

Department of
Science and Technology Studies (STS)



UCL

Alchemy

2023



Looking forward to the future

STS Co-Heads of Department welcome you to this new issue of Alchemy.

Welcome to another edition of Alchemy. We've had some tough times at STS, coming out of the COVID lockdown – see the reflections in this issue - and continuing to be disrupted by the industrial action which has been prompted by much that needs fixing in the university sector. But as you read Alchemy you will also hear about the many positive and exciting things that we have been doing. We celebrated the centenary of the department with a huge cake. We marked Chinese New Year. Five of our friends, all of them previous PhD students with us, edited a landmark, open access sourcebook on Women in the History of Science, published by UCL Press in March 2023. We've investigated the sociotechnical aspects of issues from robotics and AI to volcanoes. And some of our students had what we've heard was a brilliant day out on Brighton beach. History, culture, intellectual achievement, analysing big problems, and fun – that's a good summary of STS.

Professor Emma Tobin and Professor Jon Agar



From the Editors

STS NewsRoom has become an institution within our community. This year, Mandy, Sarah, Haes, and Charlie have joined us to tell some of the stories capturing our attention. They have worked hard to create the issue you're reading: developing ideas, interviewing sources, and writing, writing, writing. They also have been creating new content for WeAreSTS, our podcast. We'd like to thank them for their hard work and dedication.

Also, we want to remind readers that hidden in the background of STS Alchemy is the person responsible for the actual creation of the magazine: Victoria Mounsey. It wouldn't exist without her expertise.

Alchemy 7 (2023)

Editors: Victoria Mounsey, Dr Jean-Baptiste Gouyon & Professor Joe Cain

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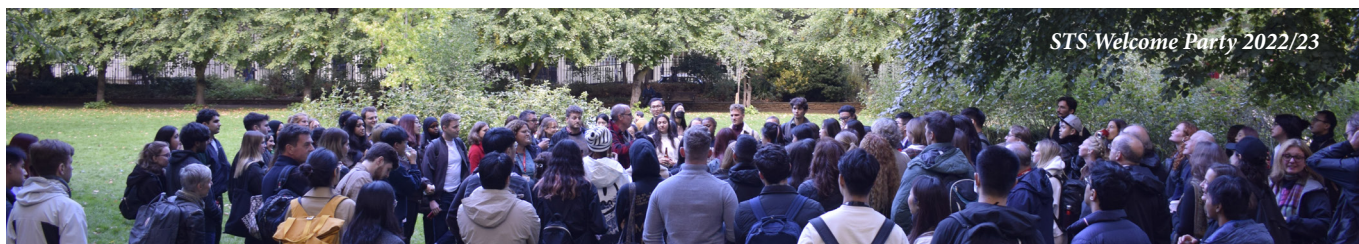
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Coming out of Covid

2022-23 has been the first academic year since 2018-19 with no lockdown, everyone back on campus and all classes taught face-to-face. For all students, whether in their first year, second year, or finalists, this was a new beginning; their first year on campus. Mandy, Charlie, Haes and Sarah, the students of the STS Newsroom reflect on what coming out of COVID has meant to them.



Charlie

As I was finishing secondary school, I was faced with a dilemma. I did not want to attend university with lockdowns and restrictions. So, I took a gap year and headed to South America and I missed university Zoom meetings, the ‘new normal’ and social distancing. Instead, I travelled into the Amazon rainforest, across the Andes mountains, and along Costa Rican beaches. Whilst COVID still existed in Peru where I taught English for five months, I got the chance to visit Machu Picchu and other ancient citadels.

When I arrived in London, I was in a COVID free city. Though, I was shortly reminded of it in Professor Jack Stilgoe’s Science Policy module. The pandemic is a vivid example of the intersection between government policy and expert advice.

Mandy

Because of COVID, the study abroad programme at my home university (University of British Columbia) had been cancelled for two years. Emerging from the isolation and dormancy of the pandemic, I was more ready than ever to break free from the cocoon of home. With stars for eyes, I hopped off the plane at LHR, found a new home, and have not looked back since.

Neither have I really looked back to the going-to-school-during-a-pandemic experience, a nearly universal one for students all over the world from March 2020 to around February 2022.

The hedonic treadmill refers to the psychological tendency for people to adjust to both positive and negative life-changing events by reverting to their normal level of happiness shortly afterwards. Reflecting on the pandemic, I found myself in a similar state of adaptive amnesia — eager to move forward, reluctant to look back, and hazily at that. But what I can say for now is this: What has kept us apart for nearly two years has brought me closer to humanity more than ever, a connection that guides me on the path.

Sarah

It felt as if the world had just leapt back into action, after being at a standstill for so long. It was overwhelming at first, with the return of face-to-face teaching and in-person classes, but also exciting. I was excited to return to normal university life and take classes with other people.

I had missed the activity on campus and the UCL campus is beautiful, always busy. I really made the most of it this time, always going for coffee

before classes and lunch after. I loved running into people in the student centre, or in the common room. It was such a drastic change from spending the day in my bedroom on zoom or teams alone. Returning on campus definitely made a day of classes and studying much easier and something to look forward to.

Haes

My first term in UCL as an iBSc Policy, Communications, and Ethics student back in 2021 was simple: wake up, sit at the table and with a few clicks on Zoom, I was already at university. Using less time and money to travel and reduced lecture hours meant greater independence and freedom. However, I also felt futile, isolated, and disconnected from the whole community, wondering whether this was what I had been looking for.

Two years later, here I am, still at UCL, to complete my iBSc degree. And I am grateful for the real-life experience I got by actually attending uni. I got to appreciate the ‘norms’ of discussing and learning in person, sharing lunches with friends, and getting to know the community. Such a close community encouraged me to take more of the opportunities UCL offers. Coming out of COVID, UCL has undoubtedly started to bloom again.

STS: Providing grounding to the MAPS faculty

STS contributes to the History, Philosophy and Social Studies of Science core stream option of UCL's Natural Sciences programme. But what can Natural Sciences students, mostly interested in "hard sciences," gain from taking modules in STS? Charlie Beeston investigates for Alchemy.



Professor Ivan Parkin (C) with STS Co - HoD's Professor Emma Tobin (R) & Professor Jon Agar (L) at the STS Centenary Event in 2022

The STS department is wedged in the MAPS faculty amongst the 'hard sciences' of physics, chemistry, and mathematics. However, it takes a completely different approach to science. Instead of studying equations and formulas, the STS department explores science through a sociological, historical, and philosophical lens. "It involves multiple different disciplines, from history to philosophy, but manages to link them all together and be greater than the sum" says Professor Ivan Parkin, the Dean of the MAPS Faculty, and himself a chemist. Andrea Sella, a Professor in Chemistry in Natural Sciences, communicates science through public demonstration, explores historical discoveries of chemical apparatus and organizes research projects in society. When asked of his thoughts about STS, he tells me that History of Science helps students understand why we express things the way we do, and that Philosophy of Science is important because academia is fundamentally about finding truth. But the question I want to answer is how STS can benefit a natural sciences student. Why should aspiring natural scientists study STS?

I first put these questions to Olivia Kehoe and Alexa Wong, two third year natural sciences students. Alexa studies medical physics with STS. She explained to me that STS has given her an appreciation of how culture affects medical practices. She wants to study paediatric cancer and believes that understanding differing cultural upbringings is vital to understanding patients. As for Olivia, she studies Neuroscience and Psychology with STS. She explained to me that her first module in philosophy of science helped her think critically. "You can't just regurgitate what you're eating," she says. By Olivia's own account, that philosophy class is when she realised that she had to understand the concepts if she were to contribute meaningfully to class. Dr Simon Lock, who is the Natural Sciences tutor in the STS department concurs. His role is to advise natural sciences students who are thinking about taking STS. "We train students to learn the critical work of researching and writing," he tells me. From the students' perspective, to take STS classes can only enhance and add value to their degree.

But the relationship between STS and Natural Sciences is not just

about exchanging students. STS provides a context to the knowledge natural scientists produce and puts it into perspective. Dr Amy Unsworth is the Lecturer in Science and Society for the Natural Sciences programme at UCL. With a PhD in Biology, she was formerly a Research Fellow in STS. Speaking to me she explained: "Science and technology obviously have a huge impact on our societies. By only focusing on the nitty gritty detail of your science subjects you lose perspective on what you are doing in the larger world." Professor Jon Agar, the co-head of the STS department, insists that STS brings perspective. He told me that the more a scientist specializes, the more they potentially lose an understanding of how science fits in the world. STS is there to remind scientists of science's place in the world. Or, as Professor Ivan Parkin puts it, STS gives the MAPS faculty grounding. It connects the sciences to the arts, informs public policy and equips natural scientists with a strong understanding of how science affects the world.

What can STS do for Medicine?



Image: DepositPhotos

Medicine played a central role in our lives the past few years, and all of us owe a debt of gratitude to health care workers, nurses, doctors, GPs... Here Alchemy looks at how STS can be useful to future doctors. Sarah Jasim, Haes Chung, as well as Dan Sharpe (from last year's Newsroom!) spoke with students who took this iBSc as well as to members of staff in STS who work most closely with it, to find out what STS has to offer to medical students.

“It made me realise how much medicine is not cut-and-dry”, Henry Spencer told Dan Sharpe. Henry is now in his fifth year at UCL Medical School. He graduated with an iBSc in History and Philosophy of Medicine in 2021. During his time in STS Henry explored his interests in psychiatry and the history of medicine and ended up writing his dissertation on the history of psychiatry.

STS offers two integrated BSc degrees, open to all UCL Medical students and to students on MMBS degrees at other UK universities: History and Philosophy of Medicine, or Medical sciences with Policy, Communication and Ethics. Beth Hayes, also a fifth-year medical student at UCL, told Dan that studying History and Philosophy

of Medicine between her preclinical and clinical medicine studies came from a desire to have more space to think. She explained that the year had reinforced her belief that you do not have to see the world through a purely scientific mindset to be a good doctor. Reading philosophical and historical sources for her intercalated degree allowed her to develop a different mindset where it was less about “the amount you knew” and more about “making an argument and always being compassionate to the experience of people you're reading about.”

Dr Cristiano Turbil, Associate Professor in History of Medicine, struck a similar chord when he described his passion for the course because it enables students to “see beyond and above the core curriculum they learn at medical school.” He expanded that the courses enable students to “effectively question and explore aspects of medicine that are not naturally discussed in medical school or not to that level of detail.” Dr Erman Sözüdoğru, Lecturer in Philosophy of Medicine, is the iBSc tutor. Talking to Sarah and Haes, he concurs with Cristiano and explain “STS gives you an ability to understand different ways of living and being”. Erman hosts frequent roundtable discussions to air out any concerns and helps create a collegiate and collaborative space within STS which many students enjoy.

Lashumi just graduated from a medical degree and will be a doctor soon. Interviewed by Sarah and

Haes on her iBSc year in 2021, she says that she wanted to broaden her knowledge of how medicine ‘exists’ alongside other industries in society and the wider world of medicine, outside of clinical practice. “I was quite interested in this and my iBSc degree of Medical Sciences with Policy, Communications, and Ethics at UCL provided me with modules where I could learn more about this.”

Looking back Lashumi says her studies in STS have been useful in unexpected ways: “Learning all of this was incredibly useful in understanding my position in medicine right now. It was insightful as to why we behave the way we do and what my career may look like as I progress through the profession.”

STS Student Prize 2023

STS Peter Medawar Prize
Eloise Carter

STS Joan Beauchamp Proctor Prize
Charlotte Leigh

STS Wang Zhenyi Prize
Hongrui Ouynag

STS Gertrude Falk Prize
Charlotte Jakes

STS Best Dissertation (BSc)
Xingchen Liu & Eloise Carter

STS Joan Beauchamp Proctor Prize
Charlotte Leigh

STS Best Research Project (iBSc)
Isobel Hutt & Charlotte Jakes

STS Alumni Prize
Andréa Lekare, Sophie Bush & Pierre-Elie Balsan

A seaside celebration: An afternoon at the beach

In term 3, STS year 3 students went to Brighton to celebrate the end of their degree. Sarah Jasim, who was on the trip, reports.



We were ecstatic when our year rep, Andréa, announced that the department would fund an end-of-year trip to Brighton, on the South Coast. It was exactly what we all needed after assignments and writing our dissertations - a carefree day by the sea in the sun. The trip was the department's way of saying "thank-you" to the year 3 cohort

for a 100% response rate in the NSS (National Student Survey).

To many of us this trip was a first. Most had never been to Brighton. We boarded our train at London Bridge station and one hour later we were by the sea. It was a lovely, sunny day and everyone was in high spirits. We began by exploring the open market and headed to

the pavilion gardens. But soon we proceeded to the seafront in search for fish and chips (a vegan option was available!). To be in the sunshine, chatting and laughing so casually with the same people I had sat with in Gordon square on those cold, rainy and snowy winter days was quite surreal. As an iBSc student, I only spent a year at STS, but the bond I had with these students was so strong and I could not imagine not having classes with them any longer.

Having found a spot that was not too crowded we settled down to eat. As soon as we opened our cardboard boxes of fish and chips, a couple of seagulls swooped down a few feet behind us, observing and watching us in case we were to drop something. As we ate, we talked about the year we had, our upcoming summer and about everything really.

"It's great to be a part of a kind student community," Theresa, an iBSc student, commented. We all agreed that we really enjoyed the warmth of the department. A couple more gulls flew down to join us, getting intimidatingly close to us. It felt like an attack, and we all worked hard to shoo them away. Thankfully, no people or gulls were hurt, and no food was stolen.

Then came the time of saying our goodbyes. These people with whom I had shared almost every day this year were all going in different directions. This moment in Brighton was the perfect way to round off the year, with the sunny STS cohort. We will never forget our year in STS.

Student rep

Each year, students in a group elect a representative among themselves. The role of this student rep is to liaise between students in this year group and the departmental staff. Each term, student reps collect feedback from their colleagues and take part in the Staff-Student-Consultative-Committee (SSCC) during which staff can hear from students about their experience on the programme.

Student reps also have a key role in animating the student community in the department. Andrea Lekare, student rep for year 3, was nominated the MAPS

Growing with STS – a conversation by the sea

As year 3 STS students were in Brighton, they sat on the beach and talked to Sarah Jasim about the highlights of their three years in the department.



The end of the year is such a golden and joyful time as we reminisce and think about the journey we have been on this year before we go our separate ways for the summer. It is also a time to kick back and feel relieved that we got through the year. However, it is also a particularly emotional time for those graduating. At STS, we were so lucky to have an end-of-year trip to Brighton so all of us leaving could get together (maybe for the last time) and reflect on our time at STS.

I talked to Andréa and Michael, both studying Sociology and Politics of Science and now graduates. We talked about their experience at STS, having been active in the department for three years. They described their journey in STS that started in 2020. It was a dark and uncertain time. They recalled not knowing what to expect of university, this being their first ever university experience, which is hard enough without

a pandemic making things a lot harder. However, they expressed their gratitude to the department and the staff that were so helpful in delivering good teaching and maintaining a community feel to the department, despite things not being in-person. Whilst of course it was not the easiest journey, as every degree puts on a lot of academic pressure, the two felt that the staff were immensely helpful in getting everyone through the challenges of university.

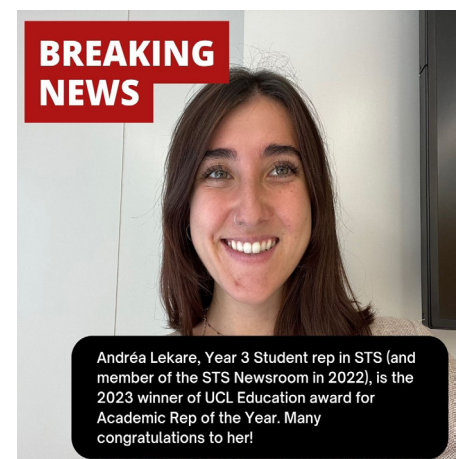
I asked them both to recall some highlights from their time at STS. There were many but Michael particularly enjoyed going on a field trip to the Natural History Museum for his Science and Evolution module. He noted he found it fascinating how it was linked to his other modules.

“The STS Garden parties have been amazing,” Andréa said. The STS Garden parties at the beginning of the year are the place to be, as you can spend time with other students

and staff in an informal way, in Gordon Square, and really get to know each other. “But I would say the people of STS have been the highlight,” she added. There really is no community as close and cosy as STS. The department is small, and it is easy to get to know everyone. It is something that

stands out. “I have definitely grown with STS.” Andréa said it feels unreal that her degree is over. The day she says goodbye to STS is a lot more emotional than she thought it would be.

Andréa and Michael are now moving on to start their careers and both feel ready. STS has taught them to approach situations from different angles, looking at different perspectives. They are excited for the future.



Andréa Lekare, Year 3 Student rep in STS (and member of the STS Newsroom in 2022), is the 2023 winner of UCL Education award for Academic Rep of the Year. Many congratulations to her!

Debating in Hanoi



STS students Izzy, Sam, and Mandy (R) with Dr. Billy Wheeler (L), who taught philosophy of science in STS in 2016-17 and was the main organizer of the debate competition.

In early May this year, a team of three STS students went to Hanoi, Vietnam, where they took part in their first ever international debating competition. Mandy was part of the team and reflects on this surreal experience.

Having a Science and Technology Studies (STS) degree is an extremely versatile tool to have in one's toolbox in the twenty-first century. I rediscovered this in Hanoi, Vietnam, where I attended my very first debating competition at VinUniversity.

The university, having only opened in 2018, has yet to see off its first graduating class. It is a private, non-profit university owned by Vingroup — the largest company in Vietnam.

By the serendipity of a few well-timed emails, the connection to a VinUniversity professor that



We arrived at VinUniversity on a hot afternoon. Immediately, we were blown away by the city and the campus.

previously taught in our STS department, and a couple of curious twenty-somethings, I suddenly found myself on an all-expenses paid trip to Hanoi at the beginning of May

Of the 14 participating schools in the debate, most were from Vietnam, with a few from Thailand and Singapore. We were the only Western university to attend. The participants represented even more countries, from the Philippines to Nigeria and Australia. They were an incredibly smart and friendly group, with degrees ranging from law to linguistics.

In Hanoi, I joined my teammates Sam and Izzy — two fellow STS medical students in the iBSc program (see page ___ to find out more about iBSc). Together, we formed a team, despite having no debating experience. The general theme for the competition was: "Making changes for a sustainable future." In other words, the great puzzle of our generation.

Our first debate was on the timely

topic of AI regulation. Our team argued in favour of implementing a moratorium on the development of AI more powerful than ChatGPT 4. Not only is this topic one of the most pressing issues of the day, it is also one that fits snugly in the realm of STS, involving consideration of both science and the humanities, technology and ethics and history. Our degree came in handy!

In fact, this was true of most of the topics explored in the competition, which also happened to be some of the biggest question we face as a society today. Should we prioritize nuclear fusion at the expense of other sources of sustainable energy? Should there be a focus on technological solutions to climate change rather than decreasing consumption? Should social media



Just about to begin our first debate, bright and early in the morning!

companies censor disinformation, fake news, and hate speech? Should the use of ChatGPT and all related AI in university assessments be banned?

Some topics were more out-of-the-box: Is it impossible to have a genuine romantic relationship with a robot? Is CGI killing cinema? All these questions involved scientific, social, political, historical and philosophical considerations — all of which are aspects we look at in STS.

Besides attending engrossing debating sessions, VinUniversity also treated us to trips to the local beach in the evenings, and a visit to Ha Long Bay, the famous UNESCO World Heritage Site. The debate never really stopped — wherever we went, fun, lively debates danced their way into casual conversation.

What I got from taking part in this debate competition

Although we didn't place in the competition, we were happy with what we accomplished in a mere two days. Having jumped head-first, into the deep end, with a rather energizing dose of imposter syndrome, we finished the competition gaining the confidence of knowing that we improved significantly from the first to second debate, as a few of the judges told us.

Sitting in on the debates of my fellow competitors, I was reminded of a lesson in one of my first seminars with Professor Emma Tobin at the start of the term. We had analyzed key passages of Plato's Gorgias (the 2022-23 STS1Book) in which Plato argues that rhetoric, or the art of persuasion, can be an eerily powerful skill:



An evening party on an (artificial) beach to relax after a long day of debating.

A rhetorician is capable of speaking effectively against all comers, whatever the issue, and can consequently be more persuasive in front of crowds about... anything he likes... A rhetorician, then, isn't concerned to educate people... all he wants to do is persuade them... [Rhetoric] comes across as something supernatural, with enormous power.

Debate is all about rhetoric. We are far from experts on the topics which we are required to argue, yet the powerful convictions of a logical and practiced debater can easily convince an audience otherwise, even if they may not believe or know very little about what they are talking about.

Being right and having the relevant expertise is then, simply not enough to solve the world's problems. What is equally, if not more important, is how information is being communicated to and received by the audience (see page 13 for more about science

communication as taught in STS). As we engaged with students from all over Asia, we were practicing not only rhetoric, but critical empathy. A key criterion of a strong debate was effective engagement with and rebuttal of the opposing team's arguments. This requires listening closely, to be able to identify the core logic and relevant details of the opposing argument.

In his speech for the opening ceremony, VinUniversity's founding provost Dr. Rohit Verma quoted Harvard biologist E. O. Wilson: "We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely."

An STS degree, interdisciplinary in nature, creates synthesizers who can procure wisdom from the past and across many intersecting fields to make invaluable contributions to our science-centric, technologically-dependent world. Izzy agreed that participating in the debate only strengthened her belief in the value and timeliness of an STS degree. VinUniversity will be holding this debate competition again next year, and UCL has been invited to return.



STS student Mandy, listening to a point of information (POI) from the opposing team and preparing to respond to their counterargument.

Chinese New Year celebration

This year, STS students celebrated Chinese New Year in style. Charlie Beeston reports...



On Thursday 19 January 2023, the STS first-year Lead Rep, Sophie Bush, organised and conducted a celebration of Chinese New Year. 100% student run, the event drew around 40 students from the department.

Speaking to Sophie, her motivations were simple: she wanted to make international students in STS feel more at home. 'I wanted to do something for the Chinese international students to make them feel more integrated in the department' she explained.

Of course, a celebration needs a buffet, so the guests could enjoy tables covered with cakes, snacks, and traditional Chinese foods. Many students also brought in their home-made delicacies which very quickly disappeared.

The evening was replete with entertainment. Everyone took part in general knowledge quizzes on

Chinese culture. Or students could guess on a map of China put on the board which provinces, cities and districts their friends were from. All guest also received a handmade red envelope, courtesy of Sophie. These traditional envelopes signify good luck and wishes.

Yi "Christian" Zhang, who attended the celebration and won the Kahoot game, told me that it was his first time celebrating Chinese New Year

abroad. He said that it felt strange but the people in STS made him feel proud of his country.



STS Lead Rep?

A lead representative is a student who helps bridge the gap between students and the department. They attend committee meetings and communicate any thoughts and ideas from students. Each year in STS has one Lead Rep who has been elected by the students.

Charlotte Leigh: A Gold Medalist Hopeful

STS students have a life outside of their studies. Here Alchemy's Mandy Huynh sits down with Charlotte Leigh, a second-year student in the Sociology and Politics of Science degree and a Team GB sailor, to discuss her impressive balancing act.

Charlotte recently finished her second year as a BSc Sociology and Politics of Science student in STS. Charlotte is also a competitive sailor aiming to win an Olympic gold medal in Los Angeles 2028. I was lucky to catch her on a quiet Sunday afternoon, a day before she would leave London for the coastal town of Weymouth in southern England for another week of training.

As a member of the British Sailing Team, the most highly decorated national Olympic sailing team in the world, she trains year-round. Currently, she is training on the 470 dinghy (a “class” or type of boat) as part of a two-person mixed gender team.

Charlotte explains that contrary to popular perception of just “chilling” on a boat, sailing can be, technically and physically, incredibly challenging. “There’s so many uncontrollables in the sport, so you’re constantly looking to really nail down what you can control, which are things like your maneuvers, your communication with your teammate, your physical fitness.”

“It’s weird, because as a human, I don’t like uncertainty. I quite like to know what I’m doing. But I enjoy the challenge now. No two days are the same.”

She was first introduced to the sport at a summer camp when she was 12. A string of top placements on multiple World Championships since then is what got her “hooked” to pursue the Olympic dream. “I am annoyingly competitive,” she admits. “At the end of the day, I like to win.”

When she is sailing, she enters a flow state characterized by a series of “snapshots” of perfect moments — surfing the perfect wave and in complete “harmony and balance with the boat and your teammate.”

On top of an intense training schedule, Charlotte is also a full-time star student at UCL winning the STS Joan Beauchamp Proctor Prize this year, which is awarded to the top second year STS student. She was also the second year STS

for the Paris 2024, she plans to take the year off school to focus on sailing.

In fact, most competitive sailors around her age either train full-time, or at least choose to go to a university that is closer to the South. In her quest to prioritize both her education and sailing careers, Charlotte is an outlier. It may make things more difficult, but she does not regret her choice one bit.



student rep.

As all students know, juggling priorities can be an incredibly emotionally and mentally exhausting task. Charlotte does not pretend it is easy to balance the two very different worlds of academia and sailing. Although the STS department was quite accommodating with deadlines for submissions of her assessments throughout the year, “This year has been really hard, to be honest,” she admits. “I feel like I did both to a sort of lesser degree.”

As someone who is driven to apply one hundred percent of herself to everything she does, this makes the balancing task even harder. Since next year is the last qualifying year

She perseveres with an unrelenting drive and allows each world to enrich the other. STS taught her to constantly question everything, even the fundamentals, with open curiosity, which comes in handy as she learns to master a highly technical boat like the 470.

Charlotte is thinking about doing her third-year dissertation on the environmental impact of the sport, aware of the carbon emissions caused by the frequent travel required to attend competitions around the world.

With an interest in science communication, she plans to one day explore this path beyond the Olympics.

Writing the dissertation: A passion project

As the STS Newsroom was starting to meet at the end of April, Year 3 students had just finished writing their final year dissertation and were about to submit it. The dissertation, a 10,000-word document, is the high point of a degree in STS, and is often intimidating. Here Sarah Jasim meets up with Hareya, from the iBSc in History and Philosophy of Medicine, to learn more about her experience researching and writing her dissertation.

The final year of a bachelor's degree can be scary, with the idea of a 10,000-word paper to write. It is longer than any essay done before and what could you talk about for 10,000 words? But writing a dissertation is a chance to explore a topic you are passionate about.

Hareya is studying for an iBSc in the History and Philosophy of Science and Medicine. Passionate about how arts and science can work together, researching and writing her dissertation turned out to be quite a journey. Her research project looked at the interplay between surgical training and the artist's gaze in influencing the art of Henry Tonks (1862-1937), a painter from the late 19th and early 20th century who first studied medicine and practiced as a surgeon, before turning to the arts.

"I'm very interested in art history, and this was a nice way of linking together three elements—art, medicine and history," she says.

The trickiest part when researching and writing a dissertation is to remain focused on the question.

The volume of primary research that could be carried out into

Tonks seemed overwhelming.

But Hareya's supervisor, Dr Chiara Ambrosio, helped her work out a research plan and structure her dissertation.

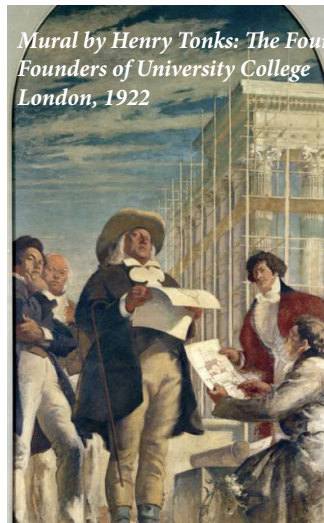
At first *The Life on Henry Tonks* (1939), a biography of the artist by Joseph M.

Hone, was the most comprehensive and useful source as it cited much of the primary material that Hareya later had the chance to look at for herself. For example, referenced a lot of Tonks' correspondence. This

motivated Hareya to read the full versions of these letters, with the hope of getting a better grasp of Tonks' thoughts and opinions.

She received funding from STS to support her archival research. And off she went to visit The Glasgow University Library Archives collections to look for the letters between Henry Tonks and his friend, arts critic Dugald Sutherland MacColl. Spending a day in Glasgow she could read through all the letters. But she also took the time to enjoy herself and explore the Scottish city.

A dissertation is special as it provides students with the space to focus on a topic they enjoy, and to share that passion in the paper. To Hareya, her dissertation is just a beginning as she intends to research Tonks' work further.



PhD and MPhil dissertations completed 2022-23

Bossoh, Nathan (2022) *Science, Empire, and Polymathy in Victorian Society: George Douglas Campbell, The 8th Duke of Argyll* (PhD).

Brown, Joseph (2022) *The Land Experiments in Colour Vision - Colour as a Physical, Phenomenological and Synthetic Object* (MPhil).

Dadaian, Anna (2022) *C.G. Jung's Psychological Types: A History and Philosophy of Psychology* (PhD).

Griffiths, Jonathan (2022) *Soul, Cosmos and Mathematics in Plato's Timaeus* (PhD).

Guzmán Gámez, Santiago (2023) *Science for Colombia: scientific nationalism, and the case of Enrique Pérez Arbeláez 1929-1957* (PhD).

Memon, Rakhshi (2023) *Ethical issues in randomised clinical trials for adolescents who self-harm: The limits of equipoise and evidence in the cultural context of Pakistan*. Doctoral thesis (PhD).

Weil, Benjamin (2023) *Bad Blood: A Critical Inquiry into UK Blood Donor Activism* (PhD).

STS New Science Communication MSc off to a great start

As the first cohort of STS new Science Communication MSc is about to complete their programme, Jean-Baptiste looks back on a fantastic first year for the degree.

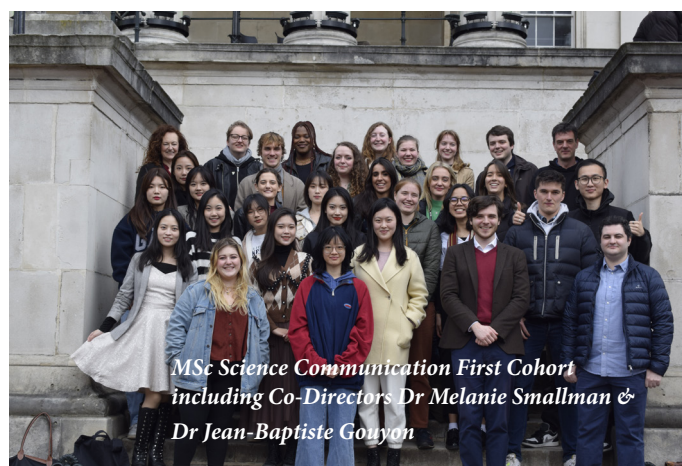
The first cohort of students in the new STS Science Communication MSc will go into the world at the end of September. Some are already in internships—Obomate is social video intern at *New Scientist*—or have been shortlisted for a job interview. Megan, Grace, and Dominic have launched their own podcast, *Science Refresh*. By any standard, this first year already feels like it has been a success. Many promising projects are under way.

Let's rewind back to October 2022. At the start of academic year, 35 students had enrolled. Their first class was with Helen Pearson (see p. 19), for the course Practical Science Writing. With this practical module, students learned the rules and methods of effective science writing from one of the best. Helen received the award of science editor of year in 2022 from the Association of British Science Writers. Throughout the year, and the successive anonymous feedback surveys Megan, the Student rep, ran with the cohort, this course has consistently remained one of the students' favourites. One student said: "Practical science writing was my favourite out of every single one. While I do not plan on being a journalist, every concept was applicable to science writing and writing in general."

By the end of the first two terms of the academic year, on top of writing skills, students on the Science Communication MSc had learned about podcasting, video making, digital media. They also discussed in class such issues as the global

reach of science and the political consequences for science communication, how science communicators can work for social justice, or how they can promote diverse publics' engagement with science. One student summed it up saying "overall it was very positive. The range of teachers and mix of industry and academic experience worked really well."

But all did not happen only in the classroom. In the first week of term students were treated to an exclusive tour of the BBC's Broadcasting House with Jack Bootle, the Head of Commissioning, Science & Natural History at BBC. Throughout the year, a group of seven students teamed up to organise a series of lunch time talks with science communicators. One highlight of the series was the talk by science broadcaster Adam Rutherford. Another the talk by Paul Franklin, visual effect supervisor on such high-profile blockbusters as *Interstellar* (2014), or *Inception* (2010), on his collaboration with scientists and filmmakers to create visual representation of sometime very abstract scientific concepts. And at the end of term 2, Megan, the student rep, with Dominic and Grace, organised a networking event for the whole cohort to meet with the science communication



MSc Science Communication First Cohort including Co-Directors Dr Melanie Smallman & Dr Jean-Baptiste Gouyon

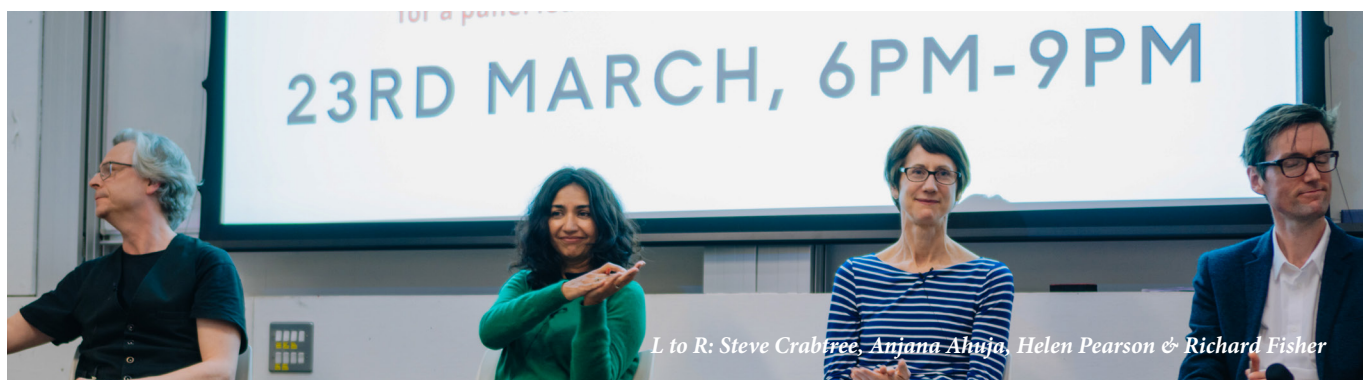
community (see p.14). As another student stated at the end of term 2, "in general, it was a great year. I particularly appreciated the talks and networking opportunities with people in the field."

At present, the science communication students are all busy with their final projects. Some are preparing short documentaries, others sensitization campaigns about the environment, while a few chose to write a research paper. We can't wait to see what their next move will be. But it is certain that they are off to remarkable achievements.



Megan, Grace & Dominic's Podcast can be found on Spotify

Sci Com MSc Networking Event



L to R: Steve Crabtree, Anjana Ahuja, Helen Pearson & Richard Fisher

To mark the end of teaching, and before embarking on their final project, students in the Science Communication MSc organised a networking event for their cohort to meet with professionals in the science communication community. Charlie Beeston reports

On 23 March 2023, students from the first cohort of the Science Communication MSc organised a panel discussion and networking event. The idea came from Megan who had originally asked Jean-Baptiste, the co-director of the programme, what could be done to organise a careers networking event to build connections between students and professional science communicators. “My intentions were to get our faces recognised and start making those contacts for the future” she told me. Jean-Baptiste was supportive and suggested the format of a panel discussion. He then encouraged Megan to organise it, giving her a few contacts and a budget. So, Megan assembled a small team of students. The group met up every week, sent emails to potential panellists and got help from the department.

After several weeks, four experts had agreed to take part in the panel discussion: Richard Fisher from the BBC, Helen Pearson from *Nature*, Steve Crabtree from the BBC, and Anjana Ahuja from the *Financial*

Times. Helen and Richard were already familiar to STS as they teach modules to science communication students in science writing and digital media skills. Steve, now a senior editor at the BBC, had been for five years the Editor of BBC science series Horizon. Anjana is a columnist for the *Financial Times*, where she writes on science and society topics. With these four accepting the invitation, a date was set in stone and an event could be arranged.

Dominic, one of the students organising the event, was to present and chair the panel. The student had chosen as a starting point for the discussion Richard Fisher’s 2022 paper in the journal *Public Understanding of Science*, “the translator versus the critic” which explores some of the main challenges facing science communication in the 21st century. Scientific misinformation, decrease in public trust, and the diversity of online sources were among the topics set to the panellists. But other issues also came up such as impartiality, the balance between entertainment and information, or how media economics influence science communication. The four panellists, all senior practitioners in their trade, offered a dynamic and informed discussion. One of the panellists, Richard Fisher, afterward said that he

had been impressed by the quality of the organisation and of the debates, with special mention to Dominic for his role as chair.

Following the panel discussion, the panellists, and the 60 strong audience, science communication students and professionals, mingled around drinks and nibbles provided by the STS department, to continue the conversation. The event was a success, good connections were made. “The first time I looked at my watch it was already 10 in the evening! One hour after the scheduled end of the event!” exclaimed Grace, one of the students who took part. Time had flown as participants were carried away by lively exchanges.

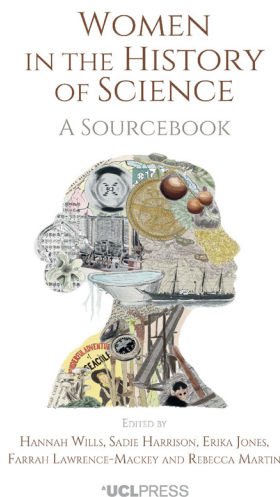
As Grace sums it up, “this event allowed us to learn more about careers in science communication, and at the same time it was a chance to celebrate our year as a cohort. We are the future of science communication!”



Dominic Sorrell

Women in Science Book

5 PhD students in STS teamed up and published a new sourcebook, *Women in the History of Science* (UCL Press, 2023). Haes Chung sat with them to find out more.



In March 2023, a new sourcebook titled *Women in the History of Science* came out of UCL Press. The editors of this collection of primary sources from 1200 BCE to the twenty-first century are five former STS PhD students - Hannah Wills, Rebecca Martin, Erika Jones, Sadie Harrison, and Farrah Lawrence-Mackey. The sourcebook, divided in 12 epochs from “Ancient ways of knowing (1200 BCE- 900 BCE)” to “Embodied female Experience (1965 – present)”, celebrates well known female figures in the history of the sciences, such as Hypatia of Alexandria or Rosalind Franklin, and anonymous ones, as in the chapter on “Women in Portuguese Archaeology” or on the “Unnamed working-class woman: Handwritten family recipe (1980s).”

This collective adventure started off in the STS common room in 2018. Casual conversations about their teaching among Hannah, Becky, Erika, Sadie, and Farrah led them to realising that they all

shared frequent questions: “What about the women? What about diversity?” Even well-known women in the history of science still are not included in the curriculum. From this basic realisation, they decided to act, and provide STS staff and students with a more diverse, representative book. According to Becky, the sourcebook was made with teaching in mind, aligned with the way that history science 101 courses are taught: “The idea was that lecturers who don’t have expertise from the ancient period to now, could pick up this book and incorporate things from experts in each different area into their teaching.”

The five years leading to publication were a rocky road with a series of major life events such as career changes, operations, and even giving birth. Several evenings after work and weekends were sacrificed. Gathering the primary sources itself took several years. Then came the time to edit, solve copyright issues for all images, and organise the material in different sections. This took a lot more work than anticipated. “People often don’t want to do it because it does take a lot of time,” said Becky. Yet, the collaborative teamwork allowed them to persist, like in a relay race. If one team member had other pressing commitments, the rest of the team would share the work and chip in. The team met regularly to set small bite-size work for each week. According to Becky and Hannah, it was like the “Sisterhood of the travelling pants” as each gave input and passed it around to ensure everyone was happy. “If anything,

we’ve learned that we’re going with a good group of people,” said Hannah.

This achievement not only shows collaborative work between the five women but also within the STS department and the whole History of Science community. The STS department funded the copyright for some images. STS staffs, such as Professor Joe Cain and Professor Simon Werrett were a great support through funding and advice to help connect to the Press and other scholars. Other STS staff (Profs Andry Gregory, and Frank James) also contributed short pieces for the book. Furthermore, outside the STS department, more than 50 History of Science scholars worldwide contributed to providing sources and explanatory essays.

Hannah and Becky wish this book to be used as a roadmap, demonstrating a starting point to explore students’ interests and for lecturers to use it as a further guide to enrich their classes. Diverse types of sources from a wide range of periods will help broaden the idea of what science looks like. Yet, the five editors also wish the book to be the beginning of a legacy in liberating the curriculum to more diversity. They wish students and staff to be encouraged to explore their interests; raise questions and challenge the sourcebook. “We really want other people to be inspired by this book and seek out other women and other untold stories.”

Download your copy www.uclpress.co.uk/products/211143

‘Change the narrative.’ A workshop for Black History Month

To mark Black History Month, STS PhD student Rokia Ballo and STS staff Dr Jenny Bulstrode went to a London Secondary School where they ran a workshop on racial inequalities in science. Charlie Beeston talked to them.

In 2021, the Royal Society released a statement stating that the inequalities in science had simply gotten ridiculous. Scientists from ethnic backgrounds were facing an increasingly hostile environment. It was not simply enough to provide evidence of racial inequalities; the narrative surrounding black scientists and engineers had to change.

I spoke to Rokia Ballo – a PhD student in STS and the co-chair of Science London, and STS staff Dr Jenny Bulstrode, who together organised a workshop on race inequalities in science at one of London’s schools where many students receive free school meals. To set up and run the workshop they received assistance from the Access and Widening Participation office at UCL (University College London), and from year 3 student rep Andrea Lekare.

Their starting point was secondary school pupils’ assumptions about scientists. Rokia explained to me that it is important to not underestimate how much your audience knows, so she began by asking what the students knew about black engineers and scientists



Rokia Ballo & Andréa Lekare with some of the students

and what they thought a typical scientist looked like.

She challenged these pre-existing ideas by telling them the unjust story of Henry Cort. He was a white British enslaver who has been celebrated for developing a metallurgical technique that played a key role in the industrial revolution. However, he stole and patented this technique from black Jamaicans. Students played a mission-based activity game where they interacted with each other to get the full narrative of the innovation and the theft. “We were telling these school children not a very happy story. But we were also saying: This gaslighting that you have experienced? It is historically true and do not ever let that get in the way,” said Dr

Bulstrode.

Students were then provided with resources to make posters on black scientists and engineers. They presented their findings to their peers.

The responses were overwhelmingly positive. Students said that they enjoyed “engaging in oral history,” seeing their own “subconscious prejudices” change and expressing their knowledge freely. Dr Bulstrode was astonished. “I had no idea that it would have that much of an impact,” she told me. Rokia, on her part said that it was great to hear and learn about the students’ experiences and to understand how much this event meant to them.



Rokia Ballo with some of the secondary school students

SCIENCE LONDON

Science London is a collective promoting Equality, Diversity, and Inclusion work in science communication. They run workshops on science and science communication that focus on increasing awareness of social responsibility among scientists and science communicators. To find out more about Science London:

<https://sciencelondon.uk/>

A journalist, an author and now a teacher with STS

Helen Pearson

A journalist, an author, Helen Pearson is also one of the teachers delivering practical modules to the students on the Science Communication Master's at STS. Her module is Practical Science Writing. Haes Chung talked to her to find out more about being a science journalist and teaching science communication.



My first impression of Helen Pearson was of a thoughtful and charismatic person. A science journalist and Senior Editor at Nature, she is also an author and now a lecturer teaching Practical Science Writing to Science Communication Master's students at STS. Aware of all her accomplishments, I felt intimidated but also curious, wondering how one can wear so many hats at once. She smiles, "You just get very organised. Let's put it that way." Science, for Helen, had always been fascinating, from her undergraduate degree to her PhD in genetics. "While the PhD was interesting, I found it extremely narrow and specialised, and I think I've always loved moving from field to field, perhaps having more of the big picture of research which is much more what I do now." Helen was grinning while describing her love for science writing. Not only was the

comprehension of a global research community enjoyable. But science writing allowed her to bridge the two seemingly contrasting fields of science and art: "When a concept of science is so beautifully communicated, it becomes interesting in its own right."

Helen's philosophy of science communication is straightforward: "It should be entertaining and compelling and as well as informative," she explains. "I am not on a mission to drive people to become scientists." Instead, her aim, and hope, is that "they feel more informed as citizens by understanding some of the concepts which science has to teach. I don't want science communication to be patronising towards people." Science communication provides a space for the public to engage and take more initiative in what is happening in the world. "

Building on her vast experience, Helen provides a more practical teaching to the students on the Science Communication MSc at STS. "I want students to not just discuss theoretically how one finds a news story and writes it, but to actually do it." Her main piece of advice to aspiring journalists is to not be afraid to ask 'stupid' questions. "You've got to extract information from people and be able to write about it in a way that a wide audience will understand." Likewise, it is important not to

let the feeling of ignorance when confronting something new stop you: "The whole point of journalism is to go into something new and quickly be able to work it out and synthesise that information." Finally, adopting the readers' perspective is the most objective, accurate way of proofreading a piece of science writing. Therefore, being able to question one's own writing is a crucial skill.

Master's Students often single out her class as their favourite, Helen also had a delightful experience teaching them this year and sharing her passion: "It's fantastic to work with students who've got new, interesting ideas and a different way of seeing the world and to see how passionate they are." Helen showed so much pride in her students, confident that they would go on and do many exciting things in many different spheres.

The fire in her never seems to go off: "I've got a ton of things I want to write, actually." In her first book, "The Life Project" (Allen Lane, 2016), she tells the story, and follows the legacy of a unique and ongoing birth cohort study, started in 1946. The book she is now working on discusses evidence-based medicine and science. She looks at how we use science to make informed decisions. She wants her book to be "useful to people." "I do want to empower people" she says. To her, empowerment can come from being able "to ask for evidence behind unsubstantiated opinions or behind claims."

From Wall Street to STS: Saheli Datta Burton



Dr Saheli Datta Burton is the new Lecturer in Science Policy in the STS Department. Mandy Huynh sat with her to find out more about her, and her research.

“It’s complex, but super interesting and something I would not quit in 100 years,” says Dr. Saheli Datta Burton about her research

Saheli is one of the newest members of staff at STS where her research explores the power dynamics underlying emerging disruptive technologies such as Artificial Intelligence (AI). She teaches ‘Responsible Research and Innovation’ (RRI), which essentially asks the question: “What is the responsible thing to do to ensure that these disruptive technologies we are developing in our research laboratories across the UK are more aligned with what society needs?” For example, this alignment problem is one of the key issues of AI (Artificial Intelligence) development. “Probably releasing [ChatGPT] in the wild would not quite fit into the responsible development category,” Saheli ponders. “Definitely not.”

Saheli’s path to STS began with a compromise. While she wanted to

develop her talents in studio arts, her father insisted on a degree that would lead to a more ‘secure’ career such as in finance.

The compromise was an undergraduate major in Economics with a minor in Art at New York’s Columbia

University

Yet, graduating in 2009 in the wake of the global financial crisis thwarted the golden promise of a ‘secure’ investment banking position on Wall Street. She moved to London, intending to travel during her gap year before returning to the banking sector. But she stumbled last-minute upon a program at Kings College London’s (KCL) School of Social Sciences and Public Policy that offered funding an opportunity to study economics, but this time, through a more critical lens. “A year of immersion in the critical socio-political and economic considerations underpinning neoliberal expansionism in every sphere of our lives changed everything,” says Saheli. This was a surprising outcome, as she was there first-and-foremost as a tourist. But this relaxed mindset turned out to benefit her studies. “It gives you the opportunity to really listen to what’s going on, because you don’t have any of the worries of how do I find a job? I had the freedom to listen, ponder about things that intrigued me

Soon Saheli found herself fascinated by the power dynamics and inequalities underpinning the

political economy of technological development. “Wait, there’s something called neoliberalism? By going into banking I would have just added into that problem? Wait, let’s take a step back and think about this thing. What am I plugging into?” Her previous studies in economics had trained her on the foundations of the discipline but it had lacked the political dimension. She realized that economics was about more than graphs and theory; it was also about power and social implications. A career in speculative finance “felt increasingly uncritical and unreflexive.” Saheli decided to change tack and never looked back.

Staying at King’s College, she eventually earned a PhD exploring the political economy of emerging cell and gene technologies, funded by the UK’s Economic and Social Research Council. These technologies have implications on a global scale, and her PhD drew on the lens of everyday ‘micro’ -practices in clinics and laboratories to understand these, although surprisingly enough by 2018, I was studying more of ‘data’ practices and processes among developers of health technologies. As an Ethics and Society Researcher in the European Commission’s 100+ partner Human Brain Project.

At STS, Saheli’s research continues to explore the political economic and social implications of the increasingly converging worlds of clinical and data practices. “These domains are interdependent in ways that have profound implications for society, and in turn for STS. Making these interrelationships and their implications explicit is the focus of my current research and my next grant application.” Saheli embraces complexity.

Grant News

A Leverhulme research fellowship for Dr Gouyon

LEVERHULME TRUST

Jean-Baptiste Gouyon, Associate Professor in Science Communication at STS, has been awarded a one-year Leverhulme Research Fellowship, to start in October 2023.

This research grant will allow him to further his research into the history of wildlife filmmaking. His project this time will focus on the history of wildlife filmmaking in relation to the history of wildlife conservation. The key question he aims to answer is whether and to what extent wildlife filmmaking has shaped how we understand wildlife conservation.

This fellowship is essentially a

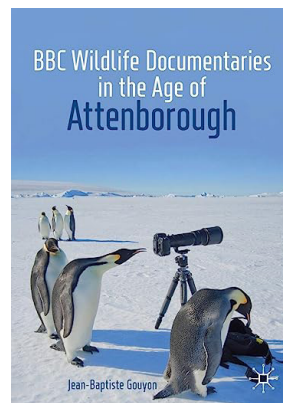
pot of money that allows the department to hire somebody to teach his modules while he devotes his time to research.

Additionally, it will pay for other aspects of research such as travel, food or staying in another city to visit an archive. Jean-Baptiste told me that he was “very grateful for the grant.” “I love teaching, but I need more time to concentrate on a big project with more freedom to move around and more headspace,” he said.

Jean-Baptiste’s previous book, *BBC Wildlife Documentaries in the Age of Attenborough* (Palgrave, 2019)

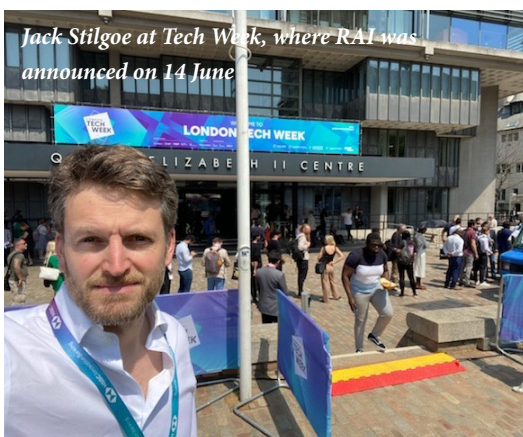
looked at the history of wildlife television. “Wildlife conservation was the big absent from my previous book. With this new project I want to frontally address the relationship between wildlife films and conservation and tackle the question of how the film medium contributes to the construction of wildlife conservation as a science.” Jean-

Baptiste's plan is for this new project to last 3-4 years and hopefully publish a book in 2027-28. The future looks exciting, and the grant certainly opens up a lot more doors for more ideas on the history of wildlife filmmaking and science communication.



Sarah Jasim

Professor Jack Stilgoe on the leadership team of a £31 million research project to develop responsible AI



Professor Jack Stilgoe from UCL STS is on the leadership team of Responsible AI (rai.ac.uk) a £31 million, 5-year initiative funded by UK Research and Innovation. This funding success was announced on 14 June 2023 as part of London’s Tech Week, when the Prime

Minister, the Leader of the Opposition and the Mayor of London all took to the stage to proclaim that artificial intelligence was both an opportunity and a threat. The aim of Responsible AI is to improve our understanding of the risks and opportunities of artificial intelligence.

“As a member of the leadership team on RAI UK, my priority is to democratise the debate, to bring public voices into a conversation that has been dominated by a small group of powerful experts,” Jack says.

RAI UK brings together researchers from across the UK to understand

how the development of AI can be shaped to benefit people, communities, and society. It is a multidisciplinary network, drawing on a wide range of academic disciplines. It stems from the conviction that developing responsible AI will require as much focus on the human, and human societies, as it does on AI.

The last six months have seen a mix of breathless excitement and panic about the potential for AI to change the world. AI systems are already being developed, tested and deployed in some irresponsible ways. Is responsible AI a contradiction in terms or is there hope for an alternative direction? Watch this space.

A Closer Look Inside the Horniman Museum

Academic communication goes far beyond unreadable monographs and journal articles. STS researchers use an extraordinary range of print formats as well as a surprising range of other media. I've recently been drawn to podcasting via WeAreSTS. I've also been drawn into photography and photo essays. By Joe Cain



One project I completed this year focused on the natural history gallery at Horniman Museum and Gardens. The Horniman is a modest museum of natural history and ethnology in Forest Hill, London.

It dates from 1901, and its “frozen in time” displays are particular favourites of mine for history of science. This year, I produced a series of image libraries for those exhibits, and these have drawn considerable attention online. Take a look (profjoecain.net/horniman).

I use photography to see elements I wouldn't otherwise notice. Perhaps I'm speeding through the hall. Or, I'm distracted by other things nearby. The frame of the camera isolates and, I think, amplifies. Some parts of the Horniman's displays are historically important. They reward close study.

I also love the technical challenge of making an image I like within the difficult environment of a busy gallery: working in low light, around lots of visitors, at funny

and bendy angles, and through lots and lots of reflecting glass. It feels obsessive at times. But I love being able to walk away with the feeling, “I got it!”



Embryology evolution exhibit

Putting a story together about the gallery drew me into some

unexpected historical research on the publishing wing of the museum and about the evolutionary ideas of staff curators. That work appears in a standard, dull journal article.

They are no substitutes for an in-person visit to the museum. Admission is free. It is a splendid experience. And the café is impressive, too.

Breaking News!

News just in from UCL. We have five staff promotions this year:

Chiara Ambrosio to Professor

Carina Fearnley to Professor

Charlotte Sleigh to Associate Professor

Noemi Tousignant to Associate Professor

Cristiano Turbil to Associate Professor

This is a great set of results, and we hope you join us in sending our congratulations.

STS wins the Athena Swan Bronze award



The STS department's ongoing efforts towards gender equality have been recognised. Haes Chung talks with Professor Phyllis Illari, who was part of the team who produced the department's application.

UCL Science and Technology Department (STS) received the Athena Swan Bronze Award in March 2023. The award is for departments committed to advancing gender equality within higher education in the fields of science and technology.

Professor Phyllis Illari was part of the team who wrote the department's application for the

award. To her, awards like the Athena Swan have made a huge difference to the place of women in academia. When she started her PhD in Philosophy in 2000, the department was heavily male dominated; only a few authority figures were women. "That can make things hard when people's idea of 'brilliance' is based on a man," said Phyllis, as she explained how 'support' roles, which are essential to a flourishing academic community, often fall on women and therefore are left unrecognised.

Eighteen years after completing her PhD, Phyllis, now a professor of Philosophy of Science at UCL, believes that the award is well-deserved: "There are a lot of excellent women at UCL, particularly in STS. The research atmosphere is absolutely wonderful, with many more women here, and not everyone is straight and white, too. UCL has made some serious

efforts to improve things." In 2019, UCL introduced a sabbatical term to encourage mothers to restart their academic careers and research. Also, UCL careers framework helped recognise and appreciate the 'support' roles, as an integral part of a successful academic career.

"There is still quite a long way to go for full equality," said Prof. Illari. "Women have only really been full participants in academia for a pretty short part of its history, and there are still a lot of norms that don't help them." The different gender roles still limit the amount of time women can spend on their professional work, disrupting their careers. Another issue is the gender pay gap. Yet, with the recent achievement of the Athena Swan Bronze Award, UCL and STS effort toward gender equality is promising

Professor Sarah R Davies: JBS Haldane Lecture 2023

The theme for this year's Haldane lecture was science communication. The Speaker was Professor Sarah Davies.

By Jean-Baptiste Gouyon

Professor Sarah Davies, from the University of Vienna, gave the 2023 JBS Haldane Lecture at the STS department. The event took place on 17 January, in front of a packed lecture theatre. Professor Davies is a noted scholar in science communication studies. Her lecture, asking "What societies does science communication make?" invited the audience to reflect on science communication's social, cultural and

political roles, and consequences. At the core of the lecture was the idea that science communication can play a role in co-opting science in fostering democracy and social justice. But also, Prof. Davies questioned whether current practices of science communication are actually democracy-friendly.

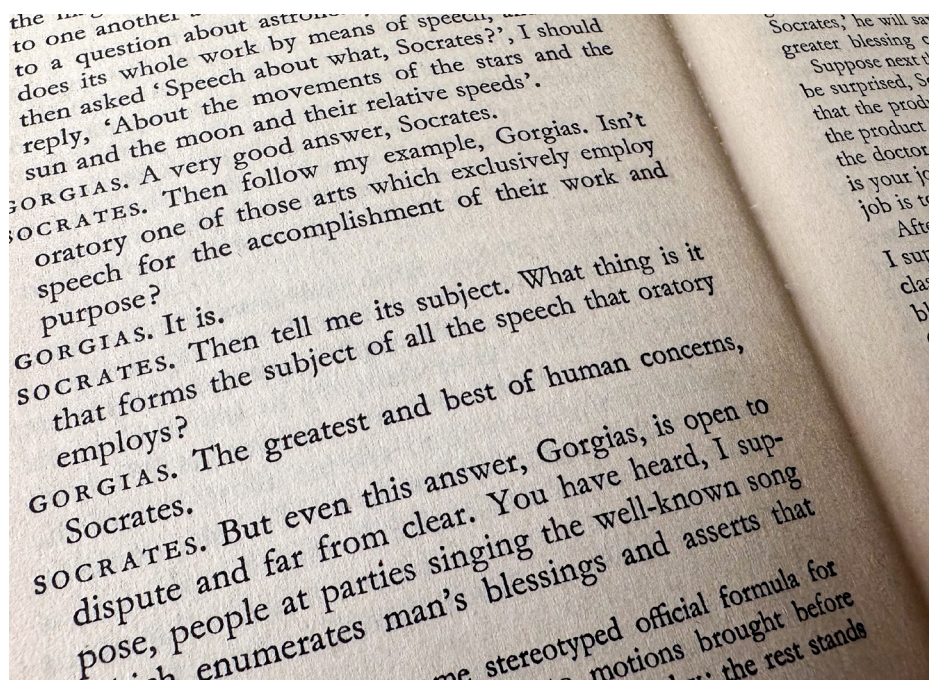
The timing of this 2023 Haldane lecture was perfect to mark the launch of STS new Science Communication MSc. Some of the key questions students in this masters degree debate in class are related to the core theme of Professor Davies' guest lecture. How can science communication be used

to promote social justice? What can science communication's role be in balancing power relationships in a globalized world?

The JBS Haldane lectures at STS commemorate UCL Professor JBS Haldane, a polymath not only in the life sciences but also in science communication and science policy. They are held every academic year, rotating through the department's different research clusters. They are free to attend and open to all. Haldane Lectures normally are published as part of the STS Occasional Papers series.

Coming together with the STS1Book

At the start of term 2, Andréa and Pierre, both in their third year, organised an STS1Book event. Sarah Jasim was there.



Early in February 2023, the undergraduate cohort got invited to take part in the STS Pitch competition. Playing as teams, participants had to argue on how an extract of Plato's Gorgias related to STS. The winning team would be the one making the most convincing case. The host for the competition was Pierre, an STS undergrad in his third year, and co-organiser of the event with Andréa, student rep for year three.

Plato's Gorgias was the 2022-23 STS1Book. A Socratic dialogue, it depicts a debate between Socrates and Gorgias about the nature and purpose of rhetoric, exploring the moral implications of persuasive speech, the nature of knowledge, and the importance of truth. All topics germane to STS.

The STS1Book programme is intended to foster cohesion between

students, to get people together and talking. This was the main aim of the February STS1Book event. Andréa and Pierre organised a pizza and drinks night and people could sign up to do a mini pitch of their interpretation of a selected passage from the book. This passage talked about communication and truth, debating if the word of a good rhetorician is better than the word of experts. The pitches were done in groups of two and each group had some time to prepare a speech, a skit, a presentation, or something to share their interpretation of the passage. It was a lot of fun, helping students engage with the book in a memorable way. On top of that the winners received £60 worth in Amazon vouchers. "It was important

to try and build a community after Covid," Pierre commented afterward.

The pitchers presented to the audience who voted for their favourite. The students loved the event, saying it was very good and brought everyone together. To Pierre, what made The Gorgias a good choice as an STS1Book, is that "although it consists of a lot of ancient philosophy, which is quite difficult to engage with, for the event we selected a fun passage and discussed it together to break it down and how we would go about presenting our ideas about the passage". Andréa agreed that the event was successful, and that "the more student-led events the better as the students can connect with each other and learn at the same time". They both concluded "We tried to make it fun, just an exchange of ideas."

Overall, we all had a great time, and it was a fantastic chance for students in STS to catch up with each other. This proved the STS1Book to be a great programme to bring cohesion among students and learn something at the same time!



Rewriting the history of the industrial revolution

3 questions to Dr Jenny Bulstrode about her latest research article, published in History and Technology, in Open Access.

What is your paper about?

76 Black Jamaican metallurgists, who developed a method of rendering scrap metal into valuable bar iron. But an English businessman stole this important innovation and patented it. It then became key in helping Britain become a global power during the industrial revolution. My paper retrieves the history of how the Black metallurgists developed this process for their own purposes, and engages with their practices, on their own terms.

What is your main conclusion /finding?

I show that people of African origin and descent in the Caribbean innovated to convert scrap iron into good quality metal. I also demonstrate how this innovation was stolen and patented in Britain. The millions of African people British human trade transported to the Caribbean built on knowledge of their diverse African heritages to develop new ideas and techniques that helped them resist British enslavers. Their innovations included turning iron chains and shackles into weapons; and feeding bundles of poor-quality scrap iron into sugar rollers to convert them

into good quality metal that could be used to make cannons.

Why does your paper matter?

It contributes to changing the narrative around innovation and the British industrial revolution. For too long Black people in STEM have been denied credit. This article details and celebrates the achievement of those Black metallurgists who developed one of the most important innovations of the industrial revolution for their own purposes.

Bulstrode, J. (2023). Black metallurgists and the making of the industrial revolution. History and Technology, 1-41. <https://doi.org/10.1080/07341512.2023.222>

Here's a selected list of recent publications. You can follow developments via UCL Discovery, browse by department.

Agar, J.; (2023) History of communications and the Congruence Engine: early thoughts and possibilities. Science Museum Group Journal, 18, DOI 10.15180/221806.

Agar, J.; (2023) Margaret Hilda Thatcher. 13 October 1925—8 April 2013. Biographical Memoirs of Fellows Royal Society DOI 10.1098/rsbm.2022.0036. (In press).

Ambrosio, C.; (2023) Drawing as a Pragmatist Visual Epistemology. In: Anderson, G. and Dupré, J., (eds.) Drawing Processes of Life: Molecules, Cells, Organisms. Intellect: Bristol, UK. (In press).

Ambrosio, C.; (2023) Diagrammatic Thinking, Diagrammatic Representation, and the Moral Economy of Nineteenth-Century Science. In: De Waal, C., (ed.)

The Oxford Handbook of Charles Sanders Peirce. Oxford University Press (In press).

Ambrosio, C.; Bella, M.; Boronat, N.; (2023) "Resisting: A Matter of Recovering the Past and Regaining our Future". European Journal of Pragmatism and American Philosophy, XV (1) 10.4000/ejppap.3210.

Dawson, E.; (2023) Social Inclusion. In: Mairesse, F., (ed.) Dictionary of Museology. Routledge (English) and A. Colin (French): London and Paris.

Fearnley, C.; Budimir, M.; (2023) The Core Pillar: Ensuring Success Of The Early Warnings For All Initiative. (UCL).

Gouyon, J.-B.; (2023) Documenting the Big Science: shifting landscapes from the 20th to the 21st century. In: Panagiotis, C. et al., (eds.) Big Science in the 21st Century: Economic and Societal Impacts. IOP Publishing Ltd: Bristol, UK. (In

press).

Gouyon, J.-B.; Sleigh, C.; Turbil, C.; Kohlt, F.; Nielsen, K.; (2023) Science Communication and Scientism: Historical Perspectives. In: Bauer, M. W. and Schiele, B., (eds.) Science Communication: Taking a Step Back to Move Forward. CNRS (pp. 385-396)

Kelman, I.; Alexander, D.; **Fearnley, C.;** Jenkins, S; Sammonds, P.; (2023) Systemic risks perspectives of Eyjafjallajökull volcano's 2010 eruption. Progress in Disaster Science, 18, DOI 100282. 10.1016/j.pdisas.2023.100282.

O'Donovan, C.; Caleb-Solly, P.; Kumar, P.; Russell, S.; Sumpter, L.; Williams, R.; (2023) Empowering future care workforces: scoping human capabilities to leverage assistive robotics. In: Proceedings of the first international symposium on trustworthy autonomous systems (TAS '23). ACM: New York, NY, USA. (In press).

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Haes Chung's Podcast titled "Films Exploring How Scientists Change Policy (But Often Fail)"



Charlie Beeston's Podcast titled "Maps Change How We Understand The World"



Mandy Huynh's Podcast titled "Promising potential for generative AI at university" Out Now!



Sarah Jasim's Podcast titled "Pinch Me I'm In A Simulation" Out Now!