



Institute for Science, Innovation and Society

University of Oxford

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Changing Ecologies of Knowledge and Action (CEKA)

In conjunction with the Human-Centred Computing group at the Department of Computer Science, Dr Louise Bezuidenhout was awarded an EPSRC GCRFC grant for the project Ethical Equipment Hackathon for Improved R&D Capacity in LMIC. This project addresses a key challenge for research in low and middle-income countries, namely the scarcity of laboratory equipment. While considerable effort has been made to improve R&D capacity in these regions, many research facilities still struggle with a lack of “core funding” to maintain and upgrade natural/life science laboratory facilities. A common problem involves the difficulty of acquiring and maintaining the small pieces of software-based equipment that are vital for daily research activities. The absence of this equipment slows research progress and the time taken to train and graduate students, and affects the range of research streams available to scientists in these settings.

Rather than attempting to overcome resource shortages through one-off capital investments, the project will pilot a novel hackathon format, in which local researchers will design and produce equipment in situ and develop long-term skills. The first hackathon will take place in Harare, Zimbabwe, in early 2018 and will bring together multidisciplinary groups of students from computer science, engineering, natural/life science, social science and economics. They will be challenged to design and produce software-based laboratory equipment. Their work will be assessed by local expert judges according to a number of categories including simplicity of design and cost-effectiveness, ethics and responsible design principles, contextual appropriateness and user-responsiveness.

The project webpage can be found here:
<http://www.cs.ox.ac.uk/projects/EthiHack/>

Hilary Term Seminar Series

Look out for details of our upcoming seminar series on *The Boundaries of Truth*

New books by InSIS Associates

Microbes and other Shamanic Beings, written by César Enrique Giraldo Herrera

<http://www.springer.com/us/book/9783319713175>

Sustainability Science Key Issues, Edited by Ariane König, Université du Luxembourg, and Jerome Ravetz, Oxford University

<https://www.routledge.com/Sustainability-Science-Key-Issues/Konig-Ravetz/p/book/9781138659285>

Conferences & Events

Sophie Haines presented *Negotiating science & resource management in rural communities* at the annual meeting of the UK-Belize Association, 7 October, Latin America Centre, University of Oxford.



In October Rob Bellamy and Peter Healey spoke at the 2017 Climate Engineering Conference in Berlin, Germany.

In the session **Interdisciplinary Carbon Dioxide Removal** Rob presented his recent research, published in the journal *Global Environmental Change*, about public views on the acceptability of climate engineering experiments - and alternative mechanisms for their governance.

In the session **Public Engagement and Climate Engineering: Whither and How?** Rob reflected on the evolution of public engagement with climate engineering and opened up questions for future research in the field, before contributing to a panel debate.

In the session **Modelling, Imagining, and Making the Future in Climate Engineering**, Peter discussed the use of anticipatory scenarios as one foresight method for helping decision-makers. He discussed the scenarios workshop organised for the Climate Geoengineering Governance project

The full programme for the conference can be viewed here:

<http://www.ce-conference.org/>



At the Anticipation 2017 conference in London, Sophie Haines presented *Promises, probabilities and the prediction of weather and climate* (co-authored with David Zeitlyn) on the panel **Pluralising Futures**.

<http://anticipation2017.org/>



Sara De Wit and Sophie Haines co-convened the panel **Future knowledge ecologies: changing worlds of forecasting, science and society** at the Knowledge/Culture/Ecologies conference, held on 15 - 18 November, in Santiago, Chile. The panel included Sara's paper *The predictive promises of Forecast-based Financing* and Sophie's paper *Watershed knowledge and socio-ecological futures in Belize*. In addition, Sophie presented her paper *Engaging and contesting environmental health: water, land and political practice in rural Belize* as part of the **Engaged Anthropology** panel.

<https://knowledgeculture.org/>



InSIS Researchers participated in the American Anthropological Association 116th Annual Meeting, 29 November - 3 December 2017 in Washington DC, USA.

Sophie Haines organised the roundtable **Future matters: Ethnography of Weather and Climate Knowledge and Forecasting**.

César Enrique Giraldo Herrera, participated in the roundtable **Cultures of Fermentation**.



InSIS Researchers attended the Annual Meeting of the Society for Social Studies of Science (4S) in Boston 30 August - 02 September.

The team organized a panel session on **Navigating Liminal Spaces in**



Society for Social Studies of Science

Scientific Knowledge Production, with presentations by Louise Bezuidenhout (*Does it Matter HOW Data are Created?*), Chris Goldsworthy (*Institutional Cognition across the Clinic -Research Divide*), and Sara de Wit (*On the Predictive Power of Forecasting*).

In addition, Sara de Wit presented the paper *The Futurology of Forecasting*, as part of the **Disaster Prediction and Preparedness** panel.

Javier Lezaun presented the paper *'Post-truth' and the Indirection of Political Speech*, on the **Politics of "Facts" and Science in an Age of "Post-truth"** panel organized by Lisa Stampnitzky.

Chris Goldsworthy presented *Synthetic Relationships: Affective Flexibility in the Diagnostic Genetics Laboratory*, as part of the **Synthetic Actors II: Algorithms and Databases as Synthetic Actors** panel.

New InSIS Research Associates



Oliver Geden is Head of the EU/Europe Research Division at the German Institute for International and Security Affairs (SWP) in Berlin, which advises both the German Parliament and the German Federal Government.

His work focuses on the European Union's climate and energy policy, climate engineering, and the quality of scientific policy advice.



Michael Morrison is Researcher in Sociology with the Centre for Health, Law and Emerging Technologies (HeLEX) at the University of Oxford and an Associate Fellow at the Institute for Science, Innovation and Society. His work deals with the dynamics of innovation in biomedical technologies. His current

ESRC funded project investigates how potential clinical applications of new technologies are shaped by scientific, regulatory, economic, and cultural factors, drawing on three interrelated case studies of induced pluripotent stem cells, genome editing using CRISPR-Cas9 and similar tools, and 3D printing of living biological material.



Stefan Schäfer leads the research group on Climate Engineering in Science, Society Politics at the Institute for Advanced Sustainability Studies (IASS) in Potsdam, Germany and is an Associate Fellow at the Institute for Science, Innovation and Society (InSIS) at the University of Oxford. His research examines how a wide array of stakeholders, agendas, and bodies of knowledge shape the ongoing development of climate engineering as a set of imaginaries, discourses and policy options.



Noam Segal is a Research Fellow at the School of Sustainability at the Interdisciplinary Centre Herzliya, Israel, and the Director and Co-Founder of the Israel Energy Forum. Noam is visiting InSIS to conduct post-doctoral research on the water and energy nexus in the Middle East. He will explore policy applications that utilise the nexus approach to enhance the long-term planning, development and use of energy and water resources in Israel, Jordan and Palestine. Declining water and energy resources in the Middle East and other drought-prone regions around the world, due to population growth, migration and climate change, highlight the need for an interdisciplinary approach that considers the interlinks between these vital natural resources, to secure their future, sustainable supply. Noam will be working with partners in the region on building a regional nexus-based model that considers existing and future challenges to energy and water supply in these countries, exploring the benefits of transboundary cooperation.



Forecasts for AnTicipatory HUMANitarian action (FATHUM)

In September Sara De Wit participated in a methodology workshop in Kampala, Uganda, to train local researchers as part of the [FATHUM project](#). Sara also went on a fieldtrip to the flood-prone Teso region, to explore how different stakeholders define the successful implementation of forecast-based-financing.

On 4-6 October, as part of her fieldwork Sara attended the "Dialogue Platform", which is a yearly event organized by the Red Cross, and is a platform to share and exchange developments in the field of forecast-based-financing in the humanitarian sector.

On 26 October, Sara gave a talk at the "water@reading" meeting and presented some preliminary research findings of the FATHUM project.

On 30 November – 2 December Sara participated in an editorial workshop in Berlin, to discuss an anticipated volume on "material semiotics/ technology and significations in sub-Saharan Africa".

Scientific research and public health emergencies: the ZIKA virus epidemic in Brazil

On October 22-27 Javier Lezaun visited the Oswaldo Cruz Foundation (Fiocruz) in Rio de Janeiro, Brazil, as part of the Newton Fund-sponsored [InSIS-Fiocruz collaboration](#) on the evolution of expertise on the Zika Virus.

New Publications

- Bellamy, R., Lezaun, J., and Palmer, J. (2017) [Public perceptions of geoengineering research governance: An experimental deliberative approach](#). *Global Environmental Change*, 45: 194-202.
- Bezuidenhout, L. (2017). [The relational responsibilities of scientists: \(re\)considering science as a practice](#). *Research Ethics*, 13(2): 65-83.
- Bezuidenhout, L., Kelly, A., Rappert, B., Leonelli, S. (2017) [Beyond the digital divide: towards a situated approach to Open Data](#). *Science and Public Policy*, 44(4): 464–475.
- Bezuidenhout, L., Warne, N. (2017). [Should we all be scientists? Re-thinking laboratory research as a calling](#). *Science and Engineering Ethics (online)*.
- Haines, S., Imana, C. A., Opondo, M., Ouma, G. and Rayner, S. (2017) [Weather and climate knowledge for water security: Institutional roles and relationships in Turkana](#). *REACH Working Paper 5*, University of Oxford, Oxford, UK.
- Kelly, A. H., & Lezaun, J. (2017). [The Wild Indoors: Room-spaces of scientific inquiry](#). *Cultural Anthropology*. 32(3): 367-398.
- Lopez, A., and Haines, S. (2017) [Exploring the Usability of Probabilistic Weather Forecasts for Water Resources Decision-Making in the United Kingdom](#). *Weather, Climate, & Society*, 9(4):701-715.
- Morrison, M., and others (2017), [Key challenges in bringing CRISPR-mediated somatic cell therapy into the clinic](#). *Genome Medicine*, 9:85.
- Morrison, M., Bell, J., George, C., Harmon, S., Munsie, M., and Kaye, J. (2017) [The European General Data Protection Regulation: challenges and considerations for iPSC researchers and biobanks](#). *Regenerative Medicine*, 12(6).
- Schneider, T., Eli, K., McLennan, A., Dolan, C., Lezaun, J., & Ulijaszek, S. (2017). [Governance by campaign: the co-constitution of food issues, publics and expertise through new information and communication technologies](#). *Information, Communication & Society*, 1-21.
- For a full list of publications visit <http://www.insis.ox.ac.uk/publications/>

Public engagement

- Rob Bellamy of InSIS wrote an article for *The Conversation* on [“Why you need to get involved in the geoengineering debate – now”](#).
- Rob was interviewed by [New Scientist](#) magazine to provide a commentary on a new paper that claims stratospheric aerosol geoengineering to be effective for preserving coral reefs. He was also interviewed by [Carbon Brief](#) on public engagement with geoengineering.
- Rob was interviewed on film by Carbon Brief at CEC17 on public engagement with geoengineering. [Watch video](#).
- Sophie Haine’s REACH blog on [‘Governing water and knowledge in Turkana, Kenya’](#), is now available online.
- Michael Morrison was involved in a Royal Society Workshop on scientific collaboration in relation to the project [‘Changing Expectations’](#).
- Two podcasts are available of the fabulation and interview with César Enrique Giraldo Herrera for Savvy Funk, in which he interrogates relations to nonhumans, nature, bodies, and matter.

[YNK #5 JUNE 21st SONIC FABULATION #2 SINGING MICROBES AND OTHER SPIRITS](#)

[YNK #14 JULY 1st COSMIC DIPLOMACY #3 CÉSAR ENRIQUE GIRALDO HERRERA](#)