

ISSTI Newsletter

THE INSTITUTE FOR
THE STUDY OF SCIENCE
TECHNOLOGY AND INNOVATION



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Welcome

to the third edition of the ISSTI newsletter. Over the spring we have hosted a number of events including visits from the Vietnamese government and the Chinese Academy of Sciences. ISSTI staff have also taken part in several study groups – in the snows of Angus and the sunshine of East Lothian as the photographs show!

This summer sees the arrival of the RCSS's new Deputy Director, Stewart Russell, as well as several visiting fellows, and we celebrate Robin Williams' 20th anniversary at the University of Edinburgh.

To keep in touch with all the latest ISSTI news – including details of forthcoming events – or to contact ISSTI researchers, remember to check our website www.issti.ed.ac.uk.

International research workshop: Information Infrastructures and Architectures

University of Edinburgh, 27-28 September 2006

A swathe of technological advances is emerging that offers radically different architectures, development processes and service models for providing organisational information systems/infrastructures (e.g. the GRID/Web Service Architectures and "SAP by the hour"). These various architectures/ service models are being developed to increase the flexibility and dependability of computer services, and reduce development/maintenance costs. At the same time they offer rather different opportunities for local actors to engage with technology development/implementation. They may therefore require some reconsideration of existing social science findings, based upon earlier technological models (e.g. relating to end-user engagement; to the reconciliation of global and local in information systems).

Social science research into the application and implications of Information and Communication Technologies tends to lag behind technological development. To overcome this, this research workshop, supported by the ESRC e-society initiative, will bring together leading social science specialists in the field with technical experts – united by a concern with cross-disciplinary understanding.

For further information about this event contact robin.williams@ed.ac.uk

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Robin Williams' 20th Anniversary

Professor Robin Williams is currently Director of ISSTI and Co-Director of the ESRC Innogen Centre. He joined the Research Centre for Social Sciences at Edinburgh University in June 1986. Below, two of his colleagues reflect on his contributions to Edinburgh's research successes and offer their congratulations on the occasion of his 20th anniversary.

Twenty years ago I sat rather nervously on the terrace of what was then Le Sept restaurant in Old Fishmarket Close. The nerves were because we were potentially in a fix. Socioeconomic research on technology at the University of Edinburgh was beginning to take off, and we thought we had a good chance of being funded as a centre in ESRC's PICT (Programme on Information and Communication Technologies). But we badly needed someone to take charge of our new activities. We had advertised for a co-ordinator of socioeconomic research on technology, and only one candidate fitted the bill, and he was sitting opposite me. If he didn't want the job, we were in trouble.

I hope that I did not lie too extravagantly, but I suspect that I did broadly imply that lunches on sunny restaurant terraces were an Edinburgh experience almost every day of the year. It must have worked, because Robin Williams accepted the post.

Our difficulty in finding someone points up the unique, immensely valuable role that Robin has played over the past twenty years. We academics, especially strongly research-oriented academics, tend to be a bit of a selfish breed. We want to get on with "our own work" and too frequently consider everything else a distraction. Successfully to do Robin's job you can't be like that, and he isn't. He puts more effort into helping to make other people's work successful than any other academic I know, at Edinburgh or elsewhere, and he takes more pleasure in their successes than he does in his own (very important) triumphs. The way that our nascent programme of twenty years ago has grown into the large activity it now is is testimony to Robin's expertise, but also to his unselfish attitude to his job. We should all salute him, and wish him "happy anniversary."

Donald MacKenzie, Professor of Sociology

It's very hard to believe that 20 years have gone by since I first met Robin Williams. The Research Centre, of which I was the first Director and he is the second, was but a young thing, and having persuaded a rather reluctant Faculty of Social Sciences to create it I knew we had to deliver or the sceptics would be delighted to ensure we didn't last beyond our first review. I was perfectly happy providing leadership for the work I knew quite a lot about, but trying to herd the research cats of the Faculty working on social aspects of technology was beginning to get to me. I was very optimistic of our getting Centre funding on the ESRC's Programme on Information and Communication Technologies (which in those days was a huge achievement), but the relevant researchers were scattered across the Faculty, and we desperately needed someone to take charge and help steer this collection of extremely talented but somewhat individualistic characters towards a common goal.

I didn't know it at the time of course, but in Robin we found the ideal person. Or rather, he found us because in truth, of those who applied, he was the only one who looked as if he could do the job. But as is often said, it only takes one ...

Robin turned out to be a great colleague who knew when to run with something and when to consult. He was very supportive and I came to rely greatly on his judgement to curb my wilder ideas, and encourage and help with the occasional better ones. I never worked out how to stop him turning his office into the biggest fire hazard in the Centre but that's about the nastiest thing I can think of to say about him. He quickly became Deputy Director and the quality of his research amply justified his subsequent promotions.

Many retired Directors of Research Centres shake their heads sadly when contemplating what their successors have done. Doubtless they are often wrong so to do, but in my case it's a real delight to see how Robin has led the development of the Centre. Perhaps the greatest tribute one can pay to him is to comment on the way he has built up a great team; it was very rapidly apparent from the outset that team building was one of his most distinctive characteristics and so it has continued. It's a great pleasure to wish this immensely hard working and imaginative colleague a very happy anniversary and many more. And oh, I nearly forgot. He's also a very nice guy and I'm delighted to know him, and still persuade him to the occasional lunch.

Frank Bechhofer, Formerly Director, RCSS

(Robin will be taking his first sabbatical in 20 years from January 2007 when he will be pursuing research interests in China for six months.)



Stewart Russell joins ISSTI for a year as Deputy Director of RCSS

Stewart did his postgraduate studies at the Technology Policy Unit at Aston University in the 1980s. He has spent the last eighteen years in Australia, in the Science & Technology Studies Department (now alas a much smaller STS Program) at the University of Wollongong. (Where? It's about fifty miles south of Sydney, on the New South Wales south coast.) He's been involved in teaching at all levels, from introductory undergraduate STS courses up to doctoral supervision, and to students from just about all areas of study – engineers, scientists, medics and IT people as well as social scientists.

Stewart has wide-ranging research interests in technology studies and policy, and has worked on a variety of issues, from theories of social shaping to research discourses, and on different areas of technology, including in recent years renewable energy, water recycling and polymers. He is currently finishing up a major project on public participation in the water sector (in collaboration with a group at Cranfield's School of Water Sciences), and is completing an introductory technology studies textbook based on a long-running lecture series.

Stewart has been a frequent visitor to Edinburgh and RCSS, and worked with Robin Williams and European colleagues on the EU COST project on social shaping of technology which led to the *Shaping Technology / Guiding Policy* volume. Stewart says he's very much looking forward to working at RCSS and ISSTI, with a keen and active group of colleagues – some he knows well, some he met only recently at the Burn retreat, and several he's heard about and corresponded with. And he's excited about being back in Edinburgh and Scotland for a longer stay than he's managed on sabbaticals.

Stewart's publications and current work are outlined at www.uow.edu.au/arts/staff/srussell/index.html. Buy him a (cold) beer when he arrives at the beginning of July and he'll tell you more!

New Director at ESRC Genomics Policy and Research Forum

Professor Steve Yearley – profiled in the last issue of this newsletter – has been appointed Director of the ESRC Genomics Policy and Research Forum (www.genomicsforum.ac.uk) and will take up his post there in the autumn.

Perspectives on Science and Development in Africa

Innogen, the Centre of African Studies at Edinburgh and the Royal Zoological Society of Scotland jointly hosted a conference on science and development in Africa on the 12 and 13 April. The conference, titled: 'Culture, Nature, Future: Perspectives on Science and Development in Africa', was highly multidisciplinary, drawing together social scientists, scientists, policymakers and historians in an effort to re-appraise the role of 'science' in colonial and post-colonial Africa. Around 85 people attended from three continents and debate was both vigorous and productive. It was not all academic however, the second day of the conference was held at Edinburgh Zoo and penguins and koala proved diverting. Interesting that animals non-indigenous to Africa proved the biggest draw! We are planning to publish a selection of the papers in the *International Journal of Technology Management and Sustainable Development* and are pursuing other outlets for publication. More information can be found at the following link: <http://www.cas.ed.ac.uk/conference2006/index.html>

Copies of the papers presented can be requested by contacting Grace Owens, the administrator for the Centre of African Studies, at: grace.owens@ed.ac.uk

ISSTI Hosts International Delegations

Vietnamese Government

We were very pleased to welcome back one of our graduates, Tran Ngoc Ca (see profile below) as part of a delegation of Vietnamese Government Officials to the University of Edinburgh on 25 May. The delegates represented the National Council for Science and Technology Policy; the Southern Institute for Agriculture Technology; the Office of Vietnam's National Assembly; the Ministry of Education and the Ministry of Science and Technology.



The Vietnamese visitors took part in a workshop to hear about research being conducted by colleagues in the ESRC Innogen Centre, the ESRC Genomics Research and Policy Forum, and the Management School, as well as learning more about the research and teaching taking place in science and technology policy from colleagues in ISSTI and the Science Studies Unit. Professor Grahame Bulfield, Vice Principal and Head of the College of Science and Engineering, hosted a lunch in Old College.

Chinese Academy of Sciences

ISSTI hosted a visit from the Institute of Policy and Management of the Chinese Academy of Sciences (CAS) at the beginning of June. Led by Professor Rongping Mu, the delegation of six IPM staff joined ISSTI colleagues for a discussion of joint research interests in science and technology policy. The aim of the workshop was to build on the collaboration forged by the Principal last year when the University of Edinburgh signed a memorandum of understanding with the vice president of Chinese Academy of Sciences in Beijing on 25 April 2005.



This memorandum is intended to facilitate cooperation and advancement of international understanding to promote and develop teaching and research collaborations in areas of mutual interest. A return visit will be made by a UK delegation to CAS next year to facilitate a range of S&T activities linking the UK, Europe and China.

Visiting Fellows

Over the coming months we are looking forward to welcoming the following visiting fellows to ISSTI. Look out for further information about their research in future issues of the newsletter.

Dr Byung-Sang Hwang, Korea Basic Science Institute, Daejeon, Korea, *July 2006 - June 2007.*

Mr Siguang Zhang, PhD student, Chinese Academy of Sciences, Beijing, China, *August 2006 - Aug 07.*

Ms Lu Lan, Associate Professor, Hangzhou Dianzi University, Zhejiang, China, *September 2006 - March 2007.*

Dr Sampsa Hyysalo, Research Fellow, University of Helsinki, Centre for Activity Theory and Developmental Work Research, *October 2006 - December 2006.*



ISSTI Alumni

In the first of an occasional series of articles about our alumni, we feature Dr Tran Ngoc Ca who visited ISSTI recently with a delegation of Vietnamese government representatives.

Tran Ngoc Ca joined RCSS in 1992 having completed his MSc in Science and Technology Policy at Lund University the previous year. As well as completing his PhD, while at Edinburgh Tran Ngoc Ca gained professional experience as an associate research fellow at the Japanese-European Technology Studies (JETS) Institute and worked as a consultant to the UN and to the Scottish Enterprise Energy group and the DTI.

On returning to Vietnam, Tran Ngoc Ca worked on the Vietnam-Netherlands Research Program (VNRP), where he was responsible for sustainable rural development projects, and in the National Institute for Science and Technology Policy and Strategy Studies (NISTPASS), Ministry of Science and Technology (MOST) where he is currently Deputy Director as well as Director of Secretariat for the Office of the National Council for Science and Technology Policy. Tran Ngoc Ca took part in the Fulbright post-doctoral scholar exchange programme to UC Davis, UC Berkeley and Stanford University in 2004–2005 and some of his current projects include:

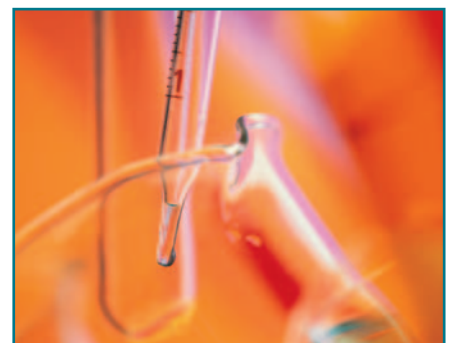
- Vietnam team leader for Developing Universities: the Evolving Role of Academic Institutions in Economic Growth. SIDA-Lund University project.
- Vietnam team leader for Role of universities in Asian economies. World Bank and SSRC project
- Project leader for Policy and strategy for development of high-tech and high-tech industries in Vietnam (case of ICT, Biotech, Automation, New material and Mechatronics)
- Project Director for Market institutions for technology transfer to agro-based SME in Vietnam. SIDA/SAREC Vietnam-Sweden research program
- Project Director for Learning via networking with MNC: case of Vietnamese SME in motor-auto industry. IDRC ROKs program

If you would like to tell us about your career since graduating from ISSTI/RCSS, please contact c.lyall@ed.ac.uk

New Fellow Joins Stem Cell Project

Dr Stephen Bates joins us from the University of Birmingham as a research fellow on the ESRC-funded project on the Social Dynamics of Public Engagement in Stem Cell Research (www.innogen.ac.uk/Research/The-Social-Dynamics-of-Public-Engagement-in-Stem-Cell-Research). Stephen did his PhD on 'the body and human nature in consumer capitalism: a critique of biotechnology' and his research interests encompass the political economy of the life science industries; political and social change; and the sociology of the body.

He joins the project at a busy time as the team completes 16 discussion groups with scientists working in the field of stem cell research, primary healthcare workers, patient groups and a number of community-based groups. Further small discussions, based on a more interactive model bringing different people and communities together, are planned for the autumn and the project's website - www.talkingstemcells.ed.ac.uk - will be launched at the end of June.



New CPD Course from Innogen – Life Sciences Companies: Managing A Turbulent Future

Turbulent conditions in the pharmaceutical and biotechnology sectors driven by changing boundaries and major transitions in technology, markets, and government policy, are challenging established structures, relationships and operating systems. The new Innogen CPD course will interpret the challenges arising from change in the knowledge base, technology markets and policy. It will prepare high-potential executives to become better managers and leaders – and to strategically position their organisation for future success.

Innogen has a unique insight into the challenges experienced by pharmaceutical and related life science industry sectors. The course will cover:

Innovation Processes

- Managing interactions
- Changing relationships between discovery and development
- Translation to public sector markets and development for commercial markets
- Changing relationships between small and large firms
- Managing new types of product

Regulation and Governance

- Regulatory developments and global governance of life sciences
- Risk management
- New kinds of product create new regulatory needs
- Intellectual property

Stakeholder Influences

- Changing nature of markets for life science products (public and commercial, developed and developing world)
- New ranges of stakeholders to be considered
- How to manage different stakeholder responses (without their different interests or values)

The main strength of Innogen's approach comes from understanding the inter-play between these constituencies. In-depth understanding and management of these interactions is needed to deliver the big prizes for life science innovation. And failure to manage them effectively can lead to some very nasty surprises, as was the case for GM crops in Europe and some recent high profile drug withdrawals.

Conducted in collaboration with Christopher-Paul Milne, associate Director of the TUFTS Center for the Study of Drug Development, the course will be held at the Scotsman Hotel, Edinburgh from 20-22 September 2006. Please visit the CPD pages of the Innogen website (www.innogen.ac.uk/Events/CPD-Programme) for further information.

ISSTI Seminar Programme

Technology Roadmapping in Developing Countries

Professor Anthony Clayton from the University of the West Indies, Jamaica will give the next ISSTI seminar on Monday 10 July (3.30-5pm Seminar Rm 1.06, Old Surgeons' Hall, High School Yards University of Edinburgh)

The measure of a policy failure in a rich country is the opportunity cost; the loss of the wealth that would otherwise been generated. The cost of a policy failure in a poor country, however, is additional years of poverty and misery. So poor countries need to make good strategic investments and decisions, but most of them have just a small fraction of the capacity (in terms of the skills, knowledge base, access to information networks and so on) that rich countries have available to deploy on such exercises.

Professor Clayton will discuss the importance of having cost-effective procedures that organizations in relatively poor countries can use to identify likely future changes, map out options and make good strategic decisions.

For further information about forthcoming ISSTI seminars – including visits from [Charles Perrow](#) on 29 September with a talk entitled "*Disasters Evermore? US Vulnerability to Natural, Industrial, and Terrorist Disasters*" and [Michel Callon](#) (4 December) – go to <http://www.issti.ed.ac.uk/events>

The ESRC Innogen Centre also runs a busy seminar programme. For details see <http://www.innogen.ac.uk/Events>

Orienting the Future: Design Strategies for Non-Place

'Non-places' are the everyday spaces of late-capitalist cities: airports, malls, supermarkets, motorways, hotels, banks, call-centres, uncertain bureaucratic spaces. Orientation in non-places is guided and controlled by diverse forms of information that generate dense, overlapping way-finding and navigation conventions and technologies. The research team involved in this project organised several workshops in non-places, and on non-place themes: a retail warehouse, an airport, and a bureaucratic site. They brought cross-disciplinary insights to bear in the formulation of a series of specific and clearly documented design research themes pertaining to social processes, technologies, organisational systems and architectures. They also produced over five articles, contributed to a major exhibition and started a network from which further research collaborations are being drawn.

The project brought together researchers from diverse disciplines to examine how designers create and ameliorate the effects of non-places, and to set in train a network of personnel and activities to research non-place themes. Across the spectrum of users, occupants, employees, managers, designers, and academic theorists, the researchers encountered both enthusiasm and criticism over the changes in contemporary environments ushered in by communications media, new security and surveillance protocols, globalised consumption, artefacts of the massification of travel, and the bureaucratization of citizenship.

Each discipline brought insights and approaches to bear on the non-place problematic. The sociology of technology drew attention to the interrelation between social and technological systems of consumption, transportation and office work. Information science encouraged thought about the unwieldy burden of communications and management systems for which non-places appear as symptoms. Communications systems engineering introduced inventories of emerging systems, devices and components that affect how we interact and use space, and identified technologies still looking for applications. Architecture emphasized how aspects of gathering, communicating, and working that were once accomplished by the configuration of floors, walls, and furniture are now determined by supplementation from electronic systems and devices. Graphic design brought awareness of signage, space, orientation and brandscape. Human geography emphasized the complex relation between the local and the global. Each cluster participant completed the project with an enhanced ability to research and communicate on the themes of place, non-place and design.

This project was funded by the Arts and Humanities Research Board and Engineering and Physical Sciences Research Council (2004-2005). More information is available at <http://ace.caad.ed.ac.uk/NonPlace/>



ISSTI staff taking a break in the snow at their study retreat to The Burn in March (Photo courtesy of C Grimm)



Innogen staff enjoyed much better weather at their spring retreat to Carberry in May (Photo courtesy of J Hamilton)

Forthcoming Conference: Genomics for Development: The Life Sciences and Poverty Reduction?

The sequencing of genomes such as the human, malaria and rice genomes were expected by some to make massive in-roads into ending hunger, disease and poverty. For some, slow progress in useful application throws doubt on the Millennium Development Project's assertion that science and technology are fundamental to ending poverty and disease. Consequently, this year's annual Innogen conference aims to address current questions around the role of science and technology in providing solutions to end hunger, disease and poverty. The conference will be held at Regent's College, London on the 5-6 September 2006.

During the conference we will consider several themes:

- Rethinking agricultural science
- Globalisation, the life sciences and health
- Networks and partnerships
- Regulation
- Industrial capabilities and development

We have an exciting line up of high profile international academics and policymakers alongside papers and posters presented by emerging academics. Registration is still open and more information is available at the following link: <http://www.innogen.ac.uk/Events/Annual-Conference/Innogen-Annual-Conference-2006-Genomics-and-Development/Registration>

We hope this will be a worthwhile and exciting event and we welcome your attendance. Please contact the conference committee's principal organiser Becky Hanlin for more information. Her email is: r.e.hanlin@sms.ed.ac.uk

Other News in Brief...

- Full reports of the Foresight project on the Detection and Identification of Infectious Diseases which we featured in the last newsletter are now available via www.foresight.gov.uk
- Professor Martin Fransman's book *Global Broadband Battles* has recently been reviewed in the Financial Times by Sir Geoffrey Owen, former editor of the FT <http://news.ft.com/cms/s/c5381008-f3e2-11da-9dab-0000779e2340.html>
- If anyone is looking for part-time research assistants we have compiled a register of the skills and work experience of some of ISSTI's graduate students who may be available for short research projects
- The ISSTI website contains a 'Resources' section which includes updates on funding opportunities, journal calls and forthcoming conferences that may be of interest to the ISSTI community. Please help us to keep this up to date by sending relevant news items to c.lyall@ed.ac.uk
- Christine Grimm joins the Biography and Evolution of Software Packages research team. This three year, ESRC-funded project is a comparative study of the development and use of commercial off-the-shelf (COTS) software packages and how they are evolving as they are adapted for use in new organisational contexts. For further details visit the project website www.erp-online.co.uk
- The "Non Place" project – Design for the 21st Century Research Cluster – has contributed to the Defining Place exhibition at The Lighthouse, Scotland's Centre for Architecture, Design and the City. See www.definingplace.com for details.
- Finally, congratulations to Dr Xiaobai Shen and Dr Neil Pollock who have both been promoted to the post of Senior Lecturer in the Management School