

ISSTI

THE INSTITUTE FOR THE
STUDY OF SCIENCE
TECHNOLOGY AND INNOVATION
www.issti.ed.ac.uk

newsletter

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To celebrate the 50th Anniversary of the foundation of the Science Studies Unit we reached out to former colleagues and alumni - and they came from all corners of the world for a week of activities revolving around the SSU50 Gala on Wednesday 15th June 2016.



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SSU

Science Studies Unit
50th Anniversary

Celebrating our 50th Anniversary



This year we are celebrating the 50th Anniversary of the establishment of the Science Studies Unit (SSU) at the University of Edinburgh. We have been exploring just how innovative the SSU was and how influential it has been on our work in Science, Technology and Innovation Studies (STIS) studies today.

We held a week of celebratory events in June. Alumni and friends of the SSU came from around the world (as far away as Taiwan, Australia, Canada) to consider not just past achievements, but also future directions of the field. The annual **ISSTI Retreat** culminated in a public lecture by Professor Harry Collins (Cardiff University), who showed the significance of the sociology of science in understanding the societal as well as scientific achievements underpinning recent high-profile breakthroughs in the search for gravitational waves.

Attended by 80 people, the **SSU50 Gala** celebrated the vision of the founding Edinburgh School in science and technology studies (STS). Key past and present figures from the field offered enlightening and entertaining memories – both personal and intellectual. We were also delighted to welcome some distinguished guests: notably Barbara Edge, the wife of the late David Edge (the founding Director of SSU), and the Nobel Laureate Peter Higgs, who was one of the key players in the Science Faculty who set the stage for the establishment of the SSU in the 1960s.

Our research students ran a series of **SSU50 workshops** on the theme of 'Practising the Reflexivity Tenet'. These explored the legacy of the SSU and its enduring influence in academic research and wider society. We explored the polemics of the development of STS and its geographical and analytical spread. We even visited science laboratories and field sites to discuss our future with partners and collaborators in other disciplines such as geophysics and astrobiology.

The week concluded with the **STIS Cabaret**. This fun and creative event highlighted the importance of arts and culture to the understanding of the past, present and future of science (and science studies). Through performances, readings, round-table debates and role-play we celebrated the creativity and ingenuity of our staff and students, who are the true lifeblood of our field.

We will round off our 2016 anniversary celebrations with a further series of events in November, when we host the **second annual conference of the UK Association for Studies in Innovation, Science and Technology** (AsSIST-UK), with public lectures, a reception and meetings with Professor Helga Nowotny and Professor Bruno Latour, who are receiving Honorary Degrees from the University of Edinburgh.

Our developing '**Memory Collection**', an archive of the history of the SSU, and our forthcoming **Talking STS** book, which features interviews with leaders in the field, will provide lasting souvenirs of this 50th anniversary.



This is the Newsletter of the Institute for the Study of Science, Technology and Innovation (www.issti.ed.ac.uk). This interdisciplinary network, founded in 2000 by Robin Williams, brings together colleagues from across the University studying science, technology and innovation and is hosted by the Science, Technology and Innovation Studies (STIS) Subject Group.

The Science, Technology and Innovation Studies (STIS) Subject Group at the University of Edinburgh is internationally recognised as a leading centre of research, teaching and knowledge exchange in this important interdisciplinary field. With more than 40 staff, STIS enjoys outstanding ratings for its scholarly publications and impact, sustains research intensity with a high volume of external research income, and excels in teaching through a suite of undergraduate and postgraduate courses and programmes. For more information, see our website: www.stis.ed.ac.uk.

David Edge's Proposal for the SSU



1 - In May 1965, a paper drafted by David Edge, 'Proposed New Department of Science Studies at Edinburgh University', was circulated to members of the *Committee on Providing a Broader Basis for the Science Degree*. This document was based in part on an outline scheme for such a department prepared by Professor Conrad Hal Waddington, then Edinburgh's Chair of Animal Genetics. Edge produced his proposal in early 1965 as a contribution to discussions around creating the department, hiring Edge to be its first director and seeking financial support from the Wolfson Foundation. At this time Edge was in charge of science on the BBC Third Programme (forerunner of BBC Radio Three).

Proposed New Department of Science Studies at Edinburgh University

by

Dr. David Edge, B.B.C.

It is proposed to found a new Department of Science Studies at Edinburgh University, with the overall aim of focussing attention, by teaching and research, on those areas where scientific activities overlap with the concerns of human societies - with particular reference to practical concerns (such as sociological change and economic growth) and matters of 'science policy'.

Aims of the Undergraduate Course.

The basic aim of the teaching course could be summarised thus:-

(a) to remedy an ignorance (sometimes a wilful ignorance) among science graduates of major aspects of civilisation, such as literature, art, religion and philosophy, and of the 'strategic issues' of science, and (b) to bring out the ways in which the development of science has influenced, and is influencing, various aspects of human life, with particular emphasis on the strategic aspects of practical affairs, rather more than the philosophical, artistic or religious fields.

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Syllabus.

The course will draw teaching material from the following general areas:-

- (a) Sociological results of scientific advance.
The population explosion, control of disease and pests, transport, urbanisation, power, leisure, etc.
- (b) The organisation of scientific activities.
The finance of research, UGC, Ministries of Science and Technology, industrial and defence research establishments, CSP, International Organisations, UN agencies, Pugwash, etc.
- (c) The organisation of British industrial economy.
Some economic ideas, G.N.P., growth of industry, structures of large firms, the Stock Exchange, etc.
- (d) History and Philosophy of Science.
The sources of scientific ideas, and their evolution, and the history of technology.
- (e) Scientific and Religious Thought.
History of conflict, and present development in modern theology.
- (f) Science and Culture.
The influence of scientific attitudes and ideas on literature, drama and art.
- (g) Science and the Democratic Process.
The necessity of widespread scientific understanding in a democracy, the problems and possibilities of communication via the mass media, an analysis of particular decisions (e.g. fluoridation).

Teaching Methods.

The course will proceed, in the main, by studying individual cases in depth, rather than by giving a broad but shallow overall coverage. For instance, the developme

2 - Edge's proposed syllabus comprises the themes and topics he envisaged the new course would entail. His proposal described a three-year structure. Year 1 would be unexamined, include many 'star' lecturers and be an 'appetite-whetter'. Year 2 would be a full-year course covering items a, b, and c. Finally year 3 would see selected students pursue special studies and write a thesis.

The Director's research interests centre round the topic of the 'communication of science', a neglected field in this country, but successfully broached (by Schramm, Tannenbaum, et al.) in America. There is a wide range of problems still untouched:-

- (i) Philosophical problems associated with the notion of 'understanding science'.
- (ii) The problem of defining the 'level of understanding' of science required of members of a democratic society, if they are to reach reasonable decisions. (The fluoridation debate is an excellent example awaiting documentation and analysis.)
- (iii) A discussion of the level of 'scientific understanding' reached by mass secondary education, and of whether the mass media can significantly improve this - or need to. This argument should be quite pragmatic, and related directly to (b).
- (iv) Research into where people actually get their scientific information from. (This is known for America.)
- (v) Psychological research into the communication process itself, the effects of style and presentation, the problem of 'conceptual illusion', etc. Professor Kay and Dr. Warr, at Sheffield, have relevant research in hand in this general area.

The Department plans to have a working library, and

3 - Research was vital, Edge argued, to 'ensure a high quality of enthusiastic teaching' from staff members. This list comprises the topics Edge considered as yet 'untouched' in 1965.

STIS Makes Waves in Barcelona

Edinburgh sent over forty staff and research students to the joint meeting of the European Association for Science and Technology Studies (EASST) and the Society for Social Studies of Science (4S) (Barcelona 31 August – 3 September 2016). With over two-thousand participants, this was perhaps the largest-ever academic conference in the field of Science and Technology Studies (STS). It was a showcase for the growing strength of our field in the University of Edinburgh and internationally.



Despite the tremendous size of the conference, the University of Edinburgh was very visible. Edinburgh scholars were responsible, as chairs and conveners, for leading seven tracks and panels spanning the four day meeting. We were also authors and co-authors of 37 papers presented in 24 different tracks, encompassing finance, energy, open science, biomedical research, health policy, feminist technoscience, research methodology and so on.

Perhaps most notable was our contribution to a track on the *Biography of Artefacts and Practices* (co-convened with colleagues from Aalto University) which pulled together a diverse group of researchers, who, frustrated with the shortcomings of prevalent single-site snap-shot studies, sought a richer framework for longitudinal and multi-site research.

As part of our celebration of the 50th Anniversary of the formation by University of Edinburgh of the Science Studies Unit, the Science, Technology and Innovation Studies Subject Group helped sponsor the **STS Verbena** (a summer open-air dance) in the beautiful main square of Poble Espanyol - a monumental synthesis representing the architecture of six hundred villages across the Iberian peninsula.

Being CANDID: Responsible and Smart?

Charles Raab, Antti Silvast and Robin Williams are part of an international team that secured funding from Horizon 2020 that will examine how we can ensure the responsible research and innovation of smart technologies. The CANDID project (Checking Assumptions aND promoting responsibility In smart Development projects) is led by the University of Bergen and has partners in the Open University of Catalonia, the Free University of Brussels and the University of Surrey and will run throughout 2017.



Double success with ClimateXChange Fellowships

Prof Janette Webb (Sociology) is leading a ClimateXChange PDRF Award commencing Autumn 2016 for one year in the first instance with likely extension to 3 years.



The research will evaluate the Scottish Government National Energy Efficiency Pilot projects (circa £13M investment) and contribute to design and structure of the eventual full scale Programme. Scotland's Energy Efficiency Programme treats energy efficiency as a national infrastructure priority, and will aim to improve the energy performance of every building in Scotland. It will be central to the forthcoming Scottish Energy Strategy and is an essential step in mitigating climate change, and creating a sustainable economy and society.

Dr Mark Winskel, Chancellor's Research Fellow in STIS, is leading another ClimateXChange Fellowship to support energy and climate policy design in Scotland by conducting high quality research on policy effectiveness.

Initially, the work will develop an assessment method to better understand the factors shaping the delivery of a given set of policy objectives: what works and why in terms of efficiency, equity and institutional feasibility. The Fellow will then pilot the assessment method on low carbon heat policy in Scotland, where an analysis will be made of the effectiveness of policies in terms of meeting overarching and longer-term policy targets. If you wish to discuss the fellowship position, which will be advertised and appointed before the end of the year, please write to mark.winskel@ed.ac.uk.

STIS CONTRIBUTES TO EDINBURGH INTERNATIONAL AND FRINGE FESTIVALS

Several colleagues were part of this year's Edinburgh Summer festivals season. Niki Vermeulen and Bill Jenkins have been involved in the "Deep Time" opening ceremony of the Edinburgh International Festival with the Curious Edinburgh project (www.curiousedinburgh.org); and Matjaz Vidmar, Miguel Garcia-Sanchez and Gill Haddow performed as part of the Beltane Network initiative, the Cabaret of Dangerous Ideas series (<http://codi.beltanetwork.org/history/codi-2016-shows/>), at the Edinburgh Fringe.

Paolo Quattrone's ESRC Impact Award

Congratulations to Prof Paolo Quattrone, Co-Director of the Centre for Accounting and Society (CAS), on being awarded an ESRC Impact Grant. The project Maieutic Governance and Reporting – Accelerating the impact in UK Governmental Major Programmes will be undertaken in collaboration with the Infrastructure and Project Authority at the UK Cabinet Office.

It aims to map and extend the impact of Prof Paolo Quattrone's current research on novel forms of reporting and governance onto a range of Major Programmes run by the UK government. Over 320 UK senior civil servants have already been exposed to this research, through Quattrone's teaching with the UK Cabinet's Major Projects Leadership Academy at Oxford. With this grant, it is expected that this number will grow. Mapping impact will help to systematize lessons learnt and share them across the whole government's portfolio of programmes, thus enhancing impact, and to develop an index to assess the quality of decision-making in government programmes.



Prof Quattrone

New directions at National Museums Scotland

We are excited to hear about a major refurbishment at the National Museums of Scotland (NMS), with which we have a close relationship. NMS is Britain's most popular museum outside London, with 1.6 million visitors last year.

Klaus Staubermann, ISSTI member, a science historian and principal curator of technology at the NMS has opened six new science and technology galleries where some 3,000 objects have been installed (75% on public display for the first time) that follow scientific concepts through to technology and production and capture Scottish contributions of diverse fields including energy, transport, computers and biotechnology.



The museum's wider collection reflects diligent hoarding of bits and pieces from the Industrial Revolution to today. Now technology is transforming the craft of exhibiting itself. For example, new layers of interactivity allow visitors to delve as deep as they like in to the objects on display.

Our Students Lead Methodology Workshops at SGSSS Summer School 2016

STIS PhD students, Matjaz Vidmar and Dayana Mohamed Ariffin collaborated with colleagues from Edinburgh Napier University, John Mowbray, Ella Taylor-Smith and Lynn Killick, on two methodology workshops as part of the 2016 Scottish Graduate School in Social Science (SGSSS) Summer School in June.

One of the workshops, on Document Analysis, was a third run of a very successful workshop designed by STIS Chancellor's Fellow Dr Miguel Garcia-Sancho. The workshop attracted researchers and doctoral students from various disciplines in the arts, humanities, social and natural sciences with a common interest in document analysis. It allowed for extensive interdisciplinary dialogue, by combining short presentations, an extended time for discussion and practical exercises in which the attendees have had the opportunity to apply their learnings to the analysis of a document.

The second, on Strategic Ethnographies, was a new addition to SGSSS Summer School programme, based on the recent development of new methodological tools by Edinburgh researchers deploying the *Biographies of Artefacts and Practices* approach in the study of technology and innovation. Working with colleagues from several schools and our partners from Finland, the workshop was based on a multi-disciplinary discussion about modern ethnographic work, noticing in particular the extension of the studied (cultural) "space" across physical boundaries into multi-sited and virtual environments. Both of those circumstances require a new imaginative approach to ethnographic research, based on mixing methods and/or non-traditional engagement with the studied community.

Videos of the key talks from the workshop can be found on ISSTI YouTube page: <http://bit.ly/SGSSS-Summer-School>



Scottish Graduate School of Social Science
Home to Scotland's ESRC DTC

2016 ISSTI Retreat Videos

As part of our increasing range of online resources we are delighted to be able to bring you videos of the main presentations in the **ISSTI Retreat 2016**, SSU50 Special Edition.

ISSTI Retreat 2016

Robin Williams – Welcome and opening remarks <https://www.youtube.com/watch?v=RPumMMm7gtU>

Paolo Quattrone - In search of value: an anecdotal history of the representation of value in accounting <https://www.youtube.com/watch?v=j45AamAQ4IE>

Philip Grant – A Capital Error: Why the Concept of ‘Capital’ Is No Longer Valuable?
https://www.youtube.com/watch?v=b3wa_JKX6Zk

Jan Webb – On (Not) Assembling Value in Energy Markets: heat networks and British cities
<https://www.youtube.com/watch?v=xIKduHvslpE>

Neil Pollock – Prosthetic Markets: How category makers, not just innovators, shape the digital economy https://www.youtube.com/watch?v=cl_ENbED_vU

Niki Vermeulen – Counting Quality <https://www.youtube.com/watch?v=qllsUC7IeFM>

Stuart Anderson – Algorithm Society <https://www.youtube.com/watch?v=kcpBRjLF8LY>

Karen Gregory – From Digital Labor to Surveillance Capitalism
<https://www.youtube.com/watch?v=XnOjk5nJvjk>

Arie Rip - Sites of a Grand Societal Experiment <https://www.youtube.com/watch?v=SmoqDSppTgM>

Xiaobai Shen - Imitation at the “optical point” - building an intellectual property regime in China
<https://www.youtube.com/watch?v=ldPzqEdl-kc>

Panel: STS as Travelling Theory - Asia as Method (Francesca Bray, Brian Wynne and John Law)
<https://www.youtube.com/watch?v=7omZVpJ7Clw>

Closing remarks: Robin Williams <https://www.youtube.com/watch?v=1K5TWAiEPGs>

ISSTI Retreat 2016 Public Lecture

Professor Harry Collins - Sociology of scientific knowledge and gravitational waves –
https://www.youtube.com/watch?v=iXa4xR7Ud_4

The playlist in its entirety can be found here: <http://bit.ly/ISSTI-Retreat-2016-Videos>
(It will run through all videos, starting from the top of this list.)



Our community continues to grow. We are delighted to welcome new arrivals.

Dr Erika Szymanski

Erika Szymanski has joined the ERC *Engineering Life* research team led by Jane Calvert. With a background in science communication, rhetoric and writing studies, and wine microbiology, she is focusing on multispecies relationships in synthetic biology amongst humans, yeast, and other microorganisms in the Sc2.0 project, which aims to synthesize the first complete eukarotic genome of *Saccharomyces cerevisiae*. Erika's previous work concerned research-industry communication and collaboration in New World wine industries, and she continues to write about wine science for popular and trade audiences.



Dr Giuditta Parolini



Giuditta Parolini is research fellow on the ERC-funded project Medical translation in the history of modern genomics. For the project, led by Miguel García-Sancho, she will investigate the history of the sequencing of the yeast genome. Before joining the STIS unit, Giuditta was a postdoctoral fellow at the

Technische Universität Berlin. There, she investigated the history of statistics, computing and information technologies in twentieth-century experimental research, with a specific focus on agricultural science.

Dr Andrew Watkins

Andrew Watkins joined STIS in June 2016 as Postdoctoral Research Fellow on Governance/Innovation Interactions, where he will be carrying out social and policy research contributing to the following two large



scale science interdisciplinary projects based in the University of Edinburgh: the UK Centre for Mammalian Synthetic Biology (CMSB), and the Implantable Microsystems for Personalised Anti-Cancer Therapy (IMPACT). Andrew holds a PhD in Regional Planning from The London School of Economics and previously worked as a Teaching Fellow at SPRU and as Research Associate at the Open University centre for Development, Policy and Practice (DPP).

Dr Jim Lowe



Jim Lowe joined as a Research Fellow having completed a post-doc at the University of Exeter, and had been at the Egenis centre there since 2009, where he completed an MA in History and Philosophy of Biology and PhD in philosophy of science. His scholarly focus is on genetics, genomics, developmental biology and biological variation, taking a multidisciplinary approach to these topics.

Dr Mark Wong

Mark Tsun On Wong has joined the STIS department as a Research Assistant, working with Dr Miguel Garcia-Sancho on an ERC-funded project, "Medical Translation in the History of Modern Genomics", starting from October 2016. Mark's role focuses on extracting bibliometric data online and contributing his skills in Social Network Analysis. He is also soon completing his PhD in Social Policy at the University of Edinburgh.



His research examines disengaged young people's social interactions and influences of technologies. Previously, he did a MSc by Research in Social Policy and MA(Hons) in Social Anthropology and Social Policy at the same university.

Dr Peter Zeniewski



Peter Zeniewski is a new Chancellor's Fellow working within the Energy and Society research group. Peter joins STIS having worked for the European Gas and Power team at Wood Mackenzie, a global energy research and consulting firm based in Edinburgh. Before this he was a Scientific Officer at the European Commission Joint

Research Centre, Institute for Energy and Transport, where he undertook research and provided policy support on natural gas security and unconventional hydrocarbons. He holds a PhD in International Relations from the University of Oxford.

Visitors

Dr Aida Ponce Del Castillo

Aida Ponce Del Castillo is a Visiting Researcher and will stay at the University of Edinburgh until December 2016. She is the Head of the Health and Safety Unit of the Research Department at the European Trade Union Institute (Brussels) where she deals with occupational health and safety, focusing on policy and regulatory issues in the EU.



She is a member of several European committees at the EU institutions. Her research focus is nanotechnologies and emerging technologies. At ISSTI, Aida will look at how regulating rapidly emerging and fast changing technologies can be done in a more participatory way, with more governance and accountability, considering that current regulatory processes have not fulfilled expectations.

Departures

Dr Christine Knight

Christine Knight, Wellcome Trust Senior Research Fellow in Science, Technology and Innovation Studies, University of Edinburgh, left STIS in October 2016 to take up the post of Reader in Food, Society & Culture in the Business School, Sheffield Hallam University. Christine has worked at the University of Edinburgh since 2008, previously at the ESRC Genomics Policy & Research Forum.



MEMORY COLLECTION

We are developing a collection of memories from former colleagues, associates and alumni to supplement the official SSU archive that is being prepared. We welcome photos, documents, anecdotes and recollections (either as text or by making a short video). Please contact Hyojung Sun (S1058647@sms.ed.ac.uk) or submit your material via our on-line tool: <http://bit.ly/memory-collection-submission>

Help Build Our Social Media Strategy

As we appreciate the dispersed and interdisciplinary nature of our community, we would like to create a more engaging up-to-date information sharing platform in addition to our newsletter and mailing list service.

To that end, many of you are already following @UoE_ISSTI Twitter account, the use of which we would like to improve on, to share news faster, systemically disseminate research opportunities, current work and findings, and more frequently engage in dialog with partners and wider stakeholders and public(s).

But we need help from more Tweepers! If you would like to be involved in the development and operation of our new Twitter strategy, please, do get in touch with Matjaz Vidmar (m.vidmar@sms.ed.ac.uk) who can fill you in on our current plans.