# SCIENCE IN PUBLIC CONFERENCE 2013

CRITICAL PERSPECTIVES ON MAKING SCIENCE PUBLIC

22-23 July, University of Nottingham

Keynote speaker:
Prof. Harry Collins (University of Cardiff)
(Gravity's Ghost, Rethinking Expertise, The Golem)

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#SIP13



### CONFERENCE ORGANISING COMMITTEE

Beverley Gibbs

Eleanor Hadley Kershaw

**Brigitte Nerlich** 

Warren Pearce

Harinee Selvadurai

Adam Spencer

Judith Tsouvalis

All this year's organisers are part of the *Making Science Public* programme at the University of Nottingham. Please come and say hello in person during the conference.

The committee would like to thank all the panel convenors for their efforts in shaping the intellectual agenda of SIP13, and to everyone presenting a paper and attending the conference. We have been delighted by your interest and support.

Finally, many thanks to our team of on-the-ground helpers manning the registration desk and helping you to find your way around during your visit to Nottingham:

Shih-Hsin Chen, Xiao Feng, Carlos Cuevas Garcia, Richard Helliwell, Kate Roach, Li Ruijing, Andrews Safalaoh, Georgina Wood.

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1	Panel name Responsible Innovation		Session 2	Room Highfields, A11
2	Exploring mutual influences between science, politics & public in technoscientific controversies & conflicts			,
3	New trends in science communication through interactive science and technology centers	Mon 10.15	Mon 12.00	L&SS, A4
4	The stuff of engagement: The material and affective in science in public	Mon 10.15	Mon 12.00	L&SS, A1
5	Critiquing (critical) science journalism	Tue 10.00		Highfields, A2
6	Science v. the Greens?	Mon 12.00		L&SS, A3
7	Improving the visibility of academic research: strategic interests and normative expectations	Mon 10.15		L&SS, A3
8	Public engagement and the emergent politics of public mediation	Tue 14.15		Highfields, A1
10	Are you sitting comfortably? The untapped potential of oral storytelling in public engagement with science.	Mon 17.30		L&SS, A3
11	Science and the public in African states	Mon 17.30		L&SS, A1
13	Framing and perceiving geoengineering	Tue 10.00		Highfields, A11
14	Public science: Science communications in everyday situations	Mon 15.45		L&SS, A3
15	Public communication of science & technology by universities, research centres, scientists or researchers	Mon 15.45	Mon 17.30	L&SS, A4
17	Science fiction and the social construction of science and technology	Tue 10.00	Tue 11.45	Highfields, A1
18	Making science public in the food system	Mon 17.30		L&SS, A2
20	Making expertise public: dilemmas, conflicts and controversies	Tue 11.45	Tue 14.15	Highfields, A2
22	Collins in context: a keynote discussion	Mon 15.45		L&SS, A1
23	Social media, public engagement and the history of science, technology & medicine	Mon 15.45		L&SS, A2
24	Mass media, science communication, and the shaping of perceptions	Tue 10.00		Highfields, A9
25	Science-public interactions	Tue 11.45		Highfields, A9
26	Dilemmas of ethics and regulation in science	Tue 14.15		Highfields, A9
27	Keynote address: Harry Collins - 'Can scientists "show their working"?'	Mon 14.30		L&SS, B62

Mon 22nd	Science in Public conference, University of Nottingham #SiP13 - programme grid						
Room	A1 Law & Social Sciences	A2 Law & Social Sciences	A3 Law & Social Sciences	A4 Law & Social Sciences			
0915-1000	REGISTRATION/COFFEE (Atrium, Law & Social Sciences)						
1000-1015	WELCOME (B62, Law & Social Sciences)						
1015-1145	<b>4.1</b> The stuff of engagement	<b>2.1</b> Exploring mutual influences	7 Improving visibility of academic	<b>3.1</b> New trends in science comm			
1145-1200	BREAK						
1200-1330	<b>4.2</b> The stuff of engagement	<b>2.2</b> Exploring mutual influences	<b>6</b> Science vs the Greens?	<b>3.2</b> New trends in science comm			
1330-1430	LUNCH (ATRIUM)						
1430-1530	KEYNOTE: Professor HARRY COLLINS (B62)						
1530-1545		BREA					
	22 Collins in context: keynote discussion 23 Social media/public engagement 14 Public science: science comm 15.1 Public commscience by uni's						
1715-1730	BREAK						
	11 Science & public in African states	18 Making science public in food		<b>15.2</b> Public commscience by uni's			
1945		BARBECUE and SO	CIAL (Staff Club)				
Tue 23rd							
Room	A1 Highfields House	A2 Highfields House	A11 Highfields House	A9 Highfields House			
0830-0930	A1 Highfields House	STS BREAKFAST (A1,	Highfields House)	A9 Highfields House			
0830-0930 0930-1000		STS BREAKFAST (A1, REGISTRATION/COFFEE (Clo	Highfields House) isters, Highfields House)				
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WELCOME TO NOTTINGHAM...

...and the 8<sup>th</sup> Science in Public (SiP) conference, proudly organised and hosted by the *Making Science Public* programme at the University of Nottingham.

In 2006, Alice Bell and Sarah Davies had the idea to hold an event for postgraduates called 'Science and the Public' at Imperial College, London. Since then, the conference has been held by a different UK university each year, growing into a full-scale conference with a wide participation amongst academic and practitioner communities. In 2012, the name was changed to 'Science in Public', referencing Gregory and Miller's 1998 book of the same name and reflecting changes towards work on dialogue, engagement and interactive communication. This year, we are thrilled to welcome over 120 delegates from Japan, Brazil, United States, Germany, Italy, Israel, Portugal, Denmark, Germany, Austria, Ireland and the UK to SIP13, including founding organisers Alice and Sarah who both return as panel convenors.

As this year's hosts, the *Making Science Public* team have sought to emphasise critical perspectives on 'science in public' in the conference programme. We are optimistic that this aim has been achieved, as the SIP community responded to our call with over 80 abstracts submitted across a broad range of research topics, including science centres, storytelling, expertise, emotion, geoengineering and journalism. In addition to these presented papers, SIP13 also welcomes Professor Harry Collins, one of the foremost names in science studies, to deliver our keynote address and discuss his work with a critics roundtable.

With a rich programme of research being presented and a global community in attendance, we hope that SiP13 offers you fresh opportunities in sharing your own work, learning from others and offering new perspectives on the three interrelated questions of *making*, of *science*, and of *public*.

### **Beverley Gibbs & Warren Pearce**

on behalf of the SIP13 organising committee

### **KEYNOTE ADDRESS**

Can scientists 'show their working'?
Harry Collins University of Cardiff

Monday, July 22nd, 14.30-15.30 Law and Social Sciences B62

### Abstract:

It seems almost impossible to argue against the position that if scientists revealed more of their work to citizens then citizens would be able to contribute more fully to scientific and technological decision-making. This would square scientific expertise with democracy. I argue, however, that this is a dream. Not even other scientists can understand the intricacies of what goes on within



the core-set of a disputed technical domain. Furthermore, the way disputes unfold within and without science are crucially different. To mix the inside of science with the outside world could realise the the slogan of certain STS scholars: 'science is a continuation of politics by other means.

**KEYNOTE DISCUSSION** 

Collins in context

Chair: Judith Tsouvalis Making Science Public, University of Nottingham

Monday, July 22nd, 15.45-17.15 Law and Social Sciences A1

Anne Kerr University of Leeds
Sujatha Raman Making Science Public, University of Nottingham
Jack Stilgoe University College London
James Wilsdon SPRU, University of Sussex

The panellists will collectively explore the question of the proper relationship between science, expertise, politics and publics, with reference to the work of Professor Harry Collins on expertise and policy-making. What should be the roles of experts and publics in technical decision-making? How ought we to think about the relationship between scientific and political considerations in this context? What can STS contribute to this debate? These are some of the questions the panellists will consider in 10-12 minute statements followed by a response from Professor Collins and an open discussion.

# LIST OF PANELS

**2.1** I EXPLORING MUTUAL INFLUENCES BETWEEN SCIENCE, POLITICS AND PUBLIC IN CONTROVERSIES AND CONFLICTS I *Law and Social Sciences*, *A2* 

Panel Convenor: Giuseppe Tipaldo, University of Turin, Italy

The wounded scientists: What the experts experienced through public communication after the Fukushima incident

Ikuko Kase University of Tokyo, Japan Nozomi Mizushima University of Tokyo, Japan Keiichi Nakagagwa, University of Tokyo, Japan Osamu Sakura University of Tokyo, Japan

Geological disposal: A 200-year full-scale experiment with public engagement? Catharina Landström University of East Anglia

When science trembles. Presenting a model of mutual relationships between science, politics, media and society in the case of the Italian scientists conviction for the earthquake in L'Aquila

Giuseppe Tipaldo University of Turin, Italy

**3.1** I New trends in Science Communication through Interactive Science and Technology Centers I *Law and Social Sciences, A4* 

Panel Convenors:

Erik Stengler, University of the West of England Guillermo Fernandez, University Pumpeu Fabra, Barcelona

The role of science centres in society

Matthew Wotton University of West England

Do science centres really engage in dialogue with the public? **Hannah Owen** University of West England

Inclusive museums as contributors to social change
Anna Omedes Natural History Museum of Barcelona, Spain

**4.1** I THE STUFF OF ENGAGEMENT: THE MATERIAL AND AFFECTIVE IN SCIENCE IN PUBLIC I Law and Social Sciences, A1

Panel Convenors: Sarah Davies & Adam Bencard University of Copenhagen, Denmark

Public engagement in a systems approach: Science in a deliberative society **Sarah Davies** University of Copenhagen, Denmark

Translating Khat
Simon Parry University of Manchester

Rock and awe: materiality, affect and the use of underground research laboratories in stakeholder engagement about geological disposal of nuclear waste **Peter Simmons** University of East Anglia

**7** I IMPROVING THE VISIBILITY OF ACADEMIC RESEARCH: STRATEGIC INTERESTS AND NORMATIVE EXPECTATIONS I *Law and Social Sciences*, *A3* 

Panel Convenors:

Martina Franzen, Science and Technology Unit, University of Bielefeld, Germany.

Arlena Jung, Social Science Research Center, Berlin, Germany

The (dys)functionality of visible science: a comparative perspective on science in the media

Martina Franzen Science and Technology Unit, University of Bielefield, Germany Arlena Jung Social Science Research Center, Berlin, Germany

Pride and prejudice: science communication from within a science institute Gabriele Frias

Staging Science: new approaches in science communication, popular and artistic science performance

Miira Hill Technische Universitat Berlin

Secrets and Liabilities: Exploring the challenge for academic institutions of making non-human animal research more 'visible' to publics

**Carmen McLeod** *Making Science Public,* University of Nottingham **Pru Hobson-West** *Making Science Public,* University of Nottingham

**2.2** I EXPLORING MUTUAL INFLUENCES BETWEEN SCIENCE, POLITICS AND PUBLIC IN CONTROVERSIES AND CONFLICTS I *Law and Social Sciences*. *A2* 

Panel Convenor: Giuseppe Tipaldo, University of Turin, Italy

Role and function of science media centres between science, politics, mass media and their publics in technoscientific controversies

Simone Rödder University of Hamburg, Germany

Evidence-based policy or policy-based evidence? Striking the balance between responsible and impactful communication of environmental research to policy-makers Franca Davenport University of West of England

The science and politics of evidence based policy **Steffan John** Swansea University

From truth to patents: What kind of "knowledge" guides our societies?

Aline Guevara Villegas National Autonomous University of Mexico, Mexico

**3.2** I New trends in Science Communication through Interactive Science and Technology Centers I *Law and Social Sciences*, *A4* 

Panel Convenors:

Erik Stengler, University of the West of England, Guillermo Fernandez, University Pumpeu Fabra, Barcelona

Motivations for volunteering in three UK science centres **Bonnie Buckley** 

The introduction of museums and science centers in social networks Cecelia Cavalcanti Federal University of Rio de Janeiro, Brazil

Encouraging creativity: novel learning environments in science and technology centres. **Melanie Davies** University of West England

Is there room For museology principles in the design and day-to-day running of a science centre?

Erik Stengler University of the West of England
Guillermo Fernandez University Pumpeu Fabra, Barcelona, Spain

**4.2** THE STUFF OF ENGAGEMENT: THE MATERIAL AND AFFECTIVE IN SCIENCE IN PUBLIC I Law and Social Sciences. A1

Panel Convenors: Sarah Davies & Adam Bencard University of Copenhagen, Denmark

Not a museum with things, but a museum about thingness – possible strategies for deepening material encounters in a museum context

Adam Bencard University of Copenhagen, Denmark

Material deliberation as public engagement in the Nanoscale Informal Science Education (NISE) network

Kathryn de Ridder-Vignone Arizona State University, USA

What's happening midstream? Making the material material **Beverley Gibbs** Making Science Public, University of Nottingham

6 | SCIENCE VS THE GREENS? | Law and Social Sciences, A3

Panel Convenor: Alice Bell, SPRU, University of Sussex

Why the Green movement is not anti-science **Anne Chapman** Greenhouse Thinktank

Messing with Nature? Public perceptions of geoengineering & their implications for the 'greens vs science' debate

**Adam Corner** Cardiff University

The "New Environmentalists"

James Murray Business Green

22 | COLLINS IN CONTEXT: A KEYNOTE DISCUSSION | Law and Social Sciences, A1

### Discussion chair: Judith Tsouvalis, Making Science Public, University of Nottingham

The panellists will collectively explore the question of the proper relationship between science, expertise, politics and publics, with reference to the work of Professor Harry Collins on expertise and policy-making. What should be the roles of experts and publics in technical decision-making? How ought we to think about the relationship between scientific and political considerations in this context? What can STS contribute to this debate? These are some of the questions the panellists will consider in 10-12 minute statements followed by a response from Professor Collins and an open discussion.

Anne Kerr University of Leeds
Sujatha Raman Making Science Public, University of Nottingham
Jack Stilgoe University College London
James Wilsdon SPRU, University of Sussex

**23** I SOCIAL MEDIA, PUBLIC ENGAGEMENT AND THE HISTORY OF SCIENCE, TECHNOLOGY & MEDICINE I *Law and Social Sciences, A2* 

Panel convenor: **Rebekah Higgitt**Royal Museums Greenwich

Alice Bell University of Sussex
Gregory Hollin University of Nottingham
Lucy Veale University of Nottingham
Rebekah Higgitt Royal Museums Greenwich (online from iCHSTM 2013)
Vanessa Heggie University of Birmingham (online from iCHSTM 2013)
Nathaniel C Comfort Johns Hopkins University (online)
Darin Hayton Haverford College (online)

Fittingly, this session uses social media to bring together, online, a panel of individuals at two conferences and in two countries, to discuss the issues raised by engaging with different audiences through social media. The panel sits within the programmes of both SiP13 and the Manchester-based International Congress for History of Science, Technology and Medicine, and includes several short presentations before opening out to wider discussion.

The focus will be on individuals' experiences of using social media to reach out to wider, or other, audiences on the history of science, technology and medicine. Speakers will probe the categories of academia, social media and the public, and discuss the importance of listening and two-way communication rather than simply broadcasting. Participants will reflect on the ways in which online context may change what we choose to say, and how, and what we can learn from those who have interacted with groups that have very different agendas. It is clear that social media blurs the lines between expert and lay, colleagues and public, subjects and audiences, and that this can be hugely rewarding and productive, but also provocative and troubling.

**14** I PUBLIC SCIENCE: SCIENCE COMMUNICATIONS IN EVERYDAY SITUATIONS I Law and Social Sciences. A3

Panel Convenor:

Kimberly Arcand, Chandra X-ray Center/Smithsonian Astrophysical Observatory, Cambridge, Mass. USA

From churches to pavements: urban geology and paleontology in Algarve Luís Azevedo Rodrigues Centro Ciencia Viva de Lagos, Portugal Margarida Agostinho
Rita Manteigas

Why do scientists engage in public science events? Motivation, experience and evaluation Rhian Salmon Victoria University of Wellington, New Zealand

**15.1** I PUBLIC COMMUNICATION OF SCIENCE AND TECHNOLOGY BY UNIVERSITIES, RESEARCH CENTRES, SCIENTISTS OR RESEARCHERS AND SOCIETY RIGHTS I *Law and Social Sciences, A4* 

Panel Convenor: Carlos Teixeira, University of Sao Paulo, Brazil

Showing public value: factors supporting researchers' attitudes to open science **Ann Grand** University of West England

Who cares about physics today? A marketing strategy for the survival of fundamental science and the benefit of society

**Umberto Cannella** 

Communication & engagement practices at CERN Jamie Dorey Open University

What would the public want? **Ash Choudry** Notts Science

**10** I ARE YOU SITTING COMFORTABLY? THE UNTAPPED POTENTIAL OF ORAL STORYTELLING IN PUBLIC ENGAGEMENT WITH SCIENCE I Law and Social Sciences, A3

Panel Convenor: Sophia Collins, Tales from the River

Tales of the wild: storytelling and landscape scale conservation

Lisa Schneidau Devon Wildlife Trust

The story collider: where science and storytelling combine

Brian Wecht Storycollider

Edinburgh Beltane's storytelling journey **Heather Rea** Beltane Public Engagement Network

11 | SCIENCE AND THE PUBLIC IN AFRICAN STATES | Law and Social Sciences, A1

Panel Convenors: Nate Sawadogo & Yao-Martin Donani, University of Nottingham

Ugandan science cafés in schools Duncan Dallas Café Scientifique

Obstacles to the expansion of science and technology for socioeconomic development in Ghana

Yao-Martin Donani University of Nottingham

Models for science capacity building in Africa – an international comparison Nate Sawadogo University of Nottingham

Civil society, innovation and development: A case study of Bt Cotton in Burkina Faso **Eveline Compaore** University of Nottingham

**15.2** I Public communication of science and technology by universities, research centres, scientists or researchers and society rights. I *Law and Social Sciences*. *A4* 

Panel Convenor: Carlos Teixeira, University of Sao Paulo, Brazil

Universities 'communicating' science with primary schools: a practitioner's reflections on what, why and how

Hannah Crookes University of Nottingham

Researching the researcher: Conflicts of interest in addiction research & advocacy David Miller University of Bath Claire Harkins University of Bath

Practices and images of research communication by Italian scientists over the past five years

Adriana Valente Istituto di Ricerche sulla Popolazione e le Politiche Sociali (IRPPS), Italy Alba L'Astorina Istituto di Rilevamento Elettromagnetico dell'ambiente (IREA), Italy Sveva Avveduto Istituto di Ricerche sulla Popolazione e le Politiche Sociali (IRPPS), Italy Loredana Cerbara Istituto di Ricerche sulla Popolazione e le Politiche Sociali ,Italy

Public communication of science and technology by universities, research centres, scientists and researchers

Carlos Teixeira University of Sao Paulo, Brazil

18 | MAKING SCIENCE PUBLIC IN THE FOOD SYSTEM | Law and Social Sciences, A2

Panel Convenor: Adam Spencer, *Making Science Public*, University of Nottingham

What shapes public opinion? The case of public consultations throughout the French GM debate

Elodie Brule-Gapihan Univeristy of Reims, France

Humans, other animals and risk framing in movements for 'One Health' **Angela Cassidy** Imperial College

Food security as a frame: exploring the politics and their consequences **Adam Spencer** Making Science Public, University of Nottingham

5 | Critiquing (critical) science journalism | Highfields House, A2

Panel convenors:

Kristian Nielsen, Gunver Lystbaek Vestergaard, University of Aarhus, Germany

The use and portrayal of scientific expertise in climate change coverage in Austrian newspapers

**Anja Bauer** University of Natural Resources and Life Sciences, Vienna **Markus Pikl** University of Natural Resources and Life Sciences, Vienna

My research, our findings: scientists' stories in television interviews
Rony Armon Technion - Israel Institute of Technology
Ayelet Baram-Tsabari Technion - Israel Institute of Technology

Water and oil don't mix – on journalistic dissemination of research Charlotte Wien University of Southern Denmark

Do science media centres hinder or facilitate critical science journalism? **Simone Rödder** KlimaCampus, University of Hamburg, Germany.

13 | Framing and Perceiving Geoengineering | Highfields House, A11

Panel Convenor: Adam Corner, Cardiff University

Media representations of geoengineering: constructing hopes and fears through metaphor use

Rusi Jaspal de Montfort University

Framing and perceiving geoengineering Kirsty Kuo University of Cambridge

Geo-engineering: framing, justice and public responses **Duncan McLaren** Lancaster Environmental Centre.

The construction of geoengineering on Wikipedia Nills Markusson University of Oxford.

Public attitudes to geoengineering: the danger of "going rogue" and other framings Karen Parkhill Cardiff University

# **17.1** I SCIENCE FICTION AND THE SOCIAL CONSTRUCTION OF SCIENCE AND TECHNOLOGY I Highfields House, A1

# Panel Convenor: Christopher Leslie, Polytechnic Institute of New York University

Edward Bellamy and the future of the future

Anthony P. Pennino Stevens Institute of Technology, USA

Detectives show how science is done

**Katherine Roach** 

The source of magic

Sean Wilcock Leeds Metropolitan University

"The predicted internet isn't the internet at all!": The mutual influence of science fiction and innovation

Georgina Voss University of Brighton

**24** I Mass Media, Science Communication, and the Shaping of Perceptions I *Highfields House, A9* 

# Panel Convenor: Judith Tsouvalis, *Making Science Public*, University of Nottingham

On alerters, analysts, and critics: The roles of researchers in Austrian newspapers **Andrea Tony Hermann** University of Natural Resources and Life Sciences, Vienna, Austria.

**Markus Pikl** University of Natural Resources and Life Sciences, Vienna, Austria. **Anja Bauer** University of Natural Resources and Life Sciences, Vienna, Austria.

Producing a public image for the human genome project: Comparing the Greek to the international experience

Constantinos Morfakis National and Kapodistrian University of Athens, Greece

Tobacco in the media: an analysis of the Spanish press from the perspective of framing: E I País, E I Mundo, Abc and La Razón

Pilar Paricio Universidad CEU Cardenal Herrera. Valencia, Spain.

Cristina Rodríguez Luque Universidad CEU San Pablo. Madrid, Spain.

Francisco Núñez-Romero Universidad CEU Cardenal Herrera. Valencia, Spain.

The silences of science

Felicity Mellor Imperial College London

### 1.1 | RESPONSIBLE INNOVATION | Highfields House, A11

Panel Convenor:

**Jack Stilgoe, University College London** 

Responsible Innovation

Jack Stilgoe University College London

Responsible Research and Innovation: Construction of a new European value? **Stevienna de Saille** Making Science Public, University of Sheffield

To be confirmed Richard Jones University of Sheffield

Unstructured Care for the Future: a study of responsible innovation of medical technologies

Anne Kerr Leeds University

Anne Kerr Leeds University
Chris Till Leeds University
Paul Ellwood Leeds University

**17.2** I SCIENCE FICTION AND THE SOCIAL CONSTRUCTION OF SCIENCE AND TECHNOLOGY I Highfields House, A1

Panel Convenor: Christopher Leslie, Polytechnic Institute of New York University

Confusion, Control and Comfort: Premediating Identity management in Film and television Georgina Turner Loughborough University Liesbet van Zoonan Loughborough University

"The evil science": unethical biomedical science as the bases for dystopian fiction **Jimena Escudero Perez** University of Oviedo, Spain

Worlds that tell stories, stories that tell worlds: diegesis and mimesis in science fiction and technoscience

Paul Raven University of Sheffield

From science fiction to design fiction **Jon Turney** 

**20.1** I MAKING EXPERTISE PUBLIC: DILEMMAS, CONFLICTS AND CONTROVERSIES I Highfields House, A2

Panel Convenors: Warren Pearce, Sujatha Raman, Making Science Public, University of Nottingham

Hail to the Chief: experts, publics and the future of scientific advice in Whitehall **James Wilsdon** SPRU, University of Sussex

Re-thinking expertise through medico-legal reports in Turkey Basak Can University of Pennsylvania, USA

Making expertise public? The new RCT movement in UK public policy Warren Pearce Making Science Public, University of Nottingham Sujatha Raman Making Science Public, University of Nottingham

25 | SCIENCE-PUBLIC INTERACTIONS | Highfields House, A9

Panel Convenor: Judith Tsouvalis, *Making Science Public*, University of Nottingham

Working with/on renewable energy science in Stocksbridge Anna Krzywoszynska Durham University

"Nuclear energy sounded wonderful 40 years ago": 'Engaged' and 'non-engaged' citizens views on CCS

**Simon J Lock** University College London **Melanie Smallman** University College London

"You're never more than two degrees from a robot arm": Hackspaces, boundary objects and the arts

Georgina Voss University of Brighton

### 1.2 | RESPONSIBLE INNOVATION | Highfields House, A11

Panel Convenor:

**Jack Stilgoe, University College London** 

Shifts, slippages and turf-wars of 'Responsible Innovation' Sally Randles University of Manchester

Examining responsible innovation in the biosciences

Rob Smith University of Nottingham

Responsible innovation and nanotechnologies in the EC **Jon Turney** 

Blocking the silver bullet: Public ethics and the governance of a GMO pathway in Kenyan agriculture

Stephen Whitfield Institute of Development Studies

**8** I PUBLIC ENGAGEMENT AND THE EMERGENT POLITICS OF PUBLIC MEDIATION I *Highfields House, A1* 

Panel Convenor: Nick Mahony, Open University

MAKE Magazine and the instruction of risk management **Josef Nguyen** UC Davis, USA

Which Publics? The politics of involving different publics in dialogue around science and technology

Alison Mohr Making Science Public, University of Nottingham

Mediated participation and adaptation to environmental change: A theoretical framework for evaluating public engagement as citizenship in mass communication about the transition to a low carbon future

Brenda McNally Dublin City University, Ireland

**20.2** I MAKING EXPERTISE PUBLIC: DILEMMAS, CONFLICTS AND CONTROVERSIES I Highfields House, A2

Panel Convenors: Warren Pearce, Sujatha Raman, Making Science Public, University of Nottingham

Making scientific risk assessment public: EFSA, GM animals and public knowledge Sarah Hartley Making Science Public, University of Nottingham

BRIDGE: examining the tensions and transparency issues between scientists, policy makers and other stakeholders in the deliberative co-creation of science-policy communication tools in Ireland

Joanna Rourke Trinity College Dublin, Ireland Anna Davies Trinity College Dublin, Ireland

The Science Media Centre: An empirical evaluation **David Miller** University of Bath

26 | DILEMMAS OF ETHICS AND REGULATION IN SCIENCE | Highfields House, A9

Panel Convenor: Judith Tsouvalis, *Making Science Public*, University of Nottingham

A case study in the regulation of nano-particles under the European Biocidal Products Directive

Michael Reinsborough Arizona State University, USA.

Normalising the enhancement discourse: Genetics, social structures and moral generalisation

Oliver Feeney National University of Ireland, Galway, Ireland.

Social dynamics of biomedical science: An explanation for the impasse in the animal experimentation debate about primate use?

Michelle Hudson-Shore University of Nottingham & FRAME

### **CONFERENCE PROCEEDINGS**

This year, proceedings from Science in Public will be published as an e-book. Presenters who wish a version of their paper to appear in the e-book of proceedings should submit their paper to <a href="mailto:adam.spencer@nottingham.ac.uk">adam.spencer@nottingham.ac.uk</a> by 30 August 2013 and adhere to the following style.

Word limit: 1500 words.

Title: Should be in Arial 14 point bold, and centre aligned.

*Name:* State author's name, email address and institutional affiliation. If there is more than one author please nominate one as corresponding author.

Section headings: Use Arial 12 point bold capitals, left aligned.

Main text: Arial 12 point, left aligned.

References: Use Harvard system of referencing (Author 2012, p. 3) and not (Author 2012:3). List references in alphabetical order at the end of the paper.

Please note, papers submitted that deviate from this style will be returned to authors for correction.

### **TRANSPORT**

Further information on transport is available at any time from the registration desk - please ask any of our team for details.

### **Buses to University Park from Beeston Station (and return):**

Buses from Beeston train station include the number 13 and 14 buses, which pick up nearby and go to the university. No. 13 goes through the campus (stopping outside building 16 (Portland Hill) and on East Drive – please see campus map) and the No. 14 goes down university boulevard. There are other buses to choose from at Beeston bus station but this is a 10 minute walk from Beeston Station. You could walk the whole way from the station to University Park in approx. 25-30 minutes.

### **Buses to University Park from Nottingham City Centre (and return):**

Nottingham City Transport's 34 line between University Park and the city centre runs a permanent seven day a week service. Buses run every 15 minutes during the day (including weekends) and every 20 minutes in the evenings. Buses stop outside building 16 (Portland Hill) and on East Drive (please see campus map).

### **Shuttle bus from campus to East Midlands Parkway station**

If you pre-booked this service when registering, the bus will leave at 16.30 on Tuesday, after conference closes.

### Taxis:

Cable Cars taxi number is 0115 922 9229. There is a taxi rank at Beeston train station but it is small and it might be wise to book ahead. It is an approximately 5-10 minute taxi journey and probably the best option for those not familiar with the area. If you require a taxi for your onward journey from conference, please contact the registration desk who will be happy to book for you.

### PHARMACY & UNION SHOP

There is a Boots' pharmacy on the lower ground floor of the Portland building, two minutes walk from conference venues (building 15 on maps).

Opposite Boots' is the Students' Union shop, which sells a range of food, stationery, clothing etc.

### Making Science Public: Challenges and Opportunities Leverhulme Trust Research Programme

In the UK , over the last 20 years, a series of political crises have challenged the authority of science (MMR vaccine), the integrity of research ("Climategate"), , the governance of controversial new technologies (GM crops), and the role of expert advice and evidence in policymaking (BSE; David Nutt's resignation over drug policy). This has contributed to a widely held perception of a lack of public trust in science, decline in the capacity of science to underpin political legitimacy, and tensions in the relationship between government and science.

In principle, a solution to these problems is to make the practice, use and assessment of science in policy-making and political participation more public, open and democratic. For example:

- UK government has sponsored initiatives on transparency in scientific advice for policy making, promoting scientific literacy, building public trust in science, and engaging the public on the implications of new research.
- Public debate has been fostered by increases both in media interest in science and pressure on scientists to engage with the media.
- Online, social media usage has created new spaces of 'scientific citizenship' in which different groups promote or contest scientific knowledge and its use, allowing other forms of authority, such as religion, to re-enter debates about science and technology.
- Patient advocacy groups are becoming involved with advances in biomedical knowledge and seeking to influence research programmes.
- Moves to promote much greater openness within the practice of science itself through open access academic publishing and open source computer code.

However, such opportunities for science to be more openly practiced and discussed, for government to promote integrity and transparency in policy making, and for various publics to influence political decision-making through science are counterbalanced by a number of challenges, including:

The rise of science/industry partnerships and the privatisation of knowledge: Science and technology are promoted by governments as the main source of innovation and a major driver of economic growth and competition. The rise of the knowledge economy, the increasing importance of intellectual property and greater commercialisation of public research are all making science more "private". This has prompted calls for science to more explicitly serve the public good.

The proliferation of expertise and politicisation of science: With the institutionalisation of scientific advice in government, scientific evidence appears to be the currency of many political debates, leading to concerns that value judgments are marginalised. However, many leading scientists argue that policymakers pay scant attention to scientific evidence and that the use of science is politicised; different stakeholders merely cherry-pick studies that support their own political position.

The challenges of public engagement with science: Empirical studies of public participation find a tendency to 'close down' rather than 'open up' issues for debate and policy options. Difficulties that lay people have with scrutinizing expertise and engaging in discussion about different ethical assumptions around science have also been charted.

Previous scholarship has addressed separate aspects of these issues, but there has been no systematic attempt to study the challenges of making science more public and the consequences for the relationship between science and politics on, a comparative basis across a number of key domains. This multidisciplinary programme seeks to address this important gap in knowledge.

### Key questions:

- · What is meant by making science more public, open or transparent? Who are 'the public' and how are they constituted?
- What might 'public science' mean for the authority and independence of science and the capacity of publics to engage with science?
- What are the political implications of making science more public and how does this relate to issues of legitimacy and transparency in politics and policy making?
- How will such changes help address the problems outlined above?

The Making Science Public programme addresses these questions across a number of projects looking at food, agriculture & animals; energy & environment; and health & social policy, bringing together findings in these areas to explore the implications for the theory and practice of democracy. The programme runs until 2017.

### Research programme team

- Brigitte Nerlich, Director
- Sujatha Raman, Deputy Director
- · Harinee Selvadurai, Programme Manager
- Saul Becker
- Pru Hobson-West
- John Holmwood
- Vivien Lowndes
- Paul Martin (University of Sheffield)
- Kate Millar
- Alison Mohr
- Carol Morris
- Susanne Seymour
- Alexander Smith (University of Warwick)
- · Warren Pearce
- · Adam Spencer
- Judith Tsouvalis
- Sarah Hartley
- Carmen McLeod
- Stevienna de Saille
- Eleanor Hadley Kershaw

www.nottingham.ac.uk/makingsciencepublic http://blogs.nottingham.ac.uk/makingsciencepublic @MakingSciPub

### SCIENCE IN PUBLIC HISTORY

2012 - University College London

2011 - University of Kingston

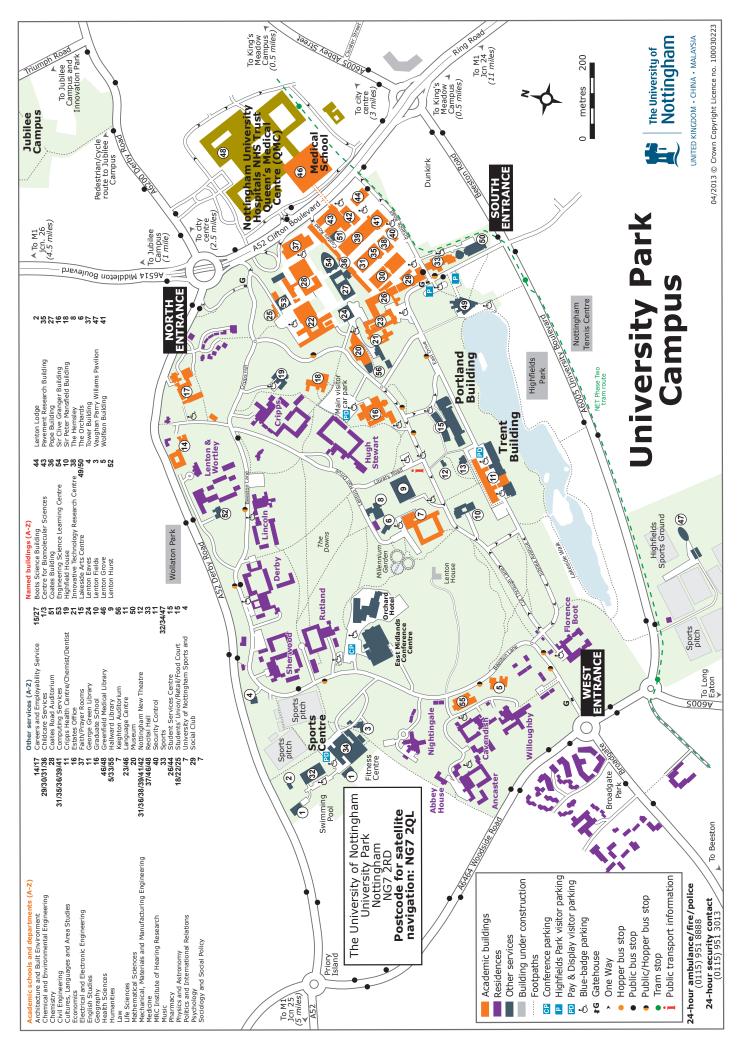
2010 - Imperial College London

2009 - University of Brighton

2008 - University of Manchester

2007 - Imperial College London

For links to previous conference programmes and more information about Science in Public, please visit our website <a href="http://scienceinpublic.org">http://scienceinpublic.org</a>



### SCHEDULE OVERVIEW

MONDAY, 22ND JULY 2013

9.00 Registration/coffee (Atrium, Law & Social Sciences)

10.00-10.15 Welcome (B62, Law & Social Sciences)

10.15-11.45 Panels

11.45-12.00 Coffee break

12.00-13.30 Panels

13.30-14.30 Lunch (Atrium, Law & Social Sciences)

14.30-15.30 Keynote by Harry Collins (B62, Law & Social Sciences)

15.30-15.45 Coffee break

15.45-17.15 Panels

17.15-17.30 Coffee break

17.30-19.00 Panels

19.45 Conference barbecue at Staff Club, Hemsley Building

TUESDAY, 23RD JULY 2013

8.30-9.30 STS Breakfast (Highfields, A1) (pre-registered delegates only)

9.30-10.00 Registration (Cloisters, Highfields)

10.00-11.30 Panels

11.30-11.45 Coffee break

11.45-13.15 Panels

13.15-14.15 Lunch Cloisters, Highfields)

14.15-15.45 Panels

15.45-16.15 Thanks and prizegiving (Highfields, A1)

