

ISSTI Newsletter

THE INSTITUTE FOR
THE STUDY OF SCIENCE
TECHNOLOGY AND INNOVATION



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Welcome

Welcome to the first ISSTI newsletter of 2007 and my first as acting Co-ordinator. In the last issue we were able to announce the £5 million ESRC award to Innogen. In this issue we are delighted to be able to tell you about a new £3.75 million grant to ISSTI researchers in the University's Centre of African Studies who will play a key role in a UK Department for International Development-funded 'Energy for Development' research consortium.

We also have news in this issue on the launch of our new MSc in Science and Technology Policy and Management as well as details of recent research outputs and forthcoming events.

Stewart Russell

New ISSTI Master's Qualification in Science and Technology Policy and Management

From this September ISSTI will be offering a new MSc in *Science and Technology Policy and Management* to complement our existing MSc in *Science and Technology Studies*. Like the STS MSc, it can be taken over one year full-time or two years part-time. This degree aims to prepare people for positions in policy and management areas dealing with science, technology and innovation, or in other fields where scientific and technological issues and strategies are central, such as medical, environment or development policy. We are expecting an interesting variety of students – those already working, and those aiming at careers, in S&T policy-related positions in public sector agencies, consultancies, professional and industry associations, trade unions and similar organisations.

The new MSc has two semesters of coursework plus a three-month project leading to a dissertation. We are offering initially two specialist routes through the degree: information and communication technologies; and life sciences and biotechnology.

A core component of the degree will be a new course on *Policy and Management Issues in Science and Technology*. PMIST will provide a comprehensive introduction to policy and management issues in science, technology and innovation, and approaches for analysing them and intervening in them. Besides covering a variety of topical matters and ways we can understand them, students will get experience with a range of techniques and procedures used in policy formulation, assessment, decision-making, and implementation. In the dissertation project, they will be encouraged to pick a question of central concern in their area of work.

For more information, contact the Programme Convenor, Dr Stewart Russell, +44 (0)131 650 6396, stewart.russell@ed.ac.uk or see www.issti.ed.ac.uk



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Staff and Visitors

Scotland's Science Strategy

The Scottish Executive (SE) has recently closed its consultation on a revised science and innovation strategy, updating the 2001 strategy currently in place. Starting in March 2007, Almut Caspary (Research Fellow, ESRC Genomics Policy and Research Forum) will be seconded to the Executive to work on the analysis of the consultation responses.



Almut Caspary

For a four month period, Almut will be placed in the Office of the Scientific Adviser, Professor Anne Glover, where she will produce the consultation report to be published in June 2007. Almut is the first placement fellow to benefit from funding made available jointly by the ESRC and SE as part of their Knowledge Transfer Collaborative Activities.

For further information on Scotland's Science Strategy see www.scotland.gov.uk/Topics/Business-Industry/science/16607/5910

New Year Greetings from China

Robin Williams, Xiaobai Shen and their family are settling into their sabbatical at Tsinghua University in Beijing where they have just celebrated the Chinese New Year. Robin tells us that he is catching up on some referees reports and will be giving a public lecture at Tsinghua in March. He will also be representing the ESRC Innogen Centre at the 2nd UK-Korea Risk Workshop on Nano-material Risk & Risk Governance in Policy Making, jointly organised by the UK Foreign Office and the Korean Science Ministry. Robin will speak on "Risk Governance in Policy Making for Science and Technology" and will also give a talk to the STS community while he is in Korea.



Blood Work: Investigating Cultures of Biomedicine in Malaysia and Britain

Warm congratulations to Janet Carsten, who has won a three-year Leverhulme Major Research Fellowship beginning 1st September 2007.

How do people deal with different orders of knowledge when the same object is the focus of scientific investigation and cultural or moral discourses? Blood is an example of such an object – a marker of cultural identity, and the object of scientific knowledge. This project will investigate how professionals with clinical, scientific, and technical expertise negotiate popular and biomedical understandings of blood in their working practices. Based on comparative fieldwork in Malaysia and Britain, where blood participates differently in discourses of kinship and identity, the research will illuminate how different kinds of knowledge are compartmentalised or inflect each other.

www.san.ed.ac.uk/people/teaching/carsten.htm



Visiting Scholar at the RCSS

Julian Warner was a Visiting Scholar at the RCSS February – July 2005 and here addresses Pythagoras's question, What have I been doing?

Since returning to normal responsibilities in Belfast, I have been revising articles written in Edinburgh, on a labour theoretic approach to information retrieval, on analogies between Shannon's information theory and Saussure's linguistics, and on public understandings of information technology, predominantly not as '*organs of the human brain, created by the human hand; the power of knowledge objectified*', as an extrapolation of Marx would imply. Implicitly thanking editors for their readiness to accept 20,000 word articles and carefully navigate them through the refereeing process – the kindness of strangers. Resisting the temptation to recite Marlon Brando's lines from *On the Waterfront*, 'I coulda been a contender, I coulda been somebody'.

And, teaching several modules, resuming pastoral responsibilities, and giving a conference paper, captured by a photographer in the audience with the image now publicly available.

[Photo Above] : Julian Warner. Forms of mental labor in the Feast judgment. Paper given at the Annual meeting of the American Society for Information Science & Technology, Austin, Texas, November 2006. Photograph by broken thoughts on flickr (public).

Research News

ISSTI researchers win DFID 'Energy for Development' research consortium bid

Researchers in the Centre of African Studies and the Institute for Energy Systems at the University of Edinburgh will be a key component of a UK Department for International Development-funded research consortium entitled 'Policy innovation systems for clean energy security' (PISCES).

The consortium, headed by Professor Judi Wakhungu of the Kenya-based African Centre of Technology Studies with support from the University of Edinburgh, also includes Practical Action (UK), the M. S. Swaminathan Research Council (India) and the University of Dar es Salaam.



The £3.75 million award will enable the consortium, over the next five years, to explore the potential of bioenergy to alleviate poverty in a sustainable, environmentally friendly way in Africa and South Asia.

The project will focus on policy-relevant research analysing the trade-offs between energy, and food and water security in relation to bioenergy. The central premise is to understand the potential of bioenergy to lever development in resource-poor settings. Activities will involve applied research, engagement with communities and policymakers, the influencing of development policy and significant capacity building. James Smith and Tom Molony of the Centre of African Studies and Colin Pritchard of the Institute for Energy Systems will play key coordinating and research roles in the consortium.

Interdisciplinary Masterclasses – Give us your views

In the last issue of the newsletter we announced that ISSTI researchers had received a grant under the ESRC's Researcher Development Initiative to improve the practice of interdisciplinary research. The core of this project will be a series of workshops, beginning at the end of the year with a two-day event for ESRC-funded postgraduate students. Having attended this Masterclass we would hope that students will go away with:



- a better understanding of how to design an interdisciplinary research project so that the social science and natural science inputs are appropriate
- some pointers on how to conduct that research and thrive in an interdisciplinary environment
- some ideas of how to write up and disseminate an integrated thesis.

However, we would like to take this opportunity to invite comments and suggestions from the interdisciplinary research community – students and supervisors – to ensure that the events we are planning are 'fit for purpose' and we would welcome your views.

A conference on "Developing the Researcher" was held under the auspices of the Researcher Development Initiative in London, 6–7 February, 2007. Catherine Lyall's presentation to this conference, which outlines plans for the Masterclasses in more detail, is available at www.rdi.ac.uk/news-details.asp?ID=61

To give us your comments or to register an interest in attending the December event, please email c.lyall@ed.ac.uk

ICT in Developing Countries

The effect of information communication technologies (ICTs) in under-developed contexts is receiving a lot of attention in both the academic community and more widely. While some regard these technologies as conduits for 'progress', others question the efficacy of these technologies in impoverished communities. Researchers Tom Molony, from the Centre of African Studies, and Olga Morawczynski, from Science and Technology Studies are actively contributing to this debate.

Tom Molony has undertaken fieldwork in Tanzania where he has examined how the mobile phone has been adopted and appropriated. This experience allowed him to challenge the dominant assumptions that these technologies are being utilised by constituents for purposes of poverty alleviation. Instead, he has shown that mobile phones are commonly put to uses that much of the pro-ICT development literature ignores. He has also challenged the deterministic accounts of innovation which argue that ICTs will revolutionise established patterns of communication in Africa. Tom's empirical evidence suggests that direct, personal interaction through face-to-face contact – a traditional pre-ICT aspect of African business culture – is unlikely to change for some time. Tom's work on the mobile phone will appear in *Information Technologies and International Development* and *The Handbook of Mobile Communication Studies* (both MIT Press).

Olga Morawczynski, on the other hand, has approached the issue of communication technologies in developing countries from a very different perspective. With the use of regression techniques she has been able to analyse the efficiency of ICT sector expansion in West Africa and Latin America. Such techniques have allowed her to examine how national governments are utilising their resources for the purposes of ICT sector expansion, and to identify the countries with the most effective technology strategies. Olga's research has also identified the factors that may affect ICT expansion rates including technology training programmes, GDP per capita, land area, and the percentage of paved roads. Her work on these issues will be published in *Information Technology for Development* and the *Electronic Journal of Information Systems in Developing Countries*.

The Forensic Use of Bioinformation

Members of the ESRC Genomics Network – Professor Barry Barnes (Egenis), Dr Gill Haddow (Innogen), Dr Mairi Levitt (CESAGen), and Dr Rod Taylor (ESRC Genomics Policy & Research Forum) – recently submitted comments to the Nuffield Council on Bioethics on the National DNA Database (NDNAD). Their response focused on four issues: the unscientific assumptions about DNA used by some of the database's supporters, the treatment of children, the retention of DNA samples, and the lack of depth in public discussion about the project. They noted that, although NDNAD represents a key part of the government's strategy in solving crime, it also highlights a failure to think through adverse ethical and social implications. www.nuffieldbioethics.org/go/ourwork/bioinformationuse/page_848.html



Women and engineering

The Prometea project on Women in Engineering Research will be hosting a two day international conference exploring gender issues in engineering, to be held at the Palais du Luxembourg, Paris, France on 26-27 October 2007.

Submissions of abstracts are invited until 30 April 2007.

Please visit the conference website for full details:

<http://www.prometea.info/conference2007/>



Bioeconomy 2030

Joyce Tait, Dave Wield and Joanna Chataway are working on a scenario exercise for OECD.

The OECD project 'Bioeconomy 2030' covers biotechnology metrics, regulatory issues, business models, institutional and framework conditions and many other aspects of a bioeconomy. A crucial part of the project looks at the future of the bioeconomy and identifies trends, key drivers and uncertainties. This is approached through two methods: trend projections and the development of scenarios, applied to each of the three main biotechnology application areas: health biotechnologies, industrial biotechnologies, and agricultural biotechnologies.

The Innogen team will develop scenarios of the different pathways that health biotechnologies could follow to 2030. This will primarily focus on the wider social and economic implications these new technologies may bring about and will use qualitative approaches such as 'thought exercises' that describe possible futures for the use of biotechnology within each application area. Each scenario may also consider other developments outside biotechnology, including baseline estimates of demographic and other structural changes, plus other developments within the field of application that might influence the use of biotechnology.

The Innogen team will assess how biotechnology products and processes might develop over the 2015-2030 period – geographical location of the markets, the market potential, required R&D, resulting industry structure, who wins, who loses, etc. They will then consider the wider implications of those developments, where applicable, such as on the economy; implications for society (health, consumption, lifestyles, ethics, employment, professional profile); for the environment, and sustainability more generally. The scenarios will also identify key drivers, the potential obstacles and opportunities that would arise in the course of the applications' development and their wider impacts, and bottlenecks or other issues that policy makers and regulators might need to address.

AlumniSTS



Claire Bure is a graduate from the University of Edinburgh's MSc Science and Technology Programme (2003), where she focused on the use and appropriation of ICTs by homeless people in Scotland: (<http://ci-journal.net/index.php/ciej/article/view/251/213>).

As a Research Assistant at RCSS (Research Centre for Social Sciences), she worked primarily with the IST SIGIS project (Strategies of Inclusion: Gender and the Information Society).

After backpacking through Asia for five months, Claire moved to Ottawa, Canada, where she is currently a researcher at the International Development Research Centre, in the ICT for Development programme. With the telecentre.org initiative (www.telecentre.org), Claire has been working on helping to strengthen telecentre networks through various projects including:

- conducting a case study on the use of the Gender Evaluation Methodology with telecentres in the Philippines and Ecuador (http://www.idrc.ca/en/ev-109657-201-1-DO_TOPIC.html);
- co-writing an article about the 'telecentre movement' (<http://www.publicservice.co.uk/pdf/id/issue4/ID4%20Florencio%20Ceballos%20ATL.pdf>);
- conducting a study on the synergies between community radio and telecentres in Paraguay and Chile, to be followed up by a networking and knowledge-sharing event in Latin America in the spring of 2007;
- leading a project to collect narratives from women in telecentres, to highlight the issues and challenges for women in telecentre contexts.

Claire is planning to return to Edinburgh in July and August 2007 to re-connect with old friends and colleagues. She can be reached at: claire.bure@gmail.com.

Inaugural Lecture

Professor Steve Yearley is Director of the ESRC Genomics Policy and Research Forum and Chair in the Sociology of Scientific Knowledge, University of Edinburgh.



As well as exploring some of the key social impacts of the new life sciences, his lecture will demonstrate that the consequences of novel science are still open. The implications of scientific advances are not determined by science alone but also by culture, law and politics.

Date: 20 March 2007

Time: 5.15 – 6.30pm, followed by a drinks reception

Venue: Lecture Theatre G1, Paterson's Land, Old Moray House, Holyrood Road, EH8 8AQ.

(The post lecture drinks reception will be held in the Godfrey Thomson Hall, also at this address.)

This is a ticketed event. Please send your ticket request (maximum 4 tickets per person) and contact details to genomics.forum@ed.ac.uk, or fax to 0131 651 4748

[Artwork drosophila credit Genomics Forum's Artist in Residence, Alistair Gentry.]

Seminars

Men and their machines: notes on the machinalisation of masculinity and masculinisation of technology

Professor Ulf Mellstrom, Lulea University of Technology, Sweden

Date/time: 19 March 2007, 3.30–5pm

Venue: RCSS, Old Surgeons' Hall

CoPS revisited: ten years of the ESRC's Complex Product Systems Innovation Centre

Professor Howard Rush, University of Brighton

Date/time: 2 April 2007, 3.30–5pm

Venue: ESRC Innogen Centre, Old Surgeons' Hall

Tangible Affinities? Exploring Real Life Kinship

Professor Jennifer Mason, Morgan Centre for the Study of Relationships and Personal Life and Real Life Methods, A Node of the National Centre for Research Methods, University of Manchester

Date/time: 23 April 2007, 3.30–5pm

Venue: ESRC Innogen Centre, Old Surgeons' Hall

Speaking Precision to Power: Commensuration and Social Policy in the Modern World

Professor Theodor Porter, University of California at Los Angeles

Joint ISSTI/Genomics Forum seminar

Date/time: Tuesday 1 May 2007, 3.30 pm

Venue: Sydney Smith Lecture Theatre, Medical School Buildings, Teviot Place (enter by door 1)

For further details please see www.issti.ed.ac.uk/events

ESRC Genomics Policy and Research Forum Spring Lecture Series

The ESRC Genomics Policy and Research Forum's Spring Lecture Series will begin on 26 April with Professor Alexander Capron "Dark History, Bright Future? The Ethical Conundrum of Eugenics and Genomics". See www.genomicsforum.ac.uk for full details.

Other Research News in Brief...

- Jonathan Suk, Ann Bruce and colleagues recently published an article in *Nature Biotechnology* entitled "Dolly for dinner? Assessing commercial and regulatory trends in cloned livestock" which reported results from a recent Innogen project conducted on behalf of IPTS in Seville www.innogen.ac.uk/Research/Animal-Cloning-and-Genetic-Modification-a-Prospective-Study
- Ann Bruce and Catherine Lyall both gave papers on their Innogen research projects at the recent Egenis conference "Governing Genomics - Interdisciplinary Perspectives on the Regulation of the Biosciences" www.centres.ex.ac.uk/egenis/events/governinggenomics/index.htm
- A special issue of the journal *Technology Analysis and Strategic Management*, entitled 'Evolution of the Life Science Industries' and edited by James Mittra and Robin Williams, will be published in April
- Professor Joyce Tait gave an invited presentation entitled 'Life Science Industries – Managing a Turbulent Future' at the Molecular Medicine Tri-Conference, San Francisco
- Joyce Tait has also been asked to become a Director of the Board of the Scottish Stem Cell Network, chaired by Ian Sword
- Professor Graeme Laurie has been appointed Chair of the UK Biobank Ethics and Governance Council www.egcukbiobank.org.uk
- Professor Steve Yearley has recently been invited to be "anchor teacher" for the 2007 Summerschool of the Netherlands Graduate Research School of Science, Technology and Modern Culture (WTMC), the annual STS training school which attracts graduates from all over Europe
- Stewart Russell, with colleagues at his other base at the University of Wollongong, Australia, has been completing a project on public responses to water recycling and public consultation in the water sector. Outputs from the project, including the major reports Water Recycling & the Community - Public Responses and Consultation Strategies: a Literature Review and Discussion, and Participatory Planning for Water Recycling Schemes in Australia: a Handbook of Principles, Tools and Guidance can be downloaded from www.uow.edu.au/arts/staff/srussell/oz-aquarec/publications.html
- The ISSTI Study Retreat will be held in Kelso this year, 17-19 April.
- Finally, some family news: we are delighted to announce the safe arrival of Mark Winskel's baby girl and Gill Haddow has now gone on maternity leave until the autumn

STOP PRESS!



The UK Genomics Network will shortly be advertising a number of PhD studentships, three of which will be based at the ESRC Innogen Centre (at either Edinburgh or the OU). The studentships can be held in any area of Innogen strength, which focuses on the twin themes of 'evolution of the life sciences' and 'governance of life sciences', with a strong cross-cutting globalisation theme.

Look out for our advert in *The Guardian* and check the Innogen website www.innogen.ac.uk for further details.

In cooperation with colleagues elsewhere in Europe, ISSTI is preparing a bid for the EU Framework Programme 7 call, ENERGY.2007.9.1.2: Energy Behavioural Changes. ISSTI would be pleased to hear **(URGENTLY!)** from other groups in European member states or associated countries that are interested in researching energy consumption issues, or are considering this specific call, and might want to join a collaborative project.

Please contact:

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