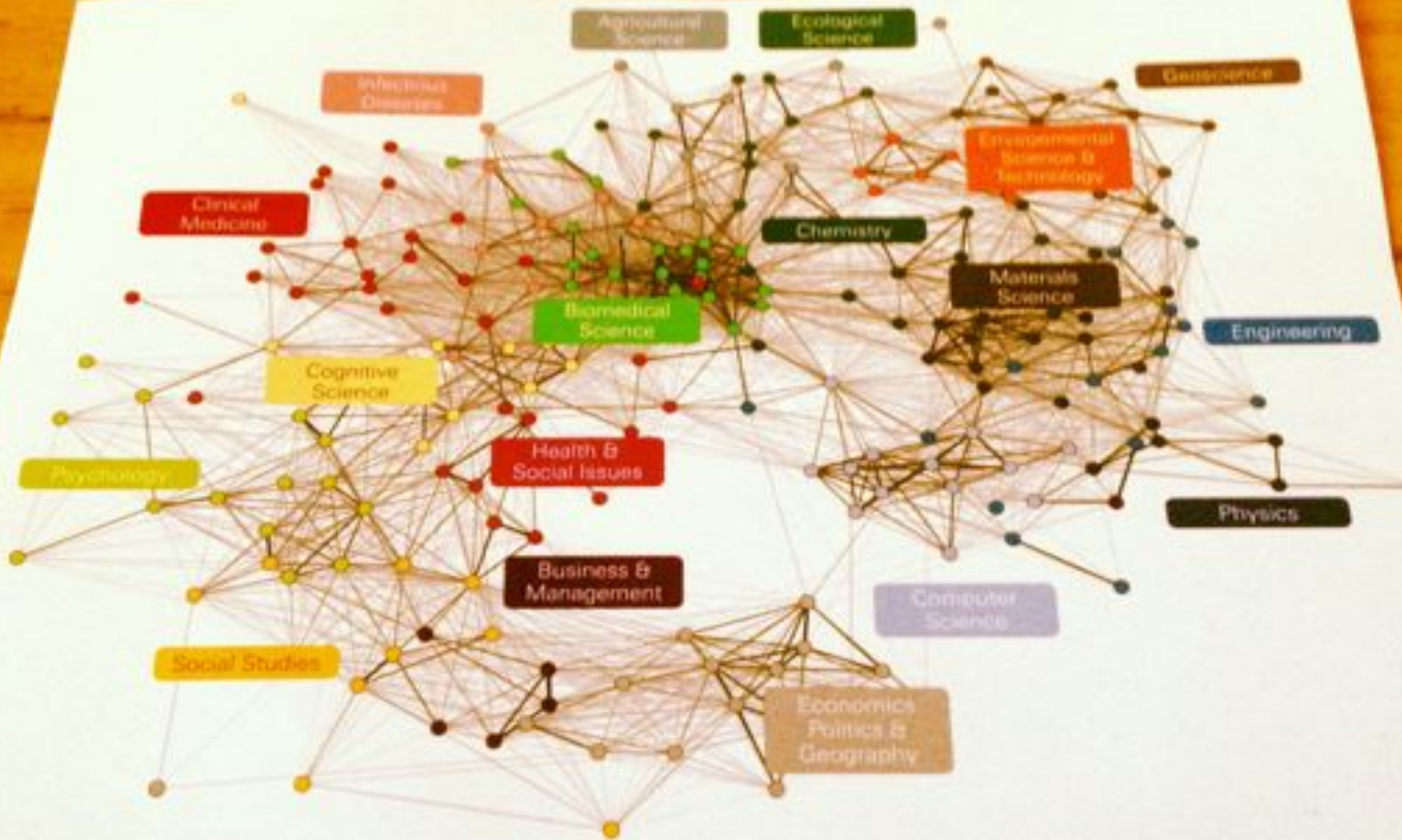
INTERDISCIPLINARY
POLITICAL
SCIENCE
ENERGY

Why Expert Predictions Fail and
Why We Believe Them Anyway

From the Bestselling Author of *Stupid*

DAN GARDNER

How to manage the disciplinary mix?



How to link scientific advice to wider developments in evidence-based policy?



ECONOMIC VIEW Public Policies, Made to Fit People

By RICHARD H. THALER
Published: August 24, 2013

I HAVE [written here](#) before about the potential gains to government from involving social and behavioral scientists in designing public policies. My enthusiasm comes in part from my experiences as an academic adviser to the Behavioral Insights Team created in Britain by Prime Minister David Cameron.

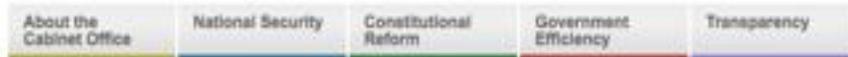
Thus I was pleased to hear reports that the White House is building a similar initiative here in the United States. Maya Shankar, a cognitive scientist and senior policy adviser at the White House [Office of Science and Technology Policy](#), is coordinating this cross-agency group, called the Social and Behavioral Science Team; it is part of a [larger effort](#) to use evidence and innovation to promote government performance and efficiency. I am among a number of academics who have shared ideas with the administration about how research findings in social and behavioral science can improve policy.

It makes sense for social scientists to become more involved in policy, if society's most challenging problems are, in essence, behavioral. Using findings to create plausible interventions, then testing their efficacy with controlled trials, can improve — and sometimes save — people's lives, if



'Randomised controlled trials (RCTs) are the best way of determining whether a policy is working...'

Haynes, Service, Goldacre, Torgerson 'Cabinet Office, June 2012



Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials

'Test, Learn, Adapt' is a paper which the Behavioural Insights Team is publishing in collaboration with Ben Goldacre, author of *Bad Science*, and David Torgerson, Director of the University of York Trials Unit. The paper argues that Randomised Controlled Trials (RCTs), which are now widely used in medicine, international development, and internet-based businesses, should be used much more extensively in public policy.

'Test, Learn, Adapt' sets out nine separate steps that are required to set up any RCT. Many of these steps will be familiar to anyone putting in place a well-designed policy evaluation — for example, deciding in advance the outcome that we are seeking to achieve. Others are less familiar — for example, randomly allocating the intervention to control or intervention groups.

The introduction of a randomly assigned control group enables you to compare the effectiveness of new interventions against what would have happened if you had changed nothing. RCTs are the best way of determining whether a policy or intervention is working. We believe that policymakers should begin using them much more systematically.

Downloads

[Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials \(pdf, 2.98mb\)](#)

File type: PDF - Portable Document format | File size: 2.98 MB

How to learn from crises & controversies?



 **Cabinet Office**

Enhanced SAGE Guidance

A strategic framework for the Scientific Advisory Group
for Emergencies (SAGE)





Sciencewise - the UK's national centre for public dialogue in policy making involving science and technology issues



YouTube

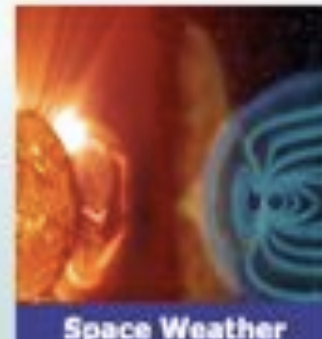


blog



Listen to part 2 of 'dialogues in a digital world' webinar

In part two of CoP webinar, 'In the goldfish bowl: science and technology policy dialogues in a digital world', Anthony Zacharzewski considers the positive consequences of digital rebellion citing the case study 'Big city plan talk' as a practical example.



Space Weather

Space weather is a set of phenomena that are now recognised as a significant natural hazard, with the potential to disrupt many of the satellite technologies that are critical to modern society. See new

How to move beyond risk management to embrace uncertainty, ignorance & ambiguity?

UNCERTAINTY MATRIX

A tool to catalyse nuanced deliberations: experts must look beyond risk (top left quadrant) to ambiguity, uncertainty and ignorance using quantitative and qualitative methods.



Political pressures tend to push attention from 'plural conditional' (dark shading) to 'single definitive' (light shading) methods.



Andy Stirling
(2010)
Keep it Complex.
Nature, 468. pp.
1029-1031.



'It is well to keep in mind how primitive the framework is that we use to evaluate policies and assess strength in science and technology...The nascent field of the social science of science policy needs to grow up, and quickly, to provide a basis for understanding the enormously complex dynamic of today's global, technology-based society.'

**John Marburger, Director
of the Office of Science
& Technology Policy, 21
April 2005 AAAS Forum on
Science and Technology
Policy**



SCIENCE OF SCIENCE POLICY

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News & Events

Community Resources

SciSIP Central

SOSP Activities

Location table

SoSP Central



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James Wilson

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Welcome to the Science of Science Policy (SoSP) website

The goal of the Science of Science Policy community is to provide a scientifically rigorous and quantitative basis for science policy. The website provides a central location with news, information and research to help inform the Federal Government's science management decisions. We welcome the active engagement and participation of Federal practitioners, researchers, and others in the broader science community. [Click here to learn more about SoSP.](#)

What are your needs?

- I want to find reference materials, other publications, or connect with SoSP community members
- I want to find out about research being done by researchers in the Science of Science and Innovation Policy
- I want to find out about Science of Science Policy events
- I want to find out more about someone in the SoSP community
- I want to find out more about SoSP

Create a profile to join the discussion, share your thoughts, rate content, and join our library.

JOIN US

Communities



SciSIP
Researchers of Science of
Science and Innovation
Policy



SoSP IWG

Featured Items

- Ethics and Science: An Introduction
- VIVO: A Semantic Approach to Scholarly Networking and Discovery
- Best Practices in Assessment of Research and Development Organizations
- The New Global Ecosystem in Advanced Computing: Implications for U.S. Competitiveness and National Security
- Copenhagen Research Forum

Featured Events

- "Sci2 Tool: A Tool for Science of Science Research and Practice" Tutorial
- NetSci 2013
- Atlanta Conference on Science and Innovation Policy
- Research Trends Seminar: Research Mobility & Brain Circulation: Scientific and Economic Impacts
- MPSA Conference

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The Science of Science Communication

Organized by Ralph Cierone, Baruch Fischhoff, Alan Lesner, Barbara School and Dietram Scheufele

Overview

This colloquium was held in Washington, D.C. May 21-22, 2012. The meeting surveyed the state of the art of empirical social science research in science communication and focused on research in psychology, decision science, mass communication, risk communication, health communication, political science, sociology, and related fields on the communication dynamics surrounding issues in science, engineering, technology, and medicine with five distinct goals:

- To improve understanding of relations between the scientific community and the public
- To assess the scientific basis for effective communication about science
- To strengthen ties among and between communication scientists
- To promote greater integration of the disciplines and approaches pertaining to effective communication
- To foster an institutional commitment to evidence-based communication science



Recording and Publication

The talks were recorded and archives are available online.

[View speaker list and videos](#)

The organizers are planning a special collection of papers based on the colloquium to be published in *Proceedings of the National Academy of Sciences*.

COLLOQUIUM LINKS

- [General Information](#)
- [Agenda](#)
- [Speaker Bios](#)



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Watching the watchers: lessons from the science of science advice

In the fourth of our series, Sheila Jasanoff asks who holds science advisers accountable for the integrity of their advice?

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Posted by Sheila Jasanoff
Monday 8 April 2013
12:30 BST
guardian.co.uk
Jump to comments (2)



Article history

Science

Science policy

Politics

Public Leaders Network

More from Political science on

Science

Science policy

“Ironically, there is one kind of science that science advisers rarely turn to for insights into how best to define their role in the policy process. That is the body of scholarship which has emerged from some three decades of research in STS....

Work that probes into the foundations of knowledge making is sometimes associated with unproductive wheel-spinning and relativism, denying the very possibility of truth and progress. Yet the wheels, in my view, can spin with traction...

The relationship between creators and critics is fraught but indispensable. If judges may not presume to stand above the law, still less should science advisers seek to insulate themselves from the critical gaze of the science of science advice.”

Sheila Jasanoff



One Nation Under CCTV by Banksy, London 2009. Photograph: James Whatley

Institutions that play a watchdog role in society offer a persistent challenge for democracy: who shall watch the watchers? We shrink at the thought of unlimited police power or judges who place themselves above the law. Scientific advice is not immune to such concerns. Its role is to keep politicians and policymakers honest by holding them to high standards of evidence and reason. But who ensures the rationality of science advisers, making sure that they will be held accountable for the integrity of their advice?

Stuck between the old model & the new?

| Old model of expertise | New model of expertise |
|---|--|
| Closed | Open |
| Homogenous | Diverse |
| Hubristic | Humble |
| Demanding public trust | Trusting the public |
| Expecting expert consensus & prescription | Expecting plural and conditional advice |
| Managerial control | Distributed control |
| Presenting the evidence | Presenting, evidence, judgment and uncertainty |



James Wilsdon, SPRU
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