

SATSU

Science and Technology Studies Unit

Activities during
2003

Sociology of Science
& Technology Policy

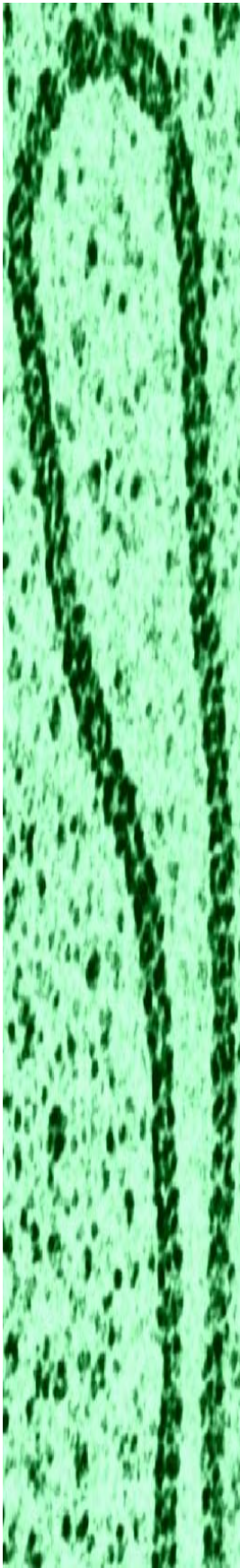
Cultural Dynamics of
Scientific &
Technological
Change

Identity & Risk
Understandings



Science and Technology Studies Unit

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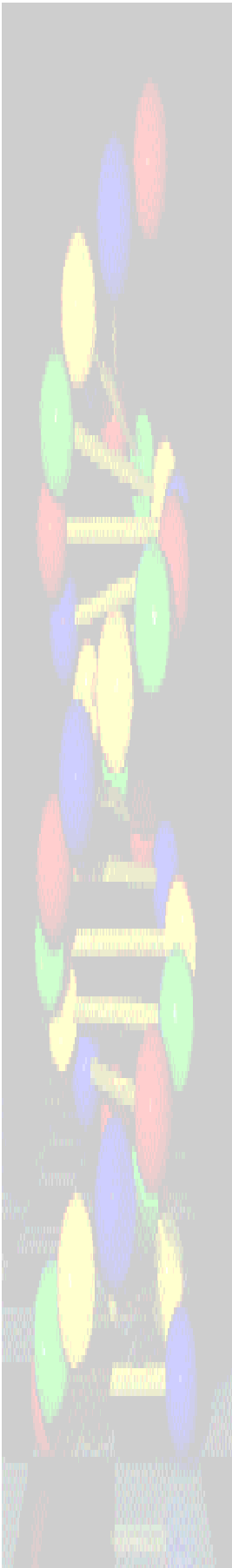
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Activities During 2003

The Science and Technology Studies Unit specialises in understanding the complex dynamics of change in contemporary S&T networks. Conceptually, SATSU has sought to explore the socio-technical co-construction of knowledge, artefacts and public policy.

The Unit was initially established, in the late 1980s, to critique public/private links between university and industrial actors. In subsequent years, the SATSU portfolio has expanded considerably to encompass a widening field of critique applied to technology and science.

This document provides a brief overview of SATSU's work during 2003



2003

Director's Introduction

This year has seen the Unit continue to build on its national and international research activity on all fronts. As the accompanying report shows, SATSU members have been very active in publishing and giving many invited presentations at highly prestigious conferences, have secured renewed grant income and linked with policy-makers in arenas such as health, transport and foresight. The core areas of work seem to remain of central interest to funding agencies in the UK and elsewhere, and new opportunities announced for 2004 should help continue our track record of success.

Though the formal membership of the Unit has remained the same, our number have been bolstered, and refreshed on an ongoing basis, by the Marie Curie Visiting Fellows that have joined us throughout 2003. This has been one of the highlights of the year inasmuch as the Fellows have brought with them a range of interests in the field of genetics and society that provided a valuable and diverse contribution to our intellectual (and social!) life. Details of their areas of work are posted on the web site, and we intend to continue our links with them in the future. New Fellows will be joining us as part of this same programme in 2004. There are also forward plans to develop a second Marie Curie Programme, based on but slightly wider in analytical and empirical focus than the first, which comes to an end in 2005. Two new full-time PhD students joined the Unit to join our existing doctoral members.

Another highlight of the year has been the successful completion of a number of projects relating to xenotransplantation, pharmacogenetics, innovation and wheel-chair design, while new projects have also been commissioned across the thematic areas of the Unit. We have in each of these projects sought to show how our work is of both academic and policy-related value, and as a result have been approached by both communities to contribute

towards the latest debates in the field.

Successful new bids this past year have been made that open up new, while also building on established areas of work. For example, in regard to the latter, our work on pharmacogenetics supported by the Wellcome Trust has led to new ESRC grant-income to explore this field especially in relation to clinical and regulatory response. New work relating to ICTs and public trust began in the summer in collaboration with colleagues in computer science and psychology.

The wider role of the Director in representing both the Unit's work and that of the very successful ESRC/MRC Programme that he continues to direct (see www.york.ac.uk/res/iht), has meant that he has taken up a number of key positions at national level in 2003. These include Chair of the ESRC's Innogen Centre in Edinburgh, membership of the Department of Health's national Advisory Group on genetics research, and of the MRC's National Stem Cell Bank Steering Committee.

Our international work is based on strong research links, especially in Europe, but now also in Japan and the US. We are members of a new European Commission Network of Excellence on policy research in Europe, a health network, and a continuing foresight research group. The Unit also received a number of visitors from Australia, the US, the Netherlands, and Canada. Finally, 2003 saw the fifteenth year since the formation of SATSU in September 1988, at its original location at Anglia Polytechnic University in Cambridge. There are plans for a celebratory conference in the autumn of 2004 to review the contribution the Unit has made to the sociology of science and technology. Those interested in attending should consult our web site where details will be posted.

Prof. Andrew Webster

Core Research Areas

SATSU's key intellectual strengths lie in three related fields of enquiry, each of which serves as a basis of empirical research activity:

Sociology of Science & Technology Policy

SATSU has been able to occupy a position that combines both critiques of and for policy formation. That is, our research is intended to actively contribute to the intellectual environment within which decision-making takes place in a wide variety of contexts. During 2003, SATSU was invited to participate in a number of research networks including:

- ***PRIME (Policy Research in the Move Towards a European Research Area)***
Funding: European Commission. Status: Continuing. Contact: Andrew Webster
- ***ITEMS - (Identifying Trends in European Medical Space).***
Funding: European Commission. Status: Continuing. Contact: Andrew Webster.

Cultural Dynamics of Scientific and Technological Change

Determining the patterns and dynamics of change represents an increasingly important starting point for a more constructive engagement with scientific and technical innovation. SATSU's work has focused on providing a means of key features of emerging and future developments and can be demonstrated through the following projects:

- ***Time, Dependability and Trust: Constructing public confidence in ICT systems***
Funding: UK ESRC/EPSRC. Status: Continuing. Contact: Nik Brown.
- ***A Historical Study of the Wheelchair***
Funding: UK ESRC. Status: Continuing. Contact: Brian Woods.
- ***The Clinical and Commercial Development of Pharmacogenetics***
Funding: Wellcome Trust. Status: Completed. Contact: Graham Lewis.
- ***Valuing the National Cycle Network: Travel Behaviour, Transport Infrastructure and Local Communities*** Funding: York University Pump Priming fund. Status: Continuing.
Contact: Paul Rosen.

Identity and Risk Understandings

Underpinning much of SATSU's work are analytical questions about the management and negotiation of risk and endangerment in a number of empirical contexts including biomedical and social science research. In particular, a number of our projects explore a whole range of lay and expert identity formations in a number of risk debates:

- ***Xenotransplantation: Risk Identities and the Human/nonhuman Interface***
Funding: UK ESRC. Status: Continuing. Contact: Nik Brown.
- ***Developing a National Framework for Social Science Research Ethics***
Funding: UK ESRC. Status: Continuing. Contact: Graham Lewis.

Activities during 2003

Publications

Chapters

Andrew Webster

Andrew Webster, et al. (2003), Controlling intellectual property across the high-tech frontier in Blackburn, R. (ed) *Intellectual Property and Innovation Management in Small Firms*, London, Routledge, 105-122.

Graham Lewis

Lewis, G. (with Abraham, J.) (2003), Europeanization of Medicines Regulation, in Abraham, J., & Lawton-Smith, H. (eds), *The Regulation of the Pharmaceutical Industry*, London, Palgrave.

Journal articles

Nik Brown

Brown, N. (2003) Hope against hype: accountability in biopasts, presents and futures, *Science Studies*, 16, 2, 3-21.

Brown, N. & Michael, M. (2003) A Sociology of Expectations: Retrospecting Prospects and Prospecting Retrospects, *Technology Analysis and Strategic Management*, 15, 1, 3-18.

Yuwei Lin

Lin, Y (2003) The Institutionalization of Hacking Practices. *Ubiquity*, 4(4) www.acm.org/ubiquity/views/y_lin_1.html

Paul Rosen

S. Yearley, S. Cinderby, J. Forrester, P. Bailey & P. Rosen (2003) Participatory Modelling and the Local Governance of the Politics of UK Air Pollution: A Three-City Case Study, *Environmental Values* 12, 247-62.

A. Cope, S. Cairns, K. Fox, D.A. Lawlor, M. Lockie, L. Lumsdon, C. Riddoch & P. Rosen (2003) The UK National Cycle Network: an assessment of the benefits of a sustainable transport infrastructure. *World Transport Policy & Practice*, 9, No. 1: 6-17. <http://www.eco-logica.co.uk/wtpp09.1.pdf>

Brian Woods

Woods, B. & Watson, N. (in press), A Short History of Powered Wheelchairs, *Assistive Technology*.

Woods, B. & Watson, N. (in press), In Pursuit of Standardization: the British Ministry of Health's Model 8F Wheelchair 1948-1962, *Technology and Culture*.

Woods, B. & Watson, N. (in press), When Wheelchair Innovation in Britain was Under State Control, *Technology and Disability*.

Woods, B. (2003) Heated Debates: A History of the Space Shuttle's Thermal Protection System 1970-1981, *Quest: The History of Spaceflight Quarterly*, 10, 3: 39-55.

Reports

Paul Rosen, *How Can Research into Cycling Help Implement the National Cycling Strategy? Review of Cycling Research Findings and Needs*. Report of Whitehall Summer Placement in the Department for Transport, CLT3 & CLT4, Published Jan 2003. Also online database of cycling research projects from the review at: www.york.ac.uk/org/satsu/Projects/whitehall/

Conference Papers & Presentations

Nik Brown, *Hope against hype: Accountability in biopasts, presents and futures* - invited speaker, BiotechSociety Conference, Helsinki, Sept 2003.

Nik Brown, Risky Creatures - innovating institutions, disciplines and cultures in xenotransplantation, *Vital Politics* Conference, London School of Economics, Sept 2003.

Nik Brown (& Mike Michael) *Dystopias and dystopias: Futures and performativities in xenotransplantation*, British Sociological Association Annual Conference, University of York, 12 April 2003.

Yuwei Lin, *Heterogeneity and Convergence in Hacking*, SATSU Seminar Series, York. Feb 2003.

Yuwei Lin, *A Sociology of Hackers*, Summer Source

(Continued on page 6)

(Continued from page 5)

Conference Papers & Presentations

Software Camp for NGOs, Vis, Croatia, Sep 2003.

Yuwei Lin, *Culture, Creativity, and Innovation: practices of locally-crafted software*. Presented at joint seminar, SATSU/HCI group (computer science and psychology departments) May 2003, University of York, UK.

Maria Eugénia Rodrigues, *Environmental Movements, Science and the Publics: reflections on a case study*, International Symposium Environment 2010: Situation and Perspectives for the European Union, University of Porto, Faculty of Engineering, Portugal, May 2003. (also published in Neves, Mário e Neves, Ana Cristina V. (eds), 2003, *Proceedings of the International Symposium Environment 2010: Situation and Perspectives for the European Union*, University of Porto, Faculty of Engineering.

Maria Eugénia Rodrigues, *Environmental Security, New Technologies and The Economics: intersections in a context of globalisation*, International Summer School on the Politics and Economics of Renewable Energy (EU High Level Scientific Conferences), University of Salzburg, Department of Political Science, 12-26 July 2003.

Paul Rosen, How can cycling research contribute to policy objectives? A systematic review of cycling research findings and needs in the UK, presented to the international cycle planning conference, *VeloCity* 2003, Paris, September 22-26 2003.

Richard Tutton, *Myriad stories: constructing expertise and citizenship in discussions of the new genetics*. Invited seminar paper presented at ESRC Centre for Genomics in Society, University of Exeter, 28 October 2003. Also presented at BIOS, London School of Economics, 13 November 2003.

Richard Tutton (w/Anne Kerr & Sarah Cunningham-Burley) *Myriad stories: constructing expertise and citizenship in discussions of the new genetics*. Society for the Social Studies of Science, Atlanta, USA, 18 Oct 2003.

Richard Tutton (w/Anne Kerr & Sarah Cunningham-

Burley), *Myriad stories: constructing expertise and citizenship in discussions of the new genetics*. BSA Medical Sociology Annual Conference, University of York, 28 September 2003.

Richard Tutton *They want to know where they came from: population genetics and family genealogy*. Decennial Conference of Association of Social Anthropologists, University of Manchester, 14-18 July 2003.

Richard Tutton *Between personhood and property: exploring languages of tissue donation to biomedical research*. Invited paper presented at Centre for Family Research, University of Cambridge, 17 Feb 2003. Also presented at Department for Social Studies of Medicine, McGill University, Montreal, 5 March; and at Institute for the Study of Biorisks and Society, University of Nottingham, 23 April 2003.

Andrew Webster, Pharmacogenetics and Regulation. Paper presented to: *Integrating Pharmacogenetics into Drug Development*, London, Management Forum, June 12 2003.

Andrew Webster, The societal implications of pharmacogenetics. Paper presented at joint *Cold Spring Harbour/Sanger Centre Pharmacogenomics International Conference*, Cambridge, Sept 24-28 2003.

Andrew Webster, Exploiting Genomics: Understanding the socio-economic landscape. Paper presented at annual *Exploiting Genomics Conference*, BBSRC, 28 Nov. 2003.

Andrew Webster, Genomic Futures, Panel Member (with John Sulston, Robert Winston) Royal Society, London 16 Nov. 2003.

Brian Woods (& Nick Watson), No Wheelchairs Beyond this Point: A Post-War History of Wheelchair Access in Britain and America,' Plenary Paper at *Disabled People and Social Justice Conference*, Scottish Centre for Research on Social Justice, Strathclyde Centre for Disability Research, University of Glasgow, 14 November 2003.

Brian Woods (& Nick Watson), *Sitting at the Table*

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Research Grants and Funding

BLISS - Constructing public confidence in ICT systems: time, dependability and trust (new) (ESRC/EPSRC funded): This project examines dependability/trust relations and how these relate to the temporal properties of ICT systems in public environments, specifically in the development and implementation of real-time information systems managing public (bus) transport. The research combines the disciplines of the sociology of science, computer science and psychology to explore user perceptions and use (the harvesting) of information relating to urban transport, and how this might be drawn on to refine future product development. Contact: Nik Brown.

Developing a National Framework for Social Sciences Research Ethics (new commission 2003), ESRC £46,000 2003/4: A follow-up project to the Ethics Review the Unit completed last year. Involving Andrew Webster, Graham Lewis and Nik Brown in collaboration with Mary Boulton at Oxford Brookes University, the ESRC has commissioned the Unit to help develop a new national Research Ethics Framework for UK social science. Details at: www.york.ac.uk/res/ref

Cycle Network and Route Planning: Literature Review (new): The New Zealand Land Transport Safety Authority (LTSA) commissioned this literature review from the NZ-based Opus International Consultants. Paul Rosen was invited to contribute to the review, which was then used to frame the drafting of guidelines for cycling provision in New Zealand. Contact: Paul Rosen.

Public Involvement, Environment and Health (completed): Evaluating GIS for Participation (UK ESRC project code: L144250045) This project applies a methodology for 'community mapping' (Geographical Information Systems for Participation - GIS-P) to three different case studies in order to determine its usefulness across a range of circumstances. GIS-P had previously been used successfully as a tool for bringing together public

perceptions of environmental and risk issues with expert perspectives. The current project, funded under the UK ESRC's Science in Society programme, extends the use of GISP to air quality management, health and epidemiology, and land use planning. Contact: Paul Rosen.

Valuing the National Cycle Network: Travel Behaviour, Transport Infrastructure and Local Communities (continuing): This pilot project is funded by the University of York Innovation and Research Priming Fund. It examines the response of local communities to the provision of a new cycle route - the Spen Valley Greenway in West Yorkshire. The project is being conducted in collaboration with the sustainable transport charity Sustrans, which developed the route as part of the National Cycle Network. Contact: Paul Rosen.

Xenotransplantation: Risk Identities and the Human/Nonhuman Interface (completed) (UK ESRC grant award: L218 25 2044). **Abstract:** The research examines how various risks associated with xenotransplantation (XTP – the use of nonhuman cells and organs in human transplantation) are negotiated between different constituencies, reflecting and mediating changing formulations of the human/non-human interface. Xenotransplants are illustrative of much wider social questions about the regulation of transpecies disease risks, animal experimentation and new biological innovation. Four analytical themes inform the research: the potentially disparate roles of disciplinary 'expert' discourse in such areas as immunology and virology; the implications of distinctions made between 'public' and 'expert'; the temporal dynamics of risk; and different in models of regulatory governance. Contact: Nik Brown. Collaborators: Dr Mike Michael (Goldsmith's College, UCL) Prof. Robin Weiss (Wohl Viron Centre, UCL).

A Historical Sociology of the Wheelchair (completed) (UK ESRC grant award: L218 25
(Continued on page 8)

(Continued from page 7)

2007). **Abstract:** For millions of disabled people the single most important technological innovation of the 20th century has been the modern wheelchair. Yet, in common with most technologies for disabled people, there has been little sociological analysis of this machine. Through a combination of oral accounts and archival sources this project will construct a historical sociology of the wheelchair in the 20th century. By bringing together disability studies and the sociology of science and technology, this study will examine the underlying processes in wheelchair design; explore the ways that the wheelchair has constructed and transformed self, identity and the meaning of disability; and investigate lay and expert contributions to wheelchair innovation. Our inquiry into how this machine has developed will make a valuable contribution to an understanding of the multidimensional nature of the relationship between the creators and users of technologies for disabled people. Contact: Brian Woods. Collaborators: Donald MacKenzie and Nick Watson (University of Edinburgh).

The Clinical and Commercial Development of Pharmacogenetics (Completed) (Wellcome Trust grant award) **Abstract:** This two-year project focuses on the use of pharmacogenetics in existing (licensed) drugs and clinical testing of new (unlicensed) drugs. The research is particularly interested in social and ethical concerns to do with trialling and clinical practice, and patient and physician responses. It addresses the way firms anticipate and negotiate a route through which pharmacogenetics might be successfully deployed. Contacts: Graham Lewis and Andrew Webster. Collaborators: Paul Martin, Alison Pilnick, and Andrew Smart (University of Nottingham).

Research Graduates

Luke Cowie Thesis title: *Medicine: it's meaning, management and value.*

Maria Eugénia Rodrigues Thesis title: *Science, New Technologies and the Publics: the Environmental Monitoring Systems.*

Yuwei Lin Thesis title: *The Innovation Dynamics of Free/Libre Open Source Software (FLOSS) Systems: Practices, Culture and Competition.*

Ragna Zeiss Thesis title: *Standards and their (changing) environments. The mobility of drinking water quality standards.*

SATSU – Marie Curie Training Site *New Genetics / New Society*

Marie Curie Training Site (continuing): SATSU successfully secured funding to become a European Commission Marie Curie Training site on: 'New Genetics/New Society? Integrating Science, Society and Policy'. The award, which runs from 2001 to 2005, funds up to 75 months of post graduate training and supervision. Contact: Nik Brown.

Marie Curie Research Fellows in 2003

Janus Hansen – European University, Florence

Tora Holmberg – Uppsala University

Klaus Hoyer – University of Copenhagen

Ine Van Hoyweghen – University of Leuven

Gyula Kasza – Szent Istvan University, Budapest

Femke Merckx – University of Twente

Martin Remondet – Ecole des Mines, Paris

Aaro Tupasela – University of Helsinki

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Conference papers and presentations

Doesn't Necessarily Make You a Diner: A Historical Analysis of Special Seating in Wheelchairs, Medical Sociology Group Annual Conference, University of York, 26–28 Sept 2003.

Brian Woods (& Nick Watson), Power to Independence, Inaugural Conference of the Disability Studies Association. *Disability Studies: Theory, Policy and Practice*, Lancaster University, 4 - 6 September 2003.

Brian Woods, Disability, Design and Community Service: Lessons from the Wheelchair, ESRC Research at York: *Implications for Future Regional Needs*, Priory Street Centre, York 23 June 2003.

Ragna Zeiss, *Drinking Water Quality Standards and Materiality – Following a Sample*. SATSU seminar, York, 2 December 2003.

Contacting SATSU

SATSU welcomes collaboration with scholars of Science and Technology worldwide. Please visit the SATSU website at: www.york.ac.uk/org/satsu/ for up to date information on our activities, or contact us directly using the addresses below.

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