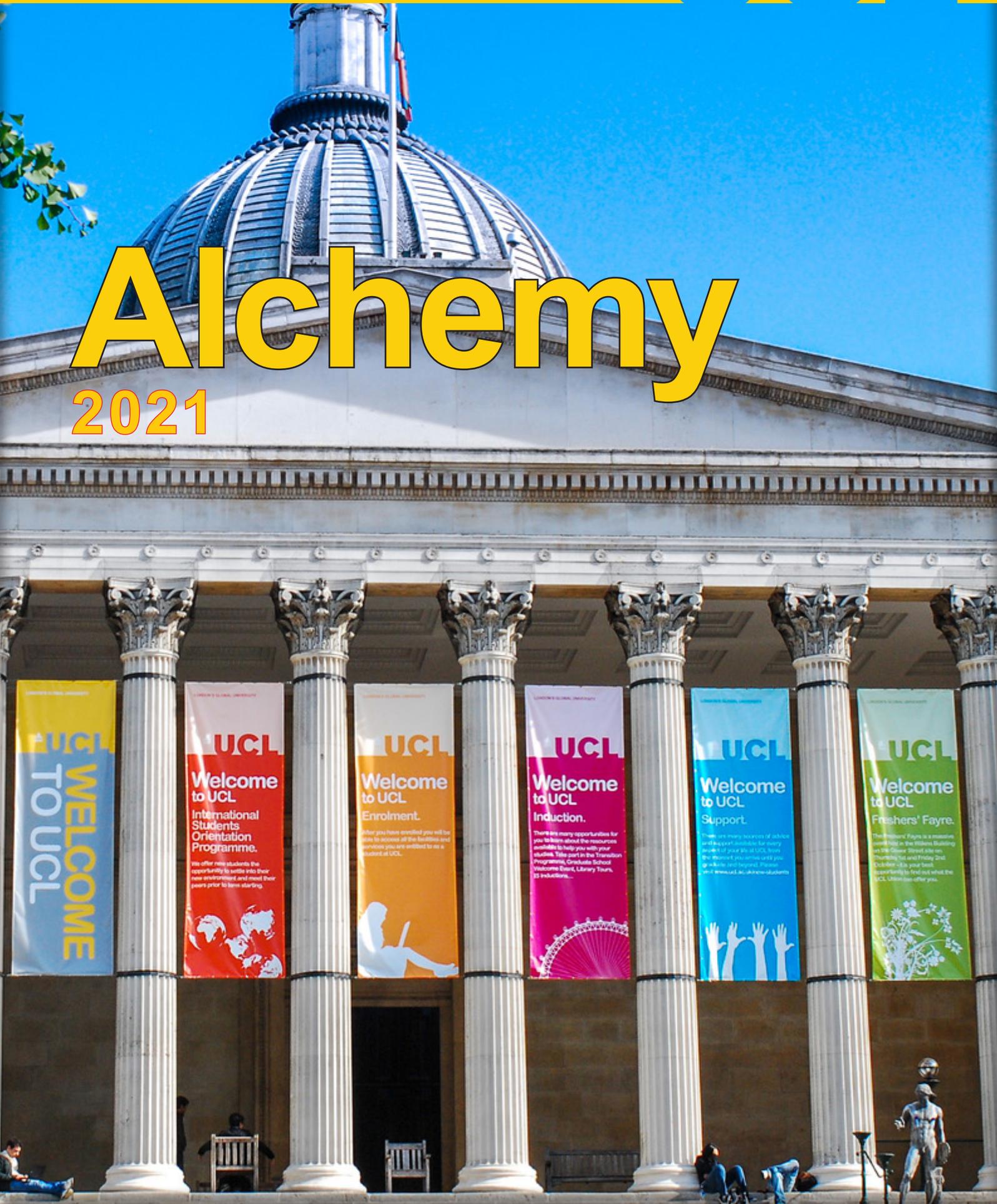




Alchemy

2021



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TO UCL

UCL
Welcome to UCL
International Students Orientation Programme.
We offer new students the opportunity to settle into their new environment and meet their peers prior to term starting.

UCL
Welcome to UCL
Enrolment.
After you have enrolled you will be able to access all the facilities and services you are entitled to as a student at UCL.

UCL
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Induction.
There are many opportunities for you to learn about the resources available to help you with your studies. Take part in the Transition Programme, Graduate School Welcome Event, Library Tours, IT Inductions...

UCL
Welcome to UCL
Support.
There are many sources of advice and support available for every week of your time at UCL. From the moment you enrol until you graduate and beyond, there will be several ways to get support.

UCL
Welcome to UCL
Freshers' Fayre.
The Freshers' Fayre is a massive event held in the Portico Building on the Gower Street site on Thursday 1st and Friday 2nd October. It's your best opportunity to find out what the UCL Union can offer you.

We are delighted to welcome you to this new edition of *Alchemy*. It has been a strange, occasionally traumatic, year. We're writing this at the end of Summer 2021. STS's home in 22 Gordon Square is eerily quiet. We are so looking forward to the beginning of the new academic year. If all goes well, we will be back on site, and the place will be buzzing again.

STS is the best subject in the world. In these pages of *Alchemy*, you'll see the sheer range of topics that get us excited. For example, you can read about some of the research conducted in the department around Covid-19. You also can read something about everything from governing the oceans to tomorrow's self-driving cars. Always with a critical eye and always alive to possibilities for making the world better.

Soon (hopefully) we will be able to share our conversations, our research, and our teaching together again. See you around!

Professor Emma Tobin and Professor Jon Agar
STS Heads of Department



Undergraduates

3 STS Graduate Profiles
6 Student Rep Makes
Big Contributions

MSc Students

7 Accelerating Advice
for Policy Makers
9 DeepMind STS Scholarships

PhD Students

10 And the Award Goes To...
11 Art Meets Propaganda
12 Fancy 'A Cup of PhD'?

Staff

13 From Ebola to Covid-19
14 Research UCL's
History of Eugenics
16 UK Pandemic Ethics
Accelerator
18 From Qantas to STS
19 Diversifying Voices in HoS
20 You Have Been Warned!

Department News

22 STS PhDs Awarded
23 JBS Haldane Lecture 2021
24 STS1Book 2020: *Human*
25 WeAreSTS Podcast
26 Teaching with Museums
During Pandemic
27 Connecting with
The Science Museum
27 Breaking News!



*Students in the STS Newsroom 2021 (clockwise from top left):
Chelsea Tripp, Jasmine Chakravarty, Lujia Zhang, Alex Hancock,
Odile Lehnen, and Franziska Link.*

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

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From the Editors

This issue of *Alchemy* is special. Its content has been written mostly by STS students as part of a new studentship programme, the STS Newsroom. For two months, Alex, Chelsea, Franziska, Jasmine, Lujia, and Odile have worked on the stories you'll read. They've developed the ideas, interviewed key people,

written, and re-written. Their goal has been to bring you a taste for the breadth and depth of activity in our community. These budding journalists have been a joy to work with, and we hope you enjoy the result. Thanks also to Gemma Milne for her mentoring.

STS Graduate Profiles

STS and Data Science: A Mighty Match for Rethinking Health Policy

Louis is interested in data, especially data about health. During his degree, Louis learned how health data has become incredibly valuable and how important it has become to ensure data is managed in responsible ways. Several STS modules helped him develop his thinking. For example, when learning about issues related to ownership of bio-information, he grappled with data handling and privacy in the private sector, such as for the DNA ancestry-testing company, 23andMe.

In his second year, Louis decided he needed some more numbers and code in his life. He started an online degree in mathematics and computer science, an extra skill set that provides him with technical knowledge. Combined with his STS perspective, this puts him in a strong position to approach urgent questions about data in society and to know the difference between sensible analysis and nonsense. Louis wants to contribute towards a more responsible and productive handling of health data.

After STS, Louis's next stop will be working as an intern for the Health Data Hub in Paris, a new governmental agency created to help organise the ecosystem of health data across France. The project aims to centralise medical data, making it attractive and accessible for researchers and enterprises. The hope is to foster medical innovation. However, with his STS background, Louis has seen this ideal before. He'll help the project develop ways to protect privacy and data



Caroline Draï

linked through a carefully designed democratic ethical system.

After his internship and additional degree, Louis plans to find a Master's degree that combines the skills he gained from both undergraduate courses, possibly a Master's in Data Science for Public Policy, like the one offered by Hertie School in Berlin. Although he keeps telling me he doesn't, it seems Louis very much has things figured out!



Louis Viard

A Happy Coincidence to be Continued

Caroline came across STS's website on a random online stroll. She liked what she saw. She applied. She got in. And here we are three years later.

Sometimes following intuition and doing what feels right can be just as good as a thoroughly thought through career plan. Looking back, Caroline smiles and says, "There's no logic behind it, but I really liked it". And after three years of hard work, a dissertation in the history of science and empire has been a highlight of her degree. She said it's been hard work but massively rewarding.

This summer Caroline plans to round off her STS experience with one of the STS summer studentships, researching when and why economics became news. The hope is to produce material for a conference presentation and a publication in 2022. After this, Caroline is planning to explore the real-world job market and gain more experience in science policy and science communication. Paris is likely to be her next destination.

Whilst keeping an open mind to opportunities that will present themselves along the way, Caroline can see herself returning to STS for a Master's degree not too far in the future. She says: "I don't really see how I could do better than here!" I think I can speak on behalf of the department and say that we will be more than happy to have you back.

Law and Emerging Technologies

Jaqueline has big ambitions. "Dream job-wise," she says, "I would love to work for a public interest group like the ACLU in the US or one of those pro bono law firms". At first sight, law might seem like a field entirely separate from history and philosophy of science, or even sociology and politics of science. However, as Jaqueline explained, there are strong connections between law and STS, and there is an urgent need for people who are well-versed in both.

Jaqueline wants to work at the intersection of technology, law and something in the public good. Her next step is applying to law school in the US. Jaqueline's interest in law developed through insights from modules like Professor Jack Stilgoe's module, "Governing Emerging Technologies". She realised how the speed of innovation often outpaces our understanding of emerging technologies and the laws that govern them. Jaqueline explains, "I think there needs to be a greater understanding of how these technologies impact our lives, especially because we all know technology isn't some kind of great equaliser". Rather, as STS research shows, new technologies affect



Jaqueline Hsing

different communities in different ways. They often have inequalities built-in or are introduced into societies in unequal ways. "I think I could use the perspective I have learnt in STS throughout these three years to approach law from that angle and maybe find a way to improve society or improve the way laws are created." Jaqueline is passionate about this combination of disciplines because working in technology and law means "working on the concrete changes that technology makes in the way we live our lives." Jaqueline is particularly interested in privacy and big data, a relationship she explored in her final-year dissertation on how facial recognition technologies impact every-day life. Growing up next to Silicon Valley, Jaqueline has had a close-up interest in the tech giants for a long time. This continues after graduation and well into the future.



Alex Hancock

Alex Against Environmental Injustices

Alex is not only interested in writing about socio-environmental injustices and environmental racism in the future, but he has already embarked on this journey. After writing an article about a case of exploitation of indigenous knowledge for his STS degree, these inequalities stayed with him. In French Guiana, members of the Kali'na and Palikur indigenous groups had found a plant with antimalarial properties that was then patented by a group of French researchers. In the end, the team benefited financially, whereas the indigenous population was left without any form of compensation.

"I remember learning about that and thinking wow – that is obviously very upsetting but really interesting". Alex is concerned about similar problems at home in Canada, where indigenous populations are facing a government that strategically positions landfills and garbage dumps near indigenous communities. This exposes people to possibly cancerous toxins and pollution. Alex is hoping to use his passion for writing to address such inequalities and inspire action. During his time at UCL, Alex has written for various university publications, and of course he's written for the very issue of *Alchemy* you are holding in your hands right now. For next year, Alex has applied to two Master's programmes at UCL: "Environment and Sustainable Development" and "Environment, Politics and Society". Alex reminds me that it's wrong to think that once your undergraduate studies are done, you'll know exactly what you want to do. As he finishes his

undergraduate days at UCL, Alex says he can see himself writing for NGOs and charities, or perhaps the UN Development Programme, in the future. Fingers crossed.



Elisa Mas

A Future in Film: Challenging the World

Elisa's journey shows how an STS degree can lead almost anywhere and to places you might never have expected. When she first joined the department, she thought she was signing up for a degree where she would primarily be doing maths and science. Three years of exploring the opportunities offered with STS, UCL, and London's vibrant art scene have taken her into a different, but surprisingly related, direction: film.

"My ultimate goal is to make docudramas." After responding to the question of "What do you study with a degree from STS?", the most frequent follow-up is something like, "Ah...sounds interesting – and what can you do with that?" "Film maker" is an answer most people don't expect.

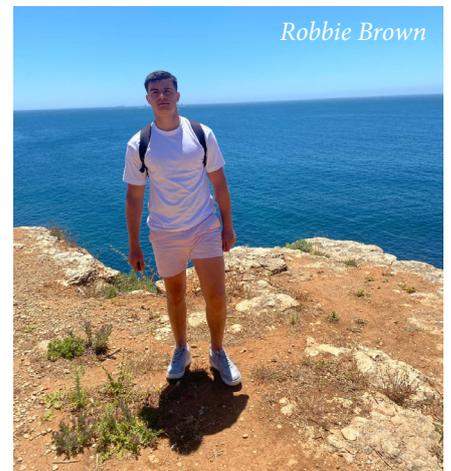
During her degree, Elisa discovered how this medium can be used in original ways to encourage critical reflection on the world. She said,

"STS helps you realise more what the world around you is, instead of just believing everything you see and read." She is passionate about the docudrama genre in particular, as it sits at the interface of fiction and non-fiction. In this way, it lends itself to exploring more than just the technical aspects of science. In the module, "Science and Film Production," Elisa explored the docu-drama genre in a film about the question: "Is there life in space?" She remembers this lent itself nicely to the genre – a scientific question with a metaphysical dimension that can currently not be answered conclusively. This leaves a lot of room for fantasy and imagination. Her next step is a Master's degree at Imperial College in "Science and Media Production". This will allow her to focus more on the practical side of film making, then hopefully entering the industry through a six-month work placement in a film production company.

Hands-On Impact Ahead

Before starting his degree in History and Philosophy of Science, Robbie spent a year working as a sales agent selling houses. Whilst he makes it clear that experience was not the time of his life, it led him to an important realisation: he wants to spend his life doing meaningful work, making real changes happen. That's the plan now he has finished his degree and is moving (back) into the world of work.

This summer, Robbie is applying for jobs in the civil service. One example is a business support role in the COP26 climate change conference, due to be held in



Robbie Brown

Glasgow later this year. After getting a foot in the door, Robbie will be hoping to work his way up through jobs in science policy. He is particularly interested in getting into the sustainability, environment, or education side of government. Knowing that he enjoys working with kids from his three-year experience as a sports coach at a primary school, Robbie says this is definitely another option for his future. He has been looking at the charity, "Teach First," whose mission is to encourage top graduates to get into teaching and to help overcome inequality in education. The charity offers training to university graduates from all types of degrees. Whether in government or in the classroom, Robbie is determined to start making a difference sooner rather than later.

Odile Lehnen

"The best thing about STS is the sense of community. Being a student here, I feel like I am not isolated, but connected to and get support from the wider community."
Matyas Demeczky
Undergraduate Student

Student Rep Makes Big Contributions

'Student Reps' are the people with the formal role of representing students in university committees and other activities. They gather views and comment, then deliver them to the people who need to act. One part of the role is to speak truth to power: pointing out lapses and shortcomings when they arise. Another part of the role is to contribute fresh and original perspectives. It's all about pursuing positive change and impact. In STS, Zydon Patel has been "Lead Department Representative" for the past academic year.

In 2021-22, Zydon will be a third-year student in Sociology

and Politics of Science BSc. Two years ago, he was elected course representative. Last year, he was elected Lead Representative. Becoming 'Lead Rep' seemed a natural progression for Zydon. He said he loved his time in the first year, and said he felt ready to take an active part in new developments, especially in the Covid-19 year.

The transition to Lead Rep was a step-change in responsibility. Zydon worked with STS staff to ensure consultation committees ran smoothly and, crucially, to ensure staff followed-up on their promises. Zydon also played an important role feeding information back into STS

about which adaptations were working for students and which needed more attention. At the same time, STS was the focus of an institutional review of its teaching and student experience. Student reps had an important role in this routine check on quality.

In the past year, Zydon has kept quite busy. It's not all classwork,



Zydon Patel

however. In November 2020, he helped launch the "STS Hoodie Competition". Students were asked to submit designs for the new hoodies, then everyone in STS was invited to vote for their favourite. The winning design came from 2nd-year STS student, Isabel Lim.

Zydon also helped convert STS's informal student society, running since the 1990s, into an official group recognized and supported by UCL Student Union. Now, it's official. STS Lunar Society is a go.

Zydon's main achievement in the 2020-21 session was to enrol STS in UNITU, an online platform for student feedback that aims to help universities collect information in real-time rather than long after a module has finished. "As a result, some positive changes happened in the department."

For Zydon, taking on the role of Lead Rep has been a key learning experience. "As a student rep in university, you can make real, long-lasting changes in the department and really help make things better for everyone. It is such a rewarding experience."

Lujia Zhang



Isabel Lim wearing her winning design for the STS Lunar Society hoodie.

Accelerating Advice for Policy Makers

"I was delighted when I read about the opportunity to work with the Pandemics Ethics Accelerator project," Ruchi Sharma explained.

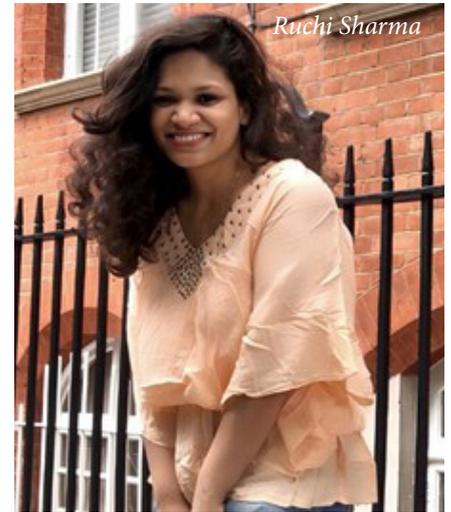
This year STS offered an unprecedented nine summer studentships open to undergraduate and postgraduate students as part of its commitment to real-life work experience, paid above the London Living Wage. Ruchi Sharma, a student on the Science, Technology and Society MSc programme, was successful with her application to work with the project led by STS staff Dr Cian O'Donovan and Dr Melanie Smallman in collaboration with Professor James Wilson in UCL's Department of Philosophy.

Despite uncertainty around the specific path her career will take, it was Ruchi's interest in the link between government policy and solving inequalities widened by the Covid-19 pandemic that led her to the studentship opportunity. "Ethics is an integral part of decision making that determines the fairness of the outcomes [and] working on this project would allow me to delve into diverse perspectives, descriptive and normative ethical questions that feed into policy making," she explains. "I had read a few papers by Cian and Melanie, and I felt it would be great to learn from working closely with them".

In Ruchi's words, the purpose of the UK Pandemics Ethics Accelerator internship "is to embed ethical thinking in policy-making. The UK Government needs to take policy decisions on various issues that are interrupted by the pandemic." Her role in the project will involve "rapidly researching some of the ethical concerns, compiling usable write-ups for real policymakers."

The Pandemics Ethics Accelerator studentship lasts only 4 weeks, yet Ruchi was confident this experience will give her a chance to make an impact as well as boost her skills in real-world working environments. "I think this [studentship] will broaden my thinking in a more pragmatic way. On my STS journey, I did plenty of researching and writing. What's different here is it's for a real ongoing problem."

What are Ruchi's tips for applications? People applying for these studentships should be clear and specific, not generic, in their personal statement. "You should include why are you applying, what skills you possess that are relevant to the role, and lastly, how will you perform once you get the role," she



said. "All of it should be factual and backed up by evidence. It shouldn't just be adjectives that anybody can use. Literally map yourself to the role you want."

Chelsea Tripp

Focus on Careers with STS Studentships

During Summer 2021, STS dramatically expanded its number of studentships. We offered nine! These ranged from researching ethical decision making around Covid-19 for a project on rapid policy development to researching perceived coercion and wellbeing during the pandemic; from researching economics coverage in newspapers to the sociology of debating on social media.

These paid positions – paid above the London Living Wage – has an application process that mimics real-world hiring. They build on staff research and public engagement, so they vary each year, and they cover a huge range of topics.

Professor Simon Werrett described his experience with the programme. "A student worked with me and colleagues at the Natural History Museum. They did terrific work exploring the identities of otherwise unknown natural historical collectors around Britain in the eighteenth century. The student was able to get behind the scenes in a major museum and produced research that will be of real value for both the history of science and biological research in the future. Their work helped illuminate the fundamental records of precious 'type' specimens, created in the eighteenth century and still used by scientists from across the world."

DeepMind STS Scholarships



Chelsea Tripp

"When I finished my undergraduate degree, I was interested in so many different avenues," explained Chelsea Tripp. "History, science, philosophy, ethics. Choosing between all of these proved to be quite difficult." Two years later, Chelsea is nearing the end of her year-long Master's degree, Science, Technology and Society MSc, which she undertook after becoming the first ever recipient of the

"DeepMind Science, Technology, and Society Scholarship". With passions for a variety of academic fields, it ultimately was Chelsea's interest in the sociological, philosophical, and ethical facets of science that led her to the STS Master's programme. "I think the thing that attracted me the most about STS was the interdisciplinarity of the subject...the STS Master's degree allowed me to do a bit of everything."

A graduate of animal sciences, Chelsea first found out about the DeepMind STS Scholarship when she received a message detailing the opportunity in her email: "UCL was good in comparison to the other unis I had applied for. They actually had quite a few bursaries and scholarships available."

Our MSc degree has opened Chelsea's eyes to the complex relationship between science, philosophy and history, something she hadn't been able to delve deeply into at the undergraduate level. "I'm really interested in the social side of science, and I felt like this Master's

gave me the opportunity to explore that more, which was really nice." Chelsea recounted how the degree has allowed her to develop her interests in different areas within science, namely the marginalization of ethnic minorities in research as well as the different ways that science is communicated to a variety of audiences. "I have a lot of respect for people who are in public engagement," she said.

After working on a project that aimed to promote inclusivity in research, Chelsea discovered the challenges of embracing ethnic minorities in science who "don't necessarily feel safe about being involved in research." Expanding on this point, she added, "There is just so much you need to consider to help people feel comfortable." Uncovering why certain groups are disproportionately under-represented in science, as well as the causes of implicit biases inherent to STEM, has been a key ambition of her studies.

Reflecting on her studies, Chelsea was quick to note some highlights.

What is the DeepMind STS Scholarship?

Launched in 2020, the DeepMind STS Scholarship programme is a cooperative venture between UCL and the Windsor Fellowship. Its ambition is to improve representation from all sections of our community both in the work of science itself and in the broader reflection, management, and direction-setting of science in our society. As the Windsor Fellowship website explained, these scholarships "are positive action initiatives to help

UCL ensure that it can attract and support students from all sections of the community, particularly those groups that are under-represented in post-graduate studies."

The DeepMind STS Scholarship covers the costs of the recipient's tuition fees plus equipment and travel. It also offers a stipend. The programme does more, too. It provides students with the opportunity to foster a rapport with DeepMind, whose research into autonomous

technologies makes it one of the leading companies in AI. "It's a great initiative for students," explained Giuseppe La Rosa, STS Department Manager. "The scholarship gives them the opportunity to build a relationship with DeepMind. It really expands their networking opportunities."

Information about eligibility and how to apply is online via the STS website and from the Windsor Fellowship.

"I loved the public engagement module, and I've been looking into that avenue for my future." With its holistic approach to studying science and the interplay between other disciplines, Chelsea feels, her degree has given her a whole new appreciation for STS's many parts. "This course has also given me a broader perspective of what science is, the history of it, why we view science a certain way, and how this impacts on different public groups." In spite of the challenges presented by the pandemic and its effects on learning, Chelsea's experience with the scholarship has ultimately been a positive one: "I think if I hadn't come to UCL and hadn't done this specific degree, I definitely wouldn't be in such a good position now. I'm so grateful for that."

Despite Chelsea's excitement for her Master's degree, the year has come with many challenges, not least the pandemic's constraints on studying within the university environment. "This year has probably been one of the hardest for students," she explained. From cancelled trips around London, to closed libraries and study centres and the obstacles brought on by online classes, the past year has taught her the importance of maintaining a work-life balance, particularly in a year "which has been isolating at times, especially without being able to see friends and family as often." But Chelsea knows how to adapt. "Making time to watch your favourite show, or bake, or FaceTime friends and family has definitely helped keep me sane over the past year!"

Alexander Hancock



Image: DepositPhotos

STS launches Science Communication MSc

Applications are open for STS's new Science Communication MSc, starting in October 2022.

The programme combines theory and practice across a wide range of subjects. Students will take modules in state-of-the-art communication practices, including writing, sound and video production, and digital media. Modules will be delivered by professionals from both industry and university.

One key goal is to provide access to real worlds of work and career opportunities.

The practical curriculum will combine with a theoretical one, introducing students to science communication from a global perspective, science communication and social justice, and conceptual aspects of engaging the public with science.

The final project brings theory and practice together in portfolio-building content.

Students will benefit from STS's strong culture of pastoral care and personal mentoring. The qualification is available as a degree (MSc), postgraduate diploma (PG-Dip), and postgraduate certificate (PGCert). Full-time and part-time study options are available, too.

Requirements for entry are a minimum of an upper second-class (2.1) Bachelor's degree from a UK university or an overseas equivalent. There is no specific disciplinary entry requirement. Applicants with degrees from natural sciences, human sciences, social sciences, or arts and humanities are welcome to apply.

For more information:
ucl.ac.uk/sts/msc

And the Award Goes To...



Winner of the 2020 MAPS Faculty Postgraduate Research Prize, STS PhD student Claudia Cristalli shows how history and philosophy of science can help today's scientists make their science better.

"It was so unexpected. I couldn't believe it!" When Claudia Cristalli received the 2020 MAPS Faculty Postgraduate Research Prize for her PhD thesis, it took another message from her supervisor, Dr Chiara Ambrosio, to convince her that this wasn't just another email scam. Claudia's first reaction is a hint towards the subjectivity of human perception. Claudia explores this theme in her doctoral dissertation by studying the work of philosopher, mathematician and scientist Charles Sanders Peirce, who lived in the late 19th and early 20th centuries.

Claudia's dissertation focuses on Peirce's philosophy in the context of his work in experimental psychology. She found his work

in these two areas strongly connected. In places, they closely mirrored one another. For example, Claudia explains, throughout history there have been different ways of imagining how perception works. One option is to view it as something that happens immediately. An alternative is the view that perception requires processing, in which some kind of unconscious inferences are made that result in us seeing the world the way we do. An example of an inference

for processing is the idea of spatial depth: we decide how far away things are from us based on certain types of information. Perhaps we do this directly. Perhaps we do this after inference and processing.

Since starting her doctoral studies in 2015, Claudia says, she's often seen puzzled faces when answering the inevitable questions about value, "Why are you doing this? Why are you studying 19th century philosophy?" But she has a quick answer: Peirce's seemingly obscure philosophy becomes directly relevant to ideas today once you relate them with his research on how perception works in human minds. The connection is intimate and important. Can we make observations without already having a theory in which to interpret them?

Crucially, in the unconscious process that puts images from our eyes together in our mind, Peirce argued there was no neutral starting

point for knowledge. Claudia says, "I think this is an important idea today."

Claudia's work on Peirce speaks to fundamental questions in science. Claudia explains, "Because of the continuous possibility of revision, 'what counts as a scientific fact' is basically what we have reached a consensus on right now." The history of science teaches us that science is continuously evolving, Claudia continues, and Peirce saw this flexibility - this room for development and adaptation - is an integral part of science.

Claudia is currently extending the research in her thesis by exploring how today's cognitive sciences relate to the history and philosophy of science developed by Peirce. She has ambitions to find in these old ideas new perspectives on established scientific methodologies widely used today.

MAPS Faculty Postgraduate Research Prize is awarded annually for an outstanding achievement in subjects covered by UCL Faculty of Mathematics and Physical Sciences. Competition is intense. Claudia is the first STS recipient of this prize. Speaking about the award, Claudia's primary supervisor, Dr Chiara Ambrosio, said, "I'm incredibly proud of Claudia. She has done brilliant work, and her research is bringing powerful new ideas to the community. It's a fantastic example of integrated history and philosophy of science."

Odile Lehnen

Art Meets Propaganda

Industrial archaeology tries to recover working practices and technologies associated with manufacture. It also tries to reconstruct the world of labour and the lives of the people at work.

STS postgraduate student, John van Laun uses art to recover working practices when building railways during the 19th century.

John's research centres on John Cooke Bourne (1814-1896), painter, engraver, photographer, and more. Bourne's *Drawings on the London and Birmingham Railway* (1839) records construction of that railway, especially through north London. His image of the London terminus made the 'Euston Arch' famous.

Comparing representations produced by different artists, John separates what might be called the aesthetic and the technical. In some cases, he's spotted innovation and new techniques.

John also is alert to the use of visual arts for culture and political purposes. His research considers the rise of the "picturesque" in landscape art. Bourne domesticated railways through art. He made them seem tranquil, soft, even



Bourne's "Excavations and Buildings, Park Village," Camden, 1838

natural additions to the countryside. In fact, they were anything but soft additions. John's research shows Bourne's art put to work as propaganda aimed at resistant English landowners: "Look how easy the railways will be. Look how smoothly they'll fit into the landscape."

John is an STS MPhil student. The Master of Philosophy qualification is a postgraduate research degree in which students produce a original piece of writing not more than 50,000 words. All students entering postgraduate research

degree programmes in STS begin the MPhil track; most "upgrade" to PhD. For more information about the STS's MPhil offer, contact the STS postgraduate programme tutor, Professor Brian Balmer.

Joe Cain

Quick Start on Publishing

Nathan Bossoh, an STS PhD student focusing on history and philosophy of 19th century British science, is keen to showcase his research. In 2021 he celebrates publication of two major research papers developed during his programme:

Bossoh, N. 2021. "A Victorian hope for aerial navigation: Argyll as a theorist of flight and the first president of the Aëronautical Society of Great Britain." *Endeavour* <doi: 10.1016/j.endeavour.2021.100753>

Bossoh, N. 2021. "Scientific Uniformity or 'Natural' Divine Action: Shifting the Boundaries of Law in the Nineteenth Century," *Zygon* <doi: 10.1111/zygo.12678>.



Images from Bourne's (1839) *Drawings on the London and Birmingham Railway*

Fancy 'A Cup of PhD'?



With the department's home in Gordon Square closed for much of the last academic year, everyone has needed to adapt to unusual circumstances. Normally, the STS kitchen, common room, and PhD room would be bustling, with students and staff chatting

Help with Careers

STS works with UCL Careers Service to offer a wide range of activities: from careers fairs and networking events to 1-to-1 assistance with CVs and skills self-assessment.

ucl.ac.uk/sts/careers

Careers are about more than one job in one place at one time. Be strategic and invest early in the opportunities.

about their life, the university, and everything. But it has been eerily quiet.

Fortunately, STS has Professor Brian Balmer. He's always been a source of creative problem solving.

As STS PhD programme tutor, Brian was quick to respond to concerns about isolation for STS PhD students. He was especially keen, he said, "to replace the random meets that would normally take place in and around the department. Those are crucial not only for exchanging ideas but also for fostering a sense of community and belonging."

Brian's idea was the 'Cup of PhD' project. PhD students and staff volunteer themselves to be part of a pool for random informal pairings. "It's like when you walk into the kitchen for a cuppa," one member of staff said. "You've no idea who's going to be there or what you're going to talk about. But it happens, and it can be a highlight of the day." Key to the plan was to mix students and staff from different areas of expertise.

Ever the sociologist, Brian kept an eye on the interactions and ensured momentum stayed high. The key to the programme was encouraging staff not to treat these chats as supervisions. Informality and collegiality were the goals.

Student feedback has been strongly positive, saying 'Cup of PhD' has played a key role in creating a sense of social normality. First-year STS PhD student Jas Jagdev is enthusiastic. "I've loved 'Cup of PhD'! It's been a great way of getting to grips with the PhD for me. It really helped me to not feel isolated in a time in which I felt really overwhelmed with all of the changes going on. It was fabulous to speak to others and realise that they were feeling the same way, and to share tips or generally get to know people that I otherwise may not have had a chance to talk to."

The benefits of 'Cup of PhD' go beyond the social element. "It was really helpful to talk to people at different stages in their careers and get advice and information from other PhDs, lecturers, professors, etc.," Jas explains. "At a time when it could be forgotten, 'Cup of PhD' upheld the interdisciplinary way of thinking that's at the heart of STS."

Because students were matched with a member of staff outside their usual field of study, the conversations can introduce them to new ways of thinking about, approaching, or understanding their research.

Brian confesses a key inspiration for launching 'Cup of PhD' came from his own experience when writing a PhD. "Having to explain what my PhD was about and what I had found to someone who wasn't my supervisor just really helped," he said. "Particularly when I got to 'sticky bits' in my research." Let's hope this kind of innovation continues when everyone is back in Gordon Square.

Jasmine Chakrabarty

From Ebola To Covid-19

Professor Sarah Edwards is no stranger to developing STS research about epidemics. Her speciality is research ethics in medicine, especially in moments of emerging crises, such as epidemics. To what extent can standards of care become diluted without becoming negligent? How can we best navigate suspicion around vaccinations? Should vaccinations be mandatory for healthcare workers?

When Sarah first heard about a new virus affecting people in Wuhan and spreading fast, she was engrossed in efforts to develop research frameworks for investigating treatments for victims of the Ebola virus. Realising her expertise was needed, she pivoted to this new subject. Though she says her work on Ebola policy provided her with "a bit of a run-up" and that she'd been "thinking about some of these issues for a long time," nothing quite prepared her for the scale and the challenges of Covid-19.

With Covid-19, Sarah and her colleagues were suddenly faced with the task of developing policy for the response to Covid-19 in real-time. Not an easy challenge. Among many other research activities, they tracked hotspots of transmission between healthcare workers at UCLH. They investigated perceived coercion and psychological well-being for healthcare workers while safety and treatment measures were being implemented. Recalling the emotional strain of the work, Sarah explains, "it was difficult on an emotional and personal level to do research in this field; it was horrendous to hear it play out in real time." She adds, "Although, from a scientific perspective, many of the questions around the

pandemic are fascinating, this is hard to keep in sight at times because of the horror and the urgency of it all."

In the face of the emotional challenge of conducting research on such an unpredictable, unknown, and distressing topic, Sarah highlights the support she received from colleagues. Among STS colleagues, as well as those working across the globe, "there is a real sense of solidarity, a real fondness; we know we are working together." Overall, it has been this unity, across both physical and disciplinary borders, typical of STS, which has guided much of her research into the pandemic.

Before joining UCL, Sarah worked at Bristol University, where she taught ethics and law to medical students. Her research explored the interrelationship between methodology and ethics in health research. For example, she critically examined the randomised control trial's gold-standard status, and she explored the ethics of using placebos. During the Ebola outbreak in 2014, this work helped guide her research into policy topics around vaccination, the medical treatment of the population, and even the controversial vaccination of gorillas against Ebola. As well as protecting



the gorillas themselves, the purpose of the latter proposal was to prevent a possible virus reservoir growing in apes that could serve to reinfect humans.

For Sarah, the question of what she will do next remains open, but the threat of future pandemics remains on the horizon. We'll always need experts to guide research into these troubling subjects.

Jasmine Chakrabarty

"We think about science as a pursuit which is not conducted in isolation, but connected to all sorts of branches of what we call culture."
Dr. Chiara Ambrosio

Researching UCL's History of Eugenics

"The feeling when you find something where you didn't expect to find it – I have had it quite a few times now and the feeling is something else!," laughs Dr Maria Kiladi. "When you find material other people have not looked at thoroughly before, it has the potential to reconfigure everything people were thinking about the subject. That's the beauty of research."

Maria is STS Research Fellow in the History of Eugenics, part of the Legacies of Eugenics project in STS. Her way into the department was not conventional. A pianist with a Bachelor's degree in performance and composition, Maria became interested in the history of music. She earned a PhD in historical musicology, at Royal Holloway, University of London, in 2007. During her PhD, she investigated the cultural activities of the UK Labour and Communist parties during the 1920s and 30s. The more she wrote on the subject, the more fascinated she became with the political context of the time. She chuckles, "That was not always to my supervisor's liking. They kept telling me: 'You are doing a PhD in history of music and not in history of politics!'"

The skills she developed in her degree have proven invaluable for the work she now is undertaking on history of eugenics at UCL. Digging deep into 19th century unedited scriptures in the British Library, searching and finding sources were crucial to her professional development. "It was hardcore archival work." Despite



Dr Maria Kiladi

the difficulties of her research, she does not regret it one bit. "Working with archives was so exciting and fascinating. It's a shame that there is not a lot of that these days."

Maria started working in UCL Special Collections in 2008, a year after beginning her PhD. "It was mainly just to support my living costs and not really a career move or anything." In hindsight, however, it definitely was career changing. Maria worked in the library until 2019, simultaneously completing her PhD and adding a second Master's degree (in digital humanities from UCL) to her list of accomplishments.

With her knowledge of 20th century British history and her expertise in UCL Special Collections, Maria was ideal for a research post created to support the 2018-2020 UCL Eugenics Inquiry. She knew just where to look to help bring to light

the activities of people like Francis Galton, Karl Pearson, Ronald Fisher and others. Although her post with the Inquiry began only as a 4-month position, she suspected the change in employment could be the beginning of a major career shift. "When I started to work on the archives with Joe Cain, we realised there was a lot more to uncover. The deeper you dig, the more you find." Soon, her post was extended and she produced important historical research for the Inquiry's final documentation.

"You quickly realise that eugenics is absolutely not something that happened just at UCL and nowhere else," Maria explains. Racist and ableist laws based on eugenics pseudo-science took off mostly in countries like the US and Germany, but the ideas found their way into UK politics as well. The Eugenics Educational Society, founded in 1907 by a close friend of Galton, was a network of influential scientists and politicians. Their "aggressive lobbying" eventually led to the passing of the 1913 Mental Deficiency Act, on the basis

Find out more

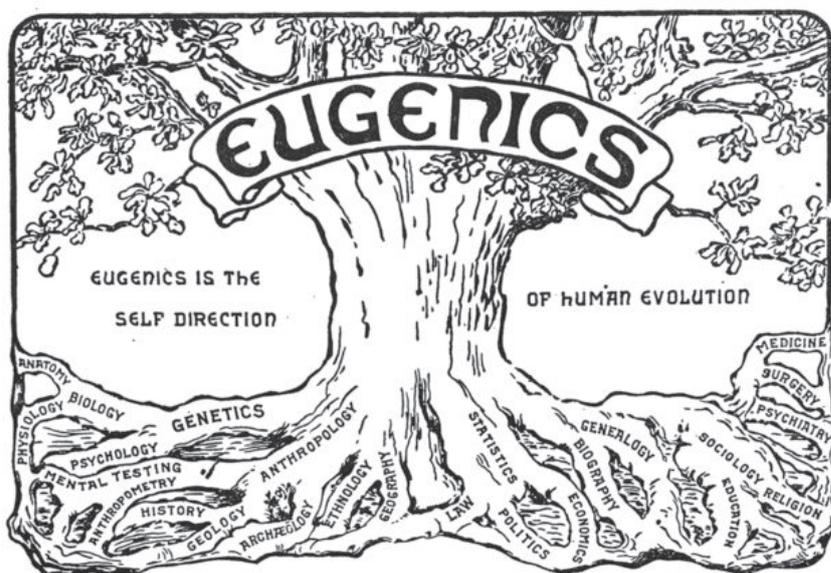
[Legacies-of-Eugenics.org](https://legacies-of-eugenics.org)

of which UK citizens considered 'feeble-minded' could be detained. "That shows you just how far-reaching these networks of people and thought were," Maria says. At the same time, Maria stresses the need to recognise opposition to eugenics was widespread in the UK and at UCL. "That's something people like to ignore."

When the Inquiry ended, Maria kept her focus on eugenics, helping to create the follow-on "Legacies of Eugenics" project. As part of Legacies, Maria wants to shed light on the political context of the time and the complex power relations at play for eugenics researchers working at UCL. Having studied the UK's political parties during the first half of the 20th century for her PhD definitely helps her grasp the political landscape of the time. She has become editor of the Legacies of Eugenics blog, and she has been working to increase knowledge about how and where to find material related to the history of eugenics in UCL's history. In the coming academic year, she'll help deliver the "Eugenics in Science and Culture" module.

Will we ever be done studying the history of eugenics? Maria is convinced that won't happen. "More and more material becomes available to research, which might make you see eugenics in a completely different context. Every generation of historians naturally has a new perspective on what has been studied before...I think it is important to broaden up the whole question of eugenics and take it to a much higher level of sophistication."

Franziska Link



"Eugenics Tree" from Second International Exhibition of Eugenics Held September 22 to October 22, 1921

UCL Removes Names on Facilities Owing to Legacy of Eugenics

UCL de-named some of its lecture theatres and buildings in June 2020 as a direct result of recommendations coming from the 2018-20 Eugenics Inquiry, including the MORE Group recommendations (supported by the majority of committee members) and the chair's report. Three locations were de-named with immediate effect: Galton Lecture Theatre, Pearson Lecture Theatre, and the Pearson Building. UCL also released a formal apology for its role in promoting eugenics as a research subject and as a policy goal.

"It's about time," says Professor Joe Cain. "This is something we've been campaigning on for a long time." Joe says he is proud to see how people from the department have been involved in those efforts: "What STS people do really well is recognizing and challenging science in its social, political and cultural contexts. De-naming academic facilities is a perfect example of that. Anti-eugenics is another example, and STS is rich with engagement on many other topics, too." According to him, UCL needs to do a better job at addressing existing ableist discrimination in the academy. He says that was a subject profoundly neglected in UCL's Eugenics Inquiry, and it cannot be displaced by other politicised agendas.

Did you know the Pearson Building was once known informally as the "Eugenics Building" and housed UCL's Department of Eugenics? It's now the "North-West Wing of the Wilkins Building".

UK Pandemic Ethics Accelerator

From Covid-19 data trackers and case surveillance to vaccine passports, policy developers have seen unprecedented ethical challenges related to the collection and use of data during the pandemic. The speed and complexity of these ethical challenges cries out for STS thinking and STS solutions. Fortunately, STS academics, Dr Melanie Smallman and Dr Cian O'Donovan, have jumped into this policy development arena. "What can social scientists or people in arts and humanities contribute," asked Cian, "when it comes to ethics in decision making?"

Melanie and Cian have taken a leading position in the 'UK Pandemic Ethics Accelerator,' a new collaborative initiative combining expertise from UCL and other institutions. The goal is to maximise the quality of ethical considerations across science, medicine, policy and society in response to the pandemic. Cian explains, "Rather than a rapid response to Covid-19, we (in the Ethics Accelerator) are now asking the question of how do we live with the virus over the long term. This virus is not going away anytime soon, so we're looking at what kinds of ethical and policy thinking we need to deal with for societal problems over the coming years."

Expertise in the Ethics Accelerator draws from a variety of fields. As Cian maps this out, "We have people, myself and Melanie for instance, who are experts in science



Dr Melanie Smallman



Dr Cian O'Donovan

and innovation policy. We also have experts in public engagement, foresight, medical sociology, and so on. Somewhere in the middle, we get to meet, and we get to think about what all this means for Covid decision-making."

questions of what kinds of data get reported? Who controls that data once it's collected? Why are many care homes unwilling to share data, especially when competitors can see it? There are lots of tensions and incentives when it comes to arguments about data."

"Civil society, activists groups, democratic groups, and industry bodies should be fully engaged in ethical evaluation...We can't leave this to government on its own."

Collaborating with Professor James Wilson in UCL Philosophy, Melanie and Cian's work includes a project on ethical challenges in large-scale data collection and use. What are the implications for privacy? data ownership? monetisation? re-use? disposal? Recently, Cian has been working on the topic of data collection and use in the social care sector. How do local authorities use big data to prioritise equipment and testing? "This is the policy area in which the most vulnerable people are involved, and there are some big policy and humanitarian issues here," Cian explains. "There are

Ethical dilemmas over data in the social care sector reflect larger debates across society during the pandemic. Cian warns, "Decisions made today will be with us for a long time." Experience shows systems will be hard to change once they are installed and people become invested in certain ways of working. Justifying the need for policy acceleration, Cian explains, "This is why our work is so important right now." Cian and Melanie also emphasise the need for policymakers to consider ethical implications at different scales and in different societies. Too often

Find out more

UK Pandemic Ethics Accelerator Project:
ukpandemicethics.org



What's more important for Britain's care homes: health or sustainability?

Technologies like digital assistants, automated lighting, and surveillance gear now are common sights in social housing. As we adapt to living with Covid-19, technologies that promise remote delivery of care have obvious appeal. But these technologies often come with hidden costs for the planet and for people.

Manufacturing, global shipping and cloud-based data services are energy hungry technologies. Their widespread use will contribute to climate change. Choices about technologies also carry decisions about how

care is delivered, who does it, and what will be the terms of the interaction. Residents deserve much more of a say in the planning and delivery of those services.

In September 2021, STS experts in innovation policy, Dr Melanie Smallman and Dr Cian O'Donovan launch a project dedicated to researching environmental impacts of digital services for health and wellbeing in the home. This will be a two-year, £890,000 collaborative project, working with partners at University of Sussex, University of Manchester, Imperial College and Anglia

Ruskin University. It is funded by the UK's Engineering and Physical Science Research Council.

Overall, the idea is to investigate the environmental impacts of digital services for health and wellbeing in clinical care and in social care settings. As the UK builds back from the pandemic, questions about digital transformation and sustainability have never been more important. Are there ways to absorb the gains developed in the past two years without adding to our environmental problems or compromising efforts to improve sustainability?

they consider ethical implications for individuals, but ignore the fact they live in communities and that communities differ across the region, the nation, and the world.

"Civil society, activists groups, democratic groups, and industry bodies should be fully engaged in ethical evaluation, and they must lobby for new regulations and

settlements," Cian concludes. "We can't leave this to government on its own."

Lujia Zhang

From Qantas to STS



Victoria Mounsey

The newest member of the STS professional services team is Victoria Mounsey, who succeeds Malcolm Chalmers as STS Operations Administrator. Victoria comes to STS following a long-term career in the airline industry. "I originally was working for Qantas Airways, and I had been with them for 13 years," she says. Like many others during the pandemic, Victoria experienced first-hand the uncertainties of the airline industry. "I worked in many different roles within Qantas. I'd only been in my last role for two years, but

"STS helps me to know how scientists develop research (especially in climate change and global warming), and it helps me understand the social processes that actually facilitate that research."

— Whitney Wong
STS Postgraduate Student

unfortunately I was made redundant due to the pandemic." But STS gains hugely from Victoria's resilience and her wealth of transferable skills. "I was doing an interim job as an administrator slash receptionist, then I heard about this role in STS. I was looking for a new challenge. It sounded like the kind of role where I could make a real contribution."

For Victoria, the crossover from working in the airline industry to working in a university department like STS has had its challenges. "For me, one of the struggles was to learn all this new stuff: new systems, new procedures, and even new terminology. But I couldn't have asked for a warmer welcome," she says. As STS Operations Administrator, Victoria's position centres around keeping the department running day-to-day: everything from local maintenance to events management.

She also is the key person for STS communications: maintaining the STS website, helping to spread the word on social media about departmental events, and generally keeping up the buzz around STS's many activities. As she explains, her role is the "behind-the-scenes" work that most students and visitors barely notice.

A good example was the work Victoria put into promoting this year's STS Haldane Lecture, which Professor Ruha Benjamin delivered in June 2021. The lecture drew a large audience, and Victoria's behind-the-scenes advertising and audience engagement helped make it a great success. She says, "Helping to get the word out actually increased my own interest. By the

time it came around, I found I was really looking forward to it."

After a few months' experience in STS, Victoria has had time to reflect on some of the connections between STS and her previous employment. "At first I thought there was no connection at all between what I knew well, which was the airline industry, and STS. But I've been realising the connections are strong. In my time with Qantas, I've gone through earthquakes, I've had to deal with airlines being shut down because of volcanic eruption, we introduced new technologies on the flight side, and so much more."

"When I heard about this role in STS, I was looking for a new challenge. It sounded like the kind of role where I could make a real contribution.."

Realising the transferability of those experiences, Victoria now realises just how good the fit is with STS. "I went through things in my old job that sparked my interest in the stuff STS teaches. I'm ready to be part of those conversations."

For Victoria, learning the ropes as STS Operations Administrator has helped her to become more engaged with science in society. Now, she encourages others to do the same. "If anybody was looking to work within STS, I would say "yes, it's a great team to work in." And for the students? "If you're interested in the ways science works in real life, then STS has absolutely fantastic courses!"

Chelsea Tripp

Diversifying Voices in History of Science

In July 2020, STS appointed Dr Jenny Bulstrode as a new Lecturer in History of Science and Technology. She's an expert on science and technology in 18th and 19th century Atlantic economies. Her background is as a historian of physics and industrial technology, with a particular interest in the universalising claims of science and capitalism, and cross-cultural encounters in experiment, innovation and materials.

"My main research at the moment is a collaboration with Jamaican archaeologists and UK leaders in energy transition research to

"Seize the opportunity to research and write things you care about. Share your work with peers, then meet up and discuss that work beyond the classroom."

understand the debt of the British industrial revolution to the skilled metallurgy of the Black Atlantic," Jenny explains. This involved trying to interpret "the significance of historical techniques in West African-derived metallurgy [the extraction of metals] for innovative energy futures".

The research Jenny conducts is quintessentially STS, bringing

Congratulations are in order for newly promoted Professor Jack Stilgoe. Jack becomes STS's ninth professor amongst current staff.

attention to the forgotten scientific perspectives and innovations produced by people commonly under-represented in histories of science and technology told from a typical white, British perspective.

For Jenny, the purpose of her research, and more generally the purpose of STS, is to rethink the process of knowledge-making and practices of inclusivity. STS is "the social basis of knowledge," she says. "There are lots of important questions that stem from that: What is knowledge? How is it made? Who is represented and who is excluded? Who benefits and who is negatively impacted?"

Jenny argues STS needs to provoke revisions to our understanding of history of science. It must push us to present more diverse voices.

It also must push us to be more critical of what we read. With a view towards her teaching, this is a skill Jenny wants to encourage in every module she teaches, telling students in advance to "seize the opportunity to research and write things you care about. Share your work with peers, then meet up and discuss that work beyond the classroom. It's in those interactions that you'll really push your thinking to the next level and have the most formative experiences."

Unique in STS, Jenny has a joint appointment with the Royal Institution of Great Britain



Dr Jenny Bulstrode

("the RI"). In that role, Jenny modestly says, she "supports their communication of the importance of history of science to present-day challenges". Reflecting on the start of her career in STS, Jenny is optimistic and energetic. "This year has been a very busy year, but I know that in due course there will be the opportunity to pursue research that I find challenging and important, and that itself is an extraordinary privilege."

Chelsea Tripp

"STS is a fantastic subject for everyone interested in science and technology, and its place in the world. That is what STS does."
—Prof. Jon Agar

You Have Been Warned!



"Fire 1987"

Courtesy of Museum of Modern Art.

Artist : David Wojnarowicz'

STS founded its first formal research centre in September 2020. The "UCL Warning Research Centre," or "WRC", is the world's only centre devoted to researching warnings as a general subject. It covers a wide range of warnings about vulnerabilities, hazards and threats. The WRC was organised and is led by STS's Dr Carina Fearnley. Professor Ilan Kelman (UCL IRDR and IGH) serves as Deputy Director.

There was a strong rationale for establishing the WRC during the Pandemic. Covid-19 is arguably the biggest disaster to affect humans in

modern history. Mami Mizutori, Head of the United Nations Office of Disaster Risk Reduction, complained in April 2020 that "past warnings of a pandemic were often ignored, despite mounting evidence."

Why do people not listen to, or act upon, warnings?

In 2004 over 250,000 people died across a dozen countries during the Indian Ocean earthquake and tsunami on Boxing Day, largely because there was no warning system in place. However, even if warnings are in place, they need to result in action or they render little value. In 1985, Nevado del Ruiz volcano in Colombia erupted, and whilst warnings were issued by scientists to local populations, the Armero City officials did not heed the warnings. Tragically over 23,000 people were killed. With a progressively globalised world, warnings are increasingly required to operate internationally,

across numerous social, cultural, and political boundaries as operationalised by the Pacific Tsunami Warning Centre and witnessed during the Covid-19 outbreak. There is also an increase in multiple hazards happening at the same time, something Covid-19 has highlighted, that often require contradictory action; like evacuating for safety from flooding, but being unable to mix with others for Covid-19 risk fears. Covid-19 has given us the unique perspective of being able to evaluate how different countries have managed warnings for the pandemic, and how they have managed the ongoing crisis via alert level system systems.

Warnings have been successful in nations like New Zealand and Singapore but many, such as that adopted in the UK, have failed. There is a need to share practices from differing natural hazards, threats, and human-induced crises to help develop better, more robust warnings. To achieve this there is no need to reinvent the wheel, just to work outside the current hazard, institutional, and political silos that exist so as to share practices, knowledge, and lessons identified. There is also a need to recognise the value of local input to make warnings effective, and for them to be integrated social processes, rather than the often prepossessed, technological or bureaucratic ones.

With no dedicated warning research centre in existence to pool research and experience to develop better knowledge and practices around warnings, the UCL WRC was founded to contribute to filling this gap. By bringing together expertise and stakeholders from across a range of disciplines, geographies, and social and livelihood contexts

Find out more

UK Warning Research
Centre (WRC):
ucl.ac.uk/sts/wrc

the WRC works to establish more effective warnings which are more connected to and used by people. This facilitates dialogues across a wide range of hazards, threats, and risks to share knowledge in a way not done before. This also enables the WRC to build on existing literature and practices to explore the cutting-edge of warnings in a pragmatic manner and potentially enable a fundamental re-framing of warnings that may help them be more effective. The WRC works with a wide range of stakeholders including businesses, academia, government, non-governmental, and intergovernmental organisations, to address the growing need for effective warning and alert systems via cutting-edge research, policy guidance, applications, and collaborative expertise. At the very core of the WRC is the need to be strongly interdisciplinary and innovative to transform research into effective warnings and alert solutions

To date the WRC brings together over 25 centre members from across UCL and 25 centre affiliates that bring global warning expertise. In its first year the centre has already made significant impact. In October 2020 Carina published the article UK government's tiered Covid-19 alert systems are all flawed in *The Conversation* providing the first critique of the alert level systems devised by the UK for Covid-19. In March 2021 the WRC provided a two and a half day training course to CUAMM – Doctors with Africa titled Warnings for Hazards and Risk Reduction Programme. With 12 delegates, the course was run jointly with expertise from Richard Gordon, Director of the Bournemouth University Disaster



Management Centre. Also in March, Carina and GGI Deputy Director Dr Tom Pegram were awarded funding from UCL Grand Challenges and the UCL Environment Domain for the project Complex Risk Governance for a Green and Sustainable Recovery from Covid-19 that explores pathways towards a green recovery from Covid-19 that are informed by complexity thinking.

In April, Carina was invited to give evidence to the House of Lords under the inquiry of Risk Assessment and Risk Planning Committee appointed to consider risk assessment and risk planning in the context of disruptive national hazards. She highlighted the importance of using warning systems and alert level systems as tools to better translate risks into actions by helping to communicate and manage the risk in practice, in a format that the public can engage with, proposing the establishment of an expert warning committee to bring together expertise and practice around warnings for the UK.

During June 2021 the WRC was officially launched via two launch events. The UCL WRC were invited to host the 11th Annual Conference of the UCL Institute for Risk and Disaster Reduction (IRDR) on 23rd June, providing a whole day event focused on 'Why Warnings Matter'. UNDRR Head, Mami Mizutori, gave a plenary keynote at the launch event and officially launched the WRC stating that it was "timely and important", adding: "the centre explicitly brings together not just researchers but also practitioners, policymakers, media, the public and importantly will guide the next generation of students, who will be adding their energy, urgency, intelligence and creativity to solve some of the thorniest challenges of our time. It is truly another great example of a whole of society approach." Two panel sessions explored 'Warning Systems – exceptional versus expected events' and 'Warnings for organisations', and an 'In Conversation' session led by renowned journalist Andrew

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STS PhDs Awarded

Congratulations to STS PhD students for successfully completing the doctoral programme. Here's a sample from 2020-21:

Armstrong, Eleanor Sophie. 2020. Exploring Space(s): Queer feminist approaches to understanding pedagogy in science museum galleries.

Bankes, Edward Thomas. 2020. A scientist walks into a bar: exploring science communication through science comedy.

Boyle, Alison. 2020. Stories and silences in modern physics collections: an object biography approach.

Cristalli, Claudia. 2020. The Philosophical Psychology of Charles S. Peirce

Gatt, Jurgen R. 2020. From Murder to Geography: A Forensic Paradigm of Testimony in Antiphon and Herodotus.

Martin, Rebecca. 2020. Normalising whiteness: the use of standardised anatomical models in British university teaching, 1860-1910.

Zhang, Qin Yuan. 2021. Behind the laboratory: political psychology, military culture and science in the Japanese biological and chemical warfare programme (1933-1945).

Some available in UCL Discovery: discovery.ucl.ac.uk

Celebrating 100 years of STS

As an academic department at UCL, STS has its origins in the Department of History and Method of Science, created at the start of the 1921-22 session.

To celebrate, we're planning a series of events to consider the past, present, and future of STS.

Past: We want to celebrate where we've been and what we've accomplished.

Present: We want to take stock of what we are now, who we are now, and why we do the work we do.

Future: STS has a big role to play in the post-pandemic, post-everything future. What should be our priorities? How might we get to where we want to go? What role do you want to play?

We'll encourage our alumni to get involved. We'll bring in some special guests. We might even have a party to celebrate.



Credit: DepositPhotos

(continued from previous page)

Revkin brought together Oliver Morgan from the WHO and Dr Gail Carson from GOARN to discuss warnings for health risks such as pandemics.

A second dedicated STS launch event took place on 30th June focused on 'What warnings mean?' Three sessions brought together

experts from all over the globe to explore the history and social-cultural meanings of warnings, visual representations of warnings, and putting warnings into practice using policy and communication, bringing together some fascinating angles of warnings that remain underexplored. Both events attracted delegates online from over 52 nations, and hundreds have

already watched the events online via YouTube making the launch events a great success.

We are looking forward to a very busy and exciting year ahead so do keep posted on our activities via the below social media and via our website.

Carina Fearnley

JBS Haldane Lecture 2021

STS was delighted to resume the JBS Haldane Lecture series this year with a talk and live Q&A session by eminent sociologist Professor Ruha Benjamin. After a series of cancellations caused by industrial action in 2020 followed by the outbreak of the pandemic, we were so happy to welcome Professor Benjamin to the department, albeit virtually in the form of a webinar.

Professor Benjamin is Professor of African American Studies at Princeton University, Founding Director of the Ida B. Wells Just Data Lab, and author of the award-winning book, *Race After Technology: Abolitionist Tools for the New Jim Code*, among many other publications.



JBS Haldane caricature by Gary Brown, used with permission.

STS welcomed Prof Benjamin for her insightful and ground-breaking critiques of the co-construction of technology and structural inequalities, with a focus in this talk on the intersections of technology, race and gender.

Starting with her thoughts about UCL's eugenic histories, Professor Benjamin discussed the concept of the "New Jim Code" during the webinar. Drawing on her extensive research, she argued that the "New Jim Code" could be understood as a series of entanglements between technologies and society that sought to not only reproduce, but also to amplify, racial hierarchies. With a focus on examples from the US, Prof Benjamin explored how racialised injustices arise through algorithmic bias across security, surveillance, and health care.

Before taking questions from the audience, Professor Benjamin discussed how we must also consider the liberatory practices at our disposal to resist, reject and re-imagine techno-social entanglements, arguing that our imaginations are our richest and most useful tools.

This year's JBS Haldane Memorial Lecture was held on Wednesday, 9th June via a Zoom Webinar hosted by Dr Emily Dawson. This was the first time that the Department held a JBS Haldane Lecture online. Over 200 attendees joined the webinar from all over the world to listen to Professor Benjamin's talk.

*Dr Emily Dawson
and Giuseppe LaRosa*



Professor Ruha Benjamin

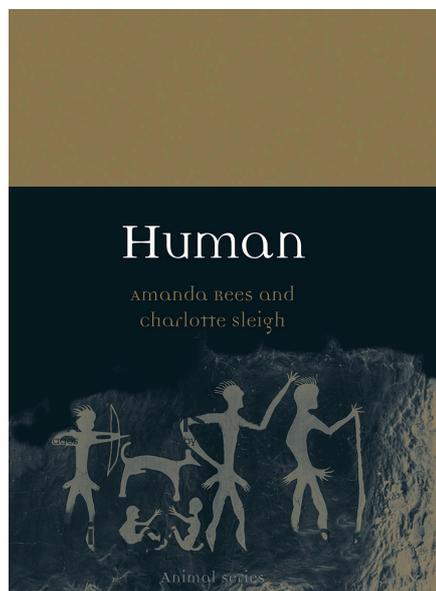
"Remember to imagine and craft the worlds you cannot live without, just as you dismantle the ones you cannot live within."

— Ruha Benjamin

The JBS Haldane Lecture series was first launched in 2014 in honour of UCL Professor JBS Haldane, a polymath not only in the life sciences but also in science communication and science policy.

For more on past speakers in the series:
ucl.ac.uk/sts/haldane

STS1Book 2020: *Human*



This is the 16th year of the STS1Book programme. Each year, one outstanding popular science book is chosen to be read and discussed across the whole department. *Human* by Charlotte Sleight and Amanda Rees was the STS1Book for 2019-20. As is tradition, they came into STS to join our conversation about their thought-provoking work.

Human belongs to a series of books that dedicates each

volume to a different animal species, investigating its cultural history. Moth, wasp, sheep, raccoon, jellyfish... the series was approaching book number 100 and still, nobody had dared to attempt the challenge of addressing *Homo sapiens*. Charlotte and Amanda spotted this gap. Over a glass of wine, they say, they began to imagine how on Earth it could be possible to answer the question, "what is human?" in the series format of just under 200 very small pages.

Their answer was simple: it wasn't.

In their STS1Book seminar presented to the department in May 2020, Amanda and Charlotta explained how they turned this challenge into an opportunity.

Instead of asking 'what is human?', they flipped the question around: "what is not human?" – Or, rather: "what has been, and sometimes still is, considered to be not human?" The different categories Amanda and Charlotte selected include: machines, beasts, alien, women, and God. The glimpse behind-the-

scenes that their talk offered a sense of how challenging it was to select those contrasts.

They shared with us their thought processes behind including or excluding categories like race and disability and how their awareness of the limitations of their own perspective as two cis, middle class, white women influenced such choices. Their openness and self-reflection made for an incredibly interesting conversation.

Odile Lehnen

Recent STS1Books

Human (Animal)
by Amanda Rees and Charlotte Sleight

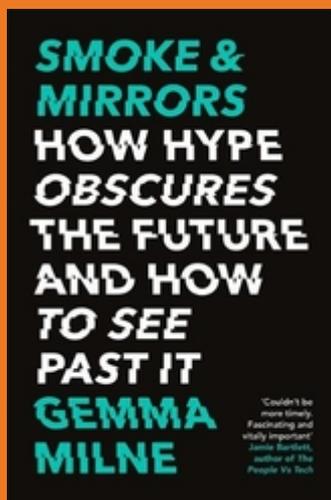
Automating Inequality
by Virginia Eubanks

Inferior
by Angela Saini

Merchants of Doubt
by Erik Conway and Naomi Oreskes

Invisible
by Philip Ball

The Intelligibility of Nature
by Peter Dear



Looking ahead

With the upcoming session in mind, the STS1Book for 2021-22 will be *Smoke and Mirrors*, by Gemma Milne (Robinson). ISBN: 978-1-47214-366-2.

Gemma is a journalist and pod-caster specialising in technology, innovation, and finance. She also currently is a PhD student in our very own department.

Her book studies hype in the world of innovation. It's a fabulous study

of communication in the tech sector. Perfect STS material.

Dr. Jean-Baptiste Gouyon, STS's Associate Professor in Science Communication, notes one reason Gemma's book will be a great STS1Book. "It engages with one of the key skills we want to teach students: critical thinking about science and technology."

For more information, search online for "sts1book"

WeAreSTS Podcast

Whether it is keeping up with global news or diving into true-crime stories, we're turning to podcasts in ever larger numbers and variety. STS now has a podcast of its own, WeAreSTS, hosted by Professor Joe Cain. "I listened to a lot of podcasts during lockdown," Joe explains, "and I listened to them for different reasons. One reason was just to break out, to hear human voices in a new format. Also multi-tasking while I exercised. But I also listened because I wanted to gain new information or new perspectives about some particular topic."

Understanding podcasts as a tool for communication helped kick-start "WeAreSTS," which explores all things STS in an interview-style format. From staff research projects to stellar student work, the aim is to sample from the complex diversity of STS subjects. One basic question dominates the series, as Joe explains. "The question everybody gets asked when they come to the department and come to our degrees is simple and direct: 'what is STS?' The show isn't going to give a fancy academic definition. It'll demonstrate what STS is by sampling some of the many, many projects we have underway here."

Choosing the podcast format seemed a natural fit for members

WeAreSTS is available on all podcast platforms.

For more information about the show:
ucl.ac.uk/sts/podcast

STS alumni are always welcome as guests for interviews.



of the community to share their work and their passions. "The podcast format is perfect," Joe says. "It's perfect for communicating our energy and excitement for the subjects we love."

WeAreSTS targets some specific audiences. First, sixth-form teachers. "Perhaps they're scanning in search of new material. Perhaps they're searching for advice to students about university degrees." Second, possible applicants to STS degrees. "They need to answer those key questions: what is STS, why study it, what are you going to do with it?" Finally, we know some audiences will be attracted to individual episodes. "There's no doubt we have brilliant staff and students in STS. Let's give them a forum to introduce their work. Let's spark a few new conversations."

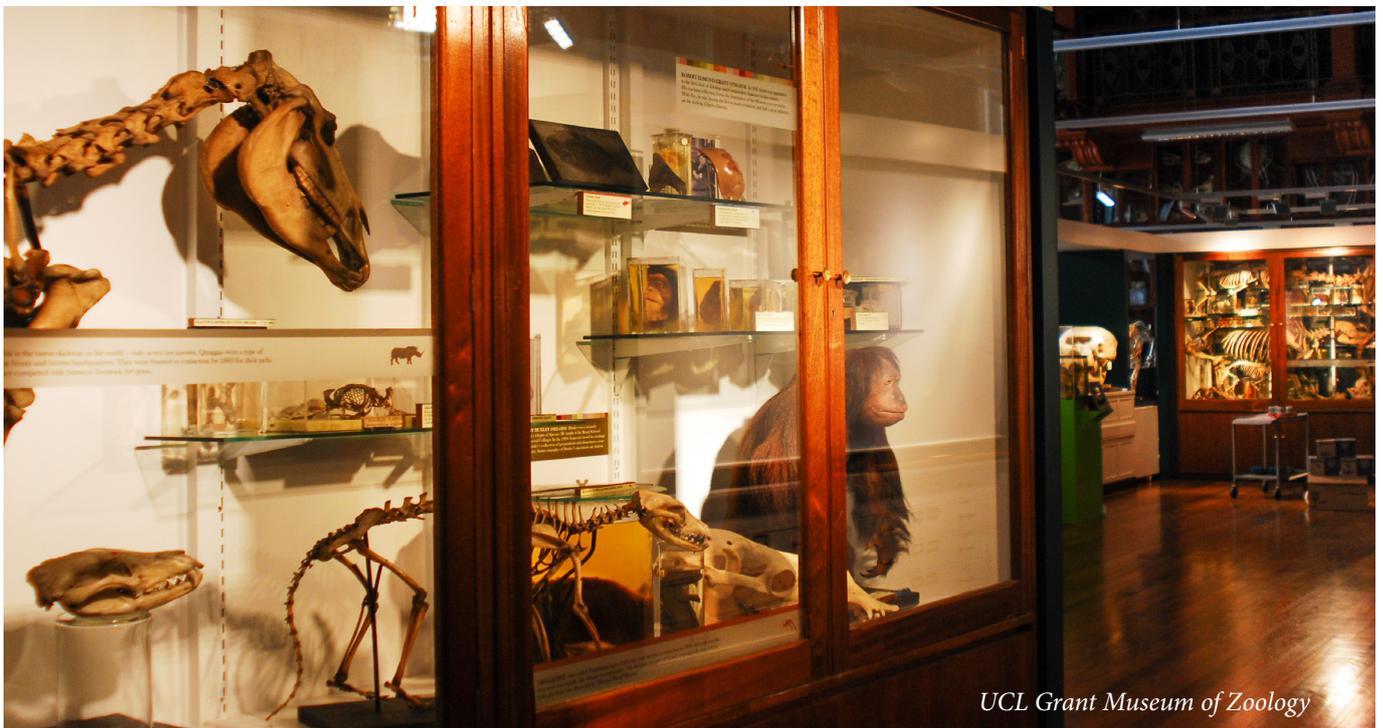
Joe designed the WeAreSTS programme to offer opportunities for student volunteering and for paid studentships when money is available. "We want student

contributions," Joe explained. "One of the exciting things about WeAreSTS is that we built in opportunities of different kinds. Students who want to do a little can work on one piece of the process. Students who want to create portfolio items can propose whole shows. We're open to controversial work. We're open to innovation, too. Bring it on."

Looking ahead, Joe has big ambitions. "I would love to have more alumni on the show. It never fails to thrill us to learn which rungs they've climbed on which ladders." Another one of Joe's aspirations will take a long time to deliver. "I want to get to episode 500. STS has a huge number of fantastic projects and people swirling around. It's easy to pass over a microphone and ask them simply to 'tell us a little more about it!'"

Alexander Hancock

Teaching with Museums During Pandemic



UCL Grant Museum of Zoology

From the Petrie Museum of Egyptian and Sudanese Archaeology to the Grant Museum of Zoology, UCL's museums and collections have played a key role in learning across the university for many years. This year has been no exception, despite the challenges brought on by the pandemic. Museum and academic staff continued to work hard to ensure the museums and their collections could continue to provide tangible and engaging learning experiences for students. This has been made possible through adaptive responses and innovative solutions, such as 3D printed vertebrate skulls that were sent by post to students, virtual museum tours, the digitisation of various museum objects, as well as socially distanced face-to-face labs.

STS's Professor Simon Werrett, whose teaching explores the global histories of science and the historical interactions between the arts and the sciences, frequently

incorporates museum collections into his teaching.

Working for the most part with the Grant Museum and UCL Art Museum, Simon explains, "museums are a terrific resource for teaching because the collections can offer a whole new dimension. Science is a practice. It involves the study of natural things, so if we don't include specimens and instruments when we talk about science, we're missing something really important."

In pre-pandemic museum sessions, curators would lay out relevant objects so students could discuss them, handle them, and ask questions. For Simon, the curator is key. "They know a huge amount about collections and can often bring unexpected insights and knowledge to a class". However, due to the pandemic, students couldn't visit museums in the same way this year. To adapt his teaching

to the restrictions, Simon has focused his attention on revising his modules and rethinking the ways in which museum collections can be integrated. For example, in the module 'History of Science II', he has planned a visit to the Africa Gallery in the British Museum to learn about Nigerian bronze-casting and pottery-making in Mali, which complements a lecture on the sciences of hunting and smelting in Zimbabwe. With adequate social distancing, Simon sees such museum visits making a return soon.

Jasmine Chakravarty

What's in a name?

Re-naming is a live issue at UCL. Should UCL rename the Petrie Museum? Professor Joe Cain says, "yes": profjoecain.net/petrie What do you think?

Connecting with The Science Museum

STS maintains close working relationships with The Science Museum in South Kensington. Several of our modules integrate visits to The Science Museum or talks by its curators. Some STS students take up opportunities to work as interns, or explainers, at the museum. Some of the research and exhibition staff are STS alumni, too. Many of the curators are STS Honorary Research Associates.

The core of STS's collaboration with The Science Museum is our Master's level module, "Curating Science and Technology". Convened by Dr Tim Boon, Head of Research and Public History at The Science Museum, this module gives students access to museum galleries, collections, and curators. The goal is to give students opportunities to discover how the history of science and technology is preserved, researched, and displayed in a national museum. There also

are opportunities to talk about contested collections and the roles museums have in promoting public history.

Overall, this relationship offers STS students an opportunity to explore the specificities of museums as an environment for historical and interpretative work as well as a venue for science communication and public engagement.

Jean-Baptiste Gouyon

Breaking News!

STS is delighted to announce the appointment of Dr. Michel Wahome as a new Lecturer in Science, Technology and Society. She joins us in September 2021.

"I am joining UCL's STS community during a period when the topic of science, technology and society is at the top of everyone's mind," Michel says. "Questions about access and equity, and communication are being debated in the public sphere ... and even if one is not studying Covid-19 or vaccine production specifically, it is likely to be a generative time. I look forward to being part of a community that considers these issues as a matter of course."

Before joining us, Michel was a Responsible Research and Innovation Fellow at the One Ocean Hub at University of Strathclyde. The One Ocean Hub is a consortium of researchers from universities in Fiji, Ghana, Kenya, Namibia, South Africa and the United Kingdom. It is funded to conduct interdisciplinary ethnographic research on ocean governance.

Michel's work integrates STS and post-colonial perspectives; in particular, she is interested in questions that examine technoscientific production in conditions



Dr Michel Wahome

of global power geometry, especially in emerging nations. She is passionate about inclusive, ethical and responsible innovation and knowledge production. Prior to joining University of Strathclyde in 2019, she held a research post at Oxford University. She received her doctorate from University of Edinburgh.

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