



UNIVERSITY OF  
LINCOLN

# DISCOVER:

*Publicly engaged  
research at Lincoln*



Issue 3

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# Introduction

It is now a near-universal cliché to say that 2020-21 has been a year like no other, and this has of course been the case for public engagement with research at Lincoln. As we were going through the final stages of editing Discover Issue 2 in February 2020, barely a month before the first UK lockdown started, we had little idea of what the future might hold, or of the breadth, depth and length of the disruption that the Covid-19 pandemic would bring. The suspension of all in-person activity, combined with the huge pressures on university researchers adapting their teaching to online methods, all posed huge challenges for public engagement.

It has, therefore, been immensely heartening to see the determined, resourceful and effective ways in which staff and students have responded.

The annual CPD training programme for public engagement was very effectively converted to online delivery. Entirely new initiatives have arisen such as my online learning programme, Dig School, rushed out to start helping teachers and home-schooling families as early as the first week of the school Summer term in April. The annual PEARL conference was run successfully as a relatively early attempt at online conferencing. The University contributed, once again, to the Pint of Science after it moved from May to September, and in November we ran our own mini festival for Being Human, with five interactive online talks complemented by polls and live Q&As. Throughout the year, many PEARL grant holders have taken up the challenge of adapting their planned activities to the new realities of life in the time of Covid-19.

In addition, we have had the challenge of submitting our return for the first ever KEF (Knowledge Exchange Framework) assessment to UKRI, a substantial portion of which relates to public engagement, and we were able to cite a wide range of strong evidence to justify our high assessment for this. As well, of course, there has been the REF (Research Excellence Framework), in which public engagement underpinned several of our Impact Case Studies, an element of the assessment which makes up 25% of the total. The results of REF 2021 will not be known for some time, but we already know that our public engagement is stronger than in previous years and can be proud that it has not only survived Covid-19, but has emerged with considerable increased capacity for digital and online engagement which will stand us in good stead for the future.



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## **Professor Carenza Lewis**

Professor for the Public Understanding of Research

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A prominent theme of the last year for me has been that of 'reflection'. From the start of the year when I first joined PEARL as Public Engagement Manager and through the ebbs and flows of the pandemic, many of us have found ourselves having to reflect upon almost every aspect of our work, how we do things and how we work with each other, in order to do what humans do best – adapt, change, and move forward.

While the challenges we've all faced over the last year, both personally and professionally, have been enormous, the resilience, adaptability and enduring enthusiasm for public engagement that I have witnessed from Lincoln staff, students and members of the public has really shone through and is truly commendable. Together, we've continued to further embed public engagement with research across the university, we've developed valuable new methods for digital and online engagement, and we've made new, exciting connections with local communities and organisations.

I'd like to extend my sincere thanks to those people across the university and beyond who have been instrumental in supporting PEARL's work over the last year, and who's dedication to meaningful engagement continues to push public engagement at Lincoln ever forward.



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**Dr Matt Young**

PEARL Public Engagement Manager



# PEARL News

## *PEARL: Public Engagement for All with Research at Lincoln*

The University of Lincoln's dedicated Public Engagement team, PEARL offers support for staff and students in engaging wider publics with research through funding, resources, training, guidance, recognition, and building visibility and connections that enhance awareness and capacity to do public engagement with research (PER) at Lincoln. PEARL is led by **Professor Carenza Lewis** (Professor for the Public Understanding of Research) and **Dr Matt Young** (PEARL Public Engagement Manager).

### *PEARL Conference 2020: Online*

Each year, the PEARL Conference aims to celebrate and showcase the wonderful variety of engaged research activities taking place at Lincoln. In 2020, the event was held digitally via Zoom where we were joined by more than *85 Lincoln staff, students* and guests who logged on to hear about the exciting and inspiring range of public engagement projects and opportunities at Lincoln.

We welcomed a lot of new faces to the conference, with *2020 being the first PEARL conference for 74% of attendees*. We formally announced the 12 recipients of the PEARL Activity Grants Fund for 2020-21, and guests were given illuminating insights into some fantastic engagement projects carried out over the last year in Lincoln.

Attendees also had the chance to meet one another through virtual breakout groups, and to share their thoughts and ideas on the future of public engagement with research at Lincoln. Overall, *86% of attendees* felt they learnt something new about public engagement from attending the conference.

We'd like to extend a big thank you to all our speakers for their invaluable time and insights, and to all attendees for joining us on the day. Recordings of many of the short talks from the day are available to watch on our website, as is the conference programme, which included some fantastic poster contributions<sup>[1]</sup>.

### *Public Engagement Skills Training: Online*

Following on from the success of its first year of delivery, PEARL's programme of PER skills training workshops, like most areas of activity, moved online for 2020 and was held via the University's online learning platform; Blackboard Collaborate.

The series of 4 modules, which was developed in collaboration with PER colleagues at the University of Southampton and was first delivered in 2019, covers 4 key areas of public engagement; an introductory overview of PER, the importance of understanding audiences and publics, organising safe and successful events, and thorough impact evaluation. Details of future training dates for 2021 can be found on the PEARL website<sup>[2]</sup>.

### *PEARL Activity Grants 2020-21*

Our 2020-21 grants programme saw us receive the highest number of applications to date, with a very clear increase in the quality and standard of submissions. While this very welcome sight made the work of the Activity Grants assessment panel very tough, in the end, *12 incredible projects were awarded funding*.

Each year through the PEARL Activity Grants programme, PEARL offers grants of up to £1,000 to University of Lincoln staff and postgraduate students to support the development and delivery of public engagement with research activity. The aim of this small grants scheme is to support our researchers in delivering *high quality engagement, through creative new projects and initiatives that make a targeted impact with selected public audiences through meaningful, two-way engagement*.

The PEARL team would also like to take this opportunity to thank all of the 2020-21 Activity Grant recipients for all the time and effort that they have committed to the reshaping and redevelopment of their projects, in light of the challenges posed by the global pandemic. PEARL recognises that it takes a lot of time and effort to develop and plan a high quality, impactful public engagement project, but to have the world for which your project was created for no longer be realistically accessible can be extremely challenging and frustrating. Despite this, our project leads have worked tirelessly with PEARL to rework their projects in ways that accommodate online methods of engagement and social distancing measures, while still delivering high quality engagement.

*For more details about each of this year's PEARL Activity Grants projects, see page 7.*

## *The Lincoln Public Engagement Network*

In September 2020, PEARL held the first meeting of the newly formed Lincoln Public Engagement Networked (LPEN). The LPEN was established by PEARL to bring together people from across the university and local community area who are proactively involved public engagement activity, with the overarching aim of helping us become better connected, share resources, best practice, and to act as a sounding board for PEARL as we continue to grow.

So far, the LPEN has helped bring new activity and potential new external collaborations to the attention of the PEARL team, as well as feeding back to us about how effective various aspects of our support are, and ways in which can still improve and further embed PER across the university.

*If you'd like to find out more about the LPEN and would like to consider joining the group, please contact the PEARL team by email.*

## *Supporting Impact*

PEARL has begun to work closer with our colleagues in the University's Research and Enterprise team to support the generation and capture of high-quality inputs for important reporting metrics such as the Research Excellence Framework (REF) and the The Higher Education Business & Community Interaction (HEBCI) survey.

Public engagement work contributes significantly to Impact Case Studies for REF returns, and inputs to the HEBCI survey, both of which are required by UK Research and Innovation (UKRI) and subsequently contribute to the level of support that every university receives. In 2020, PEARL helped ensure that public engagement activity contributed more than ever before to the HEBCI survey, and we look forward to our continuing work with the REF team to support the next cycle of Impact Case Studies.

## *Establishing New Connections*

Throughout the past year, PEARL has been working to strengthen our relationships with local communities and organisations, in ways that will enable Lincoln's researchers and non-university communities to more easily have better and more impactful engagements with one another. We are supporting several public engagement with research projects that are working closely with the Sincil Bank Community Partnership[3] and the City of Lincoln Council to engage local community groups. PEARL is also working with the new place-based initiative, Local Motion[4], which is working with local partners across Lincoln to find new solutions to social, environmental and economic issues.

## *Key references and further reading*

- [1] PEARL Conference 2021: [www.pearl.lincoln.ac.uk/conference-2020/](http://www.pearl.lincoln.ac.uk/conference-2020/)
- [2] PEARL Training: [www.pearl.lincoln.ac.uk/training/](http://www.pearl.lincoln.ac.uk/training/)
- [3] Sincil Bank Community Group: [www.sincilbankcommunity.co.uk/](http://www.sincilbankcommunity.co.uk/)
- [4] Article: [www.fundraising.co.uk/2019/10/31/foundations-collaborate-in-new-place-based-initiative-localmotion/](http://www.fundraising.co.uk/2019/10/31/foundations-collaborate-in-new-place-based-initiative-localmotion/)

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## PEARL Activity Grants 2020-21

*The PEARL Activity Grants scheme, established in 2018, is an annual grants programme designed to support the development and delivery of creative new projects and initiatives that will make a targeted impact with defined public audiences through meaningful, two-way engagement.*

In 2020, PEARL received the highest number of applications to the Activity Grants scheme to-date, many of which were of an extremely high standard. This is an outcome which we feel strongly reflects the University of Lincoln community's increasing commitment to and enthusiasm for public engagement with research.

### **Food Science for School Age Kids**

*Lead applicant: Dr Bukola Onarinde (Associate Professor, National Centre for Food Manufacturing)*

*Co-applicants: Ayten Aylin Tas, Abbie Sands, Max Crane, Arianna Ortali, Pamela Iheozor-Ejiofor, Oliver Horne, Sophie Bowers, Daniel Ogundijo and Susan Aiyedun (National Centre for Food Manufacturing)*

**Purpose:** To use interactive workshops and demonstrations to encourage young childrens' curiosity about their food and food science. Through its activity, this project aims to help children acquire new ways of asking questions and understanding the world of food science, as well as to inspire them to consider a future career in a STEM (science, technology, engineering and maths) subject.

**Audience:** Primary school children, of ages 5 – 12 from local schools in Holbeach.

**Background:** For students to have success in the modern world, they need a clear understanding of how the material presented to them through STEM teaching relates to their everyday lives. As such, food Science is a useful tool in integrated curricula for enhancing STEM education, as the topic of food is something all children can relate to. Exposing children to the complexity of the food chain, food safety, and food science at a young age sets them up to be informed and educated consumers throughout their lives. The overarching goal of such initiatives is to foster effective STEM teaching and learning throughout the educational system, thereby supporting the production of science literate citizens and a capable STEM workforce.

**Approach:** Working closely with teachers at a local Holbeach school, the food science research group will be planning and developing a series of video-based activities and demonstrations that will be delivered to pupils online. Using experiment demonstrations, games, quizzes and other interactive elements, pupils will be able to learn about current food science and nutrition research in and all kinds of food topics. Parents and guardians will also be able to take part and engage with the research content through activities that they can follow along with, at home with their children.

**Evaluation:** Impact will be evaluated via questionnaires and discussions with teachers, as well as simple before and after style tasks built into the activities.



## Lincoln Philosophy Salon: The animal ethics salon

Lead applicant: **Dr Daniel Came** (*Senior Lecturer in Philosophy, School of History and Heritage*)

Co-applicants: **Dr Ralph Weir** and **Professor Gary Francione** (*School of History and Heritage*)

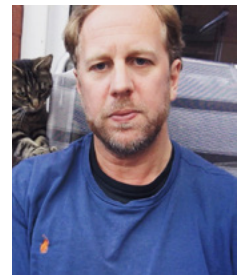
**Purpose:** The Lincoln Philosophy Salon aims to engage participant in sustained, meaningful dialogue with Philosophy researchers, on questions of deep human concern. The project seeks to foster an environment in which researchers and audience members can hear diverse voices in a supportive environment, where participants can engage in respectful discussion.

**Audience:** Local members of the community in Lincoln with an interest in philosophy-based topics and discussion-based events in social environments such as pubs.

**Background:** Since 2017, Dr Came has organised the Lincoln Philosophy Salon, a monthly series, taking place in the upper floor of the Cardinal's Hat pub in Lincoln City centre. The event is free and open to the public and regularly attracts fifty to sixty attendees, as well as online participants. The talks are live-streamed to an international audience on the Salon Facebook page. The Salon has developed a model for profitable public discourse that has tangible benefits to the audience through their engagement with Philosophy research, as well as to the researchers who gain valuable public insight into their work.

**Approach:** This project involves a new series of events that will be curated around the topic of animal ethics. Each event is comprised of three parts; a talk (c. 45 mins); a chaired discussion (c. 45 mins); and free discussion (c. 60 mins); a format which provides multiple opportunities for the audience to contribute during each event. Themes for this series of events will include: 'Nothing Matters: So What?' by Dr Daniel Came, 'What is the Point in "Conceptual Art"?' by Dr. Ralph Weir, 'Does the Past Exist?' by Dr. Olley Pearson, 'Veganism as a Moral Imperative' by Prof. Gary Francione, 'Our Moral Duty to Eat Meat' by Prof. Nick Zangwill and 'Is Energy Conserved? The View(s) from General Relativity' by Dr. Brian Pitts. Six talks by visiting guest speakers will also be scheduled.

**Evaluation:** The impact of Salon activities will be evaluated by; the use of online platform analytics to measure digital audience engagement; use of intermittent, audience feedback questionnaires, as well as capturing comments from audience discussions. The Salon organisation committee will also be holding monthly meetings to reflect on the running of the Salon and how it might be improved.



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## Promoting Pleasure and Performance in Physical Activity

Lead applicants: **Rebecca Hawkins** (*Lecturer, School of Sport and Exercise Science*)

Co-applicants: **Dr Trish Jackman** (*School of Sport and Exercise Science*)

**Purpose:** By enhancing knowledge and awareness of research developments and applied practice of optimal experiences and goal setting in physical activity, the project aims to; increase the confidence and thus performance and experience of participating athletes/exercisers; to capture participants' views on the research to inform future work; to improve how physical activity practitioners work with clients; and to change how organisations promote physical activity.

**Audience:** Exercisers/athletes who are currently engaged in regular physical activity (i.e., runners training for a half marathon), relevant practitioners working in the industry, and relevant organisational policy makers.

**Background:** Optimal experience is an umbrella term used to describe positive, rewarding experiences in sport and exercise. The attainment of optimal experience can have important implications for individuals in sport and exercise settings as such experiences are linked to increased: wellbeing; performance; enjoyment and pleasure; future motivation; and long-term adherence to exercise. Therefore, helping people to understand how such experiences occur could not only enhance performance, but could also improve their physical and mental health.

**Approach:** A series of activity based around the title "Optimal Experiences in Sport and Exercise" will be curated with links to a public physical activity event, such as the Lincoln Half Marathon. As well as an interactive, live online talk, a series of podcasts will be produced and released in the run-up to the event. The podcast series will discuss various elements of optimal experience research and will include practical advice on the most effective goal setting strategies to enhance their performance and experience in their exercising/training and during the event.

**Evaluation:** Pre- and post- talk/event questionnaires will be used to assess confidence in the ability of participants to enhance their performance and experience, based on knowledge acquired in the event. Interactive live polls during the talk will be used to ascertain views on existing knowledge of best practice in goal setting. Discussion activities will be used to capture participants' views on the research and how the evidence could be implemented. Opportunities for engagement and networking between the applicant team and a relevant public audience can be measured through the number of new contacts.





## Bringing Out The Bees: An online exhibition

Lead applicant: **Dr Elisa Frasnelli** (*Senior Lecturer in Life Sciences, School of Life Sciences*)

Co-applicants: **Alexandra Foxley-Johnson** (*Professional Services*) and **Robyn Fayers** (*BSc Bioveterinary Science*)

**Purpose:** This project aims to provide the local community with the opportunity to engage with research and information about honeybees through the unique focal point of University of Lincoln's Observation Hive. Through the visual and accessible format of a photographic exhibition, this work aims to educate and inspire individuals, empowering them into helping support our native pollinators and environment.

**Audience:** People in Lincoln and beyond, from school children to retired individuals, with an interest in nature, science and the environment.

**Background:** Honeybees are an integral part of our lives and ecosystem, and the Observation Hive at the University of Lincoln Brayford campus provides an important space for research into the behaviour of honeybees and their impact on the environment. The University of Lincoln has made a commitment to support the environment through the declaration of a Climate Emergency. We believe that this exhibition is a visual representation of this commitment that also reiterates our dedication to be a civic university by providing accessible information and opportunities to

engage with research, on societally relevant topics to local audiences and beyond.

**Approach:** The online exhibition will comprise a collection of photographs, taken by research staff and students, that feature the bees in our Observation Hive on the University of Lincoln's Brayford Campus. The digital exhibit will feature information about the honeybees and related research, as well as practical information about how the audience can help honeybee populations and the local environment. The project will also involve a series of "Meet The Bees" events which will allow the audience to attend guided tours and discussions of the Observation Hive. To promote the project, posters and teaser photographs will be placed on community notice boards around the city that will invite locals to explore the online exhibition.

**Evaluation:** Comments to evaluate the impact of the exhibition and inform public engagement online events like this in the future will be collated from short online surveys based on the exhibition website. Website analytics will also be used to assess the effectiveness of the online exhibition format.



## Future Visions

Lead applicants: **Gertruda Zieniute** and **Josephine Westlake** (*PhD Students, School of Geography*)

Co-applicants: **Holly Norton**, **Snežana Lee** (*PhD Geography*), **Fiona Carruthers** (*MA Fine Arts*), **Fee Griffin** (*MA Creative Writing*), **Beverley Purdy** (*MA Fine Art*) and **Dr Mark Schuerch** (*School of Geography*)

**Purpose:** Through the creation of an immersive art exhibition, this project aims to increase public awareness of an individual's impact on the environment and that of future generations, and to provide local communities with a voice in the environmental debate. The event hopes to give the public the opportunity to learn about new research directly from researchers, in ways that can provide them with a better understanding of their local and global environment, as well as providing PhD researchers with the chance to gain valuable, local insights into the social context of their work.

**Audience:** Lincoln residents, particularly school-age children and their families, with interests in art, nature and the environment.

**Background:** Historically, climate variation has been predictable, however human impact has caused the Earth's climate system to become unstable. These impacts on our environment can be quantitatively assessed and creatively communicated through the disciplines of science and art. The university produces a lot of research about the environment and as researchers we recognise that there are barriers

between us and the public. We wanted to create a project that would draw people from overlooked communities and increase the awareness of their individual impact on their environment. The idea for the Future Visions project was developed following a networking opportunity between post-graduates at the MyRiver PEARL project launch in January 2020.

**Approach:** The exhibition, which will now take place online, will see PhD researchers from the School of Geography paired with student artists to create unique pieces of work based on the following themes: extreme urbanisation, sea level rise, extreme weather patterns, diseases, and pollution and resource management. The main activity will run for 5 weeks, with each week being based around a different theme. Every week the exhibition website will be updated with new artworks, audio guides, quizzes, chats between participants, talks from researchers and more.

**Evaluation:** Interactive evaluation will be collected through activities which will encourage participants to create their own artworks or share comments in response to the exhibition and its related materials. A short, online feedback questionnaire will also be used.



## ATTACS: Artificial targeted therapies and the cardiovascular system

Lead applicant: **Dr James Flint** (*Senior Lecturer/Programme Leader, School of Life Sciences*)

Co-applicants: **Dr Liz Mitchell** (*School of Pharmacy*)

**Purpose:** Pupils will be taught to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Additionally, pupils will develop a greater understanding of the impact of diet, exercise, drugs and lifestyle have on their bodies.

**Audience:** Year 6 pupils from the local Ling Moor Primary Academy, North Hykeham.

**Background:** The base research of this project comes from work currently being undertaken into targeted drug delivery, where we are using peptides to direct therapeutics to specified areas of the body. Expanding on this subject area and its links to the circulatory system provides an ideal opportunity to engage young people with drug design and delivery research.

**Approach:** Workshops will be developed alongside Year 6 teachers which center around the use of a purpose-built model of the circulatory system. The model will be a tool around which to create discussion and learning as pupils take part in assembling and then running the model. The model will be used to demonstrate key concepts from the research, relating to targeted drug delivery systems and their benefits over non-targeted systems. The mimic for our targeted drugs will be magnetic particles that can be “administered” to the system in low concentrations and will accumulate in the “target site” due to placement of a magnet.

**Evaluation:** The impact of this project will be evaluated by use of simple, fun activities designed to gauge the pupils’ level of understanding of the topics both before and after the workshops. Questionnaires and informal discussions will be conducted with teachers to further assess the appropriateness and effectiveness of the workshop.



## Sharing a Small Pot of Tea: Belonging and relationships with the city in migrant communities in Lincoln

Lead applicants: **Dr Rico Isaacs** (*Associate Professor in Politics, School of Social and Political Sciences*)

Co-applicants: **Liga Rudzite** (*Community worker*), **Dr Simone Varriale** and **Dr Mike Slaven** (*School of Social and Political Sciences*)

**Purpose:** The aim of this activity is to engage Eastern European communities in Lincoln as participants and co-producers of knowledge in research and policy making on issues related to inclusion, exclusion, and belonging. The project intends to actively engage Eastern European migrant communities in research about belonging in Lincoln; identify the points of interaction within the city for migrant communities where they experience inclusion, exclusion, and ‘belonging’; develop a report and recommendations for the Lincoln City Council’s Community Leadership Scrutiny Committee; and use the project work to apply for further funding to extend the project to other communities in Lincolnshire.

**Audience:** Eastern European migrant communities in Lincoln, policy makers at Lincoln City Council, and wider members of the local residential community in Lincoln.

**Background:** The migration of new communities to Lincoln over the last 15 years has seen integration become a fundamental policy issue for the Lincoln City Council, which is now formulating a new strategy around integrated communities. This activity contributes to ongoing bodies of research on the experiences of people in cities as sites of power, compromise, and negotiation, as well as research on migration, political geography and the everyday experiences of migrants.

**Approach:** The activity will involve two, one-day workshops with local Eastern European migrant communities in Lincoln, where ideas of locality, integration and cohesion will be explored. Participants will be provided with the tools and methods to reflect on their relationship with the city as a sight for ‘belonging’ and integration. Through activities and discussion, participants will identify and map the spaces and places in Lincoln where community cohesion is possible and/or challenging. As an outcome of the workshops, participants will develop city tours for researchers and other participants, introducing their embodied experience of Lincoln’s spaces of inclusion and exclusion. The city tours will take place after the workshops and will serve as another method knowledge production and wider engagement.

**Evaluation:** Participant interviews and written responses will be used to evaluate the extent to which they felt they had been engaged in and had a chance to contribute to the process and outcomes of the workshop. We will also carry out ‘reflection circles’ after the guided tours, evaluating the extent to which such experiences produce new understandings of the city. Workshop participants will also be debriefed after presentation of the recommendations to the Lincoln City Council.



## The Benefits of Different Recreational Activities in Natural Environments on the Health of Older Adults

Lead applicant: **Dr Laetitia Marechal** (*Senior Lecturer in Psychology, School of Psychology*)

Co-applicants: **Dr Claudia Lega** (*School of Psychology*), **Mo Ray** (*School of Health and Social Care*), **Hannah Leslie** (*BSc Psychology*) and **Silvia Gianello** (*Erasmus Student, Psychology*)

**Purpose:** The aim is to explore the benefits of different recreational activities, carried out in natural environments, on the health of older adults. This project intends to engage participants in new activities that will have a positive impact on them, such as improvements in mood, stress, socialisation and willingness to exercise; to introduce this research area to a new audience; to gather pilot data for funding to support larger scale, related work; and to establish a new partnership with Whisby Park and Age UK.

**Audience:** Older adults of 65-75 years of age living in the Lincoln area, with an interest in trying new, outdoor activities and meeting new people.

**Background:** Evidence suggests that exposure to natural environments is associated with better physical health and self-reported general health. However, these studies have not yet identified whether these benefits are linked to simple exposure to natural environments or whether different recreational environmental activities (i.e., a walk or a walk involving wildlife watching) have different benefits. In addition, despite a significant amount of research on this topic, little is known about the impacts of exposure to natural environments in older adults.

**Approach:** In this research activity, we will recruit 20 older adults aged 65 to 75 via Age UK Lincoln, who do not practice any activity in natural environments and have no walking-related health issues. We will offer the participants the opportunity to take part in two separate group activities in Whisby Park: 1) 45-minute walk; 2) a 45-minute walk with wildlife watching. All activity will be led and guided by the researchers who will be facilitating discussion around the research topic. A month after the activity, results of the research aspect of this activity will be shared with participants through a short video clip, followed by a discussion with the participants and project partners to understand their experiences and gain insights for the development of further research.

**Evaluation:** Formal and informal questionnaires evaluating the activities and the study, such as feedback forms, will be used during the dissemination meeting to gain insights which will inform the development of a larger study.



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## Lincoln Science Fayre

Lead applicants: **Dr Niko Kargas** (*Associate Professor, School of Psychology*)

Co-applicants: **Dr Emile van der Zee** (*School of Psychology*)

**Purpose:** Our goal is to inspire the next generation of young scientists by immersing them in the research process in a fun, age-appropriate manner. Additionally, the project will provide practical opportunities for Lincoln students and support University research that depends on data linked to children.

**Audience:** Young, primary school-age children of 3-10 year's old and their families.

**Background:** The Lincoln Science Fayre is a project that has been developed based on the highly successful Summer Scientist event that has been run annually by the School of Psychology for the last 10 years. This project seeks to adapt the Summer Scientist event format into one which can be used for a more content focused, hyper-local delivery.

**Approach:** To be run during term-time, the now online Lincoln Science Fayre will take place digitally, offering online, do-at-home activities and live video sessions for young children to participate in with the help and support of their teachers and parents. The series of activities will be developed by researchers from the School of Psychology in partnership with teachers from local primary schools.

**Evaluation:** Parents, teachers and children will be asked about their experience through appropriately targeted questionnaires. These questionnaires will assess attitudes and expectations both before and after participation in the activities. Additionally, exercises will be built into several of the activities that will enable evaluation of the impact of the activities themselves.



## Improving Service Provision for Survivors of Domestic Violence with Complex Needs

Lead applicant: **Dr Lyndsey Harris** (*College Director of Academic Quality and Standards College of Social Science Executive Office*)

Co-applicants: **Kerry Sullivan** (*Equation, domestic abuse charity*)

**Purpose:** To increase delegates' understanding of "complex needs" in the context of domestic violence and abuse. To understand the barriers and challenges to accessing services experienced by survivors who experience multiple disadvantages. To share learning from the Nottingham City 'Response to Complexity' (R2C) project and consider future policy implications. To increase understanding of the challenges faced by local Lincolnshire stakeholders in effectively supporting survivors with "complex needs".

**Audience:** This event will bring together up to 80 specific key stakeholders in the domestic violence and abuse field (primarily from Lincolnshire) including: survivors, academia, statutory, voluntary and third sector organisations, policy makers and commissioners.

**Background:** Dr Harris' work centres around issues relating to domestic abuse and includes research into multi-agency partnership working; improving services for survivors experiencing multiple disadvantage; criminal justice responses and integrated offender management. Ultimately, this project seeks to consolidate the broad and diverse

knowledge base of domestic violence and abuse expertise, and to identify a strategic plan for the development of partnerships and networks in order to promote capacity building and knowledge exchange that will maximise the potential impact.

**Approach:** This event will take the form of a one-day, interactive conference-style event which brings together key perspectives on domestic abuse from academia, third sector and other services providers, and crucially, the perspectives of survivors. Throughout the event, a range of discussion-based activities will be used to encourage discourse between the different delegate groups, encouraging them to consider how barriers and challenges might be overcome to ensure needs of service providers and survivors are met and what policy makers and commissioners need to do to affect change.

**Evaluation:** To measure impact, thoughts, ideas and conversations will be captured throughout the event using tools such as storify, to evaluate the quality of engagement and discussions. Short questionnaires and one-to-one interviews will also be used.



## Strangers at Home: Migration, immobility and religion

Lead applicant: **Dr Erin Bell** (*Senior Lecturer/Programme Leader School of History and Heritage*)

Co-applicants: **Dr Pietro di Paola** (*School of History and Heritage*), **Professor Stephanie Hemelryk-Donald** (*College of Arts*), **Dr Hollie Morgan** (*School of English & Journalism*), **Tom Martin** (*Lincoln School of Film and Media*)

**Purpose:** This project aims to connect local residents of Boston to local heritage, and to explore ideas of migration, home and belonging, by engaging with research about the Mayflower migrations from England to the 'New World' and other histories of persecution.

**Audience:** Residents of Boston with an interest in local history and heritage, and pupils from schools local to the Boston area.

**Background:** Boston is an area locally known for tensions between migrant and non-migrant communities, despite the area having a rich history and connection to stories of migration and persecuted peoples. This project seeks to engage residents of Boston with relevant historical research to explore how they may relate to ideas of home, homeliness and homelessness in medieval England, and experiences of refugees and migrants, and how these stories from the past may reveal insights into modern experiences of home and belonging during the time of the coronavirus pandemic.

**Approach:** This project comprises two distinct areas of activity. The first will be an online, live interactive talk, taking place as part of the Being Human festival of the humanities, which will explore past and present ideas of 'home' and 'belonging' with the audience. Participants will be invited to share their experiences and thoughts about 'home' and 'belonging', in the context of the coronavirus pandemic. This input from the audience, as well as further research into the perspectives of vulnerable, isolated persons during the pandemic, will then be used to develop a series of activities for local Boston school pupils, in collaboration with the Boston Guildhall.

**Evaluation:** Interactive tasks during the online talks, such as text-based discussions, the creation of word clouds and live polls will be used to understand participant perspectives and assess impact. Teacher questionnaires and pupil tasks will be used to assess the extent to which groups of pupils have engaged with the classroom-based activities, as well as to inform future research.





## Decolonising History: sharing research and approaches with schools

Lead applicant: **Dr Sarah Longair** (*Senior Lecturer, School of History and Heritage*)

Co-applicants: **Dr Antonella Liuzzo-Scorpo**, **Dr Leon Rocha** and **Dr Christine Grandy** (*School of History and Heritage*)

**Purpose:** This project aims to engage local schoolteachers with our research and related global issues, to ultimately addresses a key current concern within universities and schools – how to decolonise approaches to history and challenge existing, traditional interpretations of the past. Through discussion and knowledge sharing, the project intends to empower teachers to makes changes, whether big or small, to the curriculum to reflect decolonised approaches, with case studies and teaching ideas.

**Audience:** Local schoolteachers, invited through the Lincolnshire Teaching School Alliance, and wider educator networks.

**Background:** The topic of decolonising knowledge is critical at present in supporting civil society and helping pupils, as citizens, better understand Britain and their place in the world. The decolonising agenda is fundamental to the research of the four academics involved in this project. Dr Liuzzo-Scorpo's research demonstrates how cross-cultural interactions and inter-faith relationships in the Middle Ages help us to examine multiple and often dismissed voices, questioning how specific sources and perspectives have been used to construct rigid historiographical narratives. Dr Rocha's research illustrates often overlooked episodes of cross-cultural exchange between China and the West, and in the process revealing how ideas – and myths – about China and the West come into being. Dr Grandy's work examines shifting, and contested, understandings of racism amongst television and

film producers in 20th century Britain. Central to this research are the efforts of Black and Asian organisations and audiences who worked in the postwar period to name racist practices on the screen, including 'blackening up'. Dr Longair's work uses visual and material culture to study the British Empire in East Africa and the Indian Ocean world, to reveal hidden narratives and examine how the collecting of material culture contributed to the creation of colonial knowledge.



**Approach:** This project will comprise four workshops based on the themes of; "New voices in Medieval History", "Constructing myths of China and the West", "Analysing twentieth century media: race and migration" and "Material sources for imperial history". Workshops will be followed by open discussions about the example case studies and their relevance to the curriculum. Following the workshop series, resources for teachers will be co-produced with participants, based on workshop discussions and teachers' trials with pupils. The decolonising history resource will ultimately be presented at a teaching conference for wider input, before being made publicly available.

**Evaluation:** The project will be evaluated firstly by feedback on the day of workshops, through a response form. Teachers will be consulted about the creation of the final resources, allowing us to gauge their engagement and identify key areas of relevance for them. Finally, informal meetings will be held with participants to discuss how the workshop has informed their teaching and future plans.

# Regular Events in The Spotlight

## *Pint of Science Goes Virtual*

**Dr Kay Ritchie, Dr Roger Bretherton, Dr Tessa Flack**  
(School of Psychology) and **Dr Birsu Kandemirci**  
(Kingston University London)

In a year bemoaned by one and all, it seems that almost every fun activity that once brought us together in a physical space to enjoy each other's company (and research) has turned into a Microsoft Teams meeting. Not to be deterred by the pandemic, or video call fatigue, Lincoln's Pint of Science team took part in the UK's online Pint of Science festival in September 2020.

Pint of Science is a global festival which typically takes place each May, bringing local researchers into local pubs to engage with the public. The Lincoln Pint of Science team ran the first festival here in 2019, showcasing research from science, social science, and the arts. 2020 should have seen 24 researchers from the University of Lincoln give talks over three nights in four local pubs/bars – The Pessimist, The Queen in the West, The Cardinal's Hat, and The Lion and Snake. Instead, the decision was made by the UK's central Pint of Science team to run just 12 online shows, livestreamed to YouTube.

The Lincoln team was one of the first to volunteer and secured one of the 12 slots to run an hour-long livestreamed event. Dr Roger Bretherton from the School of Psychology gave a brilliant presentation entitled "The weird world of curiosity", exploring research into the character strength of curiosity and how we can use this trait to change our behaviours and improve our interactions with others. Dr Kay Ritchie from the School of Psychology (who is also the Lincoln Pint of Science team leader) hosted the event, and behind the scenes technical support was provided by Dr Tessa Flack, also from the School of Psychology, and Dr Birsu Kandemirci from the Department of Psychology at Kingston University. You can watch the event back on YouTube<sup>[1]</sup>.

At the time of writing, the YouTube video has been viewed over 1,000 times, with over 170 people logging on to 'attend' the event live. During the event, run through the online streaming platform 'StreamYard', members of the public were able to enter comments and questions into the YouTube chat, and

Tessa and Birsu displayed these on screen for Roger and Kay to respond to. This worked very well and was a nice way of keeping an element of two-way engagement during the event. Formal feedback on all of the online events was sparse, but respondents who included feedback on Lincoln's event were overwhelmingly positive, particularly enjoying the relaxed style of the event.

Pint of Science will return virtually next year in a different format. This time the team are aiming to run three online livestreamed events, each with two speakers. The events will take place on 17th-19th May 2021. As soon as there is more information on this, the team will make sure it's communicated to readers of Discovery, but for now you can keep up to date with all things Pint of Science via the main website<sup>[2]</sup>.



*Dr Roger Bretherton and Dr Kay Ritchie, both from the School of Psychology, entertaining each other and a live audience of over 170 people during 2020's online Pint of Science festival.*

### *Key references and further reading:*

[1] Event recording: [www.youtube.com/watch?v=mn3bXmaq1YA](https://www.youtube.com/watch?v=mn3bXmaq1YA)

[2] Pint of Science website: <https://pintofscience.co.uk/>

## Being Human From Home

Being Human is an annual festival of the humanities that takes place across the UK every year in November. In contribution to the 2020 Being Human programme, PEARL supported the development of a 5-part series of online, interactive talks events, all delivered live, via Zoom, direct from speakers homes during the UK's November lockdown.

In total, Lincoln's Being Human 2020 events welcomed *more than 180 attendees* across five evenings of online activity. We received a very positive response from the events, with *86% of attendees saying they found their event enjoyable, and most importantly, at least 83% of our attendees said that the event they attended had changed their perceptions about the subject matter*. The PEARL team looks forward to developing more activity with Lincoln staff and postgraduates for Being Human 2021.

### Engineering Reality

**Claire Rose** MBA ACIS FCIM FRSA AssIET  
(Lincoln International Business School and Lincoln  
Institute for Agrifood Technology - Agri Robotics)

Claire Rose gave a talk, titled 'Engineering Reality', as part of the Being Human Festival 2020.

The talk was designed to engage the public with engineering sciences and innovation, by asking the audience to consider the ways in which innovative business, engineering and forward-thinking investment can stimulate economic growth.

All examined as part of one 'big idea' – Engineering Reality! What is the reality of being an engineer, and what kind of reality would we like to engineer as part of 'being human'.

The talk fell into three parts:

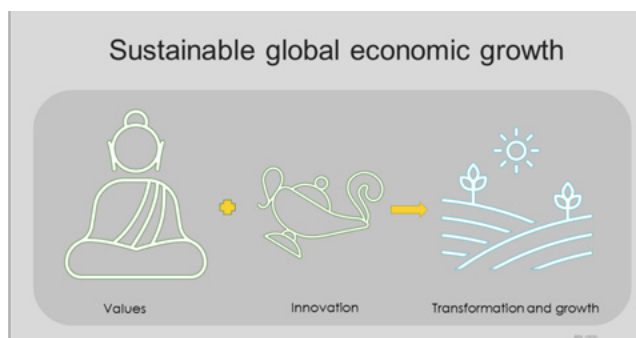
**The reality of being an engineer** – where we explored the potential for change and innovation that an engineering mindset and skills can enable. Participants were asked to explore what their 'engineering superpower' might be and how 'by the power of maths, physics and science' we might realise game changing innovation in the real world. We also explored the power of innovation investment, to enable and articulate global innovation. Concluding that both innovation engineering skills, and innovation investment funding were required to articulate innovation, make new products, and generate growth.

**Sustainable innovation-led growth** – where we explored Claire's thinking and original academic models around the transformative capability of growth, twenty first century innovation-led economic growth and philosophies and structures which enable long term innovation-led economic growth. We also explored business cases of applied technological innovations which are moving the dial in terms of liberating human potential. We also looked at investment

patterns in the Global Innovation Investment Index and showcased spaces where the global investment community were placing funds for innovation.

**The final part of the talk, looked at some 'cool tech'** and real world examples of elegant, applied engineering innovation, which included The Barbican Rain Room – where you can walk in the rain and never get wet! - and ongoing work at Lincoln University Agri Robotics, where innovative engineering, computer and data science skills are being put to good use to develop robots which support innovation challenges in food and farming industries, including the now famous 'How to pick a strawberry' challenge.

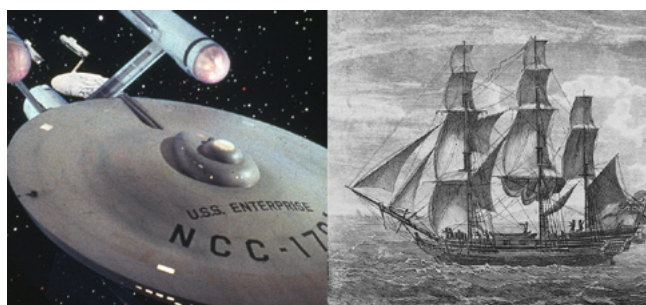
To find out more about any of the ideas in the talk, or to talk about developing an innovation project in partnership, please do get in touch. [clrose@lincoln.ac.uk](mailto:clrose@lincoln.ac.uk)



## Cook Vs Kirk

**Alex Lewczuk** (*School of English and Journalism*) and  
**Robin Pierce** (*Lead Writer for Starburst Magazine*)

In keeping with the PEARL mantra of Public Engagement for all I was delighted to be able to employ contemporary communications technology to deliver a comparison between the fictional and inspirational worlds of Star Trek and the historically documented voyages of James Cook. Perhaps the essence of the event is best summed up by one of the attendees, a professional media critic from the world's longest running magazine of Science Fiction 'Starburst', Robin Pierce, whose thoughts were as follows:



As part of the Being Human event, Alex Lewczuk was presented with a unique challenge, which he approached in a unique way. The premise of his Cook Vs Kirk session was to compare two intrepid explorers, one from the past, one from the future. The interactive session, which was conducted via Zoom due to the pandemic restrictions, presented the audience with an opportunity to decide which character they would choose to undertake an exploratory mission with; be it on the HMS Endeavour with Captain James Cook, or the USS Enterprise with Captain James T. Kirk.

The lively presentation compared both characters, their early years, their command style, their accomplishments and their colourful lives up to the point of their deaths, matching the factual, known real history of James Cook against his fictional counterpart, as the minutiae of Kirk's life is well established within the Star Trek canon.

Several points of interest were raised where it became evident that both characters paralleled each other at key points, and Alex gave the opportunity to the audience to have their say via online voting, which gave an interesting insight into how the audience, who were mixed in both gender and age were being persuaded by the charisma of both explorers as the session proceeded.

And speaking of charisma, it has to be said that the success of this venture depended solely on Alex Lewczuk's charismatic presentation, delivered with an infectious enthusiasm and an unquestionable degree of knowledge, passion and flair for the subject at hand.

This educational, thought provoking part of the event drew to a close with a final vote being taken among the audience of which captain they would follow into the unknown. Surprisingly, it seems that despite Alex's staunch refusal to lead the witness one way or the other, we were happier to board the Enterprise rather than the Endeavour, with James T. Kirk emerging as a clear, inspirational winner.

As his first officer would undoubtedly say... "Fascinating".

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## Old Sheep, New World

**Nicole Gosling** (*School of History & Heritage*),  
**Professor Abigail Woods** (*PVC, College of Arts*) and  
**Dr Beth Clark** (*University of Newcastle*)

Members of the research group FIELD (Farm-level interdisciplinary approaches to Endemic Livestock Disease), led by Pro Vice Chancellor and head of the College of Arts Abigail Woods, hosted a virtual event as part of the Being Human Festival entitled 'Old Sheep, New World'.

The event looked at the way sheep breeds have changed over time and questioned what place historic breeds like the Lincoln longwool have on British farms today. The main talk, delivered by PhD student Nicole Gosling, focused on the history of sheep breeds and sheep farming in Britain. The application 'Mentimeter' was used during the talk to provide opportunities for audience participation, specifically the creation of 'word clouds' which enabled audience members to share their thoughts on the key characteristics and purposes of different breeds of sheep; which they were particularly good at describing.

The event was a great opportunity for the FIELD members to engage with members of the public via new mediums (Zoom and Mentimeter), having previously only had experience engaging audiences with face-to-face format events.

The 40 members of the audience were of varying ages and different levels of knowledge about sheep farming and its history. Feedback from them was positive, with many enjoying the interactive nature, and commenting that they learned a lot and were inspired to go away and learn more about sheep farming. The FIELD project members really



enjoyed taking part in the event and found the audience members' thoughts surrounding sheep breeds, both past and present, to be particularly interesting. During the event, a very welcome surprise was the attendance of a Lincoln Longwool sheep breeder who, as part of the open discussion and Q&A portion of the event, was able to provide a real-world perspective of the topic at hand, which the audience valued highly as a compliment to the talk.



## There's No Place Like Home?

**Dr Erin Bell** (*School of History and Heritage*),  
**Professor Stephanie Hemelryk-Donald**  
(*Monash University, Malaysia*) and  
**Dr Hollie Morgan** (*Medievalist and Associate Researcher*)

In November 2020, as part of planned Being Human activities, Hollie Morgan and I, chaired by Prof Stephi Hemelryk Donald, presented papers based on our research into ideas of home to an audience of around fifty people. The key aspect of the event was that it was, in keeping with the necessities of the 2020 pandemic, entirely online – we could not hold it at Boston Guildhall, as we'd originally planned, but social distancing meant that it became national, rather than regional, and potentially international, as we contacted Boston (USA) news outlets prior to the event.

The talks considered medieval ideas of home, and the experiences of Mary Dyer, a London Quaker executed by Boston (America) authorities in the early 1660s, respectively. Although very different in some respects, they share a theme

of home – who and what constitutes and defines home, and why. The event formed part of a wider project started through the Justice Arts and Migration Network [1]. There's No Place Like Home (2019-2020) which fostered collaborations with Mansions of the Future [2], Being Human, and PEARL, as well as the July 2019 'Immobile Displacement' event Pietro di Paola and I held with Hollie, Stephi and several other speakers from a range of disciplines, who brought different interpretations of the idea of historical and contemporary displacement from home.

The driving notion was that ideas of home allow deep and diverse conversations in our communities. In 2020 recent and ongoing experiences of lockdown became part of this account and our event in November offered a wider and nuanced historical perspective. It was therefore very important to hear the voices of the audience in response to the papers and to the questions offered by the chair – comments and event poetry were the result! – as these, and other responses currently being collected in conversation with medically vulnerable people about their experiences of lockdown and consequent reflection on the idea of home, offer very valuable insights into the current impact of lockdown on ideas of home.

Although further details of the audience were difficult to garner, the event certainly was food for thought for them, as well as for us – it underlined the significance of working with people to get a sense of their ideas and experiences. Responses from the event will, in the coming months, be considered alongside responses from other vulnerable people about their experiences of lockdown in order to share an anonymised version with primary school children, to encourage them to reflect on their ideas of home – in terms of the domestic, the geographic, and heritage.

Although the event was initially intended to tie into wider events marking the 400th anniversary of the Mayflower, it became evident that the themes we initially outlined are more broadly applicable – in our own lives as well as those of our audience, and in the lives of people in the past. We continue, then, to work on collecting reflections on ideas of home, and will also at some point be able, we hope, to record brief talks about home on site at Boston Guildhall, to create a virtual exhibition and/or to make them accessible on site at the Guildhall when it reopens. This, we hope, will remind visitors of links between transatlantic movements of the past and contemporary movements of people in search of home, which is of particular significance for its links to the Boston Pilgrims but also for many local (Boston) people today, whose sense of home and heritage has been shaken, in some cases, and confirmed, in others, by recent events.

## Key references and further reading

- [1] Justice Arts and Migration Network: [www.migrationandart.com](http://www.migrationandart.com)
- [2] Mansions of The Future: [www.mansionsofthefuture.org](http://www.mansionsofthefuture.org)

## Poinsettia Holiday Hackathon

**Professor Elizabeth Sklar** (*Lincoln Institute for Agri-Food Technology*) in collaboration with Lincoln Agri-Robotics, EPSRC Centre for Doctoral Training in Agri-Food Robotics: AgriFoRwArdS, Lincoln Institute for Agri-Food Technology and the EPSRC Internet of Food Things

A Holiday Hackathon Challenge was hosted, by Lincoln Agri-Robotics and the AgriFoRwArdS CDT, between Monday 14th and Friday 18th December 2020. The event was supported by staff from the EPSRC Internet of Food Things project, the Lincoln Institute for Agri-Food Technology and the central Marketing Team.

The week-long hackathon brought together students from all over the UK, and further afield, to work on machine learning challenges to define the Best Poinsettia.

Bridge Farm Group, the leading UK producer of ornamental plants, flowers and herbs has allowed us to visit their state-of-the-art facility in Spalding where they are growing over 1 million poinsettias to collect the images and data required to run this event.

Hackathon participants were given access to our virtual 'poinsettia nursery' which combined images of Bridge Farm Group's poinsettias with images sent in by the public.

Participants were asked to use state-of-the-art computer vision and machine learning (ML) methodologies to develop methods for autonomous labelling of these images, then use the data supplied in our 'poinsettia nursery' to train and test their models to accurately determine the Best Poinsettia.

Hackathon participants worked on 4 challenges;

- Find the colours (balance of red and green)
- Find the bract clusters
- Find the pot
- Find the top of the plant (height above the pot)

Entries were submitted in two categories ('Find the colours' and 'Find the bract clusters'), and the winners were announced during the Poinsettia Hackathon Closing Ceremony held on Friday 18th December 2020. During the ceremony one member of the general public was also awarded a prize for submitting the most poinsettia images.

Winners of the 'Find the colours' category were;

- 1st UEA vision lab
- 2nd JJSnoops

Winners of the 'Find the bract clusters' category were;

- 1st Jack Foster
- 2nd Shanks

The winners of the Hackathon Challenge received a voucher for a free poinsettia. The member of the public who won the prize for submitting images of their poinsettia also received a voucher for a free poinsettia.

Everyone who sent in poinsettia photographs received a voucher for a bag of free bird food, as did the hackathon participants who entered 'Find the colours' and 'Find the bract clusters' submissions.

The event will be run again next year and so we would be delighted for University colleagues, and members of the general public to send pictures of their Poinsettia into us [\[1\]](#) for use in next year's competition.

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### Key references and further reading

[1] Project website: [www.lar.lincoln.ac.uk/poinsettia-challenge/](http://www.lar.lincoln.ac.uk/poinsettia-challenge/)





# Computer Science Christmas Lectures

**Dr Chris Headland and Dr Kieran Hicks**  
(School of Computer Science).

At the end of the year, the School of Computer Science; including academics, students, alumni, and friends of the school delivered our first Christmas Lecture series. This was an opportunity to share our research broadly, both within the school (enhancing the visibility of our activities to our students) but also externally to the community. These lectures were all delivered as a live-stream via our youtube channel to keep them accessible, despite the current pandemic restrictions.

During the week, the school delivered 31 sessions. Academics led 16 sessions, students 9, friends of the school 4, and alumni delivered a further 3. Each of these lectures covered a different topic in contemporary computer science and a broad range of research. During the week these streams (and the subsequent recordings) had 2.9 thousand views. These were picked up by several schools, locally, and as far away as Houston in the United States of America.

In normal circumstances, we would be inviting guest lecturers into the school for our students to access, and we would be going out to public events to promote our work. Clearly, in the current situation, this isn't possible. However, live streaming our Christmas lectures allowed us to still achieve these objectives.

These sessions were a great example of the school working together to achieve something brilliant. By recording each of the sessions, we will continue to benefit and continue sharing our research with the outside world in a scalable way.

The impact of the sessions has been extensive. We have had students follow up with us about research opportunities, and we have built new relationships with our school's network. One of the exciting insights was how popular the lectures led by students and alumni were. It was great for us to get a new insight into some of the independent research that the students are exploring as part of our school community.



# Publicly Engaged Research Projects

## *Keep Calm and CREATE-on! Reflecting on the Transported arts programme during the pandemic*

**Dr Anna Scott** (Programme Manager, Transported Creative People and Places Programme, Centre for Culture & Creativity)

### Who are we?

Transported<sup>[1]</sup> is a strategic, community-focused programme funded by Arts Council England, aiming to get more people in Boston Borough and South Holland enjoying and participating in arts activities. It is one of 33 Creative People and Places (CPP)<sup>[2]</sup> programmes in England, a few of which are part of a university. The project team at the University of Lincoln are based in the Centre for Culture and Creativity.

### What do we do?

Transported is focused on social engagement using an action learning approach to achieve high levels of positive social impact. We do this through embedding activity around the principles of self-making, community-making and place-making, working with a range of public, private and community sector partners to create high quality arts experiences for diverse audiences and participants. Needless to say, this year's plans dramatically changed as a new lockdown reality emerged in early 2020.

The Transported programme is mid-way through its third three-year phase, having become part of the University in 2019. Much of Transported's work involves workshops, live performance, hands-on activities, social events and physical spectacles designed to create meaningful and memorable experiences for all involved.

Transported has expertise in 'self-making', where people grow through learning, experience and development. It has always 'made the everyday exceptional' so people 'see through new eyes'. This has been extended during the pandemic to explicitly focus on compassion and thought – developing on 7 years' experience of creative exploration and social encounters. 'Community-making' builds on self-making – so confidence, skills, social capital and civic engagement form healthier places in which to live and work. An unusual strength of Transported is its work in business, for pastoral care and support for more effective working and productivity. As a CPP, part of Transported's purpose is to 'make the place' – to grow skills and capabilities, at personal and community level, working with Local Government as partners in local stewardship.

### How do we do it?

In response to the initial lockdown, Transported made a call-out for creative responses to tackling some of the immediate and emerging social issues developing as a result of isolation and lack of resources. Artists from across the county responded with innovative ideas to help people feel connected by offering them new ways to explore their creativity and try something new – a suite of 'CREATE-on' projects<sup>[3]</sup> were launched.

Commissioned artists delivered activities under lockdown restrictions to support mental wellbeing and a sense of community, connecting Boston and South Holland residents with the place they live and the wider world. Projects featured online storytelling through puppetry, a remote craft club, frottage (rubbing) drawings, a portrait of Boston in lockdown using cyanotypes, and helping design a new town centre sculpture on a marine buoy.







### What have we learnt?

CPP programmes have to think critically about what success and failure looks like – and this is multi-layered, represented through the communities reached, the quality of creative engagements, the nature of partnerships, and the depth of community-led decision-making.

Some closing thoughts from our Director, Nick Jones:

“Action research is absolutely brilliant for this, because we’re not commissioning you to make a piece of sculpture, we’re commissioning you to make the positive impacts that a successful piece of sculpture will have in that place, and for the people that live with it. It’s not about just the end piece - it’s about the impact of the end piece”

The past year has allowed Transported to develop as a programme in ways which could never have been foreseen, to find confidence in uncertainty:

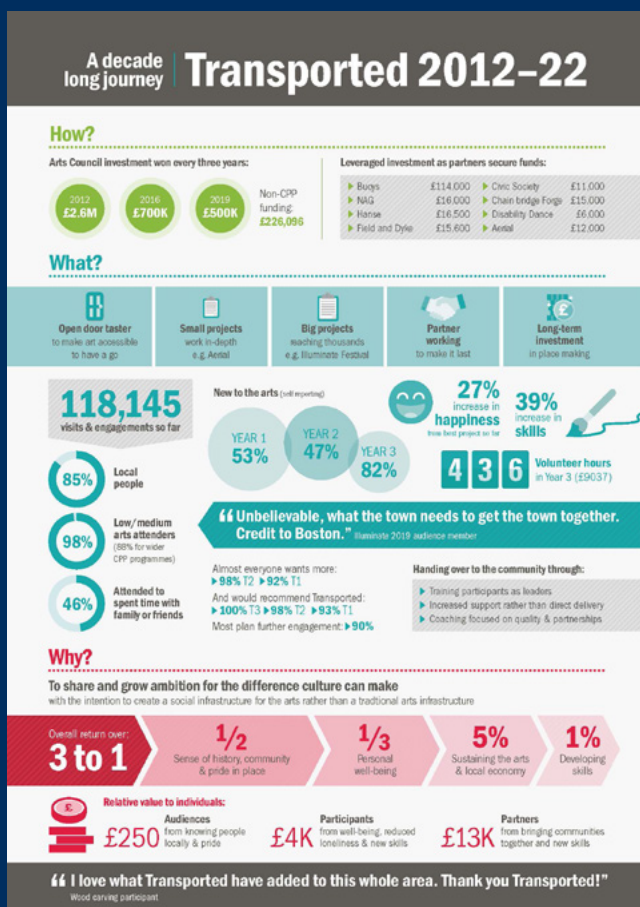
“It’s enabled me to take my foot off the accelerator. Just start to reflect on what our programme is about. Who is it for? And where do we want our biggest impacts to be? And I think I’m moving towards a sense that things should be smaller and more intimate and more gentle, at least for the next year. And so that gives people space to gently get involved to be more confident to be more expressive of themselves in their own needs.”

### Key references and further reading

[1] Transported website: [www.transportedart.com/](http://www.transportedart.com/)

[2] CREATE-on Programme Overview: [www.creativepeopleplaces.org.uk](http://www.creativepeopleplaces.org.uk)

[3] Creative People and Places programme: [www.transportedart.com/projects/current-projects/create-on](http://www.transportedart.com/projects/current-projects/create-on)



## Dig School

**Professor Carenza Lewis** (*School of History and Heritage*)

Dig School<sup>[1]</sup> is a free, cross-curricular, online learning programme that gives young people, aged 8 to 15, an opportunity to acquire a range of useful, transferrable thinking skills and knowledge; all through the prism of archaeology.

Dig School's content draws on Professor Carenza Lewis' interdisciplinary research in historic rural settlements and the social impact of participation in archaeological investigation. The inspiration for the project originated the day that UK schools were closed by Covid-19 for the first time in March 2020. Professor Lewis, shocked as everyone was by the rapidly escalating crisis, pondered how teachers and home-schoolers were going to be able to keep pupils engaged with learning with teaching restricted in such unprecedented ways and pupils deprived of their normal classes, teachers, resources, goals, support networks and friendship groups.

Professor Lewis' previous experience of devising and running aspiration-raising learning programmes at Cambridge and Lincoln linked to her research into historic rural settlements, including the Discovery Days and the 13-year Higher Education Field Academy (HEFA), had been published in several papers. This experience suggested that Archaeology's capacity to engage could help learners develop knowledge and skills across a range of subjects including humanities and STEM.



Hasty consultation in the first full week of the UK's first lockdown immediately elicited enthusiastic support from national organisations including Historic England who agreed to fund Dig School, the Council for British Archaeology who agreed to co-deliver it, the Historical Association and the Schools History Project. We agreed a launch date of 24th April, the beginning of the school summer term, then barely 4 weeks away, and committed ourselves to providing a course of 20 workshops, two to be released every week until the end of the summer term in July. The challenges were enormous, including developing an online infrastructure and adapting activities previously centred on hands-on involvement to asynchronous online delivery - all in an incredibly short timescale when everyone who could possibly help was locked down.

After a blizzard of Zoom calls between the University of Lincoln and the Council for British Archaeology, we devised a downloadable package for each workshop to include a podcast 'lesson' (split-screened with speaker and powerpoint presentation), powerpoint presentation, a student workbook and guidance notes for carers/teacher complemented by live online support twice a week. The concept turned out to be, essentially, Joe Wicks' Youtube PE lessons with more History and less sweat.

Dig School's 20 workshops are all potentially standalone, but together they form an integrated package. The first workshops explored general concepts such as interpreting evidence and change over time, the next focused on skills for local place-based studies (for history, geography of citizenship), which included learning how to excavate in a way that can actually be carried out for real in pupils' gardens or school grounds, and the final workshops



moved onto analysing evidence and communicating discoveries. Workshops 8-20 draw particularly on Professor Lewis' research into historic settlements, including the test pit excavation technique she has used extensively in more than 80 rural settlements across four countries. As well History, Dig School encompasses concepts and learning from subjects as diverse as Geography, Biology, Chemistry, Physics, Religious Studies, Art, Philosophy/Ethics, Media Studies, Citizenship and more.

Each Dig School workshop involves a range of activities, including listening, discussing, observing, drawing, playing games and debating, deliberately varied in order to keep pupils engaged. Familiar games such as Call My Bluff, Consequences, Snakes and Ladders and Top Trumps are adapted to enable pupils to immerse themselves in enquiries and even to substitute for excavation. In 'Location Location Location' pupils use learning about the importance of place in a 'Battleships' style game to try and identify where in a real landscape their partner has located their settlements. In 'Animal Farm' pupils are first challenged to draw a 'mystery animal' while seeing only its skeleton, then compete to match excavated animal bones to skeletons, before exploring the impact of Henry VIII's policies on the size of English horses through evidence from their excavated bones

The first Dig School workshop was launched on April 24th 2020 and it instantly took off, acquiring 500 registered users overnight and more than 1100 overall, responsible for 62,190 learners in 34 countries. All 20 workshops were released online on time (albeit after a lot of very late nights!), and feedback has been very positive. As early as Day 1, Twitter<sup>[2]</sup> comments included "Thanks so much for #DigSchool – 10-year-old history-obsessed daughter is hooked already. Makes a brilliant addition to the home learning curriculum" while comments from school staff included one Wharfedale teacher's Facebook post, "Really pleased with our first online history lesson using the fantastic Dig School resources. Students at school and home were able to have a go and initial feedback is very positive! Many thanks." Reaching out beyond young learners, Dig School was even able to help the CAER Heritage in Wales get scores of residents in one Cardiff housing estate excavating during lockdown, and was featured in The Guardian and on BBC Radio 4's Open Country (9th July).

Online evaluation of Dig School in Autumn 2020 has shown 71% of respondents rated it 'excellent' and 25% 'good' (on a 5-point scale), 89% felt happy after participating, 81% felt capable, 82% felt curious, 96% felt interested, 89% had learned something new, 88% gained new skills, 89% were keen to try new things and 96% would recommend it to others. Additionally, Dig School has been shortlisted for a Museums and Heritage Award (in the Learning Outreach category), against a record number of entries. Dig School remains freely available online, and we intend for it to remain so for the foreseeable future.



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### *Key references and further reading*

[1] Dig School website: [www.DigSchool.org.uk](http://www.DigSchool.org.uk)

[2] Search Twitter conference hashtags: Lewis, C. 2020. #DigSchool and #PATC5

[3] Article: Lewis, C. 2020. 'How history learners can 'dig school' under lockdown' Teaching History 179, 44-49

[4] Article: Kirton, J. and Lewis, C. 2020. 'Carenza Lewis Introduces Dig School'. British Archaeology November/December 2020, 52-3.



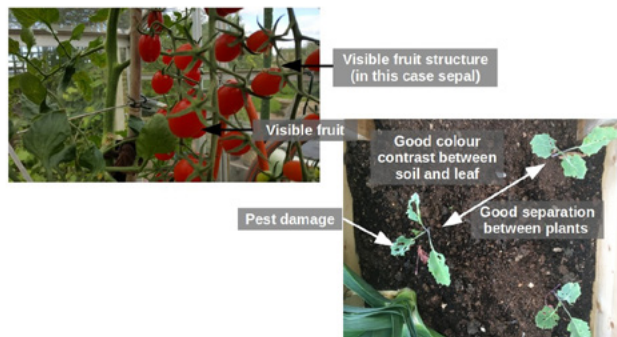
# Lincoln Agri-Robotics Citizen Science (LARCS) Project

**Professor Elizabeth Sklar, Isobel Wright, Dr Shaun Coutts, Dr Peter Lightbody, Jamie Rees and Heather Smith**  
(Lincoln Institute for Agri-Food Technology)

Lincoln Agri-Robotics (LAR), the world's first global centre of excellence in agricultural robotics is based at the University's Riseholme Campus, the home of the Lincoln Institute for Agri-Food Technology (LIAT).

LAR concentrates on bridging internationally leading research on robotics and autonomous systems in collaboration with Lincoln Centre for Autonomous Systems (LCAS) and works with crop science and agronomy specialists in LIAT to focus on agriculture and farming issues.

The Lincoln Agri-Robotics Citizen Science Project aims to collect and curate a data set of images which can be used to develop software vision systems in robotics and drones. These will be used to monitor the health and nutrition of crops, monitor yields, detect weeds and analyse soil moisture levels. All of this activity contributes towards increasing efficiency and productivity in farming and agriculture.



The most common approaches to analysing data include engineered (rule-based) image processing and machine learning, for which “deep learning” techniques are currently extremely popular. However, in order to apply a machine learning technique successfully, a large and robust data set must be provided to the computer-based process which “learns” a model of the data. Such models are used for the types of counting, identification and prediction tasks outlined above; but a model is typically tailored to the task to which the model will be applied, which means that a



substantial amount of data must be available in order to develop such a range of models e.g. to identify a particular weed in the crop.

It is important the data set reflects a variety of growing conditions to include healthy and unhealthy plants grown in different environments from home gardens to

commercial fields. Capturing additional detail such as pests, weeds, soil conditions and lighting is also crucial in ensuring an accurate reflection of the real world.

We are therefore engaging with members of the public such as gardeners and the farming community through our social media channels to gather images from the following areas:

- Cereal crops such as wheat and barley
- Summer crops such as tomatoes and strawberries
- Winter crops such as cabbage and leeks

If you would like to support our research and share images of your fruit and vegetable crops, please visit our project's website[1].

For more information on LIAT, visit the group's website[2] or follow us on Twitter @LIATLincoln or LinkedIn @Lincoln Institute for Agri-Food Technology



## Key references and further reading

[1] Project website: [www.lar.lincoln.ac.uk/citizen-science/](http://www.lar.lincoln.ac.uk/citizen-science/)

[2] Lincoln Institute for Agri-Food Technology: [www.lincoln.ac.uk/home/liat/](http://www.lincoln.ac.uk/home/liat/)



# Exploring the Effects of Bingocize®

## An interactive community-based physical activity intervention for older adults in the UK

**Dr Hannah Henderson, Geoff Middleton, Georgia Clay, Anna Mongan and Dr Dan Martin** (School of Sport and Exercise Science), in collaboration with **Dr Jason Crandall and Dr Matthew Shake** (Western Kentucky University Center for Applied Science in Health & Aging, USA), and **Professor David Broom** (Coventry University, UK)

In a growing elderly population, 'healthy ageing' is becoming a crucial factor. With advancing age comes increased risk of developing chronic diseases, mobility impairment and loss of functional independence/capability, which physical activity can ameliorate. Delivering this message can, however, be challenging. In an effort to tackle these growing issues, Bingocize®<sup>[1]</sup> was designed to engage with the older adult population living in the community to improve functional mobility, independence and cognition.

Bingocize® is an interactive game, played on a tablet, which uses the traditional game of bingo whilst integrating low-level exercise and health education messages. Dr. Jason Crandall & Dr. Matthew Shake (from Western Kentucky University, U.S.A), developed Bingocize® which has been implemented in 35 U.S. states but has never previously been trialled in the U.K. The aim of this project was to trial Bingocize® in this country and investigate the effects of the interactive game with older adults from Lincolnshire.



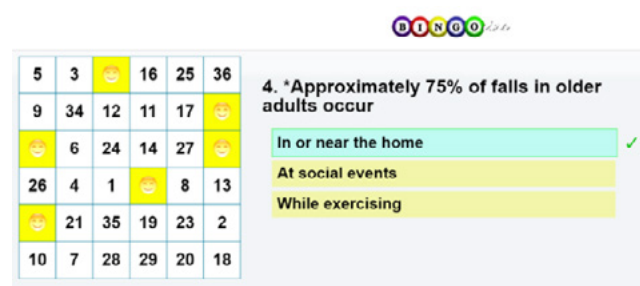
The research team collaborated closely with Age UK Lincoln to promote Bingocize® to their members and 11 participants were recruited from the local area. The group participated in Bingocize® twice a week for 10 weeks, on site at Age UK, with each session lasting between 45-60 minutes. During the sessions, each participant was provided with a small electronic tablet to view the Bingocize® game. The screen resembled a bingo game card and each participant had a different arrangement of numbers to determine a winner. A digital game of bingo with a numbered 'spinning wheel' was illustrated on screen to enact the traditional game. With each number called the participant was required to complete an exercise or answer a health-related question before pressing the number on their card. When a full row of numbers was complete a 'winner' was declared but the group would continue to play until the end of the session.

To establish the impact of Bingocize® a series of measures were taken prior to beginning the sessions and repeated at the end of the 10 weeks. The measures included:

1. basic screening assessments  
(height, weight and blood pressure)
1. functional fitness assessments  
(balance, walking speed, sit-to-stand, arm curl)
2. cognitive assessments
3. self-reported living and functional independence questionnaires.

After 10-weeks, the Bingocize® group members improved walking speed (7.5%) and their ability to sit-to-stand (24.3%). Although there was a trend for other improvements, these were not significantly different when compared to a control group who did not participate in the Bingocize® intervention. The results indicate that Bingocize® does contribute to an improvement in functional fitness for the 60 plus age group and informal participant feedback suggested that involvement in the game was a positive experience.

This study was an opportunity to engage with older adults in the community with a very different type of intervention. There is evidentially potential to run a larger scale randomised-controlled trial of Bingocize® within different community settings including care and residential homes. Formally capturing participant experiences of Bingocize® would also be of interest. This small trial served as a valuable learning experience for the research team, who are now able to understand the preparation, time and staffing commitments required to execute the intervention.



### Key references and further reading

[1] Bingocize® website: <https://www.wku.edu/bingocize/>.

# Denouncing Free Labour in the Music Industry

**Dr Cassandra Balosso-Bardin** (*School of Fine and Performing Arts*)

On 2 December 2020, the Guardian published a story about a band being dropped after asking for payment on the Strictly spin-off show *It Takes Two*<sup>[1]</sup>. Within minutes, the story took off and by the end of the day it had been shared almost 6000 times (5943 at the time of writing), made the newspaper's international headlines, became the most shared and most popular article of the day, and was picked up by a large number of media outlets (including the Independent, the Times, the Mirror, the Daily Mail and more). Twitter became an outraged echo chamber and Facebook provided many insightful comments by musicians and creatives who were only too familiar with being asked to work for 'exposure'.

The issue is not new. In 2012, the Musician's Union found that 60% of musicians had worked for free in the previous 12 months. As a professional musician, I know this practice is sometimes acceptable. I played many free concerts when moving to the UK at the beginning of my doctoral studies, mainly as a way to meet new musicians and build a reputation. Two years later, however, this phase was over and I only played for free on rare occasions, generally when wanting to support new creative endeavours or grassroots venues in peril of closing down, giving my labour instead of the cash I didn't have.

The current circumstances were different. The coronavirus crisis has brought the live music industry to its knees, with musicians, who are already low earners (56% earn less than £20K a year) cut off from their main income revenue: 49% of professional musicians' income comes from live performance (UK Live Music Census 2017<sup>[2]</sup>). The government's £1.57 billion investment in culture is not transparently trickling down to self-employed musicians, who form the bulk of the musical workforce (72% against the national average of 15%, UK Music 2019). Adding to this, the body expecting free labour was not a small grassroots venue, but one of the most lucrative shows on TV, who pays their judges up to 500K. Finally, the currency proposed, 'exposure', was made redundant by the absence of all activity for the foreseeable future.

As an academic, I have been increasingly involved in researching music and labour, an area I am familiar with as a practitioner. In November 2020, I chaired the programme committee of the annual British Forum for Ethnomusicology's one-day conference<sup>[3]</sup>, hosted at University of Lincoln by the music team. The chosen theme, Ethnomusicology and Music Enterprise in Catastrophic Times, was a timely and necessary topic. During his keynote, Dr Ioannis Tsioulakis from Queen's University Belfast, highlighted that musicians are in a state of crisis; no one can pretend to be successful, everyone is struggling.

When my band was contacted by the spinoff show to perform for expenses and a taxi fare, I realised that I was in a strong position to denounce this practice and decided to engage with the national media. The multiple roles I juggle came together: the experienced, unionised professional musician, the academic invested in musicians' labour, and the educator, who teaches about the music industry and helps shape young musicians. What might have felt a reckless career move even a year ago, now felt necessary, enhanced by the extreme crisis hitting my industry. Here was an opportunity to bring to the public some of the issues my academic colleagues were speaking about during the conference and to give a voice to musicians.

Shared thousands of times, the issue caught the attention of the BBC, who donated to the Musician's Union Coronavirus Hardship Fund and issued a joint statement. More importantly, it caught the attention of thousands of musicians and creatives across the UK, as it gave them a voice, highlighting that we know our rights and are ready to fight for them.

## Strictly dropped us after we asked to be paid, say musicians

**Band say they were offered a free lunch and 'screen time' for appearing on BBC's spinoff *It Takes Two***



▲ A BBC spokesperson said the decision to drop Amaratterra (pictured) from the programme was made for editorial reasons. Photograph: I handout

**A group of professional musicians have said they were dropped by *Strictly Come Dancing* after they asked to be paid for performing on the programme's spinoff show.**

## Key references and further reading

- [1] Article: [www.theguardian.com/tv-and-radio/2020/dec/02/strictly-bbc-dropped-us-after-we-asked-to-be-paid-say-musicians](https://www.theguardian.com/tv-and-radio/2020/dec/02/strictly-bbc-dropped-us-after-we-asked-to-be-paid-say-musicians)
- [2] UK Live Music Census 2017: [www.uklivemusiccensus.org/wp-content/uploads/2018/03/UK-Live-Music-Census-2017-full-report.pdf](https://www.uklivemusiccensus.org/wp-content/uploads/2018/03/UK-Live-Music-Census-2017-full-report.pdf)
- [3] British Forum for Ethnomusicology: [www.bfeoneday2020.weebly.com/](https://www.bfeoneday2020.weebly.com/)

# Where Science Meets Parliament

**Dr Jose Gonzalez-Rodriguez** (*School of Chemistry*)


As a scientist, there are times when you reflect on the real reasons why, at some point in your life, you decided to commit it to seeking knowledge and learn about the world around us. It is in moments like the one we are living now, when you realise that all that knowledge is worthless and empty if it does not serve a purpose.

After receiving an email requesting to respond to yet another survey, I was nearly tempted to ignore it. Only when I saw it referred to a request from Parliament to submit answers to the COVID-19 outbreak expert survey to form the basis of the Parliamentary Office of Science and Technology's (POST) [1] syntheses did I decide to learn more about it. I sent my response along with 1117 other experts and altogether we helped to produce it. I felt I was doing just a little bit.

Only later, when another request came to submit evidence to the UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks Committee by July 2020, I really thought about how my specialist knowledge could be of use. I conscientiously prepared my evidence, searching, gathering data, talking to friends in the NHS and other health services in Europe; all to understand the nature of the problem and to be able to give my best opinion. I took it so personally that, the night before submission, after a glitch in the system that made the website close 24 hours earlier than indicated, I rushed to submit in the early hours of that morning requesting my evidence [2] to be accepted. This is how passionate I felt about my voice being heard by Parliament. Hours later, Parliament acknowledged the glitch and accepted my evidence to be studied and, if pertinent, published.

The next chance for me to help came later in September 2020, when the House of Lords produced a report on Life beyond COVID-19: What are experts concerned about? [3]. This time, 350 experts gave opinion on different aspects of a post-covid world and how to pre-empt problems as early as possible.

In all these opportunities I felt highly motivated to help because of the human cost of the disease, but also importantly, I felt it was my duty as a scientist to express my views. In a world where science is under attack and questioned, it is needed more than ever for us to defend its principles. Most importantly, to tell our democratically elected representatives and the people of our country how vital it is for us science to be prioritised to help us win this and many other battles to come.

 UK Parliament

Committees

[UK Parliament](#) > [Business](#) > [Committees](#) > [Science and T](#)

## All written evidence

A session is a parliamentary year. Sessions normally begin in the Spring with the State Opening of Parliament and run for about 12 months. There are normally five sessions in each Parliament.

I felt strongly about the message to the Commons. I pledged for more transparency and openness. I asked for more national and international collaboration and open access to data. I requested to stop the diaspora of data so people could help to interpret it and analyse it. Because it is only through a transparent and traceable process that we can transmit to the population how strong our science is when we all work together. It is only through a process where data can be publically validated and double checked that science can convince sceptics of the strength of our facts. It is only when we join our voices that we convince our citizens that we are confident that we will prevail against this disease; especially today, when many people still doubt science. We cannot afford to hesitate and let others, motivated by reasons beyond my comprehension, win this disinformation battle and cast doubts on our progress.

## Key references and further reading

- [1] Parliamentary Office of Science and Technology: [www.post.parliament.uk/expert-acknowledgements/](http://www.post.parliament.uk/expert-acknowledgements/)
- [2] Committees website: [www.committees.parliament.uk/work/91/uk-science-research-and-technology-capability-and-influence-in-global-disease-outbreaks/publications/written-evidence/?page=2](http://www.committees.parliament.uk/work/91/uk-science-research-and-technology-capability-and-influence-in-global-disease-outbreaks/publications/written-evidence/?page=2)
- [3] Report: [www.post.parliament.uk/life-beyond-covid-19-what-are-experts-concerned-about/?fbclid=IwAR07DhSXSU5wbCyUknBwel9j67DN3R-FZCU\\_Z6jPWwW5WWGAuzSwb-cBRpE](http://www.post.parliament.uk/life-beyond-covid-19-what-are-experts-concerned-about/?fbclid=IwAR07DhSXSU5wbCyUknBwel9j67DN3R-FZCU_Z6jPWwW5WWGAuzSwb-cBRpE)



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