

13-15 JUNE 2022

**Creating Knowledge
Conference 2022**

#HALLAMCK22

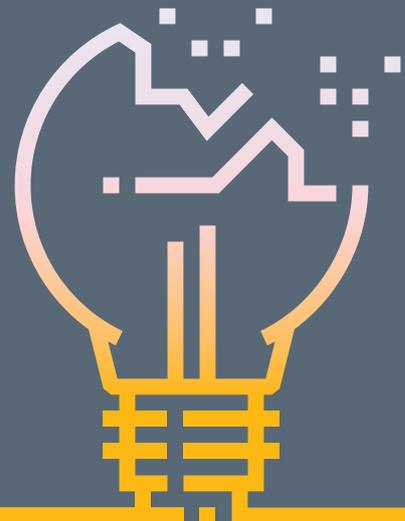


Contents

Welcome – Research and Innovation at Sheffield Hallam	4
Welcome – The Creating Knowledge Conference	6
Programme	7-12
3MT	13
Building Stronger Communities	15-22
Driving Future Economies	23-25
Enabling Healthier Lives	26-34
Panels & Symposiums	35-43
Workshops	44-47
Exhibitions	48-51
Posters	52
Researcher Community	54
Research Institutes	56-59
Research and Innovation Services	60

The following abbreviations have been used for the Research Institutes throughout:

CCRI	Culture and Creativity Research Institute
HRI	Health Research Institute
I ² Ri	Industry and Innovation Research Institute
SERI	Social and Economic Research Institute



Welcome – Research and Innovation at Sheffield Hallam University



I'm really pleased to be able to be with you at this conference and to be able to write a few words of introduction, both to the conference and to me as the very recent addition to the Sheffield Hallam community.

Perhaps unsurprisingly, I am massively enthusiastic about research and innovation, and education for their power for good. The Sheffield Hallam mission of 'transforming lives' sums it up – university completely transformed my life; education, research and innovation transforms all our lives.

My message about research, at Hallam and in general, is simple. It's about people. People 'do' research and everyone, without exception, in the university is helping. In some places I've been, there's a culture that recognises just a team leader, or principal applicant – the person whose name comes first on a funding award, patent, paper, website, news item. But this overlooks the crucial role of teams in research and innovation; it's not possible to have one person with all the skills needed, and whatever the type of research or discipline, we absolutely rely on a huge diversity of people having good ideas, our finance experts, librarians, technical experts, postgraduate researchers, human resources teams, and a whole host of skilled and talented colleagues that make the university community. On the subject of diversity – research and innovation teams across the system are not diverse enough and we need to find imaginative ways to open pathways to people who might feel that it's 'not for them': this isn't just because it's inarguably the right thing, but because there's a wealth of evidence to show that diverse teams are more productive, imaginative and happier. Research and innovation form a collective endeavour, we all own it, and we all contribute.

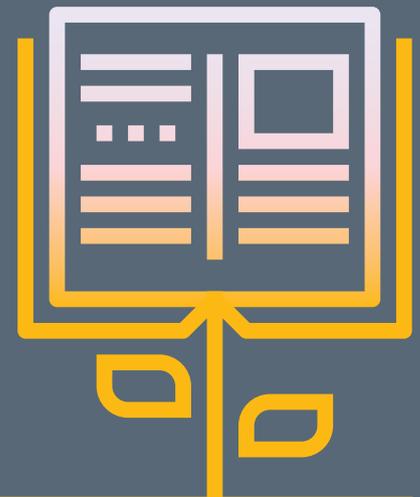
The idea of a shared endeavour doesn't stop at the door of the lab, office, or university campus. Research is for all of us. Decades and more of research have allowed societies to begin to function more normally in the presence of Covid-19, with the development of vaccines and treatments at remarkable pace. This success is not to be taken for granted – it's the product of highly skilled, dedicated biomedical scientists, of social science, psychology, engineering, logistics, communications experts and a cast list of talented people too long to type out. It is not an accident that the UK was amongst the leading nations in this – our research funding and world-class universities, attracting and developing talented people, are the envy of many competitors and neighbours. People, like us, who have benefitted from university education directly, or from wider contributions universities make that transforms lives.

During this extraordinary time, we have seen research and innovation played out in real time, every day on the news. I am passionate also about ‘public’ engagement (I’ve used inverted commas, because we are all ‘the public’, so it’s a tricky term). Nonetheless, it’s essential that wider society gets what we do, and why we do it – not just because a large proportion of research in universities is paid for through taxation – but because it is indispensable, transformative and to be celebrated and valued. Universities are a cornerstone of society, not separate from it. Connectivity, across, within and between universities, sectors, disciplines, countries, people, is vital for research to work well and for it to be useful and transformative. The pandemic isn’t over and other challenges are ever-present; security – of food, borders, technology, information; health and wellbeing of an ageing society (we’re in the UN Decade of Healthy Ageing); challenges in social mobility, fairness; finding sustainable ways to generate energy and in thinking about a just transition to a world beyond Net Zero.

Looking at the conference agenda, and getting to know the people behind it, I know that we all share these principles, and I am very much looking forward to being with you all and hearing about your amazing work.

Professor Rory Duncan

Pro Vice-Chancellor for Research and Innovation



Welcome – The Creating Knowledge Conference 2022

We are delighted to welcome you to the Creating Knowledge Conference 2022. Last year's conference was held entirely online and whilst this enabled us to extend our reach and offer new ways for engagement, we are excited this year to be able to deliver CK2022 as a hybrid conference. We hope that this approach will keep the beneficial aspects of the online experience, whilst offering the opportunity to re-establish links and make new connections for those who are able to attend in person. However you choose to join us, this year's conference promises yet another varied and thought-provoking opportunity to engage with the excellence, enthusiasm and achievements of our vibrant research and innovation community.

This year's programme offers a range of sessions designed to showcase the excellence and diversity of research and innovation at Hallam. Carefully curated to reflect one of the three overarching research platforms; Building Stronger Communities, Driving Future Economies, and Enabling Healthier Lives, we look forward to coming together to share research practice, revisit collaborations in-person, and engender a supportive and inclusive research culture.

As well as a packed programme of workshops and symposiums, the ever-popular 3-Minute Thesis (3MT) competition, a highlight of past conferences, is back this year. There will also be an exhibition showcasing non-traditional, creative practice, and practice-based research from across Hallam. Throughout the conference, sessions and highlights of the exhibition will be available to online participants to ensure an inclusive CK2022.

We hope that you will be able to join us for what promises to be a celebration of the rich landscape of research and innovation here at Hallam.

The Creating Knowledge Conference Team 2022

Prof Andy Alderson, Industry and Innovation Research Institute, Director

Liz Brearley, Research and Innovation Services

Prof David Cotterrell, Culture and Creativity Research Institute, Director

Prof Wayne Cranton, Dean of Research

Dr Adele Doran, ECR Representative

Dr James Fenwick, Culture and Creativity Research Institute

Prof Lisa Hopkins, Social and Economic Research Institute, Head of Research Degrees

Dr Sarah Molton, Research and Innovation Services

Sarthak Mondal, PGR Representative

Beci Oldfield, Research and Innovation Services

Prof Sarah Pearson, Social and Economic Research Institute, Director

Prof Heidi Probst, Health Research Institute, Director

Dr Elizabeth Scanlon, Research and Innovation Services

Prof Jon Wheat, College of Health, Wellbeing and Life Sciences, Associate Dean Research and Innovation

Julia Williamson, Research and Innovation Services

Programme

DAY 1 – MONDAY 13 JUNE 2022	
Time	Activity
12:30-15:30	<p>Early Career Researcher Workshop: Planning for Progression (How to Populate CV for Associate Professor Application)</p> <p>This session will include an overview of the Academic Careers Framework, how to interpret it and how to use it to aid progression. You will hear the experiences and top tips of other staff members who have recently completed progression to Associate Professor. This session will also provide an opportunity for the ECR community to get together and network in person ahead of the Creating Knowledge conference.</p> <p>What the workshop will cover:</p> <ul style="list-style-type: none"> • Academic Careers Framework explained • Staff experiences of Associate Professor process and top tips • Group work – mapping exercise and discussion • ECR Networking • Q&A Session <p>Session Facilitators: Sam Coulby, <u>Dr Alisha Ali</u>, <u>Dr Simon Choppin</u>, <u>Dr Jim Turner</u>, <u>Dr Antonia Ypsilanti</u> and <u>Dr Robert Storrar</u></p> <p>Book a place via <u>Eventbrite</u></p>
13:00-16:30	<p>Post Graduate Researcher Workshop: What Next Career Planning for Researchers</p> <p>Participants will learn how to develop long term self-management skills for future career progressions. We will consider the current job market and provide advice on how to keep up to date with relevant labour market intelligence to support career progression. We'll look at the hidden job market and how to use networking for successful job search. We spend time on the application and selection process in particular looking at CV's and interview skills. Participants will have an opportunity to think about their current skills and knowledge and how to develop them to progress in their chosen career.</p> <p>What the workshop will cover/learning outcomes</p> <ul style="list-style-type: none"> • Individual Development and career planning • Key Transition Points • Self – development for career progression • Hidden job market, job search and using your network • Application and Selection process <p>Session Facilitator: Heather Livingston, Skillfluence</p> <p>Book a place via <u>Eventbrite</u></p>

DAY 2 – TUESDAY 14 JUNE 2022

Time	Activity		
09:30-11:00	Opening, Introduction to Research Institutes, Facilitated Networking and Welcome Refreshments	EHL1: La Trobe/Enabling Healthier Lives	
	Location: Heartspace	Location: Online	
	Professor Wayne Cranton	Chair: Professor Jon Wheat	
		Daniel Epifano Comparing tibial accelerations between delivery and follow-through foot strikes in cricket fast bowling Sally Mastwyk Knowledge, attitudes, and current practice of physiotherapists in recognising and managing metabolic syndrome: a mixed methods study. Dr Casey Peiris Hiding in plain sight: a cross-sectional study of metabolic syndrome and lifestyle risk factors in community rehabilitation Patrick Slattery The Agreement Between Wearable Sensors and Force Plates for the Analysis of Stride Time Please register your attendance at this session via booking link. This session will take place via Zoom, the link will be sent to registered attendees.	
11:00-12:00	Driving Future Economies Workshop 1	EHL2: Enabling Healthier Lives	Building Stronger Communities Panel 1
	Location: Norfolk 210 Lecture Theatre	Location: Pennine Lecture Theatre and via Livestream	Location: Peak Lecture Theatre
	Chair: Dr Eve Stirling	Chair: Professor Heidi Probst	Chair: Professor Peter Wells
	Workshop		
	Alternative Home Histories: Speculative Futures Co-Design Dr Eve Stirling	Dr Sadiq Bhanbhro Investigating racism in the UK's healthcare sector Dr Mårjory Da Costa Abreu Using ethical machine learning solutions to support healthcare research Dr Jims Marchang Assistive Multimodal Robotic Security Solutions for Safe Adoption Richard Moore (Online) Co-design of a chatbot to support adolescents to overcome barriers to physical activity	Panel: Making policy happen: insights from educational policy Professor Mark Boylan Professor Colin McCaig Professor Emily Perry Professor Sam Twiselton Dr Gill Adams Loic Menzies
12:00-13:00	Lunch		

DAY 2 – TUESDAY 14 JUNE 2022

Time	Activity			
13:00-14:00	<p>Research and Innovation Ambitions Professor Rory Duncan, Dr Anita Gurney, Alex Prince, Dr Keith Fildes</p> <p>Location: Pennine Lecture Theatre and via Livestream</p>			
14:00-15:00	<p>Building Stronger Communities Panel 2</p> <p>Location: Norfolk 210 Lecture Theatre</p> <p>Chair: Professor Mike Coldwell</p> <p>Panel</p> <p>Systems approaches to social policy and social research Professor Mike Coldwell Professor Sarah Pearson Professor Peter Wells Dr Katie Shearn Ian Wilson</p>	<p>Enabling Healthier Lives Panel 1</p> <p>Location: Peak Lecture Theatre</p> <p>Chair: Dr Alice Bullas</p> <p>Panel</p> <p>Child Obesity Dr Alice Bullas Dr Cath Homer Pete Nelson Dr Dita Aswani Olivia Parkin Jess Wilson Sally Pearse</p>	<p>Cross Cutting Workshop 1</p> <p>Location: Pennine Lecture Theatre and via Livestream</p> <p>Chair: Dr Keith Fildes</p> <p>Workshop</p> <p>Developing a research impact culture at SHU Dr Keith Fildes Jenny Dunn Alison Honnor Arnett Powell</p>	
	Break			
	15:00-15:30			
	15:30-16:45	<p>BSC1: Building Stronger Communities</p> <p>Location: Pennine Lecture Theatre and via Livestream</p> <p>Chair: Professor Sarah Pearson</p> <p>Dr James Fenwick ‘The Precarious Lives of Yorkshire’s Film Festival Programmers’ Dr Mel Lacey Collaborative approach for impactful and representative public engagement activities Dr Mel Levick-Parkin (online) Gender and Design, an interdisciplinary journey into research and practice Dr Rachel Schwartz-Narbonne The coat-hanger: an impact driven public engagement intervention template Sara Trentham Black Contested understandings of technology in post-covid cultural and heritage site management</p>	<p>EHL3: Enabling Healthier Lives</p> <p>Location: Peak Lecture Theatre</p> <p>Chair: Dr Sarah Molton</p> <p>Dr Lynne Barker (online) The Microverse: Microbiome in Parkinson’s Disease- Are probiotics a potential therapeutic adjunct? Dr Abigail Millings (online) Applying behavioural science to engaging hard to reach groups with Family Hubs services Dr Jon Painter An evaluation of psychotropic prescribing practices in one Assessment & Treatment Unit for People with Intellectual Disabilities Harry Saxton Personalising cardiovascular models to aid diagnosis. Tim Wootton Synthesis and drug development of small molecule inhibitors of PTP1B for the treatment of comorbidities of Obesity</p>	<p>BSC2: Building Stronger Communities</p> <p>Location: Norfolk 210 Lecture Theatre</p> <p>Chair: Professor Wayne Cranton</p> <p>Yasmine Ezzeddine Investigating Resistance and counterstrategies to Artificial Intelligence (AI) use by Law Enforcement Agencies (LEAs) Dr Laura Kilby Identity rights and homeless mothers: denial, oppression and loss Dr Dr Laura Kilby and Eddy Verbaan Open Research for all Dr David Smith Peer group interactions with a blended learning space, how students are using social media to create learning communities. Dr Hantian Zhang (online) Exploring the use of YouTubers’ strategies in video lectures for online teaching</p>

DAY 3 – WEDNESDAY 15 JUNE 2022

Time	Activity
10:00-10:30	3MT
	Chairs: Professor Doug Cleaver and Shruti Mandhani
	Location: Pennine Lecture Theatre and via Livestream
10:30-11:00	Break
11:00-12:00	Exhibition
	Location: Heartspace
	Posters
	Neuromorphic Computing for Interactive Robotics: A Systematic Review Muhammad Aitsam
	A Novel Antimicrobial Sol-Gel Device Coating to Prevent Periprosthetic Joint Infection Sarah Boyce
	Non-Destructive Evaluation of Sustainable Fibre-Reinforced Polymer Composite Materials Eryn Brooks
	Synergism of Biocides and Quorum Sensing inhibitors against Uropathogenic <i>E. coli</i> biofilms Kelly Capper-Parkin
	Investigating citizens' perspective to Law Enforcement Agencies and use of Artificial Intelligence Yasmine Ezzeddine
	An overview of our 2021 REF results, and plans and ambitions for REF2028 Dr Keith Fildes, Arnett Powell, Jenny Dunn, Alison Honnor
	Plant-based Convenience Foods: Consumer Perceptions, Nutrient Profile and Satiety Megan Flint
	Robot as schoolmate for enhanced adaptive learning Imene Tarakli
	Non-Traditional
	An Online Scale for the Assessment of Language in Adults Using Self-reported Skills (ALASS) Dr Javier Aguado-Orea
	UN-Lands Rose Butler
	Screen touch Mariko Grasso
	Meeting my Role Models: An Insight into Imposter Syndrome Shruti Mandhani
	Surrounded by silence: understanding women's experiences of breast and trunk lymphoedema after treatment for breast cancer Janet Ulman
	Driving Future Economies Workshop 2
	Location: Online
	Chair: Professor Lisa Hopkins
	Panel
	Impacts of completed doctoral research Dr Richard Breese
	Please register your attendance at this session via booking link . This session will take place via Zoom, the link will be sent to registered attendees.

DAY 3 – WEDNESDAY 15 JUNE 2022

Time	Activity		
11:00-12:00	Sheffield Institute for Policy Studies (SIPS) Posters		
	<p>GIS Capability in Wildfires Risk Assessment Ayman Alhawamdeh</p> <p>Policy Review on Private Education in China Ximing Chen</p> <p>Trauma-informed professional development in schools: influences on practice and whole-school change Eleanor Long</p> <p>The landscapes of teachers' beliefs and values Sally Hinchliff</p> <p>Probation supervision of people convicted of sexual offences Charlotte Oliver</p> <p>Pattern and morphometry of Crevasse Squeeze Ridges, Northwest Territories, Canada Gwyneth Rivers</p> <p>Adapting Existing Housing Stock for Affordability and Environmental Performance in Chile Veronica Rocha Riveros</p> <p>Examining the policing practices associated with civil preventive orders and notices Zoe Rodgers</p> <p>Early Assessment of Language Acquisition in Multilingual contexts: The case of Nigeria Zainab Sani-Danmallam</p> <p>Unique parameter solutions to a simple model of systemic circulation Harry Saxton</p> <p>Active travel and the school commute Josie Wilson</p>		
12:00-13:00	Lunch		
13:00-14:00	Enabling Healthier Lives Panel 2	Cross Cutting Workshop 2	BSC3: Building Stronger Communities
	Location: Norfolk 210 Lecture Theatre	Location: Pennine Lecture Theatre and via Livestream	Location: Peak Lecture Theatre
	Chair: Dr Antonia Ypsilanti	Chair: Professor Steve Johnson	Chair: Dr James Fenwick
	Panel	Workshop	Professor Cathy Burnett (online) Encounters with primary literacy research: Teachers as a community under duress John Doyle Building on the strengths of communities in Education Dr Christina Fashanu Supporting asylum-seeking and refugee families with young children to access education throughout the Covid-19 pandemic. Laura Makey Student perspectives of interprofessional education and collaborative learning experiences
	Understanding and managing loneliness: A multi-disciplinary approach Dr Antonia Ypsilanti Professor Lambros Lazuras Professor Andrea Wigfield	Responsible Research Assessment at SHU: Interactive Workshop	

DAY 3 – WEDNESDAY 15 JUNE 2022

Time	Activity		
14:00-15:00	Enabling Healthier Lives Workshop 1	Building Stronger Communities Panel 3	Enabling Healthier Lives Panel 3
	Location: Norfolk 210 Lecture Theatre	Location: Pennine Lecture Theatre and via Livestream	Location: Peak Lecture Theatre
	Chair: Professor Shona Kelly	Chair: Maxine Gregory	Chair: Dr Alan Ruddock
	Workshop	Panel	Panel
	Developing a novel framework for classifying alcohol intake and impact 'tools' Professor Shona Kelly Walter Tasosa Joseph Tasosa	Overcoming barriers to increasing active travel Dr Stephen Parkes Maxine Gregory Professor Madelynne Arden Mia Rafalowicz-Campbell Dr Rachael Thorneloe Josie Wilson	Optimising Training in Elite Athletes: Old Concepts and New Insights Dr Alan Ruddock Dr David Rogerson Steve Thompson Lee Bell
15:00-15:30	Break		
15:30-16:45	EHL4: Enabling Healthier Lives	Enabling Healthier Lives Symposium 1	DFE1: Driving Future Economies
	Location: Norfolk 210 Lecture Theatre	Location: Peak Lecture Theatre	Location: Pennine Lecture Theatre and via Livestream
	Chair: Dr Mårjory Da Costa Abreu	Chair: Dr Helen Humphreys	Chair: Professor Andy Alderson
	Pat Day Using Motivational Interviewing to promote health across the lifespan whilst emerging from the pandemic Dr Michael Thelwell Active Together Service Design and Evaluation Dr Amy Wigelsworth (online) French workplace fiction as bibliotherapy	Vaccination uptake: A behavioural science approach Professor Madelynne Arden Dr Elaine Clarke Dr Martin Lamb Dr Rachael Thorneloe	Dr Xinjun Cui Granular free-surface flows in an inclined chute Dr Carlos Da Silva Employing self-adaptation for dealing with insider threats Ali Elyounsi Sensing aggregate temperatures using ultrasound sensors Oluwaloba Oluwole-Ojo Model validation, design, implementation and real-time process control of a continuous flow ohmic heater
16:45-17:00	Closing and announcement of 3MT winner		
	Location: Pennine Lecture Theatre and via Livestream		
	Professor Doug Cleaver		

Key

 Shading indicates content available online

The Three Minute Thesis (3MT®) is a competition developed by the University of Queensland which challenges doctoral students to deliver a compelling spoken presentation on their research topic and its significance, in just three minutes. A judging panel will be scoring entrants on two key criteria: 'Comprehension & Content'; and 'Engagement & Communication'. As well as winning a prize of £250 towards attending an academic conference of their choice, the winner will be put forward as Sheffield Hallam University's entry to the UK national 3MT® competition taking place at the Vitae Conference in September.

Our 3MT® 2022 judges are:

- Michael Cambell
- Dr Francis Clegg
- Professor Lisa Hopkins
- Dr Nicola Palmer



3MT Presenters

The Sheffield Hallam University Three Minute Thesis **finalists** for 2022 are:



Allison Dunne

Health Research Institute/Sports Engineering Research Group

"...parkrun has been a life saver to me."



Yasmine Ezzeddine

Industry and Innovation Research Institute/CENTRIC

Understanding citizens' reactions to police surveillance and use of Artificial Intelligence



Michelle Field

Health Research Institute

Understanding Ideation in Autism



Daniel Haid

Health Research Institute/Sport and Physical Activity Research Centre/
Sports Engineering Research Group

Assessing a rate-dependent mechanical metamaterial's potential as helmet liner



Diane Rodgers

Culture and Creativity Research Institute/Centre for Culture Media and Society/Media Arts and Communication

Wyrd TV: Folklore, folk horror and British 1970s Television

Building Stronger Communities

Session chair



Professor Sarah Pearson
BSC1



Professor Wayne Cranton
BSC2



Dr James Fenwick
BSC3



Working towards safety, prosperity and social inclusion for all

The last decade has seen the concept of a progressive and equitable development of society come under closer scrutiny. At the same time our understanding of society and education has never been stronger, and the opportunities afforded by new technologies and new social dynamics allow us to reimagine and re-establish the basis for thriving communities.

We draw together and stimulate research across traditional disciplinary boundaries to support more inclusive communities, in response to major societal challenges at local, national and global levels.

BSC1 The Precarious Lives of Yorkshire's Film Festival Programmers

Dr James Fenwick (j.fenwick@shu.ac.uk)

This paper will provide an overview of a Screen Industries Growth Network funded project into the role, importance, and experience of film programmers at Yorkshire's three largest film festivals: Sheffield DocFest, the Aesthetica Short Film Festival, and the Leeds International Film Festival (LIFF).

In 2021, DocFest fired all its programming staff without warning (Ravindran 2021). Programmers subsequently posted a letter on social media demanding that their working rights be protected and their centrality to the success of a festival be recognised. Instead, the programmers were told to reapply for their jobs in 2022. Such an example is not isolated, with other festivals around the world also treating programmers in such a disposable fashion (Langlois 2016).

DocFest, Aesthetica, and LIFF are significant contributors to the development and promotion of the screen industries within Yorkshire, as well as vital to the regional economy. They have become integral to the respective cultural strategies of Sheffield, York, and Leeds, viewed by some political and cultural stakeholders as a crucial means of generating economic growth, tourism, and employment. As such, understanding the role of the key cultural and industrial gatekeeper—the programmer—can contribute to strategies of growth and development, as well as lead to greater engagement and partnership between festivals and the screen industries.

The paper outlines how the ongoing project intercedes into timely conversations about diversity, structural barriers, inclusiveness of media labour, and the complex relationship between the role of the programmer and the wider success of Yorkshire's film festivals and screen industries.



Dr James Fenwick is a senior lecturer in the Department of Media Arts and Communication. His research is focused on media producers, media industries, and the media heritage of Sheffield. He is the author of *Stanley Kubrick Produces* (Rutgers UP, 2020) and *Unproduction Studies and the American Film Industry* (Routledge, 2021) and co-editor of *Shadow Cinema: The Historical and Production Contexts of Unmade Films* (Bloomsbury, 2020). James has published journal articles on the history of Sheffield DocFest and the early history of the Showroom Cinema and numerous articles and chapters about the films of Stanley Kubrick.

BSC1 Collaborative approach for impactful and representative public engagement activities.

Dr Mel Lacey (m.lacey@shu.ac.uk), Kelly Capper-Parkin, Dr Sarah Forbes, Dr Rachel Schwartz-Narbonne, Dr Catherine Duckett and Dr Katherine Rawlinson

Communicating and engaging the public is vital to the academic community. Within the wide range of public engagement events on offer, there is criticism that events often “preach to the converted”, with middle-class white audiences most often attending events. Our previous work on a series of science-based public engagement events showed underrepresentation of marginalised ethnic visitors.

In this project researchers ran an after-hours event at Millennium Gallery where they explored the interplay between art and science by bringing together undergraduate and postgraduate students, academic staff and local artists in order to create an interactive showcase for the local community. The focus of this event was introducing the general public to the world of scientific research through the use of different forms of art, providing a visual gateway to science with the aim of appealing to new audiences that would not normally seek out a science-focused event.

The event attracted over 280 attendees and the impact of the event was captured by exit questionnaire. The event saw an increase in attendance of marginalised ethnic groups compared to previous events, and a higher proportion of Asian / British Asian and Mixed visitors than seen in Sheffield overall (Census 2011). Perceived learning was increased across all topics of the event and several elements of science capital were enhanced (n = 122).

Taken together, carefully designed public engagement projects with a diverse range of contributors (undergraduate and postgraduate students, Museums Sheffield Trust and local artists) can move towards better representation of local communities within attendees.



Dr Mel Lacey is a Senior Lecturer in Microbiology in the Department of Biosciences and Chemistry. Her microbiology research spans microbiome, antimicrobial resistance and environmental biosciences. She leads the public engagement strand of the Accessibility of Science Research Group as well as undertaking research into higher education pedagogy.

BSC1 Gender and Design, - an interdisciplinary journey into research and practice

Dr Melanie Levick-Parkin (m.levick-parkin@shu.ac.uk), Dr Eve Stirling, Dr Cinnamon Bennett, Kendal Stoneystreet

This is an introduction to the Gender & Design Research Network at Sheffield Hallam, which we started this year with academics from across different academic disciplines. We would like to take this opportunity to discuss some of the aims of the network and review our activities to date, as well as sharing ideas of future directions and opportunities to connect and create through research and practice.

The Gender & Design Research Network explores how gendered power relations are materialised across different societal spheres. Initiated from within a design context, it brings together researchers from a broad range of academic disciplines such as design, fine art, film, architecture, education, tourism, psychology, sociology, politics and law, in order to formulate interdisciplinary research projects that have a critical material practice and lens at their core.

Initiated from within a design/creative practice context it has a key focus on materiality, but with interdisciplinarity a central commitment and goal. Gender inequality and injustice finds expression across many systems, sites and artefacts which calls for collaborative approaches of uncovering, critiquing, contesting, making visible and materialising those issues through a broad range of both traditional and design and creative research methods. The aim is to identify opportunities for fundamental and material change, paying attention to the diversity of gendered experience and how this intersects with race, class, age, disability and sexuality.



Mel is a feminist design researcher and design educator, with an interest in heritage, human making practices and visual/material language. There is a particular focus on gender and design in her research and she works within speculative and design anthropological frameworks and is passionate about situating design in the context of political, social and environmental justice.

BSC1 The coat-hanger: an impact driven public engagement intervention template

Dr Rachel Schwartz-Narbonne ECRI Fellow (r.schwartz-narbonne@shu.ac.uk), Dr Katherine Rawlinson, Dr Naomi Holmes, Dr Mel Lacey

Public engagement and widening participation activities are vital for communicating and engaging the public with research as well as inspiring the next generation of researchers. Here we have developed a “coat-hanger” intervention template. The three core elements of the coat-hanger are 1) co-design: participants are equal partners in the intervention 2) undergraduate student-led: our students are accessible role-models and 3) research-based: producing publishable results.

This coat-hanger approach was trialled across Yorkshire schools. School students undertook an interdisciplinary environmental science project, investigating the link between heavy metal pollution and antibiotic resistance in soil bacteria. Activities were co-designed with their teachers and delivered by university students.

The study research questions were: 1) What was the impact on school students in terms of visibility and accessibility of science research as well as science identity? 2) What was the effect of being involved in the project on undergraduate students? 3) Does minimally polluted school soil contain antibiotic susceptible microbes?

Questionnaire data with school students aged 6-18 years old demonstrated the viability of the template for schools outreach. Individual interviews with undergraduate students showed an increase in their confidence around communication and organisation skills and an increased interest in research. Finally, analysis of soils samples taken from schools showed lower heavy metal pollution and antibiotic-resistant microbes than elsewhere in Yorkshire.

In summary, the coat-hanger approach provided a valuable template for public engagement, as this method of conducting research made a positive impact on both school students and the undergraduate student researchers.



Dr Schwartz-Narbonne is a Lecturer in Environmental Chemistry. Her interests lie at the intersection of chemistry and microbiology, investigating the impact of pollutants on microbial ecology, and tracing microbes via their lipid membranes. She is passionate about increasing the accessibility of environmental science, so that people across the breadth of society can imagine themselves as scientific researchers and can play a role to protect our environment.

BSC1 Contested understandings of technology in post-covid cultural and heritage site management

Sara Trentham-Black (acesst@my.shu.ac.uk) Dr Joan Ramon Rodriguez-Amat

An element of current thinking about access to heritage and museums is the potential for technology to facilitate “democratisation, multivocality and possibilities for feedback and dialogic engagement” (p2 Galani, Mason & Arrigoni, 2020) and for citizens’ engagement with museums to reflect wider societal issues (Grincheva, 2021); technology can also enable and enrich the democratisation of heritage through their practical and financial availability (Shults 2017). Heritage sites, and cultural sites are contested spaces: multiple stakeholders have divergent interests and managing the sites is inevitably complex (De Bernardi, Bertello and Shams, 2019); and it is believed that technology can facilitate the mediation of these disagreements.

This presentation discusses the role of digital technologies in the navigation of stakeholder agendas and needs, in understanding the perspectives of the organisation and the divergencies from their imaginaries of technology in heritage culture.

This presentation focuses these debates through Creswell Crags Museum and Heritage Centre and how it has used photogrammetry in the communication of apotropaic marks and developed a digital outreach programme during and post covid lockdowns. It approaches this through a combination of qualitative and quantitative data analysis includes audience engagement data, digital metadata, complemented with semi-structured interviews with delivery and management staff.

This discussion, directly emerging from the implementation of technology in this world relevant site, nuances and enriches conceptual debates about technology, access and heritage including the democratisation of archaeological sites, the complexity of multi-stakeholder decision-making interests, and the increase of social impact on heritage processes and spaces.



Sara’s PhD, which is in the very early stages, is the study of the impact of datafication on small cultural institutions. Sara is a permanent member of staff at SHU, teaching cultural policy and management. This has followed a career working in the cultural sector, in both policy and delivery organisations.

(BSC2) Building Stronger Communities Paper Session 2 | Tuesday 14 June | 15.30-16.45

BSC2 Investigating Resistance and counterstrategies to Artificial Intelligence (AI) use by Law Enforcement Agencies (LEAs)

Yasmine Ezzeddine (coo51354@my.shu.ac.uk)

Introduction

Surveillance is often portrayed as a double-edged sword ensuring safety against crimes and violent extremism on one day, yet, exploited to commit devastating attacks on the other. Either way, the psychological consequences portrayed as “change” in human behaviour caused by surveillance seem inevitable.

And in a world almost thriving on AI technologies, there seems to be scarce research around aspects of resistance and counterstrategies to LEA’s surveillance and AI, particularly in terms of the why and how behind the acceptance or rejection of AI tools and the conscious and unconscious counterstrategies used, online and offline, to impede LEAs’ surveillance.

Purpose

This PhD aims to address the criticism around AI in policing, by understanding citizens’ views and perspectives towards AI use and deployment.

It further aims to explore the factors that trigger resistance and the counterstrategies employed in hopes of making original contributions to knowledge in the fields of applied psychology and surveillance studies by building on existing conceptual frameworks, acknowledging strengths and limitations, and addressing gaps in knowledge around conscious and unconscious counterstrategies employed in resistance. We also aspire to establish recommendations that can guide policy and safeguard LEAs-citizens intercommunications.

Research Questions

Three main Research Questions (RQs) were proposed as gateways to achieving the set aims. The first study has already addressed RQ1 around citizen’s attitudes towards AI use in LEAs’ surveillance, and two subsequent studies will explore factors that trigger resistance and investigating the counterstrategies employed in both online (RQ2.a) and offline (RQ2.b) aspects.



Yasmine is an experienced researcher with a demonstrated history of working in the higher education industry and on multi-national projects. She is skilled in areas of Criminal Intelligence, Forensic Sciences, Research Management, Security and Policing, Societal Aspects and Applied Psychology coupled to advanced multi-lingual abilities.

Yasmine is an Associate Lecturer for the Department of Computing and second-year PhD student researching resistance and counter-strategies to Surveillance and Artificial Intelligence use by Law Enforcement at Sheffield Hallam University, preceded with a Master of Science (MSc) in Crime Science, Investigation and Intelligence from University of Portsmouth (2017).

BSC2 Identity rights and homeless mothers: denial, oppression and loss

Dr Laura Kilby (l.kilby@shu.ac.uk)

The inequity that homeless people experience is profound. Their unmet needs are multi-dimensional and inter-related. Moreover, dominant media and political discourse constructs a homogeneous 'homeless community' where specific issues facing homeless women are largely obscured. Existing English homelessness legislation relies upon a binary distinction between 'single' and 'family' homelessness. However, research with homeless women reveals significant numbers of homeless mothers, whose children are temporarily in the care of others, as a result these women become categorised as 'single'.

The current paper contributes to an ongoing multi-disciplinary project involving colleagues from, primarily, CRESR and PSP, examining physical, psychological and material inequalities facing homeless women. Of particular concern is the ambition to locate the lived experience of homeless women at the intersections of homelessness, housing policy and gender.

The project combines qualitative methods to variously examine interview data collected from women who have experienced homelessness and to examine the discursive architecture of legal and policy frameworks that are brought to bear on homeless women.

The current paper introduces discursive psychology as a valuable tool for examining taken-for-granted identity categories that are routinely engaged within homelessness legislation and wider policy and media discourses. The paper will present data exemplars to reveal the mundane ways that homeless mothers are subject to identity denial, oppression, and loss, such that they emerge as the 'invisible women' of homelessness. The paper exemplifies how discursive psychology can be used within interdisciplinary, policy focused research, particularly when seeking to evidence how language and discourse shapes lived experience.



Laura Kilby is Associate Professor of Social Psychology, an incoming member of the Helena Kennedy Centre, and a fellow of the Sheffield Institute for Policy Studies. As a Critical Discursive Psychologist her primary research interests centre upon examining relationships between power, discourse and the construction of marginalised identities and marginalised groups. Much of her research concerns Racialised and Religious identity construction. She also researches other aspects of identity as it relates to minority or oppressed communities including discourses of Citizenship and Immigration; Gender and Homelessness; Social deprivation and Health.

BSC2 Peer group interactions with a blended learning space, how students are using social media to create learning communities

Dr David Smith (d.p.smith@shu.ac.uk), Dr Mel Lacey, Sophie Pearce, Iosif Giechos

COVID-19 has moved us to a new way of working within Higher Education; delivery is blended, and assessments are predominately on-line. Students support each other through interactions in the physical and digital spaces, establishing personal learning networks with or without direct contact with a tutor. These support groups bridge physical and digital spaces in the blended environment and are mediated by social media tools. The research question here is "how do students form and use supporting peer-group digital networks in a blended learning space?". Within this study, a mixed-methods approach has been employed whereby students across the whole provision were questioned on their use of social networks regarding assessment and personal learning. Preliminary finds show that students are seen to establish a variety of personal learning networks (PLN) depending on need. Large groups form early during a course around finding friends but then dissipate and are replaced with short-lived groups linked to assessment tasks or modules.

These short-lived groupings are seen to replicate those we observed in the physical environment as students seek out those with similar levels of attainment or background for support, with some students reporting difficulties in accessing these groups. Students highlighted that time taken to allow group formation to occur would be a clear benefit at the start of a new module or task. Social networks are being accessed during on-line assessments, and ideas around assessment design will be considered.



David is a National Teaching Fellow, teaching Molecular Bioscience and Biochemistry. He is a Senior Fellow of the Higher Education Academy and has received the Sheffield Hallam Vice Chancellor's Award for Inspirational Teaching. David is passionate about disseminating and enhancing teaching practises. He has worked directly with bioscientists and other academics across multiple institutions on teaching enhancements and delivers invited workshops and conference presentations on student engagement. He has also integrated various forms of technology enhanced learning from the use of Padlet for student support, collaborative learning tools to facilitate interaction and lecture flipping technologies.

BSC2 Open Research for all

Dr Eddy Verbaan (e.verbaan@shu.ac.uk) and Dr Laura Kilby

This paper discusses how some aspects of the move toward Open Research present issues for researchers using qualitative methodologies. Indeed, some of the more complex ethical issues linked with open research practices are particularly key for qualitative research. This paper identifies Open Research practices qualitative researchers might want to engage with, and it highlights recent initiatives to support these practices in the university.

The Open Research movement aims (i) to make the outputs of research widely accessible and reusable by means of publication under an open licence (open access, open data, open source), (ii) to speed up dissemination and certification of research by using alternative models of publication and peer review, and (iii) to be more collaborative. (iv) Another of its aims is to help ensure the integrity of research by making that research more transparent and reproducible. Work to improve the robustness, replicability, and transparency of research has mainly focussed on adapting to research fraud, and has attended primarily to quantitative, deductive, experimental methodologies.

The applicability of this aspect of Open Research to qualitative methodologies remains in its infancy, yet we need ways to ensure transparency and ‘reproducibility’ that are suitable for the diverse epistemological, theoretical and methodological approaches employed in qualitative research.

We identify four practices that align with the ambitions of Open Research, including those for ensuring integrity through transparency, and which qualitative researchers might want to engage with: (i) moving from authorship to contributorship; (ii) pre-registration & registered reports; (iii) data archiving/data sharing; (iv) open access publishing.



Eddy works in the Library where he heads the research support team and leads efforts to advance Open Research at Sheffield Hallam. Before he joined the university in 2014, he worked as a lecturer and re-researcher in the Netherlands (Leiden), France (Sorbonne) and the UK (Nottingham and Sheffield). He has Master’s degrees in Dutch linguistics and literature, and in information studies. He holds a PhD in history. Eddy has published on early modern history writing, the pedagogy of Dutch Studies in a foreign language context, and research data management. orcid.org/0000-0002-3068-7881

BSC2 Exploring the use of YouTubers’ strategies in video lectures for online teaching

Dr Hantian Zhang (Hantian.Zhang@shu.ac.uk)

This paper explores how YouTubers’ strategies can be applied to design online video lectures for enhanced students’ experience.

Universities are moving teaching back to campus for the 2022-23 academic year since the Covid 19 pandemic. However, some aspects of online learning remain in certain curriculum designs and practices, with pre-recorded video lectures as an important design asset.

Video lectures can promote inclusive learning due to their re-watchability, which enables students’ control over learning. Videos also enable rich cognitive processing, establishing meaningful learning. However, drawbacks of online teaching, mainly the absence of face-to-face and social interactions, created challenges for educators to make engaging video lectures.

Meanwhile, university students constantly engage with YouTube for learning. Popular educational YouTubers can gain large audience bases. Compared with video-based learning platforms like Panopto, YouTube offers a reduced number of functions for interaction. However, YouTubers were found to use technical and social strategies in their video production to engage their audience.

This paper explores how YouTubers’ strategies can be implemented by video lectures. It starts by observing video lectures in a module within the BA(Hons) Media course at Sheffield Hallam University as an initial case, to identify the features that could be incorporated with the YouTubers’ strategies.

The paper is a starting point for developing a student engagement toolkit for online lectures. It contributes to the design of engaging online lectures that promote inclusive learning, and also online ready curricula design prepared for the potential crisis like Covid, leading to strong online teaching and learning communities.



Dr Hantian Zhang is a Lecturer in Media at Department of Media Arts and Communication. With a PhD in Digital Media and Communication, his research interests include multiple aspects of Digital Media including social media, audience engagement, social/(tele)presence, participatory culture and network analysis. His research explores audience engagement with YouTube video blogs (vlogs), YouTube video networks, and gamification elements on online streaming apps. Outcomes of his research have been recently published in and presented at peer-reviewed international journal and conferences in Internet, Social Media and Human-computer Interaction (HCI) studies.

BSC3 Encounters with primary literacy research: Teachers as a community under duress

Professor Cathy Burnett (c.burnett@shu.ac.uk), Dr Gill Adams, Petra Vackova

This presentation draws on initial findings from the first phase of a two-year ESRC funded project Research Mobilities in Primary Literacy Education ((ES/W000571/1)). The project investigates the movements of literacy research to and among primary school teachers in England given a shifting, complex educational context complicated by changing communicative channels for research. Drawing on an innovative combination of methods - teachers' lifelogging, corpus linguistics and sociomaterial tracings - it explores how literacy research moves and what happens to it as it does so. The first phase involves investigating teachers' experiences of exchanging and engaging with research. We are identifying the types of research they have accessed and their perspectives on its significance and on the role of individuals, organisations, texts and technologies (such as educational leaders, literacy charities, consultants, social media influencers, algorithms and hashtags) in brokering research.

In this presentation we use teachers' narratives to reflect on how their encounters with research are inflected by personal, institutional, technological, commercial and political factors. This work raises questions about research mobilisation that are relevant not just to primary literacy education but to relationships between professionals and social science research more broadly. It also, we suggest, has implications for how we understand the nature and practice of contemporary professional communities. The presentation will generate interdisciplinary reflection on the kinds of spaces and events that might be conducive to facilitating risk-free, creative and collaborative opportunities for professionals to engage with research.



Cathy Burnett is Professor of Literacy and Education in Sheffield Institute of Education at Sheffield Hallam University. She is a co-Editor for Journal of Early Childhood Literacy, previous editor of Literacy and sits on the editorial review boards for Australian Journal of Language and Literacy and Journal of Literacy Research. She is Immediate Past President of the United Kingdom Literacy Education and was a sub-panel member for REF 2021 Unit 23. Her most recent work explores the personal, political, economic and professional dimensions that inflect relationships between research and practice. As an ex-primary teacher and teacher educator she has extensive experience of facilitating teachers' professional learning and engagement with research.

BSC3 Building on the strengths of communities in Education

John Doyle (John.A.Doyle@student.shu.ac.uk)

This presentation will consider how schools can reflect the strengths of communities in the education they provide using a strengths-based approach. I will draw on examples of two ethnographic research projects, using data collected with the Roma Slovak community in a post 16 education centre and ongoing within a mainstream and very ethnically diverse secondary school in the north of England. The research focus is on young people from ethnically diverse marginalised communities who are often problematised and their culture is seen as the root of their educational failure. This deficit model renders low achievement effectively "their fault" (Yosso, 2005:6) rather than a failure of the education system (Ladson-Billings,1994).

This contributes to the significant inequalities in education and structural racism deeply embedded in schools in the UK (Runnymede Trust, 2020). I will also draw on the work of Tuck and Yang (2014) on 'refusal', and Tuck (2009) on avoiding 'damage' focussed research, which challenges research that problematises communities and explicitly or implicitly portrays them as devoid of capability. Researchers should instead focus on the structures and institutions that create disadvantage and inequality. The research applies theories of cultural wealth (Yosso, 2005) and what Wallace (2018) describes as a 'constellation of capitals' to understand how the knowledge, skills and experiences of communities can be reflected in classroom learning. The research with the Roma Slovak community found that the students stories showed capability and potential that can be recognised in a more positive learning environment (Doyle, 2021).



John is a part time PhD researcher (year 4 of 6) crossing Sociology and Education, combining extensive working experience in public services with an exploration of how community focussed approaches can improve peoples lived experience. He is learning by spending time with communities in educational and related settings using an ethnographic approach.

BSC3 Supporting asylum-seeking and refugee families with young children to access education throughout the Covid-19 pandemic

Dr Christina Fashanu ECRI Fellow (c.fashanu@shu.ac.uk)

This paper will present the preliminary findings of an ongoing research project that looks at the challenges asylum-seeking and refugee families with young children faced when accessing education for their children during the Covid-19 pandemic, and how they were supported to overcome these barriers.

It is widely recognised that a strong foundation in the Early Years leads to improved child development and learning, increases attainment and outcomes, and helps protect against subsequent social and economic disadvantage (Papatheodorou, 2012). In parallel, Vandekerckhove and Aarssem (2020) identify a range of barriers and point to the lack of specific policies for young refugee children and their access to early childhood education and care. The coronavirus pandemic has further exacerbated these issues, having had a disproportionately negative impact on these children.

The objective of the research is, therefore, to develop an holistic picture of the issues and successes relating to supporting access to education for young asylum seeking and refugee children. To achieve this objective, semi-structured interviews were conducted with eleven families, four schools and ten third-sector organisations.

The findings reveal that the extraordinary circumstances of the Covid-19 pandemic precipitated a wide range of complex issues associated with emotional well-being, digital inclusion, language barriers, absence of physical activity and lack of material resources. Initial findings indicate that statutory services were indispensable, however, smaller community-based groups also played a crucial role in responding to these complex needs.



Christina is a senior lecturer in Early Childhood with research interests in linguistic and cultural diversity and social justice in Early Years educational settings. Christina is particularly interested in participatory methodologies and the ethical challenges of conducting research with young children.

BSC3 Student perspectives of interprofessional education and collaborative learning experiences

Laura Makey (l.makey@shu.ac.uk), Spencer, R, Mistry, A, Loveridge, A, McAleavey, J, Day, P and Wood, D

Interprofessional Education (IPE) in health and social care is seen as a critical approach to preparing students actively in practice and to develop the quality of the future health and social care services. A range of evidence-based research and UK policy emphasise the importance of IPE however there is less evidence and analysis to inform organisations by what means this should take place.

Methods: student participants across a range of health and social care courses were interviewed via online focus groups. Additionally, and to ensure authenticity of data, student researchers were active members to recruitment, data collection and analysis. Focus group participants were eligible if they were currently studying an HEI integrated curriculum course. Students were purposively recruited based on obtaining a range of views from different courses/years of study, ages, ethnicities and genders.

Findings: Five focus groups took place over a three-month period. Thematic analysis revealed several overarching themes such as seeing the value, applying university learning into placement, differing expectations, conflicting priorities and assessment processes. The evaluation took place in the closing stages and aftermath of the covid pandemic and aspects regarding positive and negative learning online were also reflected in people's views.

Conclusion: Students have a range of integrated experiences during their training to be a health and social care professional and IPE can be a valued experience. Ensuring greater involvement from all professionals and careful planning of professional group mixes to reflect practice would benefit future IPE curricula.



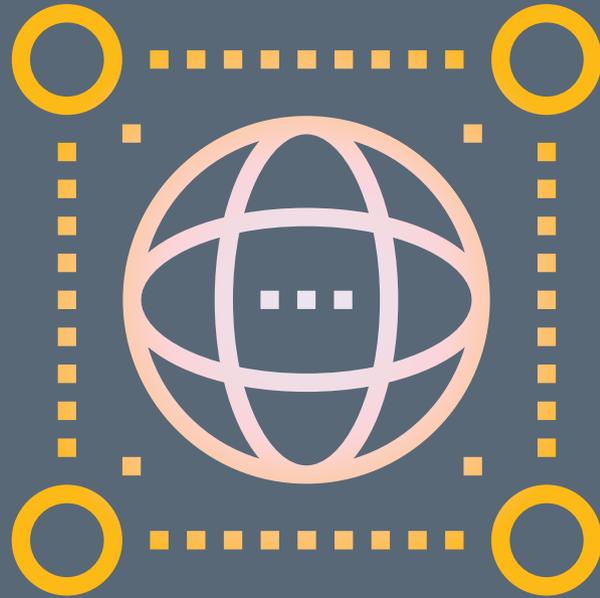
Laura is part of a team of researchers that includes students and academics from Sheffield Hallam University. We are a multi-professional team that includes: nurses, a midwife, a pre-registration physiotherapist and pre-registration engineer. Our academic experiences range from post-doctoral, early career and first time researchers. The presenter is a senior lecturer at Sheffield Hallam University and has experience and published literature evaluating co-production in healthcare and research.

Driving Future Economies

Session chair



Professor Andy Alderson
DFE1



Innovating to drive growth in the face of profound changes

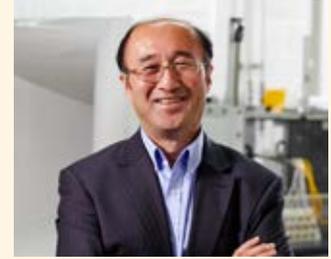
Economic models and structures are undergoing profound and potentially seismic changes around the globe. This comes from technological developments, not least the much heralded Fourth Industrial Revolution, but also in the interplay between the economy and a whole host of developments including energy supplies, climate change, new forms of economic organisation and the future of work.

DFE1 Granular free-surface flows in an inclined chute

Dr Xinjun Cui (x.cui@shu.ac.uk), Professor Martin Howarth, Alec Anderson

Granular flows are widely encountered during industrial processes such as in food, pharmaceutical, mining and chemical engineering. An important application of such flows is during a rice milling process, when paddy rice is poured into a milling chamber with the outlet and contact conditions being controlled to produce a high quality, low energy and low waste system of rice processing. However, understanding the behaviour of rice grains in a milling process still remains as the most challenging task. In this presentation we will discuss some of our recent study on granular flows, where different obstacles will be investigated from experiment, simulation and analytical perspectives by allowing a granular material to flow around the obstacles in an inclined chute.

By using a calibration method for the velocity profiles between experiment and simulation, the rheological conditions such as the coefficients of friction arising from the contacts for particle-particle, particle-wall are determined, with which the simulation of granular flows is better agreed with experiment. The method developed in our work could be further applied to modelling industrial granular flows, where a key set of parameters and conditions could be determined as input for the optimal control and operation of a milling process.



Dr. Xinjun Cui is a senior lecturer in the Department of Engineering and Maths at Sheffield Hallam University, U.K. His research interests have been involved in the fields of aerodynamics, rotating flows, multiple-phase flows, granular flows, industrial and natural hazardous flows, to rigid-body dynamics and flight mechanics. His recent research has been focused on the study of granular flows in industrial and natural processes. He is a Research Theme Lead at the National Centre of Excellence for Food Engineering, and a Royal Society Short Industry Fellow.

DFE1 Employing self-adaptation for dealing with insider threats

Dr Carlos Da Silva (c.dasilva@shu.ac.uk)

Access control mechanisms have been used in information systems to restrict access to sensitive information. Such mechanisms are very effective in preventing unauthorised users to access protected resources. However, access control policies are often static and unable to deal with anomalous behaviour of malicious users who have access permission to the system. For example, a user that suddenly starts accessing thousands of documents in a short amount of time would be considered authorised to do so by standard access control systems. Such users are known as insider threats, i.e., authorised users of an information system that exploit their access permissions to compromise the confidentiality, integrity or availability of an organisation's information assets. This talk presents our experience in developing a solution for detecting insider threats in information systems based on business processes.

We present an approach that explores system's logs that captures the history of the business processes run in the system together with a probabilistic mathematical model to quantify and measure user behaviour, thus identifying those users whose behaviour are considered an anomaly. In this way we are able to detect those users who misuse their access permissions maliciously or accidentally.



Carlos is a Senior Lecturer in Software Engineering at Sheffield Hallam University. He is the leader of the Applied Software Engineering Research Group (ASERG), and is actively involved in Research & Development in the area of Software Engineering and its interplay with Information Security.

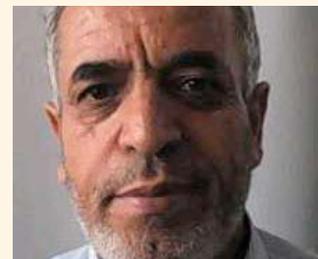
Exploring topics like Self-adaptive Software Systems, Service-orientation and Business Process, Secure by design, Digital Identity Management and Access Control. He has been involved in a number of projects related to Smart Cities and Information Security, applying the above-mentioned topics to the areas of Cloud Computing, Internet of Things and DevOps.

DFE1 Sensing aggregate temperatures using ultrasound sensors

Ali Elyounsi (aae280@exchange.shu.ac.uk), Dr Alan Holloway, Dr Alexander Kalashnikov

Despite many of contemporary industrial, food processing and storage, human and animal wellbeing activities require keeping temperatures inside a whole container/dwelling within certain limits, most of the conventional temperature sensors operate within their immediate proximity only. When placement of the only sensor is inadequate, controlling the temperature might lead to excessive use of energy for heating or cooling the container/dwelling. Using a sensor network drives up the cost and might be inconvenient for installation, for example, in a living room. Ultrasonic sensors can operate over substantial distances, and sense temperature changes very quickly. Out of the options available for implementing ultrasonic temperature sensors (UOTSeS), the ultrasonic oscillating temperature sensors feature robust operation and low cost.

At a bare minimum they consist of an ultrasonic transducer-receiver pair and an electronic amplifier. We have experimented with a range of UOTSeS operated in water and air and will present our research and developmental findings.



Ali Elyounsi is a mature PhD student registered with the Industry and Innovation Research Institute. He is developing a novel ultrasonic temperature sensor for dwellings.

DFE1 Model validation, design, implementation and real-time process control of a continuous flow ohmic heater

Oluwaloba Oluwole-ojo (b8039548@my.shu.ac.uk), Dr Hongwei Zhang, Professor Martin Howarth, Dr Xu Xu

The most common conventional heating methods for food processing require heat energy to be generated externally and then transferred to food samples by either convection or conduction and these conventional methods requires excessive heat processing that leads to the degradation of the outer portion of food substance and nutritional contents. Using the conventional methods, the efficiency of the heat transferred to the food substance is limited by the rate of heat transfer from an external medium to the food and by the thermal conductivity of the food, which might result in over processed products due to the lengthy processing time required to reach the target temperature, unwanted temperature peaks, and destroyed product quality.

The overall aim of this project is to model the Moderate Electric Field (MEF) process which is an ohmic heating technique that involves the application of electric field of less than or equal to 1kV/cm to food products, validate the model, build a continuous flow ohmic heater pilot plant and apply real-time process control. The heat generated within the food substance is instant and volumetric within the food and dissipated directly in the medium with very high efficiency (>90%) by Joule effect, eliminating the heat-transfer step from the surroundings to the medium by means of temperature gradients or hot surfaces.



Oluwaloba is a current PhD researcher working on the application of continuous flow ohmic heating to industrial food processing, the application of advanced process control methods, ohmic heating model development and validation at Department of Engineering and Mathematics Sheffield Hallam University.

Enabling Healthier Lives

Session chair



Professor Jon Wheat
EHL1



Professor Heidi Probst
EHL2



Dr Sarah Molton
EHL3



Dr Marjory Da Costa Abreu
EHL4



Creating innovative solutions for today's health challenges

Health is more than just the absence of disease. It is the ability to live a fulfilled and independent life. From conception to old age, the opportunities to improve and sustain health and independence through cultural and technological changes are immense.

Our practitioners, scientists, engineers and designers regularly collaborate to create new and innovative ways to help people lead healthier lives. As the largest provider of health and social care education in England, our research is rooted in providing practical solutions.

EHL1 Comparing tibial accelerations between delivery and follow-through foot strikes in cricket fast bowling

Daniel Epifano (d.epifano@latrobe.edu.au), Samuel Ryan, Dr Anthea Clarke, Dr Minh Huynh, Harvey Anderson, Dr Kane Middleton

Foot strikes of the fast bowling delivery stride produce large ground reaction forces and may be linked to injury, yet the biomechanics of the follow-through are unknown. This study assessed tibial accelerations across the delivery and follow-through foot strikes in fast bowlers and evaluated relationships between these measures and five fast bowling intensity metrics. Fifteen sub-elite male fast bowlers performed deliveries at prescribed warm-up, match, and maximal intensities. Tibial accelerations were measured using tibial-mounted inertial measurement units and recorded at back and front foot initial and re-contacts. A trunk-worn global navigation satellite system unit measured PlayerLoad™, run-up speed and distance. Ball speed and rate of perceived exertion measures were also recorded for each delivery. A linear mixed model showed statistical significance of prescribed intensities ($p < .001$) and foot strikes ($p < .001$). Tibial accelerations showed positive increases with changes in prescribed intensity ($p < .05$).

The greatest magnitude of tibial acceleration was found at back foot re-contact (BF2; mean \pm SD; $1139 \pm 319 \text{ m/s}^2$). Weak correlations were found between foot contacts ($r = 0.2-0.4$). The greatest magnitude of tibial acceleration reported at BF2 may have implications for injury incidence, representing an important avenue for future pace bowling research.



Daniel Epifano is a PhD candidate in Sport and Exercise Science at La Trobe University. His thesis will examine the acute and chronic effects of head impact exposure on brain health and movement adaptability, and whether task-related intervention strategies moderate these effects. Daniel completed his Masters by Research in 2021 where he investigated a novel objective measurement of cricket fast bowling intensity and comparing tibial accelerations across the delivery and follow-through foot strikes.

EHL1 Knowledge, attitudes, and current practice of physiotherapists in recognising and managing metabolic syndrome: a mixed methods study

Sally Mastwyk (s.mastwyk@latrobe.edu.au), Professor Nicholas Taylor, Dr Anna Lowe, Dr Caroline Dalton, Dr Casey Peiris

Background: Metabolic syndrome is a collection of risk factors that significantly raise the risk of chronic disease. This condition can be reduced or reversed with regular supervised physical activity, which physiotherapists are well-placed to provide. However, physiotherapists may not be aware of the links between metabolic risk factors and common musculoskeletal complaints, therefore missing an important opportunity to promote health.

Aim: To determine the knowledge, attitudes, and current practices of primary care physiotherapists, in recognising and managing metabolic syndrome.

Methods: This pragmatic, mixed-methods study comprised an online survey and focus groups with English and Australian Physiotherapists working in primary care.

Results: Two-hundred physiotherapists responded to the survey and 12 participated in the focus groups. Metabolic syndrome was not on physiotherapists radar.

They did not screen for metabolic syndrome nor provide management for it in primary care. Although most physiotherapists had some awareness of metabolic syndrome, they were not knowledgeable. Physiotherapists reported a need to focus on their clients' presenting condition, and there was uncertainty on whether metabolic syndrome management was within their scope of practice. Despite this, physiotherapists felt they had an important role to play in physical activity prescription for chronic disease management and were keen to further their knowledge and skills related to metabolic syndrome.

Conclusion: By providing appropriate education to increase knowledge of metabolic syndrome, physiotherapists working in primary care settings may be an untapped resource to identify metabolic risk factors in their clients and provide physical activity interventions to prevent future disease.



Sally Mastwyk is an experienced physio-therapist and lecturer at La Trobe University. Her curriculum, learning and teaching expertise has resulted in a Vice Chancellor and Faculty teaching award. Sally has been involved in several research studies related to pelvic floor physiotherapy, maternity care and learning and teaching. She is currently a PhD candidate in an exciting new program of research as a joint student of La Trobe and Sheffield Hallam Universities. She is investigating the recognition and management of metabolic syndrome in primary care physiotherapy practice.

EHL1 Hiding in plain sight: a cross-sectional study of metabolic syndrome and lifestyle risk factors in community rehabilitation

Dr Casey Peiris (c.peiris@latrobe.edu.au), Dr Katherine Harding, Professor Judi Porter, Professor Nora Shields, Dr Chris Gilfillan, Professor Nicholas Taylor

Question: What is the prevalence of metabolic syndrome in patients attending outpatient community rehabilitation? Do health literacy, physical activity and dietary intake differ between people with and without metabolic syndrome?

Design: A cross-sectional, multi-centre, prospective observational study.

Participants: Adults (n = 193) presenting to community rehabilitation with various health complaints e.g., musculoskeletal conditions, pain, neurological conditions.

Outcome Measures: The presence of metabolic syndrome was assessed according to the IDF and AHA/NHLBI joint definition. Health literacy was assessed using the short Test of Functional Health Literacy in Adults (S-TOFHLA). Physical activity was assessed using triaxial activPAL accelerometers for 8 days and dietary intake was assessed using the validated Dietary Questionnaire for Epidemiological Studies (DQES) food frequency questionnaire.

Results: One-hundred and twenty-three participants (64%) had metabolic syndrome. Of these, only three (2%) had been previously diagnosed and knew they had metabolic syndrome. Many were unaware they had hypertension (42%), high triglycerides (36%) or elevated fasting blood glucose levels (67%). People with metabolic syndrome scored lower on health literacy (S-TOFHLA MD -1.94, 95% CI -3.66 to -0.22) and took 1,166 (95% CI 232 to 2100) fewer daily steps than those without metabolic syndrome. There were no differences in dietary intake between groups.

Conclusion: Metabolic syndrome is a prevalent and under-recognised condition in people accessing community rehabilitation. Community healthcare professionals and health services may need to consider a broader approach to management including screening, lifestyle assessment and intervention of patients presenting for rehabilitation of various conditions given the high levels of metabolic syndrome in this population.



Dr Casey Peiris is a senior lecturer at La Trobe University who completed her PhD in 2013. She has published 50 re-search papers related to physiotherapy, physical activity, chronic disease and rehabilitation and has an h-index of 15. As a clinician, she worked with clients with chronic disease, and now her academic expertise is also in chronic dis-ease management. Dr Peiris has attract-ed recent grant funding for metabolic syndrome research from industry partners, Eastern Health and Northern Health.

EHL1 The Agreement Between Wearable Sensors and Force Plates for the Analysis of Stride Time

Patrick Slattery (p.slattery@latrobe.edu.au), L. Eduardo Cofré Lizama, Professor Jon Wheat, Professor Paul Gastin, Ben Dascombe and Professor Kane Middleton

Stride time (ST) fluctuations contain long-term correlations and provide information about locomotor health [1]. A recent systematic review reported that wearable sensors demonstrated excellent reliability for calculating linear ST metrics, but poor-to-moderate reliability for non-linear metrics [2]. This study aimed to assess the agreement between several wearable sensors and force plates for the analysis of linear and non-linear ST metrics.

Method: Sixteen participants (height 176 ± 9 cm, mass 77 ± 14 kg, age 25 ± 6 y) completed a 12-min walking trial on a force-instrumented treadmill at a self-selected speed. Five sensors (Vicon Blue Trident, Axivity, Xsens Dot, APDM Opal, Plantiga) were attached to each participant's boot to record linear (mean, standard deviation, coefficient of variation) and non-linear (detrended fluctuation analysis alpha, sample entropy) measures of ST. Relative and absolute agreement was assessed using Pearson's r and intraclass correlation coefficients, respectively.

Results: The Opal APDM had moderate-to-excellent

agreement (r = 0.6–0.99) and Axivity (r = 0.84–0.99), Blue Trident (r = 0.79–0.99), Xsens DOT (r = 0.85–0.99), and Plantiga (r = 0.83–0.99) had good-to-excellent agreement across metrics when compared with the force plates.

Conclusion: Non-linear methods exhibited reduced agreement (r 0.6–0.92) compared with linear methods (r 0.94–0.99), consistent with previous systematic reviews. Non-linear methods are more sensitive to error due to exploring the temporal structure of a series rather than the magnitude of variability. The results show that wearable sensors could provide a portable, cost-effective solution to analyse ST.

1. Hausdorff, J.M., Gait dynamics, fractals and falls: Finding meaning in the stride-to-stride fluctuations of human walking. *Human Movement Science*, 2007. 26(4): p. 555-589.

2. Kobsar, D., et al., Validity and reliability of wearable inertial sensors in healthy adult walking: a systematic review and meta-analysis. *Journal of NeuroEngineering and Rehabilitation*, 2020. 17(1): p. 62.



Patrick Slattery is a PhD candidate in Sport and Exercise Science at La Trobe University. His thesis will examine "Stride Time Variability, Complexity, and Injury Risk in Australian Army Recruits." Patrick has four years' experience as a clinical exercise physiologist and completed his Masters of Sports Analytics in 2020 where he investigated the "Potential Gain from Different 22-Metre Field Kicking Strategies" using casual inference.

EHL2 Investigating racism in the UK's healthcare sector

Dr Sadiq Bhanbhro (s.bhanbhro@shu.ac.uk), Professor Anandi Ramamurthy

Racism in the UK's health care sector is widespread, systemic and ignored. It impacts ethnic minority staff members in NHS at all levels. Our project aimed to explore and understand the stories and experiences of ethnic minority health care staff during the pandemic and previously in their working lives.

In our multi-method study, nurses, midwives, allied health professionals and other healthcare workers from ethnic minority backgrounds participated. Three hundred eight respondents completed the online survey, and 45 people participated in the qualitative narrative interviews. Of these 45 participants, 19 spoke about their powerful experiences of racism before, during and after the pandemic in the documentary.

The study found that racism is prevalent in the health and social care sector, and it is usually unreported. Most participants worked during the pandemic and reported experiences of racism before and during it. The findings revealed that 52.6% of ethnic minority staff experienced unfair treatment in the pandemic concerning Covid deployment, PPE or risk assessment provision. Similarly, 59% had experienced racism during their working lives, making it difficult to do their job. Bullying was among the most widely recounted experiences that took a toll on their lives; for example, 53% said racism had impacted their mental health.

Our research underscores that the endemic culture of racism is a fundamental factor that must be recognised and called out. We argue that only implementing an active zero tolerance to racism policy with penalties for organisations that do not comply can change the status quo.



Sadiq is a Senior Research Fellow in Health Inequalities at Health Research Institute. He is a trained social anthropologist, public health professional, and experienced interdisciplinary researcher with a proven track record of success in research, teaching and academic development. He has a PhD in social sciences and humanities on the political economy of honour and honour killings of women and girls. Sadiq has completed several research projects in the UK, Pakistan, Indonesia and the Philippines, published 18 peer-reviewed research papers in high-quality international journals and two book chapters and presented his research at more than 30 conferences worldwide.

EHL2 Using ethical machine learning solutions to support healthcare research

Dr Márjory Da Costa Abreu (mdo948@exchange.shu.ac.uk)

Advances on computational-based solutions in all different areas is the driving force of the current industrial revolution (Smart Industry 4.0) and this is only possible because of the current huge data availability and computational power increase. One of the main areas of computing which has received a lot of interest is artificial intelligence (AI) in the form of one of its areas called machine learning (ML). ML is the area of AI where we use historical data to either build a solution that can generalise and classify new unseen data (supervised learning) or where we can explore what the data tells us about a specific area (clustering). We can find solutions that already use ML in several areas such as security, advertisement and health, for instance. However, as the popularisation of ML solutions grows, it also brings with it important ethical challenges which are mostly related with privacy being questioned, due to its premise of using historical data to create the models and the inability of the designers (programmers) to understand and execute correctly the ML development cycle.

These issues can be particularly damaging when used in the healthcare industry (specially in the UK) where solutions where biased data can incorporate and strengthen prejudices and those can be the difference between life and death to the patients. Thus, this project will expose the main ethical related points that must be taken into consideration when designing ML models for use in healthcare.



Márjory is currently a Senior Lecturer in the Computing Department at Sheffield Hallam University (UK). She is a Senior Fellow of the Higher Education Academy (SFHEA) and is currently working as Postgraduate Tutor in Computing and Informatics, the EDI Lead for the Computing Department, and part of the ATHENA SWAN SAT group.

Her main area of research is ethical artificial intelligence. She has more than 70 scientific papers and has supervised more than 20 research students.

She is also part of the editorial board and one of the Associate Editors of the IET Biometrics. Márjory is a FEMINIST and an activist for women in science.

EHL2 Assistive Multimodal Robotic Security Solutions for Safe Adoption

Dr Jims Marchang (jims.marchang@shu.ac.uk)

Research shows potential benefits of using intelligent robots in health and wellbeing, assessment of cognitive skills etc. However, the healthcare sector poses unique challenges for the translational research compared to other domains. Devices manage sensitive and private data that must be preserved and protected from being inadvertently disclosed by the AI system. In this context, preserving user's data security and privacy in a multimodal interactive system is mostly unexplored where Robots are equipped with sensors which access individual's private data and the smart systems connected at homes. This presentation will cover directions on improving data security and safeguarding privacy of human-robotic interaction to improve trust and support the wider adoption of robotic solutions for health and wellbeing.



Dr. Jims Marchang is a Senior Lecturer in Cybersecurity at Sheffield Hallam University (SHU) and a research Co-Lead of the research theme on technological and digital innovations to promote independent lives at the Advanced Wellbeing Research Centre. He is also the research cluster lead of an intelligent and secure cybersecurity research group funded by SHU. He focuses on providing secure and a trusted privacy aware technological solutions for health and wellbeing systems. His research interest includes Network and IoT security, Preserving user privacy, Designing scalable blockchain frameworks, Cryptocurrency technologies, Building transparent and trusted systems.

EHL2 Co-design of a chatbot to support adolescents to overcome barriers to physical activity

Richard Moore ECRI Fellow (r.moore@shu.ac.uk)

Richard was awarded a SHU ECR Fellowship in the 2021/22 academic year to develop the Conversational AI Research Theme at Sheffield Hallam University. One of the aims of the Fellowship was to develop a chatbot to support adolescents to overcome barriers to physical activity. Richard will talk about the research process from using secondary data to identify barriers to physical activity (using the COM-B model), and training data using Natural Language Processing techniques for human-machine interaction, to co-designing the prototype chatbot with 10 secondary school pupils.



Richard is a Senior Research Fellow with over ten years commercial research experience in sport and physical activity. Richard was awarded a SHU ECR Fellowship in the 2021/22 academic year to develop the Conversational AI Research Theme at Sheffield Hallam University. He has project managed national research projects, which exceeded a cumulative value of £600k, on behalf of clients including The Premier League, Premiership Rugby, Rugby Football Union, Sport Northern Ireland, Department of Health and Social Care and Youth Sport Trust. Richard leads the Conversational AI Research Cluster at Sheffield Hallam University and he researches and develops novel Conversational AI solutions.

EHL3 The Microverse: Microbiome in Parkinson's Disease- Are probiotics a potential therapeutic adjunct?

Dr Lynne Barker (L.Barker@shu.ac.uk)

Parkinson's Disease (PD) is a neurodegenerative condition that affects multiple motor and non-motor functions. There is no cure and the definitive cause is not yet known. One pattern of underlying pathology of PD is associated with accumulation of abnormal clumps of alpha-synuclein protein (Lewy bodies) in the central nervous system (CNS) that impede normal neuronal function. Evidence from animal studies indicates that the production of alpha-synuclein begins in the gut, and gastro-intestinal problems (gut dysbiosis) are a common feature of PD. The gut contains millions of micro-organisms termed the microbiome. A complex bidirectional interaction between the gastrointestinal (GI) tract and the central nervous system (CNS) the Gut-Brain axis exists and may play a role in development of PD.

We conducted a 12-week feasibility study with PD patients randomly allocated to either: (i), probiotic arm (Symprove) or (ii), placebo arm. Behavioral (mood, sleep, cognition, symptoms, quality of life measures) and microbiome data (extracted and sequenced using 16s), were collected at baseline and 12 weeks for both groups.

Here we present preliminary species data on the PD signature of our sample and microbial shifts based on probiotic versus placebo arm. Findings present potential new avenues for large scale neurological and microbiome-based studies to inform knowledge of pathophysiology of motor disorders, gut dysbiosis and neurological conditions.



Dr Lynne Barker is an Associate Professor of Cognitive Neuroscience within the Centre for Behavioural Science and Applied Psychology. She completed her PhD in Cognitive Neuropsychology at The University of Sheffield. For the past two decades, she has worked closely with clinical collaborators investigating effects of brain injury, stroke and dementia on cognitive function and behaviour, identifying early and novel biomarkers of repeated concussive events, developing new digital tools for cognitive assessment in neurological groups, and more recently, investigating the microbiome in motor disorders. She was awarded the Medipex Prize (2016) for innovation in the treatment of patients with cognitive deficits in the NHS.

EHL3 Applying behavioural science to engaging hard to reach groups with Family Hubs services

Dr Abigail Millings (a.millings@shu.ac.uk), Dr Holly Wilcockson, Dr Elaine Clarke, Dr Carrie Jordan, Professor Madelynn Arden, Jean-Harris Evans, Professor Mike Coldwell, Dr Rachael Thorneloe

In this talk, we describe a current programme of work funded by the Department for Education to promote uptake of Family Hubs services. Working with 4 Local Authorities (LAs), we have co-designed behavioural insights research to evaluate initiatives developed by the LAs to promote service uptake. We have designed, and are in the process of implementing, 4 different mixed methods projects targeting different groups. Underpinned by the Capability, Opportunity, and Motivation model of Behaviour (COM-B, Michie et al., 2011), our work applies the principles of behavioural science and behaviour change to engaging hard to reach groups with services. Working with Sheffield City Council, we are developing and testing messaging to raise awareness and promote motivation to attend a new fathers' peer support group among new fathers.

With Wakefield Council, we are evaluating a communications strategy supporting and promoting a partnership between schools and Family Hubs services. In Durham, we are working with the council to develop and test messaging to promote family support services to fathers of teenagers. Working with City of Wolverhampton Council, we are examining whether and how outreach taster sessions can promote awareness and motivation to engage with Family Hubs services among minority groups with English as a second language. This talk will reflect on the challenges and opportunities associated with conducting applied behavioural science in local authority settings such as Family Hubs.



Abigail is a Social Psychologist with expertise in relationships, mental health, and the use of technology to promote well-being. She conducts research using mainly quantitative methodologies. The theories that underpin her work include attachment theory and theories of behaviour change. Some of the topics Abigail researches include how our close relationships affect coping, resilience, and mental health, what works best in digital interventions for well-being, and how best to support families undergoing transitions, such as new babies and parental separation.

EHL3 An evaluation of psychotropic prescribing practices in one Assessment & Treatment Unit for People with Intellectual Disabilities

Dr Jon Painter (j.painter@shu.ac.uk), Liam Black, Winola Chio, David Newman (Sheffield Health and Social Care Trust), Helena Lath (Sheffield City Council)

Purpose: To understand whether local psychotropic prescribing practices for people with intellectual disabilities (PWID) are in keeping with the government's national STOMP initiative i.e., to: Stop Over medicating People with ID and/or autism. **Design/methodology/approach:** This service evaluation project was a retrospective analysis of routinely collected data from the care records of PWID discharged from an ID assessment and treatment unit during the first five years of the STOMP initiative. Data were gathered at four timepoints (pre-admission, discharge, six- and twelve-month follow-up) before being analysed to understand whether psychotropic prescribing differed between people with different clinical characteristics/traits/diagnoses. Changes over time were also explored to ascertain if and how prescribing altered from admission to discharge and over the subsequent year of community living.

Findings: Most PWID left the ATU on fewer regular psychotropic medications and at lower doses than at admission. These optimised regimes were still apparent 12 months post-discharge, suggesting effective discharge planning and community care packages. Inpatients with severe ID generally received more anxiolytics & hypnotics, and at higher doses. Those with ASD tended to receive more psychotropics in total and at higher cumulative doses, a pattern that (persisted to a lesser extent) post-discharge. A third of the sample were admitted on regular anti-psychotic medications despite having no corresponding psychotic diagnosis, a proportion which remained relatively stable through discharge and into the community. **Originality:** This study highlights subsets of the ID population at particular risk of over-medication and a feasible template for local providers wishing to undertake STOMP-focused evaluations.



Jon has been a MH & LD nurse for 25yrs. The latter part of his NHS career included leading a number of local and regional transformation programmes involving the development and use of clinical information systems, clinical decision support models and datadriven decision-making in mental health services. More recently he has completed and published a mixed-methods evaluation of a telepsychiatry project, involving the qualitative and quantitative analysis of staff and patient feedback from over 7000 on-line consultations. Currently he is the Principal Investigator on a project to identify and develop the digital capabilities of a local Nursing and AHP workforce.

EHL3 Personalising cardiovascular models to aid diagnosis

Harry Saxton (c1050449@my.shu.ac.uk)

Models are often talked about in every context. Most recently we have heard about models which predicted the spread of COVID-19, some of these models are complicated and some of these models produced some results which may not have been the most accurate. My talk revolves around using models to predict a patient's cardiovascular health. We use a range of techniques on a simplified model of systemic circulation to ensure the model predictions are specific to a patient. This talk should be considered as an algorithm which can be applied to any model which aims to predict an outcome. The main direction of my research surrounds cardiovascular health which when used effectively can help patients to achieve a healthier life, though these methods can be applied to any biological situation.



Harry is a first year PhD student based in MERI. He studied Mathematics at Newcastle then went on to do Mathematical Biology at Heriot-Watt university. Harry is a keen follower of Sheffield United Football Club and is more than glad to be studying in his hometown.

EHL3 Synthesis and drug development of small molecule inhibitors of PTP1B for the treatment of comorbidities of Obesity

Timothy Wootton (Tim.l.wootton@student.shu.ac.uk), Dr Susan Campbell, Dr Alessandra P. Princivalle, Dr Nicola Aberdein and Dr Daniel Allwood

Approximately 2/3 of the UK population can be defined as being obese or overweight (BMI >25kg/m²) thus having an excessive or abnormal fat accumulation which presents a risk to health. This often leads to other health complications such as cardiovascular disease, and type II diabetes (TIIDs). One potential pharmaceutical treatment is the inhibition of the protein tyrosine phosphatase, PTP1B, the effect of which restores insulin sensitivity, therefore counteracting TIIDs. This effect can be achieved by the synthesis and implementation of a specific small molecule inhibitor that targets and reduces the negative effects of the protein (PTP1B).

We have used computational modelling studies, to identify the biological site of action of the protein (PTP1B) and from this designed potential drug like molecules that can bind to this site inactivating the PTP1B. For a patient this would mean insulin sensitivity is restored and/or improved which reverses the effects of type 2 diabetes and obesity. In extreme cases this in turn could drastically improve the patient's life expectancy and reduce pressure on the NHS, caused by obesity.

Herein we have developed and optimized the methodologies for the design, synthesise, and testing of potency of potential PTP1B small molecule inhibitors, for use in the treatment of obesity and its comorbidities, including type-II diabetes.



Tim is a current final year chemistry PhD student housed in the Biomolecular Sciences Research centre. He completed his undergraduate and masters degree at Sheffield Hallam University and graduated in 2019 with 1st class honours in the integrated chemistry masters (MChem).

(EHL4) Enabling Healthier Lives Paper Session 4 | Wednesday 15 June | 15.30-16.45

EHL4 Using Motivational Interviewing to promote health across the lifespan whilst emerging from the pandemic

Pat Day (p.day@shu.ac.uk) and Gayle Hazelby

Using Motivational Interviewing to promote health across the lifespan whilst emerging from the pandemic

Motivational Interviewing is a psychological approach to consultations which explores an individual's motivation to make life changes which will benefit health. It can be used across the lifespan and has a robust evidence base which applies to all the challenges to health.

This presentation will cover our work as community nurses in embracing the philosophy of Motivational Interviewing in our interactions with clients. We will show how this approach can be adapted to universal health care.

We have taught Motivational Interviewing within university and practice settings and have conducted research into its impact on practice.

Our research has shown a positive impact on collaborative work with clients and their engagement in behaviour change. A student commented '... it did change how I did things ... how I ask questions ... it's more a conversation and more open than just throwing questions at people, so it's not a tick box exercise when you go and do a visit.'

The pandemic has exacerbated existing problems in community health. Mental health has deteriorated, and this has resulted in in-crease in alcohol misuse, levels of obesity, mental health disorders, social isolation, and relationship difficulties. None of these issues can be resolved overnight. However Motivational Interviewing with its emphasis on therapeutic communication is likely to contribute to recovery. It can enable clients to process their difficulties and come up with their own solutions and goals. It could be an important part of helping people heal after the pandemic.



Pat Day is an experienced nurse and teacher. She worked in acute adult care settings for several years after qualifying as a nurse. Pat became a school nurse 20 years ago. This role fitted well with her interests in family health, health promotion and public health. Pat enjoys working with children and young people and has specialist skills in mental health and sexual health. She has an honorary contract with Sheffield Children's Hospital and supports teenagers with mental health issues in a secondary school. Pat is passionate about nursing and loves teaching students about primary care and public health.

EHL4 Active Together Service Design and Evaluation

Dr Michael Thelwell (m.thelwell@shu.ac.uk) Dr Anna Myers, Liam Humphreys, Gabbi Frith, Katie Pickering, Gail Phillips, Carol Keen, and Professor Rob Copeland

Background: Approximately three million people in the UK are currently living with or beyond cancer. People undergoing cancer treatments, particularly those with lower physiological resilience, may experience adverse effects. We have designed and are now delivering the Active Together Service—an evidence-based, multi-modal support pathway for patients with cancer. The service will be evaluated regularly against a range of measures.

Methods: The design and evaluation of the service encompass the latest guidance from the Medical Research Council on complex interventions. Patients with lung, upper gastrointestinal (GI) or colorectal cancer in Sheffield are referred to the Advanced Wellbeing Research Centre (AWRC) for innovative multi-modal rehabilitation (including prehabilitation) provided by a multidisciplinary team of clinicians and exercise professionals. The programme offers physical activity, dietetic and psychological support. Clinical outcomes are captured at key timepoints throughout the patient treatment journey to assess the service's impact on physical, behavioural and psychological health.

Results/findings: Results from our evaluation will be used to optimise the service design. We will measure the impact of the intervention on patient's physical fitness, health-related quality of life, cancer recurrence, survival and the wider economic impact across the healthcare system.

Conclusions: The evidence to support the role of multi-modal rehabilitation for patients at all stages of their cancer treatment journey is growing. The translation of that evidence into practice is less advanced. The results of this evaluation will provide valuable insight and learnings regarding service implementation and an understanding of the impact on both patient outcomes and the health economic landscape.



Mike joined Sheffield Hallam University in 2016, where he graduated with an MSc in Sports Engineering before going on to complete his PhD in advanced human measurement.

Since completing his PhD, Mike has continued researching the use of 3D body scanning to improve the assessment of physical health, in addition to his role as Project Officer within the Active Together service. Mike is responsible for designing and evaluating the Active Together service, as well as supporting the exercise component of the service through the use of wearable activity monitoring devices.

EHL4 French workplace fiction as bibliotherapy

Dr Amy Wigelsworth (A.Wigelsworth@shu.ac.uk)

Fiction charting the trials and tribulations of working life in its many forms has gained special prominence in France in recent years, and particularly since 2009, when the *prix du roman d'entreprise et du travail* (prize for the best business- or work-related novel) was inaugurated. In this paper, I will argue that many of these novels should be read as works as bibliotherapy as much as fiction, drawing on two case studies to illustrate this thesis: Laurent Gounelle's *Dieu voyage toujours incognito* (2011 winner), whose themes and marketing invite explicit comparisons with traditional self-help literature, and Jean-Paul Didierlaurent's *Le liseur du 6h23* (2015 winner), which offers a demonstration *en abyme* of the genre's potential to effect, as well as to reflect, social change. These novels, I contend, help to assuage (as much as to expose) the ills of the neoliberal workplace and in so doing suggest a crucial role for themselves in what Sarah Waters has referred to as the medicalisation of work in contemporary France.

A 'medicalised discourse of suffering' is used to depoliticise employee grievances and gives employers the opportunity to present themselves as tolerant and compassionate by offering a range of therapeutic treatments to employees, thereby detracting attention from controversial reforms. Workplace fiction, in this context, arguably offers a more genuine salve for the problems and challenges faced by many French people in their working lives.



Amy specialises in French popular culture and is the author of the monograph *Rewriting Les Mystères de Paris: The Mystères Urbains and the Palimpsest* (2016), as well as a number of articles and a book chapter on French urban mysteries and French crime fiction. She is also co-editor, with Angela Kimyongür, of *Rewriting Wrongs: French Crime Fiction and the Palimpsest* (2014). Her current research is on work and culture, including French fictional representations of work, and the socio-cultural contexts in which such texts are produced, marketed and consumed, and, most recently, representations of the Other at work in francophone film.

Panels & Symposiums



Making policy happen: insights from educational policy

Building Stronger Communities Panel 1
Tuesday 14 June 11:00-12:00

Panel Presenter(s):

Professor Mark Boylan (m.s.boylan@shu.ac.uk)

Professor Peter Wells (Chair)

Professor Sam Twiselton, Loic Menzies, Professor Emily Perry,

Professor Colin McCaig, Dr Gill Adams



Influencing policy is an important way for research to have social impact. This panel discussion, chaired by Peter Wells, draws on insights from the interfaces between educational research and policy that have relevance to other disciplines. The workshop will start from five short presentations as stimuli followed by discussion.

Gill Adams and Mark Boylan draw on a Royal Society funded landscaping of mathematics education policy. As part of this they developed models of policy development and implementation, based on synthesis and testing of existing models to analyse policy development processes. Here, they will draw out particularly the importance of systemic alignment; piloting and sequencing; and the role of champions.

Loic Menzies also draws on a range of theoretical models to identify four key ideas that explain how policy is made. Based on an interdisciplinary approach including political theory, the recent history of education, public policy analysis and sociology he argues that education policy is a product of history; competing coalitions and interactions; a funnelled set of options; and a framed and socially constructed narrative.

Sam Twiselton, drawing on her experience of multiple policy orientated roles in Department for Education advisory and working groups shares insights into navigating the complex interfaces between stakeholders, practice, policy and politics on relation to schools, curriculum and teacher education policy.

Emily Perry focuses on collaboration and interaction with actors that seek to influence educational policy, taking as an example, the Wellcome Trust CPD challenge project which sought to develop evidence for a case for statutory entitlement for teachers for CPD over and above current INSET days.

Colin McCaig offers complementary insights into Higher education policy in England. HE policymaking works in a context in which the state's aims have to be realised by a process of negotiation and persuasion given the legal autonomy of HE providers with regard to admissions, provision offered, and their institutional missions. Rainford's HE policy enactment staircase model offers a multilevel understanding to policymaking, which recognises that policy is made, enacted and implemented at different levels within the diverse sector, by actors with variable agency and spheres of influence.

Systems approaches to social policy and social research

Building Stronger Communities Panel 2
Tuesday 14 June 14:00-15:00

Panel Presenter(s):
Professor Mike Coldwell (Chair) (m.r.coldwell@shu.ac.uk)
Professor Sarah Pearson, Ian Wilson,
Professor Peter Wells, Dr Katie Shearn



Increasingly, systems theory, and systems approaches (including place-based and local system change) are both used in social policy development, and to research such policy. Our symposium will interrogate these approaches from a variety of mixed methods perspectives including:

Evaluating local system change: the case of Children's Communities (Prof Sarah Pearson and Ian Wilson) - using a combined theory of change and maturity matrix approach to allow robust comparative evaluation.

A systems approach to research use in Education (Prof Mike Coldwell) - a new framework for considering systems theory to help create an effective approach to system change, using the example of the EEF Teaching Assistants Scale Up programmes.

Exploring systems through a partnership working lens (Prof Peter Wells) – an approach to analysis of partnership data drawing on the major Talent Match evaluation.

Dr Katie Shearn, who uses realist and complexity theory to interrogate system change in health settings, will act as discussant.

The symposium as whole from a set of our internationally leading researchers across social and health disciplines will showcase this range of cutting edge research in an emergent field, and will be of relevance to re-searchers interested in building their understanding of how to engage with the complex and difficult terrain of system change, sharing a set of tools and approaches that will help SHU colleagues to remain at the forefront of public policy research

Child Obesity

Enabling Healthier Lives Panel 1
Tuesday 14 June 14:00-15:00

Panel Presenter(s):

Dr Alice Bullas (Chair) (a.bullas@shu.ac.uk)

Dr Cath Homer

Pete Nelson

Dr Dita Aswani (Sheffield Children's NHS Foundation Trust)

Olivia Parkin (Live Lighter)

Jess Wilson (Sheffield City Council)

Sally Pearse (The Early Years Community Research Centre)



Childhood obesity is a major public health problem both globally and in England-with 23% of children aged 4-5 and 35.1% of children aged 10-11 classified as obese or overweight. This is of concern as childhood obesity is associated with an increased risk of premature death and disability in adulthood due to an increased risk of developing noncommunicable diseases at a younger age. It is estimated childhood obesity costs the NHS £4.2billion a year which, without action, will rise to £10billion a year by 2050. However, even after 30 years of government obesity policies, obesity prevalence and its associated health inequities show no sign of declining. This panel discussion will draw together academics from SHU and practitioners from across Sheffield to discuss what next for research and policy in the field of child obesity. Central to our discussion will be:

- Should we be concerned about childhood obesity rates?
- Where is current policy failing?
- What, if anything, needs to change?
- As researchers at SHU, what can we do to facilitate this change?

Understanding and managing loneliness: A multi-disciplinary approach

Enabling Healthier Lives Panel 2
Wednesday 15 June 13:00-14:00

Panel Presenter(s):
Dr Antonia Ypsilanti (Chair) (a.ypsilanti@shu.ac.uk),
Professor Lambros Lazuras, Professor Andrea Wigfield



Loneliness represents a major public health threat, with implications for both mental and physical health outcomes. Research-informed practices and interventions are needed to mitigate the effect of loneliness on public health, and interdisciplinary approaches are well-suited to this end. This interdisciplinary panel session will address two key topics in loneliness research, namely the social cognitive aspects of loneliness, and the societal determinants of loneliness.

Professor Lazuras will discuss the role of self-perceptions and individual differences in loneliness, and their association with mental health outcomes. Special emphasis will be placed on the role of self-conscious emotions, such as self-disgust, and how adaptive traits (e.g., hope and optimism) can differentiate loneliness experiences.

Dr Ypsilanti will address the social threat hypothesis in loneliness and propose new theoretical and methodological advances in this area. More specifically, the psychological determinants of perceived social threats (e.g., fear of negative evaluation by others, social rejection) will be analysed, followed by a presentation of novel proposed methodologies.

Professor Wigfield will discuss the wider societal determinants and the implications of loneliness and social isolation, emphasizing the role of meaningful social interactions in determining opportunities and barriers to connect with others. The panel session will conclude with a discussion on the implications of these findings in policy making and programme interventions to reduce loneliness.

Vaccination uptake: A behavioural science approach

Enabling Healthier Lives Symposium 1
Wednesday 15 June, 15:30-16:45

Workshop Presenter(s):
Professor Madelynn Arden m.arden@shu.ac.uk
Dr Helen Humphreys (Chair)
Dr Rachael Thorneloe, Dr Martin Lamb, Dr Elaine Clarke



The COVID pandemic has highlighted the crucial role of vaccinations to prevent serious illness and death. However, rates of uptake for vaccinations are suboptimal. Understanding why people do or not vaccinate is crucial to be able to design effective interventions to promote uptake. Behavioural science offers the theories and evidence to both understand differences in uptake and to design effective interventions. This symposium presents the findings of three research studies undertaken by researchers from the Centre for Behavioural Science and Applied Psychology on vaccination uptake: i) The rapid co-production and community testing of messages to promote COVID-19 vaccination uptake in young people of Pakistani heritage in Bradford; ii) Understanding the barriers and facilitators for COVID-19 vaccine uptake and intentions to receive in booster in young people following the emergence of Omicron: An analysis using the COM-B model; and iii) Using the Behaviour Change Wheel to understand and address the barriers and facilitators for seasonal influenza vaccine uptake among NHS employees in Wales. The session will end with a panel discussion on the important role of behavioural science in addressing future challenges of low vaccination uptake.

The rapid co-production and community testing of messages to promote COVID-19 vaccination uptake in young people of Pakistani heritage in Bradford

Professor Madelynn Arden, Dr Rachael Thorneloe, Dr Elaine Clarke, Dr Caroline Jordan, Dr Martin Lamb, Dr Abigail Millings, Dr Laura Kilby, & Nicola Knowles

Objectives: To co-produce and test new messages to encourage COVID-19 vaccination in young people of Pakistani heritage given concerns about likely low uptake.

Design: Co-production workshops with stakeholders and young people and community-led semi-structured interviews

Methods: We developed four prototype messages to promote vaccination in young people of Pakistani heritage in two workshops with stakeholders and young people. We trained three young people to undertake 73 interviews with peers (aged 18-25 years) who had not yet been offered the vaccine to explore barriers and facilitators to vaccination uptake and their responses to the messages. Interview data was analysed using framework analysis based on the COM-B model and the Theoretical Framework of Acceptability with comparisons between those who intended and did not intend to receive the vaccine.

Results: All four messages were perceived to be effective by the majority of those who did not intend or were unsure about getting the vaccine. Participants identified a range of barriers to receiving the vaccine including concerns about serious side effects and fear of the vaccine. Key facilitators included perceptions that the vaccine would facilitate travel or venue access, and beliefs that the vaccine will promote safety from infection. Family and friends were influential and could be barriers or facilitators.

Conclusions: The findings were used to make recommendations to inform communications and broader strategies for the COVID vaccine roll out in July 2021. These included using positively framed messages focused on the key motivations for young people, challenging myths and avoiding stigma and blame.

Understanding the barriers and facilitators for COVID-19 vaccine uptake and intentions to receive in booster in young people following the emergence of Omicron: An analysis using the COM-B model

Dr Thorneloe, R., Dr Jordan, C., Roberts, Professor R. Arden, M. A.

Objectives: On the 30th November 2021 and in response to the Omicron variant, the COVID-19 vaccine booster programme was extended to all 18–39 year olds. We explored the barriers and facilitators for uptake of the COVID-19 vaccine and intentions to receive a booster among young people living in Cambridge City and Peterborough City, using the Theoretical Domains Framework.

Design: Focus groups

Methods: In December 2021, four focus groups were conducted with 17 young people aged 18–33 years. Framework analysis was used to code the data into TDF domains. Data were compared between those who had received two doses ($n = 8$), and those who had received ≤ 1 dose of their COVID-19 vaccine ($n = 9$).

Findings: Key barriers to receiving the vaccine included: low perceived risk of COVID-19; misunderstanding and concerns about the effectiveness of the vaccine; concerns about the long-term safety of the vaccine and perceived impact of potential short-term side-effects and; concerns about the vaccine passport. Key facilitators to receiving the vaccine and intentions to receive a booster included: perceptions that the vaccine would facilitate travel, and beliefs that the vaccine offers protection from infection.

Conclusions: The findings were used to make recommendations to inform strategies for supporting COVID-19 vaccine uptake in January 2022. These included: communications that address uncertainty and concerns about vaccine effectiveness and facilitating opportunities for non-judgemental conversations about the pros and cons of vaccination with trusted health or community members to help people feel supported to make an informed decision.

Using the Behaviour Change Wheel to understand and address the barriers and facilitators for seasonal influenza vaccine uptake among NHS employees in Wales

Dr Rachael Thorneloe, Dr Elaine Clarke, Dr Caroline Jordan, Dr Martin Lamb, Dr Holly Wilcockson, Professor Madelynn Arden

Objectives: Uptake of the seasonal influenza vaccine can be low among NHS employees. We explored the barriers and facilitators for uptake of the seasonal influenza vaccine among NHS employees using the Theoretical Domains Framework (TDF) and co-produced new interventions with employees to support vaccination uptake, using the Behaviour Change Wheel (BCW).

Design: Semi-structured Interviews and co-production workshops.

Methods: Between November 2020 and July 2021, 35 semi-structured interviews were conducted with NHS employees at Cwm Taf Morgannwg University Health Board (CTMUHB). Framework analysis was used to code the data into TDF domains. Aspects of the TDF that differed between those with lower (≤ 2) and higher (≥ 3) influenza vaccination uptake between 2017-2021 were explored. Co-production workshops were held with five CTMUHB employees to develop interventions to support vaccine uptake using the BCW.

Results: TDF domains appeared to vary by low and high uptake, including behavioural regulation; beliefs about consequences and; social/professional role and identity. Those with low uptake reported that COVID-19 has increased their perceived need for the seasonal influenza vaccine, by increasing perceptions of risk and perceived positive consequences from receiving the vaccine. The outcomes of the co-production workshops were behavioural-science informed messaging and communications that address a range of barriers, and training for CTMUHB peers to have non-judgemental conversations to promote vaccination uptake.

Conclusions: We identified key barriers and facilitators to vaccination uptake. By working together with NHS employees to design new interventions using the BCW, we co-produced key interventions that reflect their needs and priorities.

The role of behavioural science in encouraging vaccination uptake

The panel will lead a discussion on the role of behavioural science in encouraging vaccination uptake, reflecting on learnings from research, and reflecting on future challenges and approaches.

Overcoming barriers to increasing active travel

Building Stronger Communities Panel 3
Wednesday 15 June 14:00-15:00

Panel Presenter(s):

Dr Stephen Parkes

s.parkes@shu.ac.uk

Maxine Gregory (Chair)

**Professor Madelynne Arden, Mia Rafalowicz-Campbell,
Dr Rachael Thorneloe, Josie Wilson**



Increasing attention is being given to the role of active travel (which includes walking, cycling, and other forms of active mobility) in helping to tackle a range of social and environmental challenges. Whilst funding to support the uptake of active travel is increasingly available to local authorities, decades of underfunding and under prioritisation means that significant barriers remain preventing a more rapid uptake of active travel.

This session draws together contributions from colleagues across the University researching active travel and provides a range of perspectives on the barriers to active travel that exist and how these are being challenged. This includes research on the temporary road-space reallocation measures introduced in response to the Covid-19 pandemic (Parkes); insights from the application of a behaviour change intervention to increase active travel (Arden and Thorneloe); research with schools to explore barriers to school age active travel (Wilson); and perspectives on issues of equity associated with active travel planning and infrastructure (Rafalowicz-Campbell).

Contributors will present short overviews of their research, which will be followed by a panel discussion.

Optimising Training in Elite Athletes: Old Concepts and New Insights

Enabling Healthier Lives Panel 3
Wednesday 15 June 14:00-15:00

Panel Presenter(s):

**Dr Alan Ruddock (Chair) (a.ruddock@shu.ac.uk),
Dr David Rogerson, Steve Thompson, Lee Bell**



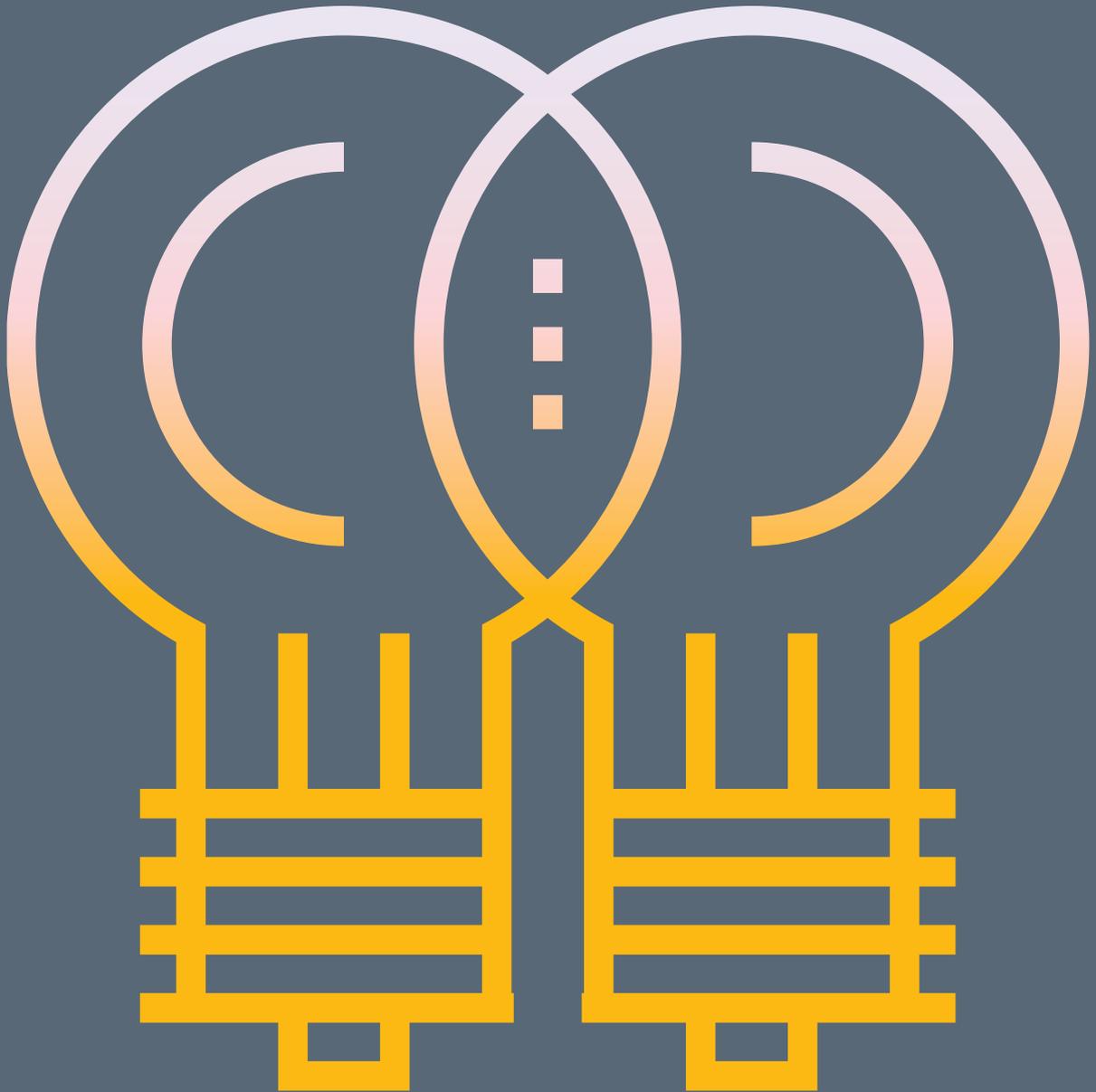
Optimal performance in sport is achieved through careful manipulation of training and recovery and facilitated through strategic exercise programming relative to competition schedule. In strength sports such as weightlifting, powerlifting, and maximal effort throws, short-term periods of increased training demand has been reported to improve characteristics that contribute to optimal performance, such as maximal strength.

Such increases in training demand, however, increases the risk of overtraining. Functional overreaching is characterised by performance improvement above the initial baseline, observed only after an initial period (2 to 5 weeks) of performance decline from baseline. Non-functional overreaching (NFOR) is characterised by impaired performance lasting several days to weeks, with no performance improvement above the initial baseline. During prolonged or excessive training without sufficient recovery, the overtraining syndrome (OTS) may occur. The OTS is characterised by a long-term reduction in performance lasting several weeks to months which is clearly problematic for athletes.

To optimise training demand coaches and scientists are beginning to use a novel method called Velocity Based Training (VBT) to monitor the velocity of movement by attaching devices such as accelerometers to an athlete or piece of equipment. Velocity of movement has a strong linear relationship with load (heavy loads are moved slowly and require more force) enabling coaches and scientists to monitor and prescribe optimal training stimuli more effectively than traditional methods.

This panel discussion will explore established ideas surrounding overtraining and the role of VBT in training the High-Performance athlete.

Workshops

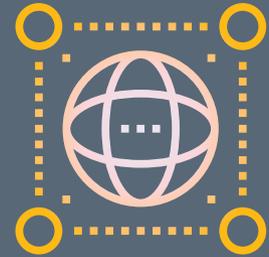


Driving Future Economies Workshop 1, Tuesday 14 June 11.00-12.00

Alternative Home Histories: Speculative Futures Co-Design Workshop

What can speculative co-design which draws on existing academic research data offer the just transition to NetZero? Net Zero is the state at which global warming plateaus. The planet stops heating and climate damage could begin to reverse. Sheffield City Council hopes to be NetZero by 2030. Based in the domestic, working with transcripts of oral histories of home heating in Sheffield, my analyses review interview data for traces of the Anthropocene. My explorations are imagining the ways heat moves through homes through time and this relationship to carbon and local and global temperatures. In short, what are the longitudinal lived experiences of heat in historic homes? These are used to produce speculative fictions (prototypes, maps and diagrams) which are the starting point to stimulate discussion and communicate with workshop participants within a co-design workshop.

In this workshop I share work in progress exploring and experimenting with the use of these existing qualitative data sets and speculative design fictions. These fictions take the form of speculative estate agent plans and property particulars which document the experiences and affect of home heating within historical homes. Through these I draw on understandings of past human (and more-than-human) experiences to learn what home histories can offer us about future material practices of carbon and how these could support NetZero behaviour change. By working in a co-design manner this workshop asks participants to imagine alternative futures for these and their own homes.



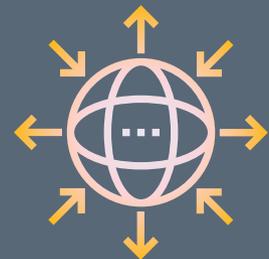
Workshop presenters:

Dr Eve Stirling ECRI Fellow
e.stirling@shu.ac.uk

Cross Cutting Workshop 1 Tuesday 14 June 14.00-15.00

Developing a research impact culture at SHU

Impact is about making research matter, seeing it make a difference. Understanding impact and embedding it within research are important to researchers at all career stages. This session will look at the University's impact strategy for the 2021-2028 REF cycle, with a particular focus on developing an impact culture at Sheffield Hallam. This means shaping our thinking and our practices - to focus on the beneficiaries of research, consider co-production, and devise approaches to extending and evidencing impact. The session will be delivered by the Policy, Impact and Performance (PIP) team in RIS, who oversaw the development and submission of the University's REF 2021 impact case studies.



Workshop presenters:

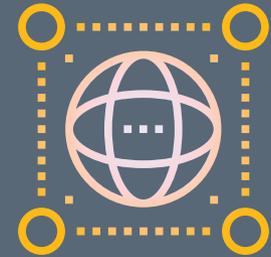
Dr Keith Fildes
k.fildes@shu.ac.uk
Jenny Dunn
Alison Honnor
Arnett Powell

Driving Future Economies Workshop 1, Tuesday 14 June 11.00-12.00

Impacts of completed doctoral research

This contribution to the conference originates from two main sources; a recent study of the management contributions arising from Doctorate in Business Administration (DBA) theses and the interim results from a current SERI/SIPS Policy Support Fund project on the role of doctoral research in influencing policy change. It will cover the various types of impact that doctoral research can achieve, considering how this varies according to the type of doctorate, the background of the doctoral researcher and the discipline(s) within which the research falls. The focus is on completed doctoral research, to identify how the results of the research are subsequently used to achieve different types of impact.

The workshop will draw on stakeholder theory and social theory on the interplay of structure and agency to conceptualise the relationship of the individual doctoral researcher with their institutional background. Contrasting examples will be explored, such as between different Research Impact Beacon Areas (RIBAs), to highlight contextual variations and their implications for achieving impact.



Workshop presenters:

Dr Richard Breese
r.breese@shu.ac.uk

Cross Cutting Workshop 2 Wednesday 15 June 13.00-14.00

Responsible Research Assessment at SHU: interactive workshop

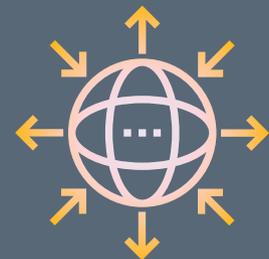
This interactive workshop will consider the adoption of 'responsible research assessment' (RRA) practices across SHU in the context of our endorsement of the San Francisco Declaration on Research Assessment (DORA) and the outcomes of the REF2021 exercise. DORA states that signatories should not use journal-level metrics such as impact factors as the sole criteria to assess colleagues' research performance. This suggests that alternative metrics and methods of assessment are needed in relation to recruitment and promotion, not only for compliance with DORA, but also to build a vibrant, diverse, inclusive, multi-disciplinary and impactful research environment across SHU.

The workshop will explore the experiences of doctoral researchers, early-mid career and more experienced colleagues and aim to come up with practical suggestions for developing our processes for recruiting new col-leagues, supporting doctoral and early career researchers, assessing individual

research plans and providing clear and meaningful career pathways that are consistent with our institution's overall vision and mission.

The workshop will consider selected examples of RRA practices and explore whether and how they might be adopted across SHU. We will also consider the barriers to the adoption of responsible research assessment and how these might be addressed. We will identify good practice examples across SHU and discuss how these might be disseminated and adopted more widely.

The workshop will facilitate open and honest group discussion, utilising electronic tools such as Sli.do to record and share examples and ideas. It is envisaged that, with the agreement of participants, a short report and/or blog will be produced and shared with the SHU CK community.



Workshop presenters:

Professor Steve Johnson
steve.johnson@shu.ac.uk

Enabling Healthier Lives Workshop 1 Wednesday 15 June 14.00-15.00

Developing a novel framework for classifying alcohol intake and impact 'tools'

Alcohol consumption and abuse is a contested human behaviour with tool developers bringing their disciplinary frameworks, and sometimes their personal biases into the research. This scholarship began with a need to measure alcohol intake in an immigrant population that frequently end up in mental health wards. We examined quantitative tools for estimating alcohol intake, or measuring the impact of alcohol intake for an individual or at the population-level for monitoring. Difficulties associated with comparing alcohol tools led the authors to develop a new framework, derived directly from the content of the tools. This tool aims to help researchers and clinicians select a tool appropriate for their intended purpose.

A wide range of tools were identified with many passionate advocates and entrenched opinions. Consumption, sometimes to a very detailed level was the most developed and contentious but generally demonstrated to be inaccurate. Tools that measure consequences move beyond the impact on the individual and collect information on the broader social impact which is important for policy decisions around alcohol. Attitudes beliefs and norms has the fewest tools and is the least well developed but looks at the wider social determinants which are increasingly recognised as key determinants of behaviour. The new framework will be useful to guide alcohol researchers and clinicians to select a tool that is appropriate for the intended purpose, and by those developing new tools.



Workshop presenters:
Professor Shona Kelly
hwbsk1@shu.ac.uk
Walter Tasosa
Joseph Tasosa

Exhibition



An Online Scale for the Assessment of Language in Adults Using Self-reported Skills (ALASS)

Dr Javier Aguado-Orea (j.aguado-orea@shu.ac.uk), Hannah Joyce

The Assessment of Language in Adults using Self-reported Skills (ALASS) is an online tool aimed at providing a rapid indication of language-related skills at two levels: basic performance and social use. In Study 1, we have developed and validated a new tool with two objective measures: a lexical decision test and a grammaticality judgement test, completed online by 280 participants (204 men, 69 female, 7 undisclosed, age: $M=24.4$ years; $SD=11.1$). Results show that ALASS is a good predictor of the outcomes for reaction times in the objective measures. In study 2, we have run further analyses with a subset of 209 adults (157 women, 47 men, 5 undisclosed; age: $M=20.9$ years; $SD=5.8$) to validate the social implications of ALASS with another online study, also showing a considerable explanatory power in this case, and strengthening the divergent nature of language when it is used with a social purpose against a more cognitive function (i.e. literacy and language production and comprehension).

Considering its explanatory power for lexical performance, we believe that the scale has a potential applicability in the assessment of adults that could have missed a diagnosis of Developmental Language Disorder during childhood



Javier is a senior lecturer in Psychology. He worked in a number of universities in Spain prior to joining Sheffield Hallam in 2014. His main area of expertise is the study of early child language, and he has published outputs in academic journals ranging from the cognitive psychology field (e.g., Cognitive Science), more linguistic-oriented, and from a developmental psychology (learning processes) audience and a more education-oriented one.

UN-Lands

Rose Butler (r.butler@shu.ac.uk)

In October 2021 I was able to carry out a field trip to Cyprus to commence a new research project in partnership with the cultural NGO Neme in Limassol.

As an artist to commence new projects I use digital shorts and writing as a way of 'sketching', a way to work up or bring together imagery and audio and work through a timeline, to make aesthetic decisions and generate ethical and political understanding.

Selected literature accompanies me, to and from the site of research. Books act as a prop alongside cameras and devices as well as texts that inform the research. I supplement observations and documentation in the field with notes in situ.

Footage might be collected on a camera or phone by whatever means possible in the field to amass material. This strategy of documenting and writing enables field work that is durational, that shifts and develops as thinking and observing develops and is interrupted and informed by real life events as well as external narratives.

It provides a way to bring in divergent sources of information, to encompass reflexive and affected response to combine fiction, history and creative process. It allows the writing to respond to uncertainty and fluid situations, to stay abreast of the pace of political change and not to be overwhelmed by distractive or dominant narratives.

For CK22 I will present writing accompanied by video and photography of initial sketches from the buffer zone of Cyprus and the abandoned city of Varosha in Northern Cyprus.



Rose is an artist, Senior Lecturer in Fine Art and the Early Career Researcher Representative for CCRI. Rose uses adapted technology and custom built software alongside early cameras and analogue technique to make interactive installations, single and multi-screen videos or large-scale photographs. Rose's work brings together photographic and filmic documentation, archival material, political commentary and fiction. Her research examines the in-between spaces generated by physical and digital, visible and invisible borders such as buffer zones, 'no mans land' or surveillance data.

Screen touch

Marika Grasso (b9038463@my.shu.ac.uk)

The touch of a screen represents the perpetual touch marks on the smartphone's touchscreen. The artwork is a transparent resin wet surface that can't be touched, it is a provocation to think of what is daily touched and marked by the human agency. The wetness of the resin work embodies a material transformation, in contrast to the everlasting phone touchscreen it can express more rapidly the fragilities of matter even when the human touch is absent. The research is observing our relationship with technology and learning its limits regarding its modes of communication and expression.

The creation of an untouchable, clear, touchscreen-shaped artefact is influenced by the deepening of a material exploration through mixed textile techniques such as un-making, embroidery, gilding, painting and clay, resin and silicon casting. The continuous dissection and un-layering of the hidden layer merged into the creation of something else that could have been marked permanently by my fingertips.

However, the art practice and the material exploration are inspired by the Matter of Care (de la Bellacasa, 2017), the sense of ethical touch of technology exposed the frailty and impermanence of the tactile movements on the rectangular glass.

The artefact aims to try to express the touch-technology relationship from a material perspective. It encapsulates and traps the signs of touch, by the will of humans and the requirements of interaction of the technological matter.

The art practice and the sense of care towards tactile interactions with technology shaped the exploration for different materials through the reproduction of devices with different materials.



Marika is an artist and a Ph.D. candidate at Sheffield Hallam University, in the Lab4Living research centre, funded by Research England, 'The 100-year life and the Future Home' grant. Her practice focuses on a material practice-based approach and Touch as an interactive tool to explore materiality and the self. She is based in Sheffield with a material practice-based interdisciplinary approach, inspired and interlaced with Neuroscience and the sense of Touch. She previously studied Textile, at The Royal College of Art, and Fashion Design at Central Saint Martins. Her work Erotic Matter has been exhibited during London Design Week 2018, and Miniartextil (Como).

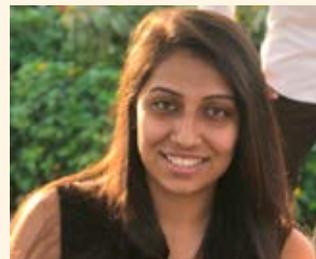
Meeting my Role Models: An Insight into Imposter Syndrome

Shruti Mandhani (sm6209@my.shu.ac.uk)

'Imposter Syndrome' is a chronic feeling of inadequacy. It is when you convince yourself that all your achievements have been due to luck, and you will soon be exposed for being a fraud.

Whilst it is difficult to accept having imposter syndrome, it is even harder to accept that you, in fact, are deserving of your accomplishments. In this film I share my own journey with imposter syndrome by speaking to some of my role models in academia. Prof. Helen Gleeson, Prof. Kim Alderson, and Dr. Elisabetta Matsumoto are all women in different stages of their careers in academia who share their own experiences and advice on dealing with imposter syndrome and the feeling of not belonging.

This film was funded by a grant from UKRI for winning the national 3MT competition, funded by Vitae and Taylor & Francis.



Shruti Mandhani is a research fellow and PhD candidate in auxetic materials at the Materials and Engineering Research Institute. She is interested in the unusual behaviour of mechanical metamaterials and their applications in sectors such as biomedical, aerospace, sports and automotive. She enjoys public engagement, educational film production, and swimming.

Surrounded by silence: understanding women's experiences of breast and trunk lymphoedema after treatment for breast cancer

Janet Ulman (janet.ulman@shu.ac.uk)

Although cancer survivorship is often couched in celebratory or defiant language, many women who have breast cancer must live with treatment side effects such as lymphoedema. Estimates of breast lymphoedema are as high as 90.4% (1), yet there remains scant research and patient information about either breast or trunk lymphoedema (BTL); and women's experiences remain absent in the academic literature.

The aim of this doctoral study was to explore women's experiences of developing and living with BTL. The study was underpinned by The Silences Framework (2) which was developed to facilitate research into marginalised topics. Fourteen women aged between 41 and 83 took part in individual, unstructured interviews, ten of whom took up the invitation to use images in their interview.

It emerged that women were unprepared for the development of BTL, and that symptoms were unfamiliar and distressing to many women. Frequently women's concerns were ignored or dismissed by healthcare professionals (HCPs), resulting in lengthy delays in obtaining a diagnosis and appropriate treatment. For some participants, the practical and emotional impact of BTL was profound.

The study recommendations address women's disempowerment and marginalisation resulting from a lack of patient information and poor HCP awareness about BTL.

1. Verbelen, H., Gebruers, N., Beyers, T., De Monie, A. C., & Tjalma, W. (2014). Breast edema in breast cancer patients following breast-conserving surgery and radiotherapy: a systematic review. *Breast cancer research and treatment*, 147(3), 463-471.
2. Serrant-Green, L. (2011). The sound of 'silence': a framework for researching sensitive issues or marginalised perspectives in health. *Journal of research in nursing*, 16(4), 347-360.



Janet Ulman worked for many years as an occupational therapist with people who have dementia and their families. She has just completed a PhD at Sheffield Hallam University which was supported by a Vice Chancellor scholarship. For her doctoral study she investigated women's experiences of breast or trunk lymphoedema after treatment for breast cancer; currently the study's findings are being promoted by the national charity Breast Cancer Now. Janet plans to under-take some follow-on research based upon the study's recommendations and to continue having a research role in other cancer-related projects at the University.

Posters

Neuromorphic Computing for Interactive Robotics: A Systematic Review

Muhammad Aitsam (c1051673@my.shu.ac.uk),
Sergio Davies, Alessandro Di Nuovo

A Novel Antimicrobial Sol-Gel Device Coating to Prevent Periprosthetic Joint Infection

Sarah Boyce (Sarah.Boyce@shu.ac.uk), Christine
Le Maitre, Tom Smith and Tim Nichol

Non-Destructive Evaluation of Sustainable Fibre Reinforced Polymer Composite Materials

Eryn Brooks (b3027006@my.shu.ac.uk)

Synergism of Biocides and Quorum Sensing inhibitors against Uropathogenic *E. coli* biofilms

Kelly Capper-Parkin (b0035049@my.shu.ac.uk)

Investigating citizens' perspective to Law Enforcement Agencies surveillance and use of Artificial Intelligence

Yasmine Ezzeddine (c0051354@my.shu.ac.uk)

Plant-Based Convenience Foods: Consumer Perceptions, Nutrient Profile and Satiety

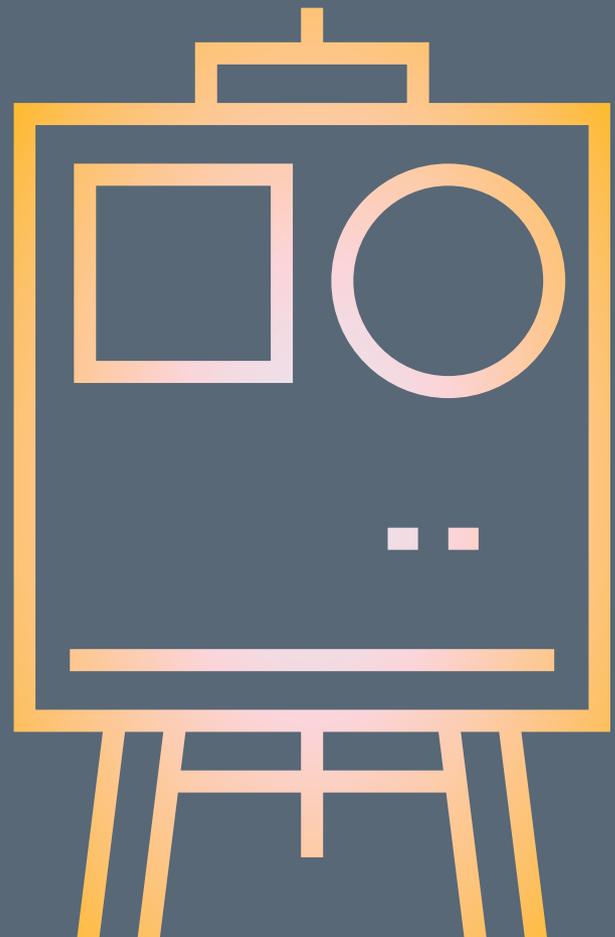
Megan Flint (b7003979@my.shu.ac.uk)

An overview of our 2021 REF results, and plans and ambitions for REF2028

Dr Keith Fildes (k.fildes@shu.ac.uk), Arnett Powell,
Jenny Dunn, Alison Honnor

Robot as schoolmate for enhanced adaptive learning

Imene Tarakli (c1050643@my.shu.ac.uk)



Sheffield Institute for Policy Studies Research Showcase and Poster Competition

The Sheffield Institute for Policy Studies postgraduate research showcase and poster competition has existed since 2017, providing a supportive environment for postgraduate research students to display their research, at whatever stage of the process they are at. Originally created for doctoral social policy researchers at Sheffield Hallam University, the remit of this event has expanded since its inception; we are now pleased that postgraduate researchers from disciplines across the institution, and those studying research-focused Masters degrees, are now registered to take part in this year's event.

We are really pleased to include the launch event of this year's poster showcase, and the first part of this yearly event to be held in-person since 2019, as part of the Creating Knowledge conference!

Ben Archer, Sarah Walton, Dareen Assaf and Emma Sconce - the Sheffield Institute for Policy Studies Research Showcase and Poster Competition organisation team.

1. GIS Capability in Wildfires Risk Assessment

Ayman Alhawamdeh (c0042382@my.shu.ac.uk)

2. Probation supervision of people convicted of sexual offences

Charlotte Oliver (c1052136@my.shu.ac.uk)

3. Trauma-informed professional development in schools: influences on practice and whole-school change

Eleanor Long (b3040172@my.shu.ac.uk)

4. Pattern and morphometry of Crevasse Squeeze Ridges, Northwest Territories, Canada

Gwyneth Rivers (b8031506@my.shu.ac.uk)

5. Unique parameter solutions to a simple model of systemic circulation

Harry Saxton (c1050449@my.shu.ac.uk)

6. Active travel and the school commute

Josie Wilson (j.a.wilson@shu.ac.uk)

7. The landscapes of teachers' beliefs and values

Sally Hinchliff (s.hinchliff@shu.ac.uk)

8. Adapting Existing Housing Stock for Affordability and Environmental Performance in Chile

Veronica Rocha Riveros (c0051754@my.shu.ac.uk)

9. Policy Review on Private Education in China

Ximing Chen (b6032980@my.shu.ac.uk)

10. Early Assessment of Language Acquisition in Multilingual contexts: The case of Nigeria

Zainab Sani-Danmallam (b8040069@my.shu.ac.uk)

11. Examining the policing practices associated with civil preventive orders and notices

Zoe Rodgers (zr9851@exchange.shu.ac.uk)

Research Community Networks

There are a number of university-wide research community networks and initiatives which provide opportunities for researchers to connect across disciplinary boundaries.

Join the ECR Staff Network

Hallam's Early Career Researcher (ECR) Staff Network was established in 2018 to support staff who are relatively new to research. The ECR Network aims to provide opportunities for ECRs to:

- Meet other ECRs from across the University and benefit from peer support.
- Present their research and form multidisciplinary collaborations.
- Provide feedback on the experience of ECRs at Hallam to inform further development of activities and initiatives aimed at this group of staff.

The ECR Network takes a broad definition of 'ECR' and invites all staff who are relatively new – or returning – to research and want to engage with other active researchers. We are always looking for people to get involved in the Network by suggesting activities, hosting events and promoting the Network locally. To aid communication around issues related to research culture and researcher development, we now have an MS Team which you are welcome to join (code y5j3d4m). Your ECR reps and core group members are:

Rose Butler (CCRI) r.butler@shu.ac.uk
 James Fenwick (CCRI) j.fenwick@shu.ac.uk
 Amy Wigelsworth (CCRI) a.wigelsworth@shu.ac.uk
 Sadiq Bhanbhro (HRI) s.bhanbhro@shu.ac.uk
 Alice Bullas (HRI) a.bullas@shu.ac.uk
 Timibloudi Enamamu (I2RI) te2281@exchange.shu.ac.uk
 Helga Razaghi (I2RI) h.razaghi@shu.ac.uk
 Ruth Beresford (SERI) r.e.beresford@shu.ac.uk
 Sarah Boodt (SERI) s.boodt@shu.ac.uk
 Adele Doran (SERI) a.doran@shu.ac.uk
 Katie Dunn (SERI) katie.dunn@shu.ac.uk
 Christina Fashanu (SERI) c.fashanu@shu.ac.uk
 Catherine Harris (SERI) c.h.harris@shu.ac.uk
 Sana Rahim (SERI) sr1288@exchange.shu.ac.uk
 You can also contact the group via shard@shu.ac.uk

There are also a wide range of research community activities happening across the university that provide opportunities for researchers to connect across disciplinary boundaries. You can find out about these via your Research Institute, Research and Innovation Services (including the Doctoral School) and the Library Research Support Team.

PGR Students' Society

The Postgraduate Research Students' Society organises monthly socials for current and prospective postgraduate students at SHU. Through a diverse range of events including walks in the Peak District, pub quiz socials, and a day trips to places such as York and Liverpool, they have established a community in which postgraduate students can meet up with like-minded people, share ideas and concerns, and enjoy some time out from academic life. They also organise the annual SHU Postgraduate Humanities Conference, which invites postgraduates from across Sheffield Hallam and other universities to present their research.

To join the society please see the contact details on the [PGR Students' Society page of the Student's Union website](#).



Equality, Diversity and Inclusion Networks

The University has a number of inclusion networks run by staff and students, they hold regular meetings as well as organise and take part in events and activities to raise awareness of equality, diversity and inclusion issues.

- Community of Inclusive Practice
- Genders Network
- Hallam LGBTQ+ Network
- Hallam Race Network
- Infertility and Baby Loss Support
- Parent and Carer Network
- Staff Disability Network (SPARK!)
- Staff Menopause Network

You can find out more information about each of the groups and how to join on the [Equality, Diversity and Inclusion intranet pages](#).

Become an Open Research Champion

As part of the University response to Open Research developments, the Library is setting up an Open Research Network to support and enhance Open Research practices at Sheffield Hallam.

Do you have an interest in Open Research practices? Would you like to contribute to supporting and raising the profile of Open Research across the university? The Library is looking for volunteers to form a network of Open Research Champions. Whether Open Research is new to you, you're an experienced researcher, or perhaps you're somewhere in between – we'd love to hear from volunteers with all levels of experience.

Find out more about what would be involved and how to join the network.

Researcher Development at Sheffield Hallam

The Doctoral School Team within Research and Innovation Services has oversight of researcher development for staff and postgraduate research students (PGRs). We work closely with academic and professional services colleagues in the Colleges, Research Institutes and wider Research and Innovation Services to support the professional development of researchers. This includes activities and resources aimed predominately at PGRs, research supervisors, Early Career Researchers (ECRs) and new academic staff.

A wide variety of training and development resources and all the latest news of events and opportunities available to doctoral students can be found on the [Doctoral School blog site](#).

Our [Researcher Development SharePoint site](#) signposts to a variety of useful resources and information aimed at staff in their capacity as researchers, doctoral supervisors and research degree examiners.

Research Supervisor Passport Scheme/Research Supervisor Network

The Research Supervisor Passport Scheme is intended to be more than just another staff development programme; it offers access to a community of practice and a place of action learning, where you can share your successes and challenges relating to research supervision.

The Research Supervisor's Passport is your record of training and staff development that you have engaged in. It contains both Doctoral School mandatory training for supervisors and other development events offered both locally and centrally.

The aim of the passport is to help you to continuously develop your research supervision skills, become part of a community of supervisors and increase your supervisory experience.

The passport can be mapped to the VITAE Researcher Development Framework (RDF), provide a tool to support your annual PDR to identify your training needs and chart your progress and provide evidence against the Academic Careers Framework. Additionally, the passport, as a record of your development, can form the basis for an application to the UKCGE (UK Council for Graduate Education) Research Supervision Recognition Programme.

New Epigeum resource – Advancing Your Research Career

Research careers can be diverse, rewarding and exciting, yet the move from being an early career researcher to becoming a research leader can also be complex and challenging.

Members of Sheffield Hallam staff have worked with Epigeum and other institutional partners to develop a new online course "Advancing your Research Career" which will support researchers across all fields and disciplines to take a strategic and reflective approach to managing their research career.

Made up of ten concise modules, the programme will explore the key capabilities that underpin research leadership, ensuring that researchers' career goals are well-articulated and supported by a professional knowledge base. Integrating opportunities for critical reflection and goal-setting, this programme will provide flexible tools, case studies and practical activities covering key areas including leading research teams; collaboration; managing projects; communication and relationship management; funding research; and building engagement, impact and dissemination strategies. Sheffield Hallam staff can access the course free of charge via their Epigeum account, please see [How to Create an Epigeum Account](#) for more information.



Prof David Cotterrell
Director

Culture and Creativity Research Institute

The Culture & Creativity Research Institute (CCRI) is the home of Arts and Humanities Research, Innovation and Enterprise.

It hosts an extraordinary interdisciplinary community of established practitioners, world-leading academics, and dynamic research students.

Our research has evidenced significant impact within the domains of key global challenges and compelling contemporary debates, including:

- Climate Change & Sustainability
- Human Rights and Conflict Studies
- Ageing, Health and Care
- Post-colonialism, marginalisation and race
- Digital Innovation
- Archives, narrative construction and historical representation.

The Institute hosts a diverse community of academics from the College of Social Sciences & Arts SSA and provides support to colleagues within The Art & Design, Media, Art & Communications and Humanities departments.

MISSION

To provide leadership for research that engages critically with contemporary societal and global challenges through the deployment of practice-led and theoretical cultural enquiries and methodologies.

VISION

To foster and champion, outstanding critical and innovative research addressing compelling societal challenges. To advocate for, and recognise the value of, cultural engagement within communities, civil society, national governance and global collaboration.

For more information visit the [CCRI SharePoint site](#)

Email: [! RIS Culture & Creativity RI Enquiries](#)

Email: [! RIS Culture & Creativity PGR](#)



Prof Heidi Probst
Director

Health Research Institute

The Health Research Institute (HRI) acts as a nucleus for health and care research across Sheffield Hallam.

The institute brings together academics and professionals who collectively deliver research, innovation and knowledge exchange in health and wellbeing across the lifespan.

Our expertise includes:

- Health and social care professionals
- Sport and exercise science
- Engineering
- Nutrition
- Physical activity and lifestyle behaviour change
- Biomolecular and biomedical science
- Data modelling
- Health policy
- Economics
- Art and Design research
- Behavioural science, behavioural insights and neurocognition
- Applied psychology

This inter-disciplinary community has collaborative external partners including the NHS (and private health), local authorities, industry, local communities and the third sector.

MISSION

To transform the health and wellbeing of individuals and communities through high-quality, inter-disciplinary and cross sector research and knowledge exchange.

VISION

The HRI will be a vanguard for health transformation.

For more information visit the [HRI SharePoint site](#)

Email: [! RIS Health RI Enquiries](#)

Email: [! RIS Health PGR](#)



Prof Andy Alderson
Director

Industry and Innovation Research Institute

The Industry and Innovation Research Institute (I2Ri) draws on the talents, expertise, state of the art facilities and collaborative networks across, and external to, the university.

Our innovations provide solutions to key global challenges in the 21st century, including:

- Covid-19 response
- Secure and sustainable energy supply and management
- Smart, digital and low carbon technologies driving clean growth
- Climate change
- Security of individuals, institutions, nations and international communities
- Technologies supporting all stages of an ageing society.

MISSION

To provide solutions to key global challenges in the 21st century, through interdisciplinary collaboration in the region, nationally and internationally with industry, academia and other key stakeholders.

VISION

To be the leading provider of applied research excellence delivering materials, computing, science and engineering innovations meeting the development needs of industry.

For more information visit the [I2Ri SharePoint site](#)

Email: [! RIS Industry & Innovation RI Enquiries](#)

Email: [! RIS Industry & Innovation PGR](#)



Prof Sarah Pearson
Director

Social and Economic Research Institute

Our research examines economies, social institutions, human behaviours, education and learning and public policies. It is focused around 5 themes:

- Inclusive and responsible economies
- Equality, inclusion and justice
- Community and place
- Education and social mobility
- Climate, adaptation and sustainability

MISSION

To provide solutions to global social, economic and environmental challenges through high-quality, inter disciplinary research and knowledge exchange

VISION

An international leader in research and innovation to develop solutions for more sustainable and equitable societies.

For more information visit the [SERI SharePoint site](#)

Email: [! RIS Social & Economic RI Enquiries](#)

Email: [! RIS Social & Economic PGR](#)

Find out more about support for Research and Innovation via the [RIS SharePoint site](#)

Research and Innovation Services

The service is led by the Head of Research Services (Dr Anita Gurney) and the Head of Innovation (Alex Prince) under the leadership of the Dean of Research (Prof Wayne Cranton).

Head of Research Services: Dr Anita Gurney a.gurney@shu.ac.uk

Head of Innovation Services: Alex Prince a.prince@shu.ac.uk

sheffieldhallam.sharepoint.com/sites/3085

The Research and Innovation Services team is made up of a number of specialist teams:

RIS Central Office Team

Supports the business and operational management of RIS across a wide variety of areas including Senior Management Support, finance administration, reporting and budgets, Creating Knowledge Funding applications, SharePoint site management, Triage Support, building management and Health and Safety.

Contact: rio-riscentralteammgeneralenquiries-mb@exchange.shu.ac.uk

Research Services

Supporting research grant applications; developing research strategy and policy; supporting research governance to promote research of the highest integrity; reporting, analysis and monitoring of research including the management of preparations for the Research Excellence Framework; provision of an overarching researcher training programme and management of the University's Doctoral School; strategic and operational support for research activities within the Research Institutes. Services are focused across four distinct service areas:

Research Grants Team

Supports the development, management, costing and contracting of the research grant portfolio ensuring compliance with relevant regulations and minimising risk to the University. Activities are focused on grant income generation from high quality funding sources.

sheffieldhallam.sharepoint.com/sites/3085/SitePages/Submitting-a-funding-application.aspx

Contact: researchsupport@shu.ac.uk

Register with Research Professional for research grant funding at: staff.shu.ac.uk/enterprise/research/funding_alerts.asp

Policy, Impact and Performance Team

Supports key aspects of the University research environment including policy development, research strategy and assessment, impact, ethics governance and performance.

Activities are focused on the University's preparation towards the next Research Excellence Framework, including management of the submission and support for research impact.

sheffieldhallam.sharepoint.com/sites/3085/SitePages/Research-Excellence-Framework-%26-Knowledge-Exchange-Framework.aspx

blogs.shu.ac.uk/researchimpact

www.shu.ac.uk/research/ethics-integrity-and-practice

Contact: REFSupport@shu.ac.uk

Doctoral School Team

Provides oversight of strategy and management of Doctoral provision across the University, including support for the development of excellent researchers and facilitating a vibrant doctoral research community. Activities are focused on promoting the University's Doctoral offer. One half of the team supports doctoral supervisor development and early career researcher development more broadly and the other half supports the University Research Degrees Committee and research degree policies, procedures, forms and examinations.

Further information: blogs.shu.ac.uk/doctoralschool/

Contact: doctoralschool@shu.ac.uk for development activities

sheffieldhallam.sharepoint.com/sites/3012

Contact: rdcadmin@shu.ac.uk for regulations and procedures

sheffieldhallam.sharepoint.com/sites/3027/SSR/rdc/SitePages/Start.aspx

Research Institute Teams

Dedicated teams are aligned to each of the four Research Institutes and are co-located with the academic communities they support. Teams provide both strategic and operational support across the research lifecycle including postgraduate support.

RIS Research Institute inboxes (for all general and local enquiries):

! [RIS Culture & Creativity RI Enquiries](#)

! [RIS Health RI Enquiries](#)

! [RIS Industry & Innovation RI Enquiries](#)

! [RIS Social & Economic RI Enquiries](#)

Further information and links to the Research Institute Team webpages can be found at:

sheffieldhallam.sharepoint.com/sites/3085/SitePages/Research-Institutes.aspx

Innovation Services

Developing and supporting excellence in innovation and knowledge exchange opportunities with the Research Institutes; supporting knowledge exchange (KE) and innovation policy activity including the Knowledge Exchange Framework and Knowledge Exchange Concordat; supporting collaboration and partnerships with companies; managing the University's incoming business enquiries; working with regional and national agencies to attract funding to support business and university collaboration using funds such as ESIF, Innovate UK including KTPs; working with regional agencies such as the Sheffield City Region LEP; and supporting IP and commercialisation.

General Innovation enquiries: innovation@shu.ac.uk

Innovation Managers

A team of four Research Institute Innovation Managers plus two Specialist Innovation Managers aligned to the Institute structures, working to directly support securing high-quality, high-impact KE activity; leading and driving collaborative partnerships and consortiums; supporting development and interest of academic colleagues to grow income and impact as part of the leading applied ambitions of the University.

Innovation Funding Team

Supports the development, management, costing and contracting of innovation funding opportunities, ensuring compliance with relevant regulations and minimising risk to the University. Activities are focused on grant income generation from partnerships with industry. This team also supports the post-award management of the University's KTP portfolio, and forms part of the University's Gateway for Business service, responding specifically to innovation enquiries.

sheffieldhallam.sharepoint.com/sites/3085/SitePages/Innovations-Services.aspx

Contact: kefunding@shu.ac.uk

Register with Research Professional for research grant funding at:

staff.shu.ac.uk/enterprise/research/funding_alerts.asp

Intellectual Property

Managing the University's portfolio of patents and other IP; exploring and developing commercialisation licensing opportunities with external partners; advising and supporting on spin-outs; assisting with management of commercial operations.

Regional Economic Development

Managing the University's portfolio of ESIF projects and engaging in regional economic policy activity and stakeholder relationships on behalf of the University; post-award delivery and contractual compliance for Sheffield Innovation Programme, Digital Innovation for Growth; partnership relationship management; business intervention management and opportunity identification.

Contact: innovation@shu.ac.uk

sip.ac.uk/

Contract services

Based in Legal Services this team provides dedicated support for research and innovation activities including legal support for contractual arrangements for research, innovation and knowledge exchange including consultancy, contract research, collaborative agreements, Memorandums of Understanding, confidentiality agreements, research scholarships. RIS Legal Services are part of SHU Legal services in the Directorate of Governance, Legal and Sector Regulation.

Information: sheffieldhallam.sharepoint.com/sites/3037/SitePages/What-we-do.aspx

! RIS Legal Services RIO-RIO-ContractsService-mb@exchange.shu.ac.uk

Research Systems Support (Converis)

Based in DTS as part of the Applications team, the Converis team provides technical support and guidance for our research management system Converis which provides support for pre-award grant and contract approvals and research ethics review.

Converis user guides: sheffieldhallam.sharepoint.com/sites/3085/SitePages/Converis.aspx

Converis enquiries: converis@shu.ac.uk

RIS holds University membership to professional bodies for our administrative staff including:

- Association of Research Managers and Administrators (ARMA): arma.ac.uk
- Praxis-Auril: www.praxisauril.org.uk

We hold a set number of licences, and these can be allocated to staff to support research and innovation activities.

Library Research Support Team

The team provides high quality information and advisory services to research students, researchers and research active academic staff and other University colleagues in support of the University's aim to build on strengths in research, innovation and knowledge transfer: blogs.shu.ac.uk/libraryresearchsupport

The team can offer training sessions on our publications management system (Elements), Research Data Management, Reference Management, Social Media, Open Access, Choosing Where to Publish, Metrics and Copyright & e-theses. Staff and students can register interest in a session on the events page. You can also contact the team to set up a session for your department / centre.

Further information: blogs.shu.ac.uk/libraryresearchsupport/events

Contact us: library-research-support@shu.ac.uk

sheffieldhallam.sharepoint.com/sites/3007/libraryresearch/SitePages/Home.aspx

