

ISSTI Retreat 2010

Around thirty-five ISSTI members returned in June to the White Swan Hotel at Alnwick – and to the magnificent wood panelling, mirrors and stained glass of the Olympic Room – for the Institute's annual two-day retreat. This year's theme was *Working at the Margins / Working across the Divides* – exploring the issues in undertaking STIS research in multidisciplinary ventures, bringing STIS understandings to other academic fields, drawing on other disciplines in our work, intervening in worlds outside academia, and finding common ground in STIS studies of different technology areas.



Fred Steward at the ISSTI Retreat



Sonia Liff at the ISSTI Retreat

Three guests gave us the benefit of their experience.

Professor Fred Steward, from the Policy Studies Institute, examined some of the challenges for STIS in getting its voices heard in public debates and policy environments where we know it has valuable insights to offer. He focussed in particular on STIS work on transitions towards sustainability. He argued there is fertile ground for our ideas, with the idea of a concerted shift, and of its essentially sociotechnical character, now widely evident in policy

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Bias in Publications

As reported by *Nature's Blog*, research by Daniele Fanelli shows an association between the degree of competition experienced by research and the characteristics of research outputs.

New Book by Lawrence Dritsas

Zambesi: David Livingstone and Expeditionary Science in Africa (I.B. Tauris) explores episodes in the history of science involving one of the Victorian era's most feted heroes, offering important new insights into the practice of expeditionary science in Victorian Britain.

Research



Sarah Parry

Understanding Social Practices for Sustainable Behaviour

Congratulations to Sarah Parry who is part of the Sustainable Practices Research Group (SPRG). Led by the University of Manchester, the SPRG has been awarded £1.7 Million by the Economic and Social Research Council. SPRG is part of a larger collaborative venture between the ESRC, DEFRA and Scottish Government on sustainable behaviour.

The SPRG aims to develop fresh understandings about how social practices change - particularly with regard to consumption - and how to encourage more sustainable behaviours.

Sarah leads the 'Engagement, Interaction and Influence' work-package. Using a combination of action research interventions into stakeholder organisations and dissemination her role is to understand current policy-related processes concerning sustainable consumption and insert the group's distinctive social science perspective into public and policy debates while also analysing the implications of doing so.

Sarah Parry can be reached at sarah.parry@ed.ac.uk

Multidisciplinary Networking of Research Communities

James Stewart, with Robin Williams and Ian Graham (Business Studies) are part of the MyFIRE European consortium - a support action on the EU FP7 programme on Future Internet Research and Experimentation to work with the European Telecommunication Standards Institute and partners from Brazil, Russia, China and India.

The work will entail socio-economic research on the role of testbeds in supporting user driven innovation in the development of future internet technologies and facilitate the federation of testbeds in Europe and in BRIC countries, with particular reference to supporting standardisation. The project is named Multidisciplinary networking of research communities in FIRE (MyFIRE), with a total budget of £700,000 of which Edinburgh receives £68,000 over 2 years. The empirical work will further our understanding of the role of intermediaries such as testbeds and standards bodies in the innovation process.

To obtain more information, contact James Stewart at j.k.stewart@ed.ac.uk



James Stewart

The Leverhulme Trust

Early Career Fellowship

Jamie Cross (Social Anthropology) and Daniele Fanelli (ISSTI) were awarded 36 months Early Career Fellowships by The Leverhulme Trust.

Jamie will work on the evolution of low cost solar energy markets in India, thereby contributing to timely debates about technology, economy and pro-poor enterprise in emerging markets.

Daniele's project on bias, misconduct and the hierarchy of the sciences will review and unify theories and models predicting how scientific objectivity and integrity might be influenced by methodological and socio-economic factors.



Jane Calvert

Regenerative Medicine

Edinburgh will partake of a £444,000 award made under the Technology Strategy Board Regenerative Medicine Programme: Value Systems and Business Models. The project, A Therapy Realization Pathway Tool (TRPT) applied to three representative regenerative medicine therapeutic products (REALISE), will be led by the Scottish Stem Cell Network (SSCN) on behalf of a consortium which involves Roslin Cells Ltd. and KLCE Consulting Ltd, Innogen and other University of Edinburgh academics.

The REALISE project will develop a software based tool that researchers and companies will be able to use to better understand and plan the optimal route for the commercialisation of new regenerative medicine therapies. This will be used in the first instance to develop commercialisation plans for three new therapies currently in development with Roslin Cells. In addition, it will form the basis of a generic tool with wider applicability across the pharmaceutical, medical device and diagnostic sectors. The project will run from 1st May 2010 to 31st October 2011.

The award to the University of Edinburgh was £192,569. For our part of the project, Prof Joyce Tait, Dr James Mittra, Dr Michele Mastroeni, Heather Lowrie and Dr Ken Snowden from Innogen, along with Dr Geoff Gregson (Edinburgh University Business School) and Dr David Hay (Centre for Regenerative Medicine) will adopt a scenario-based approach, involving the TRPT, to evaluate a range of business plans and value systems and test their robustness under various regulatory and funding contingencies.



Visiting Fellowship

Jane Calvert (Innogen) and Emma Frow (Genomics Forum) were awarded a joint Social Science Research Council (US) - ESRC (UK) Visiting Fellowship of £4275. The Fellowship will allow them to visit the Centre for Nanotechnology in Society at Arizona State University in Oct-Nov 2010, where they will compare social scientific involvement in nanotechnology and synthetic biology. Jane and Emma will be hosted by Matt Harsh (Innogen Alum) and Jameson Wetmore.

Community



Barbara Silander

Retirement

ISSTI bids a warm farewell to Barbara Silander, who retires after 20 years of service.

Barbara joined in 1990 as Research Secretary for the Programme on Information & Communication Technologies of the Research Centre for Social Sciences.

Her previous expertise as a computer programmer helped her cheerfully embrace new ways of working. She took great interest in the projects in which she was involved. Latterly, her work was with Donald MacKenzie and she had to learn new vocabularies of financial markets. Barbara was thrilled when Donald dedicated his most recent book to her, along with Moyra Forrest and Robin Williams.

She will be missed greatly.



Ivan Crozier



John Henry



James Smith

Promotions

ISSTI congratulates Ivan Crozier, John Henry and James Smith for their well-deserved promotions.

Ivan Crozier is now Senior Lecturer at the Science Studies Unit. John Henry, also of the Science Studies Unit, was appointed Professor in the History of Science. And James Smith, Co-Director of the Centre of African Studies, Director of the Global Development Academy and member of ISSTI, was appointed Chair in Africa and International Development.

Award

Angela McEwan (Innogen Administrator) graduated in London on 5th June with a Diploma in Administrative Management and also received a prize for 'Outstanding Academic Achievement' for graduating as the top Diploma student in the UK for 2009 with the Institute of Administrative Management.



Angela McEwan

Alumni

Martina Gerst, who obtained her PhD from the Research Centre for Social Sciences of the University of Edinburgh in 2007, was awarded a place in the second intake of the European Commission's Science and Technology Fellowship Programme China (STF2 China). The STF2 China will promote mobility of EU to Chinese research and development centres, as well as a basis for sustaining the links and research partnerships between EU and Chinese research institutions.

Martina will start the programme in June 2010 with an intercultural training in Beijing followed by six months of tailored Chinese language training. The curriculum of the programme also comprises lectures, seminars and visits to Chinese institutions.

After this initial stage, Martina will conduct 18 months of research at Tsinghua University in Beijing. Martina will be hosted by the School of Economics and Management. Professor Gao Xudong, Associate Professor in the Department of Innovation and Entrepreneurship will support Martina in carrying out her comparative study of Chinese and European ICT standardisation landscapes. This research project will be based on the China-EU Standards Research Partnership, which incorporates the Tsinghua University Institute for Science, Technology and Society, led by the Director Professor Zeng Guoping, and the Institute for the Study of Science, Technology and Innovation of the University of Edinburgh.

For more information, please contact Martina at: martina.gerst@ed.ac.uk



Completed PhDs

Congratulations to our new graduates

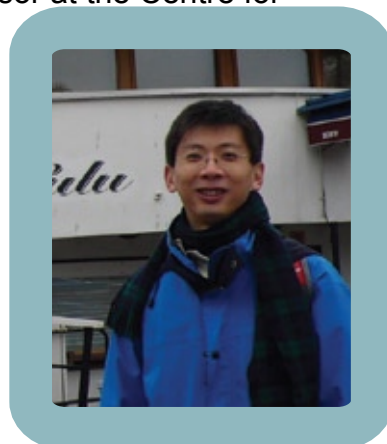
Chih-Tung (Morgan) Huang received his PhD for a thesis on *Shaping Environmental Justices*.

Juan Pablo Pardo-Guerra completed his PhD in Science and Technology Studies with a thesis on the *Automation of the London Stock Exchange, c. 1945-1995*. Juan Pablo is currently working with colleagues from ISSTI developing a project on organisational and sociotechnical aspects of fire safety.

Appointment

Tzung-De Li, who in 2009 completed his PhD on the development of fuzzy logic research in Japan, is now Assistant Professor at the Centre for General Education and Institute of Sociology of Hsin-Hua University, Taiwan. Tzung-De can be reached at

tdlin@mx.nthu.edu.tw



Publications

Bias and Publication Pressures

Daniele Fanelli's article, *Do Pressures to Publish Increase Scientists' Bias? An Empirical Support from US States Data* (PLoS ONE 5:4, 2010), has received broad coverage in the media, including *Nature's* blog and the Times Higher Education. In his study, Daniele reports an association between the publication of papers that support a tested hypothesis and the degree of pressure to publish experienced by authors, as measured by state-wide productivity. Daniele's study shed light on some of the dynamics of the so-called 'publish or perish' culture that shapes competitive academic environments.

For more information, contact Daniele at dfanelli@staffmail.ed.ac.uk

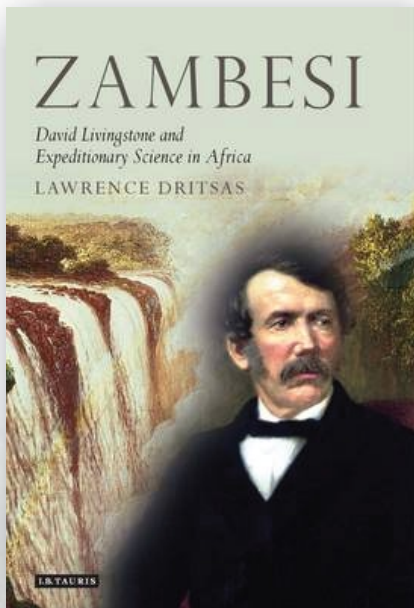


Daniele Fanelli

New book

In March 1858 David Livingstone's Zambesi Expedition left Liverpool for Africa. It would not return until July 1864. In the two years leading up to this moment, Livingstone had been transformed from a lone apostle of the London Missionary Society into a national hero and icon of Victorian manhood. Addressing the crowds that had gathered to bid him Godspeed, he declared his intentions to be to put an end to slavery by introducing alternative commerce to south-central Africa: 'What I want to do is get in the thin edge of the wedge, and then leave it to be driven home by English energy and English spirit.'

Lawrence Dritsas' *Zambesi* is a tale of expeditionary science in the raw. It exposes the rivalry among some of Victorian Britain's leading establishment figures and institutions – including the Foreign Office, the Admiralty, the Royal Society, the Royal Geographical Society, Kew Gardens and the British Museum – while abolitionists, scientists, and entrepreneurs sought to promote and protect their differing interests. Making use of letters, documents and materials neglected by previous writers and researchers, Lawrence reveals how tensions arose from the very beginning between those in pursuit of knowledge for its own sake and the proponents of the civilising missions who saw scientific knowledge as the utilitarian means to a social end. The result is a compelling account involving one of the Victorian era's most feted heroes, which offers important new insights into the practice of expeditionary science in Victorian Britain. The most complete account of the Zambesi Expedition yet published, *Zambesi: David Livingstone and Expeditionary Science in Africa* (I.B. Tauris, 2010) will be essential reading for historical geographers and historians of science and empire, and for all those with an interest in Africa, Victorian studies, travel and exploration, and the life and work of David Livingstone.





NATURE AFTER THE GENOME

The Sociological Review Monograph edited by Sarah Parry (ISSTI) and John Dupre (Exeter) is now available.

Nature After The Genome (Wiley-Blackwell, 2010) explores the relationship between developments in genomic technologies and our knowledge and understanding of nature. The question of nature and how social science might go about its conceptualisation is addressed through several revealing case studies by scholars and specialists in relevant fields. Based on meticulous empirical research, issues such as synthetic biology, stem cell research, agricultural biotechnology, adolescent obesity and puberty, animal behaviour, molecular biology and biodiversity are explored. Essays also seek to discover the extent to which developments in genomics are reshaping the epistemology and ontology of nature and the specific implications for individuals and collectivities - human and non-human - of rethinking our world through genetic knowledge.

Web2.0 use in the UK research community still 'experimental'

The Research Information Network (RIN) has just published the results of research conducted by researchers from ISSTI and the Manchester e-Research Centre on the Use and relevance of web 2.0 for researchers.

The study enquires into the factors that influence researchers to adopt and use Web 2.0 tools, and conversely the factors that prevent, constrain or discourage usage. The study also explores whether and how web 2.0 tools are changing researchers' behaviour in significant ways, and what implications this might have for researchers, institutions, librarians, information professionals and funders.

The study finds that while most researchers have a positive attitude towards web 2.0 services, only a few have made them a routine part of their working life. The report dismisses some stereotypes: for example, while there are some statistically significant variations between different demographic groups, high usage is positively associated with older age groups and those in more senior positions, not with their younger or more junior colleagues. We are still in a period of experimentation, with a proliferation of services, and few services providing compelling alternatives to the established means of scholarly communication and research practice that are so entrenched within the systems for evaluating and rewarding researchers for their work.

The full report is available for download at: <http://www.rin.ac.uk/>

See also: Procter, R. Williams, R. Stewart, J. Poschen, M. Snee, H. Voss, A. Asgari-Targhi, M. 'Adoption and Use of Web 2.0 in Scholarly Communications' *Philosophical Transactions of the Royal Society A*

ISSTI Briefing Note on wind power

ISSTI has published a briefing note by Mhairi Aitken (RCSS) on Public Engagement and Wind Power. The document has been sent to energy companies and industry groups, relevant UK and Scottish Government departments and planning authorities across Scotland. The paper has generated a very positive response and has resulted in discussions with the Scottish Government's Energy Consents division and invitations to participate in Government discussion forums on planning reform. The publication of the briefing paper was followed by a workshop in the Scottish Government which was attended by planners and analysts with broader interests in public engagement. A similar workshop will be delivered to the Edinburgh City Council Planning Committee in late July.

The briefing note is available at <http://www.issti.ed.ac.uk/publications/briefing-notes>



Recent publications

- AVINMELECH, G, ROSIELLO, A, and MORRIS, T. 'Evolutionary interpretation of venture capital policy in Israel, Germany, UK and Scotland' in *Science and Public Policy* 37: 2, 101-112
- DRITSAS, L. Zambesi *David Livingstone and expeditonary science in Africa*. Taurus 2010.
- FANELLI, D. 'Do Pressures to Publish Increase Scientists' Bias? An Empirical Support from US States Data' in *PLoS ONE* 5:4, e10271
- HADDOW, G, BRUCE, A, CALVERT, J, HARMON, S, and MARSDEN, W. 'Not "human" enough to be human but not "animal" enough to be animal - the case of the HFEA, cybrids and xenotransplantation in the UK', *New Genetics and Society*, 29: 1, 3-17
- PARRY, S. 'Interspecies Entities and the Politics of Nature' in PARRY, S. and DUPRE, J. *Nature After the Genome*, Oxford: Wiley-Blackwell, 113-129
- POLLOCK, N and WILLIAMS, R. 'The business of expectations: how promissory organizations shape technology and innovation' in *Social Studies of Science* [online version published 20/5/10]
- PROCTER, R. WILLIAMS, R. STEWART, J. POSCHEN, M. SNEE, H. VOSS, A. ASGARI-TARGHI, M. 'Adoption and Use of Web 2.0 in Scholarly Communications' *Philosophical Transactions of the Royal Society A*
- SHEN, X. 'Understanding the Evolution of Rice Technology in China - from traditional agricultural to GM Rice today' in *Journal of Development Studies*, 46:6
- SMITH, J. 'New institutional arrangements for development, science and technology' in *Development* 53:1, 48-53
- WIELD, D., CHATAWAY, J and BOLO, M. 'Issues in the Political Economy of Agricultural Biotechnology' in *Journal of Agrarian Change*, 10:3, 342-366

Awards

David Edge Studentship 2010/11



This recipient of the David Edge Studentship for 2010/11 is Elsa Davidson, who will be taking up a place on the MSc Science and Technology Studies in September.

Elsa has a degree in Archaeology from the University of Glasgow and a PGDip in Museum and Gallery Studies from the University of St Andrews. Since 2007 she has worked as Curator of the South Georgia Museum. She is interested in the public communication of science and aims to enhance her skills in communicating the history of scientific knowledge and its social impact effectively through museum applications.

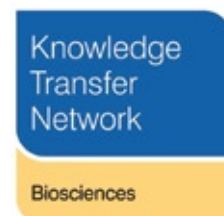
The David Edge Studentship is awarded each year to support a student in either the MSc Science and Technology Policy and Management or the MSc Science and Technology Studies. The studentship honours the life and achievements of Dr David Edge (1932-2003), founder of the Science Studies Unit. Elsa won against strong competition - congratulations!

ESRC Collaorative 1+3 Studentship

Deborah Spencer has been awarded Innogen's ESRC Collaborative 1+3 (CASE) studentship on the role of brokerage organisations in knowledge exchange processes: the case of Genesis Faraday Partnership.

Deborah will work with the co-sponsor, the Biosciences KTN (an organization focused on promoting and supporting the conversion of bioscience knowledge into innovative bioscience products for the benefit of businesses, the economy, the environment and society), to examine the knowledge brokerage role, with a view to understanding what processes promote research uptake and what factors shape these processes.

Deborah has a background in business development and has worked with a number of life science companies and research institutions in Scotland. She will work with a supervisory team consisting of Catherine Lyall and Ann Bruce (Innogen), David Telford (Biosciences KTN) and Sandra Nutley (Business School).



Recent events

Tomorrow's Giants

A conference hosted by the Royal Society and Nature
1 July 2010

Robin Williams ran a session on Data at the Nature/Royal Society Tomorrows Giants conference on 1st July 2010, which brought together scientists and policy makers to consider the challenges facing science over the next 50 years.



Across different disciplines, scientists were excited about new opportunities to gain access to research data. However they faced very different challenges in terms of

the kind of information involved. A significant investment is needed to make research data meaningful to other researchers and wider publics (and whilst research project funding will cover the costs of setting up information resources, it may be difficult to secure funding to maintain them subsequently). Biomedical researchers were concerned to establish robust and flexible procedures for confidentiality and privacy and consent to ensure that best use could be made of potentially sensitive biomedical and human genetic data.

Plenary discussion took up the debate about whether such resources should be centrally or locally maintained. Though there had been successful centralisation in some research areas (eg proteomics), Tony Hey (Microsoft Research) noted the diversity of models. Dr Peter Cotgreave (Royal Society Director of Public Affairs) asked whether the benefits of localised provision could be coupled with large-scale facilities by linking localised resources together virtually. David Willetts, the new Minister of State for Universities and Science, observed that in the current difficult financial environment those developing information resources would be advised to develop an institutional umbrella to sustain / protect their work.

Understanding Technology

Prof. Mario Biagioli from Harvard University, our guest at the 2009 ISSTI retreat, returned to give the last public lecture in the second series of *Understanding Technology*, organised by our colleagues in the Science and Technology Department at National Museums Scotland. In 'How Galileo Copied the Telescope: Technology Transfer in Baroque Venice', Mario used correspondence from the time to make a convincing challenge to accepted accounts of Galileo's role, and showed how the astronomer constructed not only the device but a clever narrative to emphasise the originality of his own contribution. To accompany the talk, Museum staff brought the NMS replica

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and targets as well as just in political rhetoric. How showed however the limitations of much of the strategic thinking, and of the typical assumptions and narratives that dominate public debate and policy advice. STIS needs to engage much more effectively with these arenas to get across its key perspectives, but at the same time maintain a pluralism of approaches in the field.

Dr Sonia Liff – after a long university-based career now undertaking STIS research and consultancy through Appleby Research – used her work examining NESTA's Big Green Challenge to explore the meaning and importance of the 'local' in the projects the BGC supported, and showed how STIS ideas can usefully be blended with ideas from sociology, geography and anthropology.

Professor Gary Edmond, from the Faculty of Law at the University of New South Wales, talked about his experience bringing his STIS expertise and interests to examine the way scientific evidence is treated in the courts – and trying, through his cross-disciplinary work and active involvement in the legal world, to improve its procedures. With a number of fascinating high-profile cases, he highlighted the often dubious claims and assumptions made on the basis of images and forensic analyses, and the strange ways that courts have attempted to deal with contentious evidence by means of admissibility criteria.

Jane Calvert, Emma Frow, Ian Graham and Robin Williams considered the parallels



Gary Edmond

between their work on standardisation processes in ICTs and in synthetic and systems biology. STIS research students Corra Boushel, Heather Lowrie and Isabel Fletcher led a thought-provoking participatory session identifying what other disciplines and fields we draw on in STIS work, and how. Xiaobai Shen and Lawrence Dritsas examined the potential contributions of STIS to analyses of globalisation and international development. Steve Yearley and Daniele Fanelli looked at the recent 'Climategate' affair, and with Sarah Parry's contribution on the varied forms of intervention undertaken by STIS researchers, fuelled a vigorous discussion running throughout the retreat about their motivations, warrant and scope to intervene in policy and (apparently) scientific debates.

Thanks to our guests, to Geraldine Debard and Sarah Parry, and to everyone else who contributed to keeping up the tradition of a stimulating, productive and enjoyable ISSTI retreat.

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of Galileo's telescope for the audience to try out. The replica was built with the support of the Royal Society as part of its 350th Anniversary celebrations. Mario's verdict on the replica: a fascinating reproduction, except that the lenses are probably much better than the originals!

As previous lectures in the two series, the talk attracted a large audience of academics, museum curators and members of the wider public. The third series of this successful venture kicks off at the end of August. The line-up for the 2010/11 programme includes Andy Pickering and Simon Schaffer.