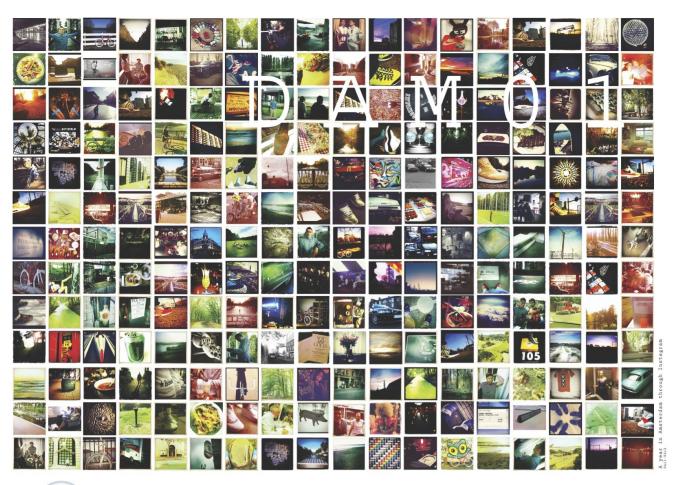
SATSU Annual Review: 2011-2012







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SATSU's Focus

Established in 1988, SATSU is an internationally recognised social science research centre exploring the dynamics, practices, and possibilities of contemporary science and technology. Its principal focus is on the biosciences, health, digital media and social networking including new forms of democratic governance, and the broader regulatory universe within which these are found. Our approach is to provide both theoretical and empirically-grounded critical analyses of these fields, and to undertake interdisciplinary and policy-relevant research informed by both conventional and novel methodological techniques.

SATSU currently has 14 members as well as Affiliated members based in the UK and overseas, and is directed by Professor Andrew Webster. The Unit collaborates with colleagues working in dedicated research centres in the UK and internationally within the field of science and technology studies, social media, and science and technology policy. We also welcome applications for PhD study through the new Science and Technology Studies PhD doctoral training programme.

Front Cover: Dam1: A Year in Amsterdam, Photomontage by Matthew Webster (2012)



Welcome

From the Director

SATSU's research this past year has focussed primarily on the biosciences, and on social media/informatics, the latter explored through an especially enjoyable conference (see page 14) that the Unit organised in conjunction with our in-house journal Information, Communication and Society, which is edited by our Associate Director, Brian Loader. The Conference was, however, an occasion mixed with both pleasure but also great sadness, an event that we used to mark the sudden death of our colleague Mike Hardey, who passed away in March, and who had played a leading role in organising the event, given his contribution to the field of social media the Web 2.0. The review carries an obituary that tries to capture at least some of the wonderful contribution Mike made to the field and the Unit.

The work on regenerative medicine has continued with new collaboration developed with colleagues in the UK and overseas to build on the successful REMEDIE project: the project has produced a major text to be published in the spring of 2013, 'The Global Dynamics of Regenerative Medicine: A Social Science Critique. The Director has also been a member of a national working group to develop the principal policy document on the UK Strategy for Regenerative Medicine, 2012. The Unit has also provided written evidence to the UK House of Lords Inquiry into the regulation of the field, which is due to report at the close of 2012.

The collaboration with colleagues across Europe and elsewhere relating to the Bio-objects network saw the publication of a collected edition and a major presence at the October 2012 4S/EASST Conference in Copenhagen. In the new academic year this will be followed up with a training school on bio-object methodology that the Director and two colleagues from the network, Vincenzo Pavone (a former

SATSU Visiting Fellow based at CSIC Madrid) and Lucia Martinelli (based at the Science Museum in Trento) have organised.

The White Rose ESRC's Doctoral Training Centre agreed to support an STS PhD network with students from York, Sheffield and Leeds, who appear a little later in the Review, to introduce themselves and their planned research.

Since our last Annual Review we have had said goodbye to a number of colleagues who made an excellent contribution to our research (see the People section). But as usual, we have a range of international visitors who have been a pleasure to work with and who enlivened our Brown Bag series with papers covering a wide variety of topics. One of our members, Siân Beynon-Jones, is also co-ordinator of a new Health reading Group which brings together colleagues from across the wider Department and campus.

Our work over the 2012-14 period covers two broad domains. In regard to the biosciences, the overarching question that we are exploring is how do biomedical technologies and the play of expert/lay boundaries shape the meaning of health, 'life' itself and healthcare practices, within a wider context shaped by the growing regulation, marketisation and informaticisation of health. Informing these analyses will be an understanding of the socio-technical assemblage that characterises our substantive areas of inquiry, the meaning of evidence, and the implications developments have for citizens, social groups and policy.

The Unit's second area of research on social media cuts across members' work on culture, Web 2.0 and STS. We are especially interested in the methodological challenges and opportunities posed by a closer relation

between STS and social media approaches to knowledge production and its mediation via a range of digital technologies and systems, not least usergenerated framings of the world. Methodologically, this work involves working with real-time, by-product data, mapping the use and meaning of such data, and developing insight into socio-technical cultures that are emerging today. In addition, we are interested in the performativity of knowledge and knowledge claims via social media, research focused on the interactional practices of technology mediated cultural production

New collaborative grant proposals are underway in what is becoming an increasingly competitive and challenging research market, but we are pleased to report that new funding has been secured. As elsewhere, most of our effort today is in developing large national or international bids that deploy our expertise on STS and science policy

Next year will be SATSU's 25th and we are developing plans to celebrate this milestone. We will contact former members and those in our wider networks with further news about this in the near future. Meanwhile I continue in my role as Academic Co-ordinator for the Social Sciences overseeing the 11 Social Science Departments at York. So life is busy but enormously varied and interesting!





Mike Hardey, 1950-2012

Mike Hardey, who died in March aged 61, was one of the UK's leading medical sociologists. He was a Reader in Medical Sociology at the Hull-York Medical School (HYMS) as well as Associate Director of SATSU. Mike was a gentle and collegial man who produced work of a high quality that explored the world of Medicine 2.0 and the relationships between health and lifestyle. His work on social media and doctor-patient relations was ground-breaking, publishing in 1999 the first article about medicine and the internet in the leading international journal, the Sociology of Health and Illness, which later used his paper as a springboard for a special issue on the web and medicine.

Mike was born in Lagos, Nigeria (his father worked for BOAC – now BA), and on returning to the UK with his family, helped in the family business, but later took up academic study as a mature student, with a keen interest in the Labour party and political theatre. His ideas were honed at the University of Essex where he took his first degree in Sociology followed by an MA in Social History, securing his first job as a researcher working with the sociologist Denis Marsden on working class youth and employment, before then moving to Surrey in 1986 as a research associate working on welfare systems. Through his work on welfare, he became increasingly interested in health inequalities and refocused his interests in the theory and practice of health research, which led to his appointment as head of the Nursing Research Unit at Surrey. Subsequent posts in Southampton (1992-2005) and Newcastle were key to his developing an interest in the web and its relationship to medicine and social media. In 2006 he took up his Readership at HYMS. He had had a long-standing friendship and academic collaboration with Roger Burrows, and, with Roger and other colleagues, established the Social Informatics Research Unit in the Department of Sociology at York which, in 2009, merged with SATSU, with Mike as one of the Associate Directors.

Mike was interested in exploring the ways in which the web might empower patients and so challenge professional authority. He was inspired by the potential democratising effects of social media. His 1999 paper in SHI broke new ground in opening up for exploration the then emerging development of Web 2.0 and how the web became a site for the co-production of knowledge and the redistribution of medical understanding and expertise. He foresaw a number of key, though discrete developments in the Web, each describing a different producer/audience relation and a different sourcing and authorisation of knowledge: data-scraping, crowd-sourcing, and related forms of user-generated expertise created among lay-publics via social networking and mash-ups. This led to an interest in the ways in which we have seen the emergence of new digital cartographies as

well as new ways in which consumers of medicine could be empowered through sites such as 'RateMD' to create 'a powerful new global Internet referral network' among 'e-patients'.

Mike's work in HYMS was very highly regarded by his colleagues and the School has recently established a student prize in his honour. He also played an important part in the administration of the School. In SATSU he was always available for a coffee and a chat to discuss new ideas or plans for the Unit and his good humour and summery shirts always provided a lift to the demands of everyday academic life. He is survived by his daughter, Dr Maz Hardey, who is based at Durham University, and will be much missed by Maz, friends and colleagues in the Unit.





News and Events

Update on the Bio-Objects Network

tinues to make very good progress in this to its new concept of bioidentification, the ways in which bioobjects (created through technical/ tice (through for example regulatory meetings in Lisbon, Paris and Berlin involving the whole network or specific task forces and Working Groups.

The Lisbon meeting (in February) was a Workshop entitled 'Unpacking Europe: Bio-objects and their Direction'. Speakers included Alex Faulkner (KCL), Boris Hauray, Iris, Université Paris and Vo-Iolona Rabeharisoa, Centre de Sociologie de l'Innovation Mines-ParisTech, Lonneke Poort, Faculty of Law, VU University Amsterdam and Conor Douglas (former SATSU colleague, now at the VU Amsterdam). The main question explored was what kind of practices and institutions are found through which bioobjects are ordered on the European policy-stage?

Our other meetings have been used to identify policy impact and project formulation with dedicated groups associated with each task. Plans are underway for a workshop in Madrid on the bioeconomy, while the short term scientific missions have grown in popularity among members of the network, now numbering over 50 colleagues.

can be found on the Bio-objects web

www.univie.ac.at/bio-objects



The Bio-Objects network that has now been running for nearly two years conterms of modelling the meaning of bioobjectification as a process, and linking scientific labour) are stabilised in pracprocesses). This past year we have had

Latest details and updated news items

Research Planning Meeting: Gothenburg

Lena Eriksson, of the University of Gothenburg (and former SATSU colleague), hosted an invitation-only research planning meeting in Gothenburg in April. Kim Jamie and Andrew Webster attended from SATSU. The workshop was to examine the participants' current research on personalised medicine and its meaning, a topic which is now explored on many occasions across Europe. The event was very expertly chaired by Lena who managed to bring an excellent focus to the wide-ranging perspectives that delegates presented. Kim presented her own work on pharmacogenetics and personalised medicine while Andrew's presentation described the diverse relations between the 'personal' and the 'biological' within the stem cells field, going on to contrast three forms of medicine—personalised, impersonalised and depersonalised. These in turn are linked to different regulatory regimes that define the governance framework of each but also with different clinical and commercial regimes that define the therapeutic and economic potential of each.

The workshop brought together methodologies from STS, economic sociology and health technology assessment since the group is keen to determine through critical reflection the cost-effectiveness and cost benefit of forms of PM.

The upshot of the workshop will be a major proposal to the EU's COST programme as well as to other funding agencies in Europe, including Sweden itself. A full report on the next stage will appear on the SATSU website during 2012/13.

Images: / FreeDigitalPhotos.net

Image: renjith krishnan / FreeDigitalPhotos.net



Output

Publications

Throughout 2011/12, SATSU colleagues have worked hard to disseminate their research findings in publications and conference papers

Beer, D. (2012) Using social media data aggregators to do social research, Sociological Research Online 17 (3): http://www.socresonline.org.uk/17/3/10.html.

Beynon-Jones, S. (2012) Timing is everything: The demarcation of 'later' abortions in Scotland, Social Studies of Science, 42 (1) 53 -74.

Beynon-Jones, S. (in press) Expecting motherhood? Stratifying reproduction in twenty-first century Scottish abortion practice, Sociology.

Beynon-Jones, S. and Brown, N. (2011) Time, timing and narrative at the interface between science, policy and citizenship, Science and Public Policy, 38 (8) 639-648.

Beynon-Jones, S. and Brown, N. (in press) Where the wild things are: Xenotechnologies and European Hybrid Regulation. In Flear, M. L, Farrell, A-M., Hervey, T. K. and Murphy, T. (eds) *European Law and New Health Technologies*. Oxford: Oxford University Press.

Brown, N. (2011) Beasting biology: the politics of hybridity at the margins of the human. In Vermeulen, N., Tamminen, S. and Webster, A. (eds.) *Bio-objects: Life in the 21st Century*. Farnham: Ashgate.

Brown, N. (2011) What is human? What is animal? And what of the biology in between? *The Guardian*, July 25th available at: www.guardian.co.uk/profile/nik-brown.

Brown, N. (2013 in press) Contradictions of value: between use and exchange in cord blood bioeconomy, Sociology of Health and Illness, 35.

Brown, N. and Beynon-Jones, S. (2012) Reflex regulation: an anatomy of promissory science governance, Health, Risk and Society, 14 (3) 223-240.

Brown, N., Machin, L. and McLeod, D. (2011) Immunitary bioeconomy: the economization of life in the international cord blood market, *Social Science and Medicine*, 72 (7) 1115-22.

Cook, P., Kendall, G., Michael, M. and Brown, N. (2011) The textures of globalisation: biopolitics and the closure of xenotourism, New Genetics and Society, 30 (1) 101-114.

Cook, P.S., Kendall, G., Michael, M. and Brown, N. (2013) Medical tourism, xenotourism and client expectations: between bioscience and responsibilisation. In Hall, C.M (ed.) *Medical Tourism: the ethics, regulation, and marketing of health mobility*. Abingdon: Routledge.

Cox, H. and Webster, A. (2012 in press) Translating biomedical science into clinical practice: molecular diagnostics and the determination of Malignancy, *Health*.

Davies, I., Bennett, L., Loader, B., Mellor, S., Vromen, S., Coleman, S. and Xenos, M. (2012) Four questions about the educational potential of social media for promoting civic engagement, Citizenship Teaching and Learning, 7 (3) 293-306.

Jamie, K. (2011) Might community pharmacists have a role in delivering personalised medicine', *The Pharmaceutical Journal*, 287, 693-4.

Jamie, K. (in press) Navigating the UK NHS ethics and governance approval process: The case of junior researchers. In Le, T. and Le, Q. (eds.) Conducting Research in a Changing and Challenging World. New York: Nova.

Jamie, K. (in press) New technologies in British pharmacy practice. In Wasen, K. (ed.), *Emerging Health Technologies*. London: Springer.

Jamie, K. (under review) From 'glorified shopkeepers' to 'scientists in the high street': Reconfiguring pharmacy identity through pharmacogenetics, Sociology (Genetics Special Issue).

Jamie, K. (under review) 'Pharmacogenetics and pharmacy education: Mind the generation gap', Pharmacy Education.

Johnson, M. R. (under review) Open source nanosatellites: Towards a democratized space technology?, Science, Technology and Human Values.

Lewis, G. (2012) Regenerative medicine at a global level: Current patterns and future trends. In Webster, A. (ed.) *The Global Dynamics of Regenerative Medicine: A Social Science Critique*. Basingstoke: Palgrave Macmillan.

Lindenmeyer, A., Jamie, K., Griffiths, F. and Legare, F. (2011) 'They're made in factories and not by witches on the allotment': Midlife women's approaches to complementary and alternative therapies', *Health Care for Women International*, 32 (12) 1046-67.

Loader, B. (2012) Digital democracy: towards user-generated politics?, In Isakhan, B. and Stockwell, S. (eds.) The Edinburgh Companion to the History of Democracy, Edinburgh? Edinburgh University Press.

Loader, B. and Dutton, W.H. (2012) A decade in internet time: The dynamics of the internet and society, Information, Communication and Society, 15 (5) 609-615.

Loader, B. and Mercea, D. (2011) Networking democracy? New media innovations in participatory politics, *Information, Communication and Society,* 14 (6) 757-769.

Loader, B. and Mercea, D. (eds.) (2012) Social Media and Democracy: Social Media innovations in Participatory Politics. London: Routledge.

Machin, L., Brown, N. and McLeod, D. (2012 in press) Two's company-Three's a crowd': The collection of umbilical cord blood for commercial stem cell banks in England and the midwifery profession, Midwifery, 28 (3) 358-65.



Output

Publications

Machin, L., Brown, N. and McLeod, D. (2012) Giving to receive? The right to donate in umbilical cord blood banking for stem cell therapies, *Health Policy*, 104 (3) 296-303.

Metzler, I. and Webster, A. (2011) Bio-objects and their boundaries: Governing matters at the intersection of society, politics, and science, Croatian Medical Journal, 52 (5) 648–650.

Oost van, E., and Reed, D. J. (2011) Towards a Sociological Understanding of Robots as Companions, Human-Robot Personal Relationships, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, 59. Berlin: Springer.

Reed, D.J. and Monk, A. (2011) Inclusive design: Beyond capabilities towards context of use, Universal Access in the Information Society (UAIS) (Special issue on Innovations in User Sensitive Design, Research and Development), 10(3) 1-11.

Szczepek Reed, B., Reed, D., and Haddon, L. (2012 inpress). NOW or NOT NOW: Coordinating restarts in vocal masterclasses, Research on Language & Social Interaction.

Tamminen, S. and Brown, N. (2011) Nativitas: Capitalising genetic nationhood, New Genetics and Society, 30 (1) 73-99.

Webster, A. (2011) Bio-objects: exploring the boundaries of life. In Vermeulen, N., Tamminen, S. and Webster, A. (eds.) Bio-objects: Life in the 21st Century, London: Ashgate.

Webster, A. (2012) Regenerative medicine – a new paradigm? In Webster, A. (ed.) The Global Dynamics of Regenerative Medicine: A Social Science Critique, Basingstoke: Palgrave Macmillan.

Webster A. (2012) The Boundaries and Mobilities of Regenerative Medicine. In Webster, A. (ed.) The Global Dynamics of Regenerative Medicine: A Social Science Critique, Basingstoke: Palgrave Macmillan.

Webster, A., Haddad, C., and Waldby, C. (2011) Clinical trials in regenerative medicine: stem cell heterogeneity and the disciplining of ectopic life, *Biosocieties*, 6, 401–419.

Conference Papers

Haddon, L., Szczepek Reed, B. and Reed, D.J. (2012) Masterclass learning: An interdisciplinary perspective. 3rd Reflective Conservatoire Conference: Performing at the Heart of Knowledge. 17th-20th March, Guildhall School of Music, UK.

Jamie, K. (2012) Conceptualising contemporary pharmacy practice: Sociologically exploring primary, secondary and pharmaceutical care, BSA MedSoc Conference, 5th- 7th September 2012, University of Leicester, UK.

Jamie, K. (2012) Pharmacogenetics and the pharmacy profession in England, Studies in Medicine, Expertise and Controversy (SMEC) Workshop, 18th-20th April 2012, Gothenburg, Sweden.

Jamie, K. (2011) Implementing pharmacogenetics into pharmacy practice: A (Re)professionalising project?, BSA MedSoc Conference, 14th-16th September 2011, University of Chester, UK.

Loader, **B.** (2011) Introductory address: A decade in internet time: Symposium on the dynamics of the internet and society, *iCS* Symposium, 21st-23rd September, Oxford Internet Institute, UK.

Loader, B. (2011) Social media and the cultural engagement of young citizens, Symposium on the re-engagement of young people, 6th-8th October, Stockholm University, Sweden.

Loader, B. (2012) Mediating the professional project through informational capitalism, 4th ICTs and Society Conference 2nd-4th May, Uppsala, Sweden.

Loader, B. (2012) Response to working paper on the challenges to political participation in Europe, ESF Seminar, 16th-17th, Lisbon, Portugal.

Reed, **D.J.** (2011) Dancing interaction. 2nd International Symposium on Culture, Creativity, and Interaction Design, 4th-5th July, Northumbria University, UK.

Reed, D.J. and Penfold-Mounce, R. (2011) The zombification of the sociological imagination: The walking dead as social science fiction, *Zombosium*, 28th October, Winchester University, UK.

Szczepek Reed, B., Haddon, L., and Reed, D. J. (2011) Performing teaching and the teaching of performance: A conversation analytic investigation of vocal masterclasses, *IIEMCA Conference*, 10th-14th July, Fribourg Switzerland.

Webster, A. (2012) Unpacking Europe: Bio-objects and their direction, *Bio-objects and Their Boundaries Workshop*. 29th February 2012, Lisbon, Portugal.

Webster, A. (2012) Bio-objects, bio-objectification and the construction of identity, BSA Annual Conference, 11th-13th April, University of Leeds, UK.

Webster, A. (2012) The stem cell personalisation/variability nexus: the relation between personal identity and biological purpose, Studies in Medicine, Expertise and Controversy (SMEC) Workshop, 18th-20th April 2012, Gothenburg, Sweden.

Webster, A. (2012) STS and social media: methodological and epistemic challenges and the work of Mike Hardey (1950-2012), Closing Plenary Paper at The Co-Production of Knowledge: Social Media, STS and ..., 18th- 20th July, University of York, UK.



Brown Bag Seminar Series

Autumn Term



The SATSU Brown
Bag seminar series
provides a relaxed
forum for the
presentation,
discussion and
debate of cuttingedge research
relevant to the
study of science,

technology and medicine. This past year we have again welcomed a wide range of invited speakers.

In the Autumn term we had presentations from Nik Brown (SATSU)

who explored the meaning and boundary of use and exchange value in the tissue economy, and the more specific contradictions between political and moral bioeconomies, what he described as 'two vitalistic registers'. The paper drew on his recent work on cord blood banking. A second paper took this theme further, delivered by one of our visiting researchers, Iwona Machoczek, who discussed the processes associated with the extraction, storage and use of cord blood units in Germany, exploring the relationship between parent rationales for banking and how this varies across

public and private banks (of which there are 12 in total; a third paper presented by Darren Reed (SATSU) discussed ways in which we need to develop new research methodologies to explore digital data. Clara Iversen from Sweden spoke about her work on abused children and deployed the concepts of bio-objectification which has emerged from the COST programme reported on elsewhere. Tora Holmberg gave an intriguing paper on 'transpecies urban politics' that examined human-animal relations and their contested social geography.

Spring Term

The Brown Bags for the spring term were limited to two, as the Unit also ran the wider Department's Seminar Series this term as well. David Redmalm from Sweden gave a fascinating paper entitled 'Pet Grief: When is non-human life grievable?' A second Brown Bag was Dr Aljona Zorina's examination of 'Materiality and the Internet in Belarus', and the interplay between the micromateriality of the web and wider organisational practice through which social networks are built; this was primarily an analysis of end-user communities that, through open source practices, build innovation bottom-up.

Susan Molyneux-Hodgson, University of Sheffield, gave a paper in the Department Series entitled 'Damp science: synthetic biology in the making', which examined the epistemic culture of the area, 'damp' because we can locate it between Latour's 'wet' and 'dry' fields. Susan showed how devices and software technologies serve to integrate the field, especially through the move towards control engineering.

Andrew Webster gave a second seminar in the Department series by summarising the conceptual and empirical work that has informed the REMEDIE project and explained how STS can provide for a rich analysis of the dynamics at work in the area and likely paths it will take as part of a wider tissue economy. different social actors within and outside of science have sought to define and stabilise the meaning and boundaries of regenerative medicine and thereby to mobolise its products. However, he argued that three other forms of mobility – found within the cultural, corporeal and institutional domains – pose challenges to the stabilisation and commodification of the field.

Summer Term

In the summer term, the Brown Bag series focused on biomedicine with papers by Kim Jamie, Vincenzo Pavone, Gregory Hollin and Olaug Lian. Kim described her research on the current and future uptake of pharmacogenetics (PGx) in pharmacy practice, discussing what she has called, the 'pharmacy gaze', how pharmacists engage with and define the body and the bodymedicine relationship. She showed how this differs from the conventional (Foucauldian) notion of the 'clinical gaze and went on to explain its role in both hospital and community settings. The advent of PGx is likely to mean that

pharmacy's relation to medicine will change as will its relation to the patient. Vincenzo gave a paper that related to his current work on IVF clinics and in particular the role of pre-implantation genetics diagnostics in the 'reproductive bioeconomy'. He gave a critical account of this process in Spain and argued for a new political economy approach to understand the current situation there (and indeed elsewhere): this work has since been published in STHV journal.

Greg Hollin (Nottingham) explored the meaning of autism through an excellent and highly original analysis (drawn

from his PhD) of the framing of what he called 'autistic sociality' by cognitive psychology and neuroscience more generally. Finally, Olaug (Tromso, Norway) explored 'illness without disease' typically linked to the medicalisation of personality, as in ADHD, shyness, OCD etc. Unless a disease can be seen via a test - a diagnostic or visual one - it is not regarded as real, but increasingly the resolution of images via new technology makes the boundaries of disease conditions highly uncertain. She offered a critical analysis of the implications this has for medical delivery.



Project Updates

REMEDiE: Regenerative Medicine in Europe

Professor Andrew Webster Dr. Graham Lewis Dr. Michael Morrison

The REMEDIE project which came to a formal conclusion in the spring continues to explore the field. The results of the research will appear in a collected edition to be published in February 2013.

The book is interdisciplinary, with contributions from international experts in science and technology studies, political science, law, and ethics, but the chapters themselves are all informed by a critical social science perspective. Our general integrative principle, woven through the chapters and laid out in the introduction, is that RM, as a field in the making, develops along different innovation paths or 'journeys'. These pathways are, for the most part, non-linear, messy and complex, involving setbacks and detours. It is an especially complex field inasmuch as it combines 'mature' biomedical technologies and therapies (as in tissue engineering and cell therapy that goes back to the 1950s) with emergent and highly unstable science (as in embryonic stem cell research), and as such is characterised by boundary disputes/boundary work and by a regulatory environment which seeks to deploy both traditional regulatory oversight of it while acknowledging the limitations of this (both aspects seen, for example, in clinical trials provisions and requirements).

While such disjunctions figure within many advanced medical settings, the globalisation of RM, as both promise and practice, has meant that these tensions are ratcheted up at the global level: the rapid growth of 'stem cell tourism' accompanied by moves to



REMEDIE Partners outside the University of the Basque Country, the Guggenheim Museum seen in the background.

constrain this; the growth in China and India of unregulated treatment accompanied by global pressures and preparedness on China's and India's part to introduce new governance processes; the moves towards the international harmonisation of experimental standards in the field of embryonic stem cell research, and regulatory and licensing standards in advanced therapies, accompanied by prevailing localised lab practices and national differences in reimbursement.

Regenerative medicine, as all fields, is therefore co-constructed and coevolves across these different fronts, and has a specific geography to it, and patterns of mobility across different boundaries (natural, jurisdictional and geographical). The book examines the ways in which this creates divergences and convergences, multi-level forms of governance, commercial trajectories that move at different paces and with different 'business models', and the articulation between the demands of the bioeconomy, patenting and the normative constraints of ethical and political cultures in regard to the use of oöcytes and embryonic tissue for research.

In short, the book aims to clarify the meaning, boundaries and options/ scenarios for future development that RM has and will take, the attempts made by different interests (scientific, corporate, political, patient-based) to shape the field, stabilise it so it can be optimised and so mobilised, and the tensions that have been and are involved in attempting to do so.

The closing chapter, entitled 'Regenerative Medicine: A New Paradigm? (A Webster), reviews and consolidates the principal themes that have emerged throughout the chapters of the book. In reprising the different innovation, regulatory and scientific pathways discussed in the book as a whole, it asks whether and if so how far, regenerative medicine constitutes a paradigmatic shift in the meaning and practice of medicine itself, a claim often made by those working in the field. The book appears in the Health, Technology and Society Series, (Palgrave Macmillan). See penultimate page of this Annual Review for further information on other forthcoming



Project Updates

Dr Sian-Beynon-Jones

Time, timing and termination of pregnancy: A qualitative analysis of patients' and health professionals' experiences

In recent years, the issue of gestational time and abortion has been debated extensively in both the media and in Parliament. However, such debates have largely been conducted in the absence of a research evidence-base concerning how the meaning of the timing of termination of pregnancy (TOP) is understood by those directly affected by the practice: women undergoing the procedure and the health professionals who provide it.

Accordingly, this project will use qualitative interviews (n = 60) to explore patients' and health professionals' experiences of TOP provision, in particular, their understandings of the meaning of the timing of TOP. Instead of making assumptions about the meaning of time, timing and TOP (as is common, for example, during public debate), the research takes women's and health professionals' lived experiences of these phenomena as its analytical starting point. Now entering its second year, the project is proceeding according to schedule and is entering the main phase of participant recruitment.

The project is being conducted by SATSU Research Fellow Siân Beynon-Jones, as a key part of her three year Wellcome Trust research fellowship in biomedical ethics (August 2011-2014). In addition to mastering the art of project website writing, and negotiating three separate research ethics approvals processes, the first year of Siân's fellowship has focussed on the dissemination of her doctoral research findings concerning the construction of expertise in Scottish abortion practice, via a series of journal articles. She has also been involved in the dissemination of collaborative research conducted with Nik Brown as part of SATSU's now-concluded CIT-PART project.

Further information about Sian's project can be found at: http://www.york.ac.uk/satsu/timing-termination/

Mr Brian Loader

The Civic Network: A comparative study of the use of social media for enhancing young people's political engagement

This comparative study is funded by the Spencer Foundation through their New Civics Initiative. It is being undertaken by Ariadne Vromen (University of Sydney), Mike Xenos (University of Wisconsin at Madison) and Brian Loader (University of York) is designed to critically investigate the potential of social media for influencing the participatory culture of young citizens. The widespread adoption of social media, such as YouTube, Facebook, and Twitter into the lives of many young people has

Dr Dave Beer

Is recording engineering? (with Dr Jezz Wells, Department of Music)

Dave has recently completed work on this project which was a public engagement fellowship funded by the Royal Academy of Engineering. The project allowed Jezz, an electronic engineer, to study recording engineering in collaboration with a social scientist. The aim of the project was to gain a greater understanding of the role and skills of recording engineers to make some observations that might then be communicated to a wider audience. The objective was to increase the understanding of engineering more broadly and to potentially attract people toward this form of engineering. As a by-product the project has created a vast data set of focus groups and interviews with recording engineers. So far Dave and Jezz have been able to make some initial observations which Jezz has presented to various engineering and music groups. Jezz has published some short pieces in magazine and industry publications and Dave has written an article on engineering practice which is currently under review. The aim now is to continue to work with the data to create a series of insights into recording engineering, these will either appear as a series of articles or as a dedicated book. The project was a year long so the aim was to create this archive of data and to make some initially observations, but the longer term aim is to work toward a bigger project by mining the data and developing further interdisciplinary links.

raised significant questions about its mediating influence upon their political values and civic cultural norms. A central focus of this study is to assess whether new forms of civic learning and engagement by young citizens can be identified as a consequence of using social media networks and if there is evidence that these may mitigate the proven negative relationship between socio-economic inequality and political participation. These issues will be examined in each of three countries: Australia, the United States and the UK. The comparative project will allow questions about how differing national contexts relate to youth culture, social inequality, civic motivations and political behaviour.

In doing so, the study builds on and extends single-country cases or multi-country survey research that use narrow and standardized measures. The approach used here will combine survey research with online discussion groups. The surveys will be conducted with representative samples of approximately 1,200 people aged sixteen to twenty-nine in each country. Surveys will provide both quantitative and qualitative data about young people's use of social media for civic purposes. Online discussion groups will provide opportunities to develop deeper understandings of the civic behavior of young people online, both by capturing new and emerging forms of participation, and by providing opportunities for reflection and dialogue.



People

Dr Michael Morrison left SATSU this year having made a major contribution to the empirical and analytical work undertaken for the REMEDIE project. He will be much missed. He secured a Research Fellowship at Egenis in Exeter and has recently moved to Oxford where our former colleague Catherine Montgomery is based.



Dr Michael Morrison has moved on to Egenis

SATSU PhD student Peter Huang, who completed his PhD on risk and ICT systems, has returned to Taiwan to take up a university teaching post

Another former SATSU PhD student, Abbi Hobbs, also completed her doctorate this year and has secured a research position as a policy officer in the Academy of Medical Sciences, London.

Nik Brown has secured a sabbatical planned for the autumn term which he will take in Berlin. His 3 month stay is being used to outline a book on the themes of community,

immunity and immunitisation. The book brings



Nik Brown has secured a sabbatical in Berlin

theoretical and conceptual literatures together from political philosophy and STS and applies them to a range of case studies in which Nik has had indepth empirical involvement over the last decade or so. These include his work on blood economies, stem cell innovation, transpecies transplantation, vaccines, vaccination and pandemics.

Andrew Webster has been busy on a number of fronts beyond his duties at York: he has been a member of a national panel commissioned to review the Rathenau Institue in the Netherlands, has been a member of the evaluation group for FP7 projects funded by the European Commission in the 'Health innovation' work programme, has continued his Charing of the Innogen Advisory Group in Edinburgh, the New Technology Acquisition project at the Manchester Business School, remains on the UK Stem Cell Bank Steering Committee, and most important of all, was able to attend the Festschrift for Stewart Russell that Robin William organised at ISSTI in Edinburgh in March. Stewart was a great friend and his untimely death in September 2011 was a shock to the whole STS community. He made a major contribution towards our understanding of socio-technical systems, especially in the areas of environmental sustainability, water management and energy technologies.

The celebration of his work was led by his PhD supervisor, Fred Steward, currently the president of EASST. Fred captured the diverse ways in which Stewart asked the right questions, gave robust answer and was always seeking to be both critical yet constructive. A great loss to us all.

Doctoral Projects in SATSU

Kimberly Jamie

Kim has recently submitted her PhD. Her work focused on the potential impacts of pharmacogenetic technology on the practice of pharmacy in England. The PhD will be examined by viva in early December (see page 13).

Ayodeji Ogunrotifa

Ayodeji (Bayo) has just joined the Unit as a new doctoral student and will be working with Nik Brown on a project related to HIV/AIDS. He will be exploring the constructions around the meaning of HIV in sub-Saharan Africa, focusing on Nigeria

Emily Phillips

Emily continues her work on the science/art relation and the representation of the body (bioart) and especially different tissue forms in museums and galleries, and the viewers'/audiences' responses to them.

Rosalind Williams

Ros is working with Dr Nik Brown on the politics of cord blood. See page 16 for an overview.

SATSU welcomes enquiries about postgraduate study in SATSU's key interest areas from potential home, EU and international students. Please contact andrew.webster@york.ac.uk or +44 (0)1904 324740.



Research Biographies

Doctoral Student: Mark Johnson

Mark graduated from the University of York in 2011 with a BA in Politics and Sociology. Interested to both stay at the intersection of these two topics and forward his primary interest in technology, he joined SATSU and went immediately onto a full-time PhD starting in 2011.

His thesis, supervised by Mr. Brian Loader, involves studying the UK Space Agency – the United Kingdom's primary state body for matters relating to satellites, space travel, space technology and law - to examine how they handle projects with a mix of public private actors, and how they quantify returns, negotiate boundaries, and act as a broker between these two parallel worlds, especially in projects which may appear to only return 'abstract science' benefits. He is using actornetwork theory for the study as both his theoretical and methodological perspective. The study aims to be based within existing STS work on space policy, public-private partnerships, and the politics of hightechnology organizations. Mark is also very interested in the foregrounding of space technology by the incumbent government as an area of technology the UK both excels in and has carved out a particular niche within, and how this relates to the UKSA's workings and what UKSA employees believe future space policy holds, both for the United Kingdom and globally.

Mark's other academic interests apart from space technology include Science and Technology Studies generally, particularly in the areas of Big Science, emerging technological fields (such as fusion, nanotechnology and similar), controversial technologies, 'megaprojects' (particularly in terms of



their social impact and the kind of social power that can be attached to them), science and technology policy, the history and philosophy of technology, and actor-network theory. He is currently working on publications, one about the potential for nanosatellites (small, cheap satellites using a minimal design and development team and off-the-shelf electronic components) to democratize space technology, and the other applying the work of Foucault and Bentham to megaprojects to examine the ways in which they can transform (or attempt to transform) social spaces.

In his thesis he is currently working on an actor-network history of UK space policy – and everything which contributed to it, which often crosses over lines of missile, nuclear, and aerospace technology – and should be starting data collection at the UK Space Agency in next few months.

Mark will also be giving a SATSU Brown Bag seminar about his PhD research in December.

Mark's website can be found here: http://www.york.ac.uk/sociology/our -staff/students/mark-johnson/



Research Biographies

Research Fellow: Kimberly Jamie

Kim took up a two year research fellow post in October 2012. In this role Kim will be working closely with Professor Andrew Webster to build on her PhD research and develop papers and grants in the areas of personalised medicine, cultures of medicines and professional practice.

Kim came to York in 2008 to complete an MA in Social Research Methods (distinction) following a first degree in Sociology at the University of Warwick (first class). It was at Warwick that Kim's passion for the sociology of health, illness, medicine and biotechnology was first ignited and, in her second year, Kim was awarded a short-term scholarship to work on the Warwick-based arm of the ESRC's Innovative Health Technologies project around alternative medicines in women's midlife. The findings from this research were published in 2011 in Health Care for Women International.

Kim's PhD was a CASE studentship sponsored by the ESRC and Pharmacy Practice Research Trust. The work was supervised by Professor Andrew Webster and focused on the potential role of pharmacogenetics, or personalised medicine, in hospital and community pharmacy practice. For this, Kim undertook 38 semi-structured interviews with a range of participants from the pharmacogenetic and pharmacy 'worlds' in order to build a well-rounded and multifaceted picture of the area.

The analysis of the qualitative data has highlighted some interesting themes which make a novel contribution to the underexplored area of the sociology of pharmacy and innovation in pharmacy. In particular, Kim's characterisation of medicines management practice as a dual process has proven popular in a number of both internal and external presentations and a paper on this topic is currently in preparation. In addition, Kim has three further publications from this work under review (a book chapter; a research piece in *Pharmacy Education* and a paper for a special genetic issue of *Sociology*) as well as a practitioner piece —



'Might Community Pharmacists Have a Role in Personalised Medicine?'-published in The Pharmaceutical Journal. Moreover, reflecting her determination not to be beaten by the bureaucratic nightmare of the NHS ethics and governance process, Kim has also had a book chapter entitled 'Navigating the UK NHS Ethics and Governance Approval Process: The Case of Junior Researchers' accepted for publication.

As well as keeping busy with her empirical research, Kim's PhD also provided her with a number of opportunities to engage with, and disseminate to, a range of audiences. One notable example is Kim's involvement in the steering group for the Wellcome Trust-

sponsored Theatre of Debate project which brings social and ethical issues in biomedicine to a general audience through the medium of theatre. For the current production, Dayglo, Kim provided expert comments on early drafts of the scripts and sat as an expert panel member for audience Q&A following productions. Reviews of the most recent production about pharmacogenetics can be found here;

http://www.bionews.org.uk/page 134411.asp

Kim's website can be found here; https://www.york.ac.uk/sociology/ our-staff/students/kimberly-jamie/



SATSU/ICS Conference

The co-production of knowledge: Social media, STS and ...

This three day conference, an annual meeting of the *ICS* Journal was held in York between July 18-20 to bring together SATSU's interests in STS with the wider community of scholars working on social media. It was also supported by ISSTI (University of Edinburgh) and the *eHumanities* programme (Amsterdam). About 80 researchers from the UK and elsewhere attended the event, large enough for three full streams of papers yet small enough for some excellent networking to take place. While some studies of social media and, more specifically, Web 2.0 platforms built around user-generated content, have made reference to the importance of the field of science and technology studies (STS) for understanding their development and diffusion, scholars working within this academic framework have yet to fully turn their focus on this area. The symposium explored the intersection between STS and social media inquiry, with a specific focus on how Web 2.0 is both generative and challenging of different forms of knowledge, its (co-)production and the authority it commands.

The main Plenary papers opened up a number of new areas for future inquiry. Adrian Mackenzie (Lancaster), who gave the opening keynote, discussed what he called the need to explore 'regimes of anticipation', the role played by statistical or machine learning to generate predictive algorithms for the relation between machine learning and social media: the abundance of data here gives a predictive account of what it means to live and with what value this has. Robin Williams (ISSTI, Edinburgh) spoke about the ways in which virtualised technical support systems made available to organisations in managing their enterprise (such as through ERP systems) seek to delocalise such support: the technical problems a firm might have are dealt with at a global level; problems 'follow the sun' by being passed on from time zone to time zone, with no knowledge of the local user. Such delegative systems mean that the ownership of the problem and who has responsibility and authority to define and sign it off become unclear. Here then we need to understand the impact of both the co-production and distribution of forms of knowledge across digital systems.

Leah Lievrouw (UCLA) explored Materiality and Media in Communication Studies, what she called an 'an unfinished project'. She argued that while STS has been undergoing a rebalancing between constructivist and materialist views of technology, communication studies is still locked into discourse analysis and much less engaged with materiality, and that this will be an important site of engagement between the two in the future. Sally Wyatt (Director eHumanities Programme, the Netherlands) drew on her considerable experience examining 'virtual knowledge' to contrast the social science and humanities, and the style of reasoning of both. She showed how virtual knowledge changes institutional ways in which knowledge operates and the infrastructures in which it is embedded, and enables us to incorporate a much wider range of actors than does the concept of 'research'.

Rob Proctor (University of Manchester) asked 'What is Science 2.0?': here he explored the new sources and forms of knowledge that appear on the web and through which science is built and given voice and authority. He gave some interesting illustrations of how the researcher of the future will use an array of social networking tools to underpin her/his claims and results and disseminate these to a wide audience. How these processes are generative of new forms of evidence and authority is open to question, and he suggested that the conventional peer-review process is not as moribund as some have argued.

Finally, Andrew Webster (SATSU, University of York), examined the way information and information systems more generally are understood. The paper provided a typology of a number of different forms of information, their parameters of construction and co-production and role that they play and how these are articulated, co-produced and expressed as well as ways in which these are mobilised within, yet have a life and value beyond, market regimes and practices. These issues were used to explore Mike Hardey's contribution to social media studies and its link to STS and to celebrate the insights he had, many years before others in the field, especially in regard to his work on e-health and Web 2.0 more generally. Unlike some of the more utopia versions of the future, Mike was much less prepared to accept that the digital promise of Web 2.0 leads to a genuine creation of a public, and civic good.

All the plenaries are available as podcasts, with slides, on the SATSU website at: http://www.york.ac.uk/satsu/news-events/news/ics-videos/



SATSU/ICS Conference

The co-production of knowledge: Social media, STS and ...

...the plenary addresses



Brian Loader opens the conference



Adrian Mackenzie



Robin Williams



Sally Wyatt



Leah Lievrouw



Rob Proctor



Andrew Webster's closing plenary



Research Biographies

New STS Doctoral Network Students

Rosalind Williams

Ros completed both her BA in Sociology and MA in Social Research at the University of Warwick. was as a postgraduate there that the emerging bioeconomies and their attendant political, economic and social tensions really absorbed her full attention. She chose to move to York to undertake PhD studies in this area because of SATSU's reputation in the field of sociological science and technology research.

Specifically, she is interested in investigating the ways in which Marxist theory can be employed in coming to understand the various effects that 'gifting' or selling reproductive tissues (cord blood, ova, sperm) has on donors. So too will she undertake critical exploration of the roles of ethnicity and race within a bioeconomic context. She envisages that her research, supervised at York by Dr.

Nik Brown, will engage primarily on a theoretical level with the existing sociological literature in this area. She hopes to complement this with empirical research, potentially interacting with those women acting as donors of cord blood.

Robert Meckin

Rob's PhD is funded through the White Rose DTC ESRC network and is based in Sheffield with his principal supervisor Susan Molyneux-Hodgson. Rob is interested in learning and sharing scientific knowledge, the priorities and ethics of research practice and systems that dictate research foci and direction.

His PhD research is centred on innovation in Synthetic Biology. Using case-study, ethnographic and interview approaches, he is looking at the way research scientists agree on findings and how those findings are represented to others in the wider scientific

community and society and how these are then translated and interpreted for medicine.



At undergraduate level he was fascinated by brain anatomy, pathology and psychopharmacology. He spent two years researching the effects of atypical antipsychotics on 5-HT receptor populations. He qualified as a teacher and spent five years teaching science in secondary schools becoming interested in the social construction of learning and schooling.

From understanding learning at the synaptic, cellular level, to learning as a social activity, Rob brings together his understanding of biology, learning and scientific research to examine how discoveries in synthetic biology can be translated into medical applications.

Julia Swallow

Julia has recently finisher her ESRC recognised MA in Social Research at the University of York, completing the dissertation element of the course with research entitled 'Let me speak, help me be heard': Dementia and the politics of autonomy'.

This dissertation primarily focused on the conflicting nature of preserving autonomy in dementia patients using narrative from the Alzheimer's Society Talking Point Forum. Prior to commencing the MA at York Julia graduated from the University of Liverpool with a BA (2.1) degree in Sociology.

Her interest in the Sociology of Health and Illness with a particular focus on dementia, encouraged her to apply for the ESRC WR DTC +3 Network studentship PhD based at Leeds and supervised by Professor Anne Kerr and co-supervised by Professor Andrew Webster. The network studentship is titled 'Rethinking the Social Production, Locus and Impact of Bio-science' with the PhD specifically focussing on the ways in which ageing is being framed today, including its social, cultural and political implications.

One of the aims of this research is to explore and develop a sociological understanding and account of technologies such as the Mini Mental State Examination (M-MSE) (with specific relevance to dementia) in order to make a contribution to an understanding of agency and capital in an age of bio/neuroscience. Julia is excited to be given the opportunity to carry out this research under supervision from York and Leeds and is looking forward to commencing work on this project in October.



Visitors

This past year we have been delighted to welcome a number of visitors to the Unit who have stayed for periods varying from 3 weeks to 3 months.

Our visitors included three from Sweden, Tora Holmberg, Uppsala University and Clara Iversen, (Uppsala University), and David Redmalm (from Orebro University).

David and his partner Clara really enjoyed their stay, not just for the intellectual exchange with members of the Unit but also for the local sights and sounds—and food! - of York. They sent us a PDF-postcard that captured assorted delights of their stay, including the Michelin star food served in the town...

Iwona Machoczek, from the Technical University Darmstadt, Dr Koichi Mikami, University of Tokyo, also joined us and we were very pleased to have a return visit by Dr Vincenzo Pavone, from Madrid, who is based at the CSIC there, one of the national government supported research centres in Spain.

We welcome visitors at any time and can normally provide them with all the usual facilities, and in return expect good discussion and a Brown Bag (or sometimes two!) from them. Summer-time visitors gain the added bonus of being able to attend the SATSU Annual BBQ...with equally delicious Michelin Star burgers and veggie stuff.







The food! (Marmite chocolate, veggie British breakfast, jacket potato with cheesy beans)





The campus! (the blur on the second picture is a campus Fox)



The wildlife!



Contacts

SATSU members

Director

Professor Andrew Webster T: 01904 32 4740 E: andrew.webster@york.ac.uk

Dr Nik Brown (Associate-Director) T: 01904 32 4741 E: nik.brown@york.ac.uk

Dr Brian Loader (Associate-Director) T: 01904 32 2639 E: brian.loader@york.ac.uk

Sarah Shrive-Morrison (Administrator) T: 01904 32 3050 E: sarah.shrivemorrison@york.ac.uk

Dr David Beer T: 01904 32 3049 E: david.beer@york.ac.uk

Dr Siân Beynon-Jones T: 01904 32 3064

E: sian.beynon-jones@york.ac.uk

Kimberly Jamie T: 01904 32 3577

E: kimberly.jamie@york.ac.uk

Dr Graham Lewis T: 01904 32 3055 E: graham.lewis@york.ac.uk

Dr Darren Reed T: 01904 32 3047 E: darren.reed@york.ac.uk

Dr Amanda Rees T: 01904 32 3054 E: amanda.rees@york.ac.uk

Associated Fellows

Professor Herbert Gottweiss University of Vienna

Professor Paul Martin University of Sheffield

Professor Mike Michael University of Sydney

Dr Annemiek Nelis Dutch Safety Board, The Hague

Professor Arie Rip University of Twente

Dr Richard Tutton University of Lancaster

Doctoral Students

Mark Johnson T: 01904 32 4652 E: mrj503@york.ac.uk

Ayodeji Ogunrotifa T: 01904 32 2638 E: abo501@york.ac.uk

Emily Philips T: 01904 32 3051 E: ecp501@york.ac.uk

Ros Williams T: 01904 32 2638 E: rgw511@york.ac.uk

International Visiting Researchers

Dr Tora Holmberg, Uppsala University, Sweden

Clara Iversen, Uppsala University, Sweden

Iwona Machoczek, Technical University Darmstadt, Germany

Dr Koichi Mikami, University of Tokyo, Japan

Dr Vincenzo Pavone, CSIC, Madrid, Spain

David Redmalm, Orebro University, Sweden

Postal Address:

Science and Technology Studies Unit Department of Sociology Wentworth College University of York Heslington York YO10 5DD United Kingdom

T: +44 (0)1904 324740

Websites

Department of Sociology: http://www.york.ac.uk/sociology/ SATSU Homepage: http://www.york.ac.uk/satsu/

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