# ISSTI

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

### Newsletter

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In this first issue of the ISSTI Newsletter for 2024, we are delighted to share details of diverse outputs from our community over the preceding year; the list of 60 publications includes exciting new book releases. As well as showcasing rich interdisciplinary experiences in STS and varied research engagements that demonstrate impact, we bring news of research projects awarded and celebrate new appointments.

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#### **WANT MORE NEWS?**

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@UoE\_ISSTI & @UoE\_STIS

### Research Awards



#### Scottish Research Alliance for Energy, Homes and Livelihoods

**Dr Sarah Parry** and Dr Faye Wade (Sociology, Edinburgh) are cotheme leads on Sustainable Households, as well as members of the Leadership Board, for the SFC Scottish Research Alliance on Energy, Homes and Livelihoods (SRAEHL).

SRAEHL is one of four new collaborative research networks in Scotland, aiming to bring together stakeholders from key areas of research, industry and policymaking in order to align research with the priorities of the Scottish Government. These networks are known as ARCs – Alliances for Research Challenges – and they focus on four key areas of concern for the Scottish Government: energy, brain health, quantum technologies and food. Supported by the Scottish Funding Council, the ARCs aim to disrupt the siloes that academia often operates within and to harness the collective power of Scotland's research institutions.



#### **Ocean Incubator Network**

**Dr Sarah Parry** is also a partner for the newly established Ocean Incubator Network (OIN), funded by UArctic, and led by Prof Margherita Paola Poto, UiT The Arctic University of Norway, Tromso. The Ocean Incubator Network brings together experts, local authorities, indigenous communities and education institutions, from across the UArctic to develop integrated research and education programmes with the primary objective of accelerating Ocean Literacy. The network will co-produce a pilot ocean education programme, and a curriculum on Ocean Literacy will be developed.



#### Marine SClence Collaborations in Oban



**Prof Niki Vermeulen** is part of the new IDEX UGA Project MASCICO, collaborating with PI Josselin Tallec from l'Université Grenoble Alpes, Marion Maisonobe (CNRS Paris) and Suzi Billing (SAMS).

The MASCICO project focuses on the collaboration in marine sciences in Oban, Scotland, particularly on macroalgae research. It investigates how small-town scientific activities can influence large-scale socioecological transitions. The project aims to understand collaboration processes, knowledge production, and utilization in marine sciences, emphasizing macroalgae's potential in addressing socio-ecological challenges like CO<sub>2</sub> sequestration. It studies scientific collaboration's impact on commercial actions and maritime spatial planning in macroalgae aquaculture, contributing to food security and CO<sub>2</sub> capture.

#### **Curious Edinburgh**

**Prof Niki Vermeulen** is also the founder of Curious Edinburgh, creating app-based walking tours showcasing scientific and cultural heritage in Edinburgh. Curious Edinburgh now has a new tour on World War II in collaboration with Dr Wendy Ugolini, Prof Tobias Kelly, and Emma Forth. Download it from the website: <a href="http://curiousedinburgh.org/second-world-war-edinburgh/">http://curiousedinburgh.org/second-world-war-edinburgh/</a>.

### Research Awards



#### Floodplain Meadows Partnership

Prof Ann Bruce led this project, funded by the Halpin Trust in collaboration with the Open University, that examines the role of grazed animals in maintaining biodiversity in South Uist.





The area between the dry machair and the blacklands has been found to contain an extremely rich, biodiverse community of plants, that are ecologically extremely valuable. These wet machair communities have been maintained over generations by active crofters. The intention of this project is to better understand the farming practices that have maintained these communities, and to appreciate future challenges to the continued maintenance of these plant communities.

#### Building for health centred, net zero aligned Food Systems Transformation - A Living Good Food Nation Lab

**Dr Isabel Fletcher** is one of the Co-Investigators on a new transdisciplinary Wellcome Trust-funded project led by Prof Mary Brennan of the UoE Business School. The Living Good Food Nation Lab consortium of academic and policy partners (including the Scottish Government), will work to build connections between, and skills across, the Scottish food systems transformation community; provide essential analytical support to relevant authorities; advise on the effective delivery of the 2022 Good Food Nation Act; and showcase the value and importance of innovative metrics and partnerships in delivering health-centred, net-zero-aligned food systems transformation.

# Chancellor's Fellowship in Responsible Al and Robotics Innovation in Healthcare

**Dr Giulia De Togni** was recently awarded a Chancellor's Fellowship at CMVM/Usher. She began this new position in January 2024, after working at Usher since 2019 on the Wellcome Trust-funded project 'Al and Health'. Since 2022, she has served as Principal Investigator on her Wellcome Trust Fellowship project, 'Caring Machines'. In her Chancellor's Fellowship, Giulia will continue her work on Responsible Al and Robotics Innovation in Healthcare. Her aim is to involve various stakeholders in the co-production of healthcare technologies, thereby informing and collectively shaping innovation.



Internationally, Giulia is PI of a project funded by Japan's Science and Technology Agency, closely collaborating with AIST (Japan's National Institute of Advanced Industrial Science and Technology) and RIKEN (the largest research institute in Japan, with 3,000+ members). She also works in close collaboration with teams of roboticists at the School of Engineering, Heriot-Watt University, National Robotarium, Alan Turing Institute, and Bristol Robotics Laboratory. She is also a member of the INNOVCARE group (École des Hautes Études en Sciences Sociales), closely collaborating with roboticists based at Korea Advanced Institute of Science and Technology.

This is the Newsletter of the Institute for the Study of Science, Technology and Innovation (ISSTI). This interdisciplinary network, founded in 2001 by Robin Williams, brings together colleagues from across the University of Edinburgh studying science, technology and innovation, and is hosted by the Science, Technology and Innovation Studies (STIS) Subject Group. Find us on our website: <a href="https://www.issti.ed.ac.uk">www.issti.ed.ac.uk</a>.

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: <a href="https://www.stis.ed.ac.uk">www.stis.ed.ac.uk</a>.

Editorial Team: Huayu Xin (editing and layout), Robin Williams and Matjaz Vidmar (editorial supervision).

# Research Findings: New books!



#### A Place for Science and Technology Studies: Observation, Intervention, and Collaboration

Prof Jane Calvert's book A Place for STS was published in January 2024. The book is available open access on the MIT Press website. STIS PhD student Huayu Xin spoke to Jane about the book.

Huayu: As a PhD student in STS, I sometimes find myself confused about my identity or position, which is why I'm very interested in this book. So, what motivated you to write it?

Jane: I'm glad you've started by pointing out that it can be difficult for STS PhD students to work out where they stand – I think it's the same for all of us! I suppose what motivated me was that the existing literature didn't always provide me with the resources I needed to navigate the various places I encountered. I felt compelled to write something for STS researchers who find themselves in different - sometimes unexpected – places. So, the book is a journey through eight different rooms: the laboratory, the conference room, the classroom, the coffee room, the art studio, the bioethics building, the policy room, and the ivory tower. I hope it's a kind of companion for STS researchers, including early career researchers, who are trying to find their way.



**Huayu:** Why do you use 'rooms', and how did you come up with this idea?

**Jane:** The idea of rooms started to appeal to me when I was literally in these different rooms. And I realised that rooms were a generative, interesting, and useful metaphor for thinking about affordances and constraints, and how we are influenced by the places we find ourselves in.

**Huayu:** Can you explain your subtitle "observation, intervention and collaboration"?

Jane: I found myself becoming increasingly dissatisfied with detached observation of the people and things I was studying, and I wanted to adopt more collaborative or interventionist modes of engagement. For me, collaboration means thinking with people, while intervention can be more challenging or oppositional and sometimes uncomfortable. My aim in the book is to explore the opportunities for observation, intervention, and collaboration in the different rooms.

Huayu: Overall, what is the main point you want to emphasise in this book?

Jane: That's a difficult question! At the end of the book, I say that collaboration is difficult, but it's powerful and important, because it enables everyone involved to think in new ways. Another theme is the attempt to reflect on the normativity of STS – on what motivates us as STS researchers. To put it too briefly, I think that what we do is reveal the contingency of scientific and technological developments, showing that they could be different, which is liberating. This idea of 'otherwising' is an important part of the book.



# Research Findings: New books!

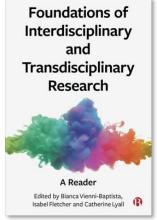


#### Foundations of Interdisciplinary and Transdisciplinary Research

Dr Isabel Fletcher has co-edited a new reader on inter- and transdisciplinary research along with Catherine Lyall and Bianca Vienni-Baptista of ETH Zurich.

This groundbreaking reader is designed to lower the barriers to interdisciplinarity and transdisciplinarity in research. Edited by experienced researchers from a range of different fields, it paves the way for future scholarship and effective research collaborations across disciplines.

Chapters offer extracts from key academic texts on topics such as the design, funding, evaluation and communication of research, providing those new to the field with a thorough grounding. They highlight examples of interdisciplinary and transdisciplinary triumphs - and challenges. Concluding each chapter is a commentary provided by practitioners from diverse backgrounds, many of whom are themselves developing new approaches to inter- and transdisciplinarity. The book is available on the <u>Bristol University Press website</u>.



#### John Ruskin's Flora of Chamouni, 1844



A full-size facsimile of John Ruskin's book of pressed plants, including notes that Ruskin collected and compiled in 1844 from the mountains and forests around Chamonix, France, is now reproduced and published.

**Prof David Ingram** and Prof Stephen Wildman provide an introduction, illuminating essays and detailed notes and commentary on Ruskin's herbier. David Ingram remarks that "The Flora not only throws new light on Ruskin's early botanical studies but also includes data that informs twenty-first-century environment change research."

The publication comprises two volumes, both available on the <u>Pallas Athene website</u>: Volume 1, Facsimile edition of the flora, and Volume 2, Introduction, transcripts, detailed commentary, notes and conclusion.

#### **Moving Crops and the Scales of History**

By **Prof Francesca Bray**, co-authored with Barbara Hahn, John Bosco Lourdusamy and Tiago Saraiva.

This book is a bold but approachable attempt to redefine historical inquiry based on the 'cropscape': the assemblage of people, places, creatures, technologies, and other elements that form around a crop. Through investigating a range of contrasting cropscapes spanning millennia and the globe, the authors break open traditional historical structures of period, geography, and direction to glean insight into previously invisible actors and forces. The <a href="https://hardback.e-book">hardback.e-book</a>, and <a href="https://hardback.e-book">audiobook</a> versions are all available, and the Chinese translation is forthcoming in 2024.



Another renowned book by Francesca Bray, co-authored with Arnold Pacey, *Technology in World Civilization: A Thousand Year History*, has also seen its Chinese translation published by CITIC in 2023.

# Research Engagement



#### Food for Thought: A Research Journey Crossing Boundaries

**Prof Ann Bruce** delivered her Inaugural Lecture in February 2024. The concept of crossing boundaries encapsulates her academic career. Her research, primarily focused on food systems and particularly livestock, underscores the complexity of food production and provisioning within the interplay of environmental, regulatory, social, and economic factors. Her interdisciplinary approach and commitment to integrating cross-policy areas like housing, education, and infrastructure into the discourse on food systems highlight her innovative and boundary-crossing academic journey.

# **Exploring the Ethical Implications of AI and Robotics for Healthcare: A Cross-Cultural Perspective**

**Dr Giulia De Togni** gave this talk at the University of Oxford in October 2023. This talk draws on an interdisciplinary, comparative qualitative study (titled 'Caring Machines') funded by the Wellcome Trust and for which Giulia carried out 14 months of ethnographic fieldwork in 2022-2023 in Japan and the UK. The aim of the project 'Caring Machines' is to trace the journey of Al and robotics innovation in care, from research laboratories to end-users, while highlighting the ethical considerations and embodied experiences associated with these technologies across different cultural contexts.

#### Other engagement activities:



**Dr Vassilis Galanos** 

October 2023: Vassilis Galanos, SJ Bennett, Ruth Aylett, and Drew Hemment. Al Myths Debunked: Unpacking Six Common Misconceptions. Al "explainer" for The New Real Magazine's Edition One. https://www.newreal.cc/magazine/ai-myths-debunked

September 2023: Interviewed by Stephen Phelan and Edd McCracken for Edinburgh Impact for the press release "Al's Moment of Truth" with additional social media/video coverage on Instagram, LinkedIn, Twitter/X, and Facebook/Meta.

https://www.ed.ac.uk/impact/research/digital-life/ai-s-moment-of-truth

September 2023: Podcast recording by the University of Edinburgh's Teaching Matters blog about Generative AI in education in conversation with Irene Xi, Lara Dal Molin, and James Stewart in four parts: https://www.teaching-matters-blog.ed.ac.uk/tag/podcast-generative-ai/



**Dr Jarita Holbrook** (on the far right)

February 2024: Dr Holbrook has served as ICRAR Visiting Fellow in Perth (AU), a position designated for senior women+ in astronomy. ICRAR stands for the International Centre for Radio Astronomy Research. https://www.icrar.org/about/visiting-fellowship/

January 2024: She organised a panel titled "Astronomy during Pandemics and Epidemics" at the American Astronomical Society Winter Meeting in New Orleans, comprising four talks spanning from 1917 to the present, and shared her insights on "Astrophysicists and COVID".

January 2024: Invited speaker for the "Transients Down Under" conference in Melbourne, presenting an overview of the ASTROMOVES project: <a href="https://transientsdownunder.github.io/program/#single-session">https://transientsdownunder.github.io/program/#single-session</a>.

## **Community News**



#### Welcome our new colleagues!

#### Dr Jan Vrhovski



Dr Jan Vrhovski is a postdoctoral fellow in Science, Technology, and Innovation Studies, working at the SIGMA research project led by Dr Michael Barany.

His current research explores the roles of international exchange and scholarly networks in the gradual formation of mathematical logic as a subdiscipline of modern mathematics. His mostly historiographical explorations of modern mathematics also include the early European and American algebraic topology, set theory, number theory, as well as various topics related to the foundations of mathematics. As a scholar with a strong background in sinology, his past research was centred mostly around history of modern logic, analytic philosophy, and scientific objectivity in modern China.

Dr J.P. Ascher



Dr J.P. Ascher is Research Fellow for the history of global mathematics and its cross-historical influences in the history of science and the history of knowledge.

Broadly he studies bibliographical methods, along with early-modern to digital knowledge dissemination by examining paperwork history, the history of books in society, and the technology of printing and digital transmission. His most recent work examines the early-modern history of learned printing legally authorised by the Royal Society of London's administrative records, placing both the records and the printing into historical context. He is currently working on born-translated mathematics and its relationship to post-war globalised bookselling.

#### Congratulations on new appointments!



#### **Dr Vassilis Galanos**

We are pleased to announce that as of 3<sup>rd</sup> June 2024, Dr Vassilis Galanos will be appointed as Lecturer in Digital Work at the Stirling Management School, University of Stirling. With extensive expertise and passion for the role of Al and broader digital dynamics in the workplace, Dr Galanos is set to make a significant impact on both faculty and students, extending the ISSTI community.

#### **Prof Neil Pollock**

We are delighted to announce that Prof Neil Pollock has been conferred the Fellowship of the Academy of Social Sciences. The Academy works to promote social sciences in the UK for public benefit by showcasing, championing and advocating for the social sciences, and by raising awareness of their immense value.

ACADEMY of SOCIAL SCIENCES

#### **Prof Janette Webb**

We are delighted to announce that Prof Janette Webb has been appointed as a Fellow of the Royal Society of Edinburgh (RSE). The RSE, Scotland's National Academy was established in 1783 for "the advancement of learning and useful knowledge".



### **Publications**



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