



**BEYOND** **Imagination**  
LANCASTER

**Beyond  
Imagination  
Research project**

**Recruitment:  
10 PhD students**

**Lancaster  
University**



## Lancaster University is a world-class centre for excellence in research, teaching and scholarship.

Ranked as a top 10 UK university (in The Times, Guardian and Complete University league tables) and in the top 1% of universities in the world, Lancaster continues to sustain its reputation for teaching and research excellence both nationally and internationally.

The main campus is situated on the southern outskirts of Lancaster and is set in 250 acres of landscaped parkland, close to the lively, friendly and historic city of Lancaster.

The campus is 30 miles south of the Lake District, 20 miles east of the Yorkshire Dales, and even closer to the Forest of Bowland and the Fylde. It is one hour's drive from Manchester and about 2 1/2 hours by train from London.

**Lancaster Institute for the Contemporary Arts (LICA)** encompasses Lancaster's teaching and research activities in Art, Architecture, Design, Film and Theatre. LICA is a vibrant and highly supportive learning environment where a strong research ethos underpins and shapes everything we do. We are committed to leading interdisciplinary and international research in contemporary arts.

We are constantly placed in the top ten of our respective subject league tables in the UK demonstrating our commitment to the quality of our teaching. Our students value the real-world focus that we support through visiting practitioners, placements, projects with external organisations and off site visits. With a strong outward focus and excellent links in the creative sectors students can make the best possible connections with individuals and organisations outside of the University.

We have two research centres in LICA; Insight a creative research centre with disciplinary bases in Fine Art, Theatre, Film, Dance and Sound that focuses on making meaning in the arts; and ImaginationLancaster where the project Beyond Imagination will be based.





■ Leon Cruickshank



■ Rachel Cooper

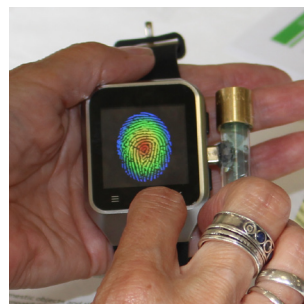
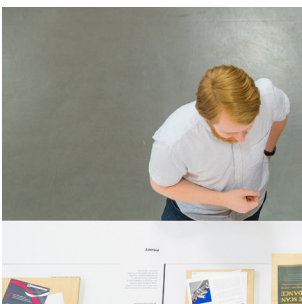


■ Nick Dunn

**ImaginationLancaster is an open and exploratory design research lab that conducts applied and theoretical research into people, products, places and their interactions. We work with a variety of organisations to provide fresh perspectives on real-world issues and facilitate innovation.**

**ImaginationLancaster** has been established since 2006 is research led with a world leading research team and over 50% of all design students undertaking a PhD programme and cross disciplinary design research. ImaginationLancaster staff have published 40 books, created over 100 design artefacts and 25 exhibitions, and between just 2013-18 we have produced 157 publications of which 10% are in the Top Citation Percentiles, and 19% are in the Top Journal Percentiles. Since 2006 we have secured £55m in research funding.

We have now been successful in our proposal for Beyond Imagination, a new research project to scale up ImaginationLancaster.





**Beyond Imagination Research Project**

Beyond Imagination, a radical £13.2 million 3 year research project, will explore and demonstrate how cutting-edge design research can create a healthier, more prosperous and sustainable world. It will enable ImaginationLancaster to expand its expertise and reach.

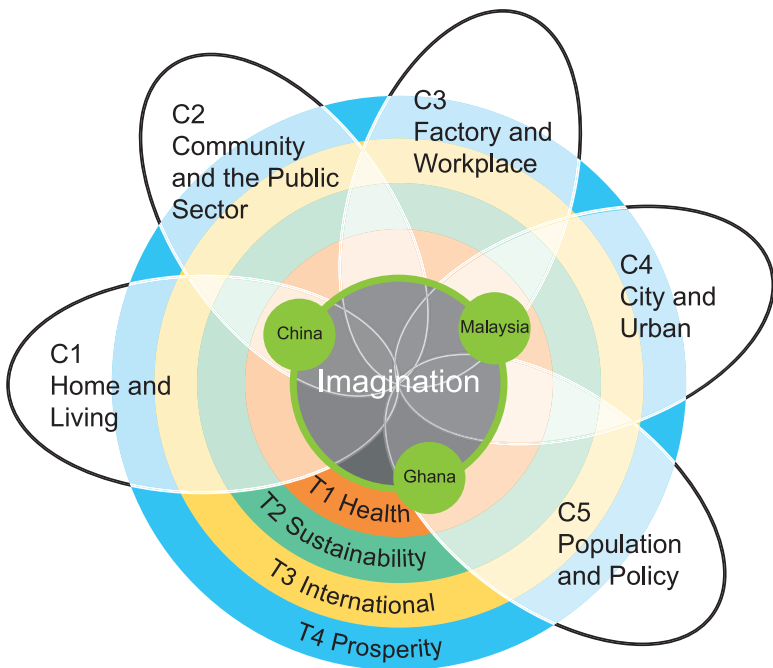
Funded by Research England, the bold and engaging Beyond Imagination project will put design research at Lancaster firmly on the global map, transforming the University’s ImaginationLancaster design team with 30 new roles – a significant increase.

The three-year project will provide fresh perspectives on real world challenges focusing on five key Clusters: home and living; communities and the public sector; factory and workplaces; cities and urban; and population and policy. And four themes sustainability, health, international and prosperity. It will address current global challenges such as Ageing Society, Artificial Intelligence and Data, Clean Growth, Health and Wellbeing - and it will also identify and tackle future emerging challenges.

The expansion of ImaginationLancaster will mean that all areas of design including architectural design are developed, and so feed into the new school of architecture as well as design.

**E3 investment will create a critical mass of new researchers, who will be inducted into the culture of research excellence in ImaginationLancaster. Ten new academics 2 each for the 5 clusters. Ten PDRA: one placed in each of the clusters and themes with one PDRA dedicated to creative evaluation across the whole project.**

**We will also recruit 10 PhD students (3.5 years funding) to work within the clusters and themes and 3 support staff (Impact Manager, Visualiser, Admin).**



# Home and Living

## Lead: Professor Paul Coulton (+ Cureton, Dunn, Richards)

This home and living cluster will focus on the future of homes and seek to address questions such as: what will our future homes look like? how will they function? In addition, what will it be like to live in them?

Research activities are expected to cover both the possible changes in how we live i.e. greater density, intergenerational living, mobility, etc., how homes are built in terms of greater sustainability and new construction techniques, and how the introduction of new technologies into our homes will change the way we live.

In particular, we are interested in more-than-human approaches that move beyond current anthropocentric dominance to include the independent and interdependent perspectives of the non-human in these network ecologies of future homes such as climate change, materials, infrastructure, other species, algorithms, data, etc.

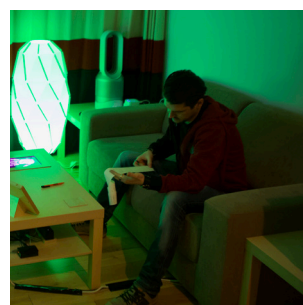
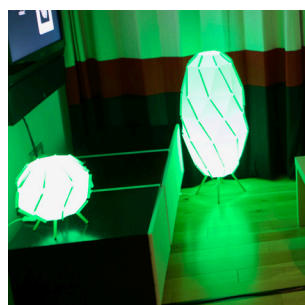
## Research Questions

What new approaches (and methodologies) can we use to make the datafication of our homes more legible to a wider set of audiences?

How do we create and adopt experiential futures that concretise living with future technologies?

What new home design and construction might better support future living?

*The PhD student for Home and Living will be working with Professor Paul Coulton and two lecturers specialising in Smart Home Futures / Future Living and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# Community and Public Sector

**Lead: Professor Leon Cruickshank (+ Rodgers, Tseklevs, Whitham)**

The Community and Public Sector cluster will focus on working collaboratively with people outside the academic context to address real world issues. It will explore how to enable communities to be more creative and innovative.

Communities in this context could include grassroots organisations, communities of practice, experts by experience, business groups, cared for young people to public health workers amongst many others. In all of these cases activating communities and helping them have a greater capacity and capability to innovate has the potential to have a real impact on the challenges we currently face in society.

With a focus on collaboration this theme will work especially closely with the other clusters and themes in the 'Beyond Imagination' research project, bringing an expertise in areas including co-design, open design and participatory approaches. We will use these approaches to help communities and public sector workers be part of an active creative engagement and dialogue to address challenges and maximize opportunities for new interventions.

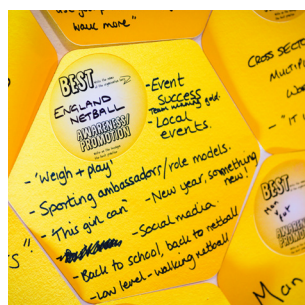
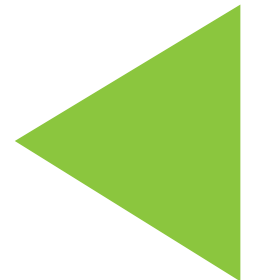
## Research Questions

How can creative problem finding and solving become more effectively embedded within the public sector?

How can the limitations within Co-design be addressed to develop radical new creative approaches?

What factors determine the long-term impact of design research within a wide range of communities?

*The PhD student for Community and Public Sector will be working with Professor Leon Cruickshank and two lecturers specialising in Radical Co-Design / Participatory Architecture and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# Factory and Workplace

**Lead: Professor Simon Guy + Dr Dan Richards, (Coulton, Wang)**

This opportunity is to undertake a PhD as part of team that is focused on the use of emerging technologies to design future workplaces, factories, and objects. Today AI, machine learning, digital fabrication technologies and immersive environments are blurring disciplinary boundaries between design, engineering, computing and manufacturing.

In the future, these developments will not only change the way we design and make products (at all scales), but will also have an impact on the places in which these products are designed, made and consumed, and indeed in the whole working environment. We operate as an experimental design studio that collaborates with industrial partners to imagine, prototype and critically evaluate future forms of making and working with AI.

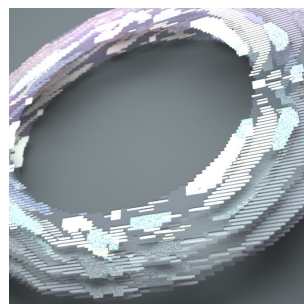
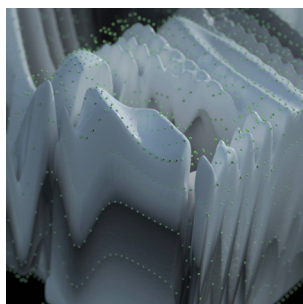
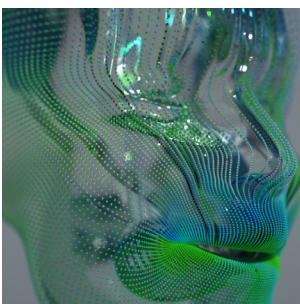
## Research Questions

How can we rethink and augment emerging digital twin concepts to support creative design prototyping and exploration within 3D design?

How can we visualise machine-learning processes to enhance transparency and trust in data-driven decision-making?

How can we effectively utilise AI to create and personalise future consumer products?

*The PhD student for Factory and Workplace will be working with Professor Simon Guy, Dr Dan Richards and two lecturers specialising in Computational Design (Architecture focus) / Workplace Futures (Design focus), and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# City and Urban

**Lead: Professor Nick Dunn (+ Boyko, Cureton, Pollastri)**

The City and Urban cluster will focus on the future of larger concentrations of habitation and how these can be sustainable, healthy, and productive. Urbanisation processes are rapidly transforming the planet with impacts upon our lives and those of other species. Many of these consequences and their cascading effects are still unknown. What is clear is that we need radical alternatives for collective living beyond current pathways.

There is also an urgent need to find new ways of designing and delivering these alternatives. This cluster will bring together physical, digital and social aspects of living in urban environments in order to address complex challenges related to health and wellbeing, sustainable behaviours, safety and security, etc.

To explore these issues, the cluster will both develop novel architectures and urban design strategies utilising visualisation, generative design, advanced digital fabrication, AR/VR, and other speculative methods; and examine the implications of these designs through a variety of critical lenses to identify key principles and practices for wider adoption and transferability.

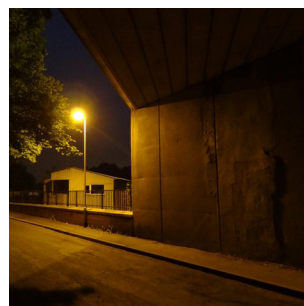
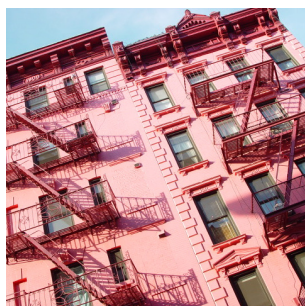
## Research Questions

How can design respond to the health and environmental impacts of air, light, and/or noise pollution without compromising the prosperity of places?

How can design methods be used to prototype interventions that promote wellbeing and sustainability in cities at night?

How can we design alternative and viable urban futures beyond existing path dependencies, including the Smart City movement?

*The PhD student for City and Urban will be working with Professor Nick Dunn and two lecturers specialising in Urban Futures / Responsive Architecture, and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*





# Population and Policy

**Lead: Professor Rachel Cooper (+ Cruickshank, Hands, Escalante)**

This exciting opportunity is to undertake a Doctoral research as part of a dynamic team of staff whose focus is on the use of design for and within policymaking.

Arising from service design in complex social situations, design for policy has considerably evolved from the notion of user-centred design, participatory design and co-design in planning products, services, experiences and in the visual and textual expressions of these processes. We draw upon and utilise design research and methods to address societal challenges, global futures and highly novel ways to inform policy.

Our team conducts design research with local authorities (district, county and unitary authorities) and the Scottish and UK government (Policy Lab and the Open Innovation Unit in the Treasury).

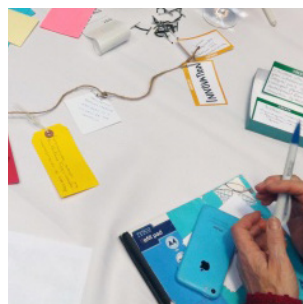
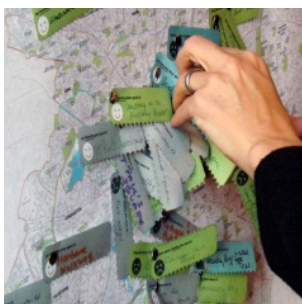
## Research Questions

How can design for policymaking be a driver of innovation in the integrated delivery of places, products and services that will for instance, support the wellbeing of citizens with regard to healthy aging and wider social prosperity?

How can we co-create design policy and related approaches to population behaviour change in relation to UK Industrial Strategy such as clean energy and/or future mobility?

How can design methods be used to critically interrogate and propose alternatives to previously hidden/unquestioned agendas in policy-making?

*The PhD student for Population and Policy will be working with Professor Rachel Cooper and two lecturers specialising in Urban Design Policy / Design Policy and Futures thinking, and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# HEALTH

## Designing better “Life-Courses” for All

**Lead: Professor Paul Rodgers**

The Health Cluster will focus on designing better life-courses for all through innovative design interventions in health and social care, professional practice, and wider community development contexts. This PhD will explore the interactions between people, their physical and socio-cultural environment and their use of technologies to co-design interventions that ‘design out’ barriers to health promoting behaviours.

We anticipate the adoption of life-course approaches to health and social care and developing non-pharmacological interventions on global challenges, such as dementia and reducing the transmission of drug-resistant infections across the built (i.e. homes, hospitals) and the natural environment (i.e. agriculture).

We are also interested in undertaking work for preventive health that explores how design might improve diet by addressing the barriers to adoption of alternative food production and exploring cultural/traditional food practices with respect to reducing the double burden of obesity and malnutrition in the Global North and Global South.

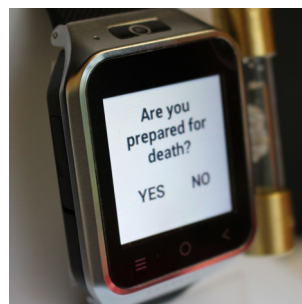
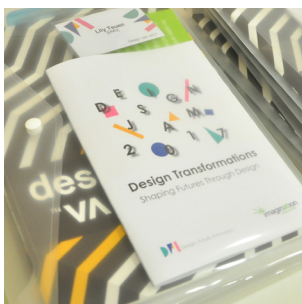
### Research Questions

How might design interventions (i.e. products, services, spaces) in health and social care contribute to better life-courses?

What are the fundamental socio-economic barriers (e.g. poverty, hunger, education, equality, energy, work sanitation, industry, environment and politics) that contribute to poor health and wellbeing?

Through focusing on specific health and wellbeing issues such as mental health, antimicrobial resistance (AMR), and obesity how do we get to better designed health and social care interventions and what will they be like?

*The PhD student for Health will be working with Professor Paul Rodgers and a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



## INTERNATIONAL

# Design Research - making a difference globally

### Lead Dr Emmanuel Tseklevs

The UK along with other developed countries is leading research in the global challenges facing the developed, but more crucially, the developing world. Design research is starting to contribute to this field and there is a need for more design research to be directed towards addressing the Sustainable Development Goals (SDGs) and other global challenges, such as health.

Design's ability to engage real people and communities, understand everyday problems and implement the 'right' solution, not just the 'newest technology', enables it to act as a bridge between other disciplines. It is an important and growing voice in this field, that helps to bridge the gap between the rapid advancements in science, technology and engineering with real people, challenges and contexts on an everyday level. Despite this, research into the role of design in tackling the SDGs is disparate and detached. As such, there is a need to understand the role of design and promote a more cohesive strategy to tackle the Sustainable Development Goals.

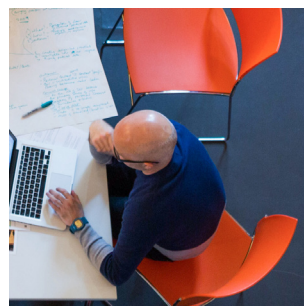
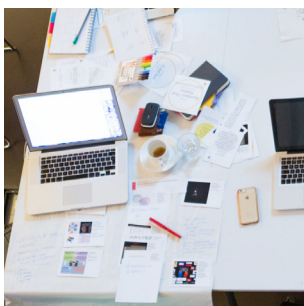
### Research Questions

How can design research methods be used to engage with Sustainable Development Challenges in Low and Middle Income Countries?

What is the role of design research and how can it promote a more cohesive strategy in the Global South to address Sustainable Development Goals?

How can design approaches and policies be developed to promote healthy lifestyles, preventive measures and modern, efficient healthcare at a global context in relation to the UN's Sustainable Development Goal 3 (ensure healthy lives and promote well-being for all at all ages)?

*The PhD student for International will be working with Dr Emmanuel Tseklevs and a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# SUSTAINABILITY

## A Sustainable Worldview by Design

**Lead: Professor Stuart Walker**

Within ImaginationLancaster, research in *design for sustainability* (DfS) is well established and internationally recognized – with areas of expertise in areas that range from culturally significant designs, products and practices to the philosophy and theory of DfS, and from product design to urban scale design for sustainable futures. Sustainability spans a wide range of contemporary activities and takes into account the interdependent relationships between the environmental, social, individual and economic implications of design.

These considerations affect how we live and work, the kinds of technologies we use, and the kinds of recreational activities we pursue. They affect the nature of community and public sector activities, the changing workplace, the forms of our cities, the role of infrastructures, and the directions of government policy. These are issues we explore in a variety of contexts, while being sensitive to the ways in which past developments help us better understand present and future change.

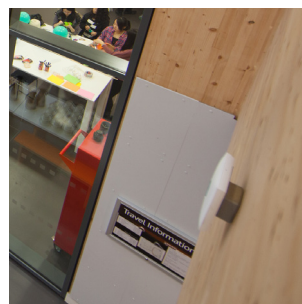
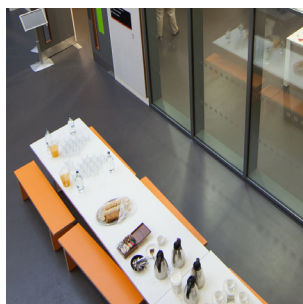
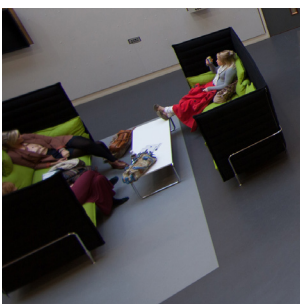
### Research Questions

How can design expertise support individual, communal and/or work practices that accord with principles of sustainability?

How can design contribute to the effective implementation of sustainability in SMEs in ways that are practically, socially, and personally meaningful and economically viable?

In what ways can design for sustainability inform the nature of future living at the domestic, rural, urban and/or regional levels?

*The PhD student for Sustainability will be working with Professor Stuart Walker and a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# PROSPERITY

## New Prosperities through Design

**Lead: Dr David Hands**

The research theme of 'Prosperity' is far-reaching and ambitious in nature, allowing critical interrogation of the macro-economic drivers that underpin its impact across a broad spectrum of contextual domains. Prosperity transcends its narrow definition of financial value, moving into wider areas of engagement, offering numerous benefits to a wide range of stakeholders. For instance, the development of new digitally orientated frameworks that can lead to successful business model innovations in the delivery of future products and services.

In addition, compelling consumer-brand interactions supported by AI/Digital technologies can support long-term sustainable success for commercial enterprises. When viewed in entirety, emergent technologies and their strategic deployment can foster both sustainable and prosperous futures for organisations and individuals alike.

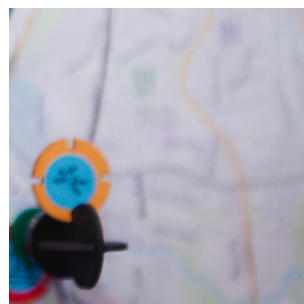
### Research Questions

The incorporation of AI/Digital technologies into new product and service offerings are advancing at a rapid rate of adoption, how and where does design play a significant role in within this emergent process?

With the fracturing of established and delineated marketplaces through societal change, how can organisations (regardless of size and market sector) utilise design to anticipate and respond to these transformative shifts?

South East Asia is witnessing the rapid transformation of high street retailing with the rise of digital 'retailtainment' to create memorable consumer experiences and increased customer loyalty. What are the transferrable elements of this new retail landscape that could be adopted within a Western context?

*The PhD student for Prosperity will be working with Dr David Hands and a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*



# EVALUATION

## Understanding value, maximising impact

**Lead: Professor Leon Cruickshank**

Evaluation, really knowing what the effects (intended and not) of an intervention is increasingly becoming critically important in design, architecture and research. Working closely with the lead academic for the Beyond Imagination project and a post-doctoral researcher we are looking for a PhD student to explore how evaluation can be undertaken in a creative, effective manner. Working across the projects in Beyond Imagination as well as with high profile external partners such as the World Design Weeks organisation and the Victoria and Albert Museum in London this PhD project will explore, test and publish new evaluation approaches.

### Research Questions

How can large events and festivals effectively evaluate 'experience' other than through attendance?

How can creative evaluation maximise the impact of projects?

How can creative evaluation be embedded into the everyday practices of large (public and private) organisations and projects

*The PhD student for Evaluation will be working with Professor Leon Cruickshank and also a Post-Doctoral Research Assistant, whilst also collaborating with other academics across the Beyond Imagination project.*

