ISSTI

THE INSTITUTE FOR THE
STUDY OF SCIENCE
TECHNOLOGY AND INNOVATION
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newsletter

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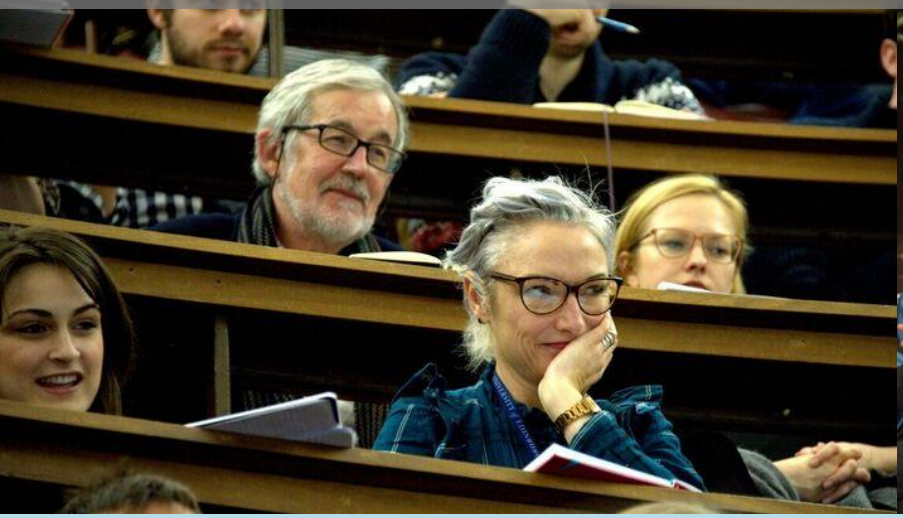
To conclude a year of celebrating the 50th Anniversary of the creation of the Science Studies Unit (SSU50) the University of Edinburgh awarded honorary doctorates to two leading figures in Science, Technology and Innovation Studies: Professor Bruno Latour and Professor Helga Nowotny. They were guests of honour at the 2nd National Conference of the AsSIST-UK, which looked towards the future of our field.



SSU50
Science Studies Unit
50th Anniversary

Latour & Nowotny SSU50 Honours

During 2016 staff and research students in the Science, Technology and Innovation Studies subject group (STIS) organized a sustained programme of activities to celebrate the 50th Anniversary of the foundation of the Science Studies Unit (SSU) at the University of Edinburgh and its contribution to the continued dynamism of our still-young field.

Events came to a peak on 28th-29th November 2016 when the University awarded honorary doctorates to two of the most influential scholars in the field: **Professor Bruno Latour** from SciencesPo, who led the development of Actor Network Theory at the Centre de Sociologie de l'Innovation in the Ecole des Mines de Paris (presented by Prof Robin Williams) and **Professor Helga Nowotny** who recently retired as president of the European Research Council (presented by Prof Steven Yearley) and whose co-authored monograph, The New Production of Knowledge, highlighted the growing importance of interdisciplinarity.

As well as productive engagements with our academic community, our laureates offered ´dissecting´ public lectures at the Anatomy Public Theatre.

Introduced by Professor Donald MacKenzie, Bruno Latour lecture referred to the importance of science studies work in the Anthropocene era. He highlighted the disorientations in time, space and agency that characterize the current contemporary landscape and called for a reorganizing of the whole of politics, moving away from both the utopias of globalization and the delusional return to what he called “the Land of Old”.

Introduced by Dr Jane Calvert, Helga Nowotny´s lecture analyzed and offered insights into some of the challenges STIS is facing in the current political and economic landscape. She posed the question to the audience “while reflexivity has settled in and STIS has become well established in academia, can it retain its critical edge, and if so, where can it be transmitted to the next generation?”

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.

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.

AsSIST-UK 2nd National Conference

The public lectures by Latour and Nowotny formed the centre-piece of the second **National Conference** of the **UK Association for the Studies of Innovation Science and Technology (AsSIST-UK)** which convened this year in Edinburgh (on 29th November 2016, at the Edinburgh Centre for Carbon Innovation) to consider **The Past, Present and Future of Science, Technology and Innovation Studies**.

Robin Williams opened the morning session with Professor Arie Rip, Dr Gregory Radick and Professor Johan Schot addressing how different disciplinary traditions and tensions have contributed to the development of STIS. In the afternoon, AsSIST-UK co-chair, Professor Andrew Webster (York) introduced a series of panel discussions were Dr Jane Calvert, Dr Des Fitzgerald, Dr Felicity Callard, Dr Kate Lyle, Dr Celia Roberts, Dr James Wilsdon and Dr Jason Chilvers debated with the audience about different ways of engaging with scientists and academics. Also, how the collaboration with policy and different publics can be understood, problematized and improved. Prof Andrew Webster closed the event with a report of work undertaken in the first year of AsSIST UK and flagged a broader issue: "how can STIS, and social science more broadly, engages with policy and still remain critical of some of the ways policy and science and technology are developing".

Since its establishment last year AsSIST-UK has recruited more than 300 members in 60 universities. As well as promoting interaction within our field it promotes engagement with external audiences. You can read some of these contributions in the associations´ blog: The Science Policy Blog at The Guardian.

The path-breaking journey was initiated by David Edge who founded the Science Studies Unit in 1966, and appointed Barry Barnes, David Bloor, Steve Shapin, John Henry among others. The group started to empirically analyze the foundations, dynamics, contexts and contents of the sciences by using social science theories and methods. This proved an extremely fruitful enterprise. The field has grown and strengthened considerably over time, notably with the extension of this work in 1986 to address technology and innovation.

Our key international forum – the joint conference of the Society for the Study of Science and Technology (4s) and the European Association for the Study of Science and Technology (EASST) in Barcelona last September attracted more than 2000 researchers – including more than 40 Edinburgh staff and research students!

With this programme we continue our ambition to play a leading role in developing and shaping the future of social science research on science, technology and innovation.

MEMORY COLLECTION

We are still 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) and Matjaz Vidmar (m.vidmar@sms.ed.ac.uk) or submit your material via our on-line tool: http://bit.ly/memory-collection-submission

"Curious Edinburgh" App Now Available for Download and Featured at the Edinburgh International Science Festival

We are delighted to update you on the progress of the Curious Edinburgh project, which is currently including a general tour on the history of science, technology and medicine, one on the history of geology and one on the history of physics, while history of medicine is well-under way. Plans also include history of biotech and history of brewing/distilling, but for those some more patience/funding is necessary.

Next to our existing i-phone app, we now also have an android app available, both of which you can find on the website: www.curiousedinburgh.org

This means that the app is now accessible for most people with a smart phone, and so we are also rolling it out in our core teaching provision now. Bill Jenkins is using it in the History of Science this semester, and Steve Sturdy and Anna Groundwater will be featuring it in respectively History of Medicine and History of Edinburgh next semester (with thanks to a PTAS grant). Feel free to implement it into your own teaching as well, and if any questions on this, please let us know.

Moreover, we will be present at the Edinburgh International Science Festival (April 1-16) as part of the installation Moments in Time which will be visible on the Mound. See for the programme: http://www.sciencefestival.co.uk/

Fire Safety Research Tackling Global Challenges

Our partnership with the Fire Engineers has led on to a further programme of work on 'Improving the Resilience of Informal Settlements to Fire'.

Graham Spinardi is co-investigator on an application led by David Rush from School of Engineering on 'Improving the Resilience of Informal Settlements to Fire'. This proposal, also partnering Luke Bisby (Engineering), Rory Hadden (Engineering) and Richard Walls of Stellenbosch University, was approved for funding through the Engineering and Physical Sciences Research Council's (EPSRC) Global Challenges Research Fund call on 'Tackling Global Development Challenges through Engineering and Digital Technology Research'. We are eagerly anticipating the commencement of this exciting project.

Building on the ITSAFE project this group also secured £13,000 from Ove Arup Foundation to fund a studentship at Stellenbosch University to carry out research on informal settlement fires.

Antonio Cicione will study for MEng under the supervision of Dr Richard Walls in the Department of Civil Engineering, but his research will have an interdisciplinary approach, with an initial phase of qualitative interviews with fire service personnel to characterise the range of processes and phenomena involved. This will not only provide data on fire ignition and spread, but also on community responses and factors that hinder or assist fire-fighting. The second stage of the research will then make use of this characterisation of shack fires to design a standard shack fire test, enabling the testing of several proposed technical solutions, such as smoke alarms and fire retardant paint, as well providing data that can be used to validate fundamental models of fire behaviour in informal settlements shacks. Dr Graham Spinardi and Professor Luke Bisby will provide external advice and review.

Carnegie Trust Research Incentive Grant: Making the Potato a Technology

Dr Dominic Berry has been awarded seedcorn funding to pursue a preliminary project integrating the history of science and engineering in the context of Scottish agriculture.

The study focuses on the potato as a meeting point for the attention of scientists and engineers, who often supported one another and worked in tandem to produce agricultural modernity. In this way the organism and biological knowledge are kept central. It has two primary aims: first, to offer up history as a mirror to contemporary efforts to engineer biology, particularly in the guise of synthetic biology; second, to use this as a starting point for a much larger project on the same themes but across the UK and throughout the period 1900 to the present.

Prestigious Appointments for ISSTI Members

Dr Niki Vermeulen has been appointed to the Young Academy of Scotland (YAS) at the Royal Society Edinburgh (RSE), as well as to the prestigious ERSC / InnovateUK Innovation Caucus. In the latter she is joined by two other ISSTI members, Prof Joyce Tait (STIS) and Dr Alessandro Rosiello (Business), and several other scholars from the University of Edinburgh.

Donald MacKenzie Delivers a Seminar for the Bank of England Senior Staff

On 14 March 2017 Prof Donald MacKenzie delivered a high profile lecture about his research on High Frequency Trading (HTF) as one in a series of inter-disciplinary seminars at the Bank of England. The talk, entitled ‘Precipitated Struggle: the High-Frequency Trading of US Shares’, was received with great interest by a group of 40 senior members of staff at the bank.

AHRC PhD Studentship Success - Intellectual properties: transferring science from universities to National Museums Scotland

Dr Niki Vermeulen and Dr Dominic Berry of STIS, in collaboration with Dr Tacye Phillipson and Dr Sam Alberti of National Museums Scotland, have succeeded in winning a fully funded PhD studentship from the AHRC.

This Collaborative Doctoral Partnership investigates the history of museum collecting practices (with a focus on scientific collections) using cutting edge analyses of intellectual property from within the history and philosophy of science and science and technology studies. As with all CDPs the studentship is fully funded and includes an additional pot of money to support student activities that will expand and strengthen work undertaken with the external partner. The advertisement is currently being drafted and they hope to be able to circulate it shortly.

Community

We are delighted to welcome new arrivals and announce some promotions.

Dr Ruth Bush
Ruth is a ClimateXChange Research Fellow working on an evaluation of the local authority-led integrated energy efficiency pilots within Scotland's Energy Efficiency Programme (SEEP). She has a PhD from the University of Leeds where her research explored the governance of low carbon socio-technical transitions using a case study of district heating. Previously, Ruth was seconded into the Scottish Government Heat Policy Team, working on district heating regulations, planning, and capacity building for project delivery. She also managed the EU-funded Stratego Project, working alongside the Heat and the City Team to support Scottish local authorities to develop strategic plans for low carbon heating and cooling through international exchange of knowledge.

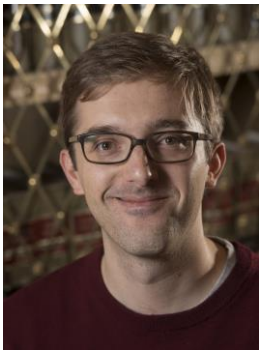
Dr Faye Wade

Faye has joined STIS in November 2016 as a Career Development Fellow (Energy and Society), in Science, Technology and Innovation Studies. Before coming to Edinburgh, She has completed her PhD at UCL's Energy Institute. In this, she has applied ethnography to explore how, through their work, heating engineers can shape the central heating technologies installed in homes and how they come to be used. Prior to her PhD, Faye completed a masters in Energy Demand Studies (with a focus on energy in the built environment) and a masters degree in chemistry, which including a year working as an analytical chemist, supporting the development of new medicines at AstraZeneca.

Congratulations to **Dr Farah Huzair,** currently one of our research fellows, who has been appointed to a lectureship in Science, technology and Innovation Studies.

Congratulations and best wishes to colleagues moving to new positions.

Dr Koichi Mikami, who joined STIS in January 2014 as a research fellow of Making Genomic Medicine, is moving to the University of Tokyo in Japan as a project assistant professor, where he will help running its Science Interpreter Training Program. The program offers courses for graduate students of any disciplinary focus, which examine various perspectives on science and society relationship and introduce approaches for its improvement. As a visiting scholar, he also continues working for the Making Genomic Medicine project.



Since graduating from STIS in March 2016, **Valeri Wiegel** has been working as a research fellow at the Medical School studying the implementation and optimisation of information systems in hospitals. However, in May, after having lived in Scotland for nine years, Valeri will be returning to Germany to take up a post as a visiting fellow in the graduate school "Innovation Society Today" at the Technische Universität Berlin. While continuing his work on the biographical perspective on technology and innovation, he looks forward to building a bridge between the Edinburgh STIS community and innovation researchers at the TU Berlin by contributing to discussions, seminars, workshops and other activities of the graduate school and the affiliated department of sociology.

Congratulations to our recently completed PhD students.

Javier Guerrero: "Maritime Interdiction in the War on Drugs in Colombia: Practices, Technologies and Technological Innovation"

Hyojung Sun: "Digital Disruption in the Recording Industry"

Vera Mugittu: "Influencing innovation structures and processes in agro-industries dominated by subsistence providers: the analysis of the rural poultry industry in Tanzania"

Mike Kattirtzi: ""Challenge and Be Challenged": A history of social research capacity and influence in DEFRA and DECC, 2001-2015"

2016 Publications

Cresswell, K, Lee L, **Mozaffar, H, Williams, R**, and Sheikh A (2016) Safety risks associated with the lack of integration and interfacing of hospital health information technologies: a qualitative study of hospital electronic prescribing systems in England, *BMJ Quality & Safety Online*. doi:10.1136/bmjqs-2015-004925

Cresswell KM, Lee L, **Mozaffar H, Williams R**, Sheikh A (2016) 'Sustained user engagement in health information technology: The long road from implementation to system optimization of computerized physician order entry and clinical decision support systems for prescribing in hospitals in England', *Health Service Research* (Oct 7). doi: 10.1111/1475-6773.1258

Hackett, E., Parker, J., **Vermeulen, N.** and B. Penders (2016). 'The Social and Epistemic organisation of Scientific Work'. In Felt, U., Fouché, R., Miller, C.A. & L. Smith-Doerr (Eds.) *Handbook for Science and Technology Studies*, Volume 4, Cambridge: MIT Press, pp. 733-764.

Henry J. (2016) "Hobbes, Galileo, and the Physics of Simple Circular Motions", *Hobbes Studies*, 29: 9-38.
http://booksandjournals.brillonline.com.ezproxy.is.ed.ac.uk/content/journals/10.1163/18750257-02901002

Henry J. (2016). "Theology and Science", in Ulrich Lehner, Richard Muller and Gregory Roeber (eds), *Oxford Handbook of Early Modern Theology, 1600-1800* (Oxford: Oxford University Press, 2016), pp. 608-24.
http://www.oxfordhandbooks.com.ezproxy.is.ed.ac.uk/view/10.1093/oxfordhb/9780199937943.001.0001/oxfordhb-9780199937943-e-40

Henry J. (2016). "Science and the Coming of the Enlightenment", translated into Hebrew, in Gadi Taub (ed.), *The History of Ideas, Vol. I, The Enlightenment* (Jerusalem: The Bialik Institute, 2016), pp. 27-43.

Henry J. (2016). "The Scientific Revolution: Five Books about It", *Isis*, 107 (2016): 809-17.
http://www.journals.uchicago.edu.ezproxy.is.ed.ac.uk/doi/pdfplus/10.1086/689762

Jalas, M.; Rinkinen, J. and **Silvast, A.** (2016). The Rhythms of Infrastructure. *Anthropology Today* 32 (4): 17-20.
http://onlinelibrary.wiley.com/doi/10.1111/1467-8322.12267/epdf

Mozaffar, H, **Cresswell, K M**, **Williams, R**, Bates, DW, Sheikh A (2017) Exploring the roots of unintended safety threats associated with the introduction of hospital ePrescribing systems and candidate avoidance and/or mitigation strategies: a qualitative study
BMJ Qual Saf, bmjqs-2016-005879

Kattirtzi, M (2016) Providing a 'challenge function': Government social researchers in the UK's Department of Energy and Climate Change (2010–2015). *Palgrave Communications*, 2(16064).

Vermeulen, N (2016). 'Big Biology; supersizing science during the emergence of the 21st century', *NTM Journal of the History of Science, Technology and Medicine*, 24, pp. 195-223.

Wang, X (2016). 'Francis Bacon and Magnetical Cosmology'. *Isis* 107, no. 4 (1 December 2016): 707–21. doi:10.1086/689695.