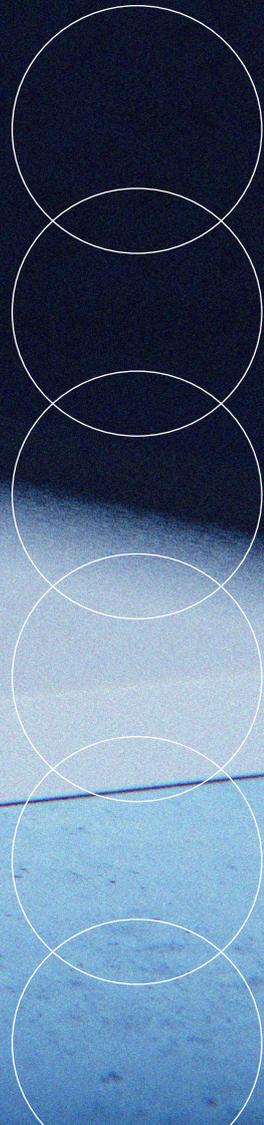


DESIGN.DIFFERENT

THE HELEN HAMLYN CENTRE FOR DESIGN



Royal College of Art

Vol. 4 December 2023

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**The Helen Hamlyn Centre for Design,
Royal College of Art**

Design.Different

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Vol. 4, December 2023

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Cover image -

'Pleural'

Winner of the Helen Hamlyn Award for Creativity, 2023,
Yihan Dong, William Eliot, Daniel Hale and Fergus Laidlaw.

THE HELEN HAMLYN CENTRE FOR DESIGN

HELLO



The HHCD team on a staff trip to the Accessibility Discovery Centre in Google's London office, with Christopher Patnoe, Google's Head of Accessibility and Disability Inclusion

This magazine describes the work of the Helen Hamlyn Centre for Design at the Royal College of Art that took place between October 2022 and September 2023, a period of building on previous successes, growing our scope and broadening our horizons. It features articles from our team describing inclusive design, be that for ageing populations, for healthcare needs, or to foster social and business impact. Articles feature future-facing reflections, insightful provocations, as well as reports on existing projects. The magazine title comes from this simple idea: we design with a difference, to make a difference.

WE DESIGN DIFFERENT!

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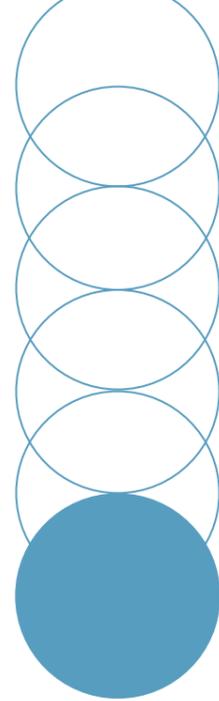
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A WELCOME FROM OUR DIRECTORS



Rama Gheerawo, Director

Inclusive design never ceases to amaze me. It is the lifeblood of our centre, and our creative endeavours. As you will see in this magazine, there are so many projects that deal with a range of issues, from hospitals and healthcare to leadership and landscapes. But at the heart of every project is that ambition to create positivity and work for the greater good, to use design in a powerful and conscious way to address many of the challenges we see around us.

I have learnt so much from the projects colleagues have done this year. I have seen how inclusive design can reach beyond its origins of focusing on older people and disabled persons, to have wider application across human exclusion. The benefits inclusive design can bring to any situation is energising and inspiring. It feels humbling to be part of this work.

As the centre has settled into our new space in a purpose-built building at the college's Battersea campus, we have welcomed international visitors, held workshops, instigated meetings, and grown our ambitions for the type of work that we do. We have had a steady stream of visitors from diverse geographies and backgrounds, come to speak with us and instigate new projects and collaborations.

My colleagues at the centre have played an important role, and an essential one in moving forward the theory and practice of inclusive design. Their work is collectively presented in this publication, representing a wide range of research, design, and impact.

We have worked with communities, nationally and internationally, who have given generously and tirelessly of their time, to help inform our projects, and ensure that everything we do has real relevance. And over the

year, we have further embedded ourselves within the RCA research and knowledge exchange community, linking to staff and students across the campus.

So, as you will see from this magazine, inclusive design is not just here to stay, but to grow, to evolve, and fulfil the enshrined promise of improving life for all people on this blue-green planet of ours. And as we explore inclusive design's new possibilities, we hope you can walk the journey with us.



The annual Design.Different magazine offers the Centre, and myself, the opportunity to reflect on the past year and look forward to the year ahead. This year, as ever, I am immensely proud of the work of the Centre, which is firmly established as a beacon of inclusive design, both in the UK and globally. As the Centre grows and develops, taking on an ever-increasing breadth of projects and partners, I look forward to maintaining my close relationship with the Centre's researchers, and supporting their work, which is more vital now than ever.
- Lady Helen Hamlyn

Dr Melanie Flory, Associate Director of Research

Today's discoveries become the foundation for tomorrow's design. People-centred enquiry and exploration that include diverse perspectives is the precursor to visionary and anticipatory design and innovation. The design thinking, skills, practices, methods and proficiency of the Centre's staff are reflected in every research and industry collaboration project that we take forward.

The UK's current higher education (HE) Research, Knowledge Exchange and Innovation (RKEI) landscape reflects the unprecedented pace of change through advancements in technology, public policy, and global environmental, health, economic, and power-dynamic shifts. These changes bring with them opportunities and threats.

The UK Government's 2020 Research & Development Roadmap set out the aspiration for the UK to become a global superpower in research and for universities to be an engine for rebalancing the UK's regional economic inequalities. This aspiration is evident in the many projects HHCD research and innovation staff have undertaken over the last twelve months, that are documented in the pages of this magazine. We are immensely proud of all of them, whilst looking ahead to future opportunities.

In September 2023, the UK agreed a deal to associate to Horizon Europe. This means that HHCD researchers will be able to fully participate in the Horizon Europe programme and are guaranteed access to funding on equivalent terms as organisations in EU countries. A direct benefit for us is the opportunity to strengthen and build new collaborative networks and partnerships across the EU and with non-EU businesses and higher education situated in Israel, New Zealand, South Korea and Japan.

Managed by Research England, the Research Excellence Framework (REF), is the UK's system for assessing the excellence of research in higher education providers. The next REF will conclude in 2028 and will assess research and impact between 2021 and 2027.

The three high-level weighting criteria for REF 2028, which the HHCD has already started preparing for, are:

- People and culture (25% weighting)
- Contribution to knowledge and understanding (50% weighting)
- Engagement and impact (25% weighting)

The focus on assessment of research cultures, environments and outputs that extend beyond traditional researchers and research publications, directly speaks to the research and knowledge exchange topics, methods and partnerships that the Centre nurtures and builds. In terms of contributing to knowledge through new outputs, there is a growing trend

towards development of audio and video content, scholarly editions, software, datasets and artefacts, some of which are showcased in this edition.

Research England also manages UK's higher education Knowledge Exchange Framework, an annual report which outlines collaboration and consultancy for the benefit of the economy and society.

The Centre successfully reported knowledge exchange activities against the following seven criteria:

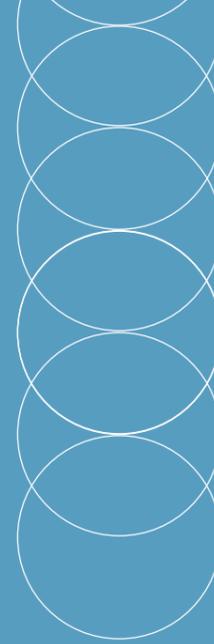
- Public and community engagement
- IP and commercialisation
- Local growth and regeneration
- Research partnerships
- Working with business
- Working with the public and third sector
- Research Partnerships

The Centre espouses inclusion, diversity and equity in all of its projects and planning. We do this by sharing and integrating our ideas with others across a variety of academic domains and disciplines, national and international governments, and private and third sector organisations. This defining factor remains fundamental to the continued growth and success of the Centre.

The RCA's strategy provides a robust framework to support the achievement of these goals, and with that support, we continue to strive towards the success and growth of the HHCD, at home and abroad.



DESIGN.DIFFERENT



The RCA remains wholeheartedly committed to its STEAM agenda: marrying the core scientific disciplines, known as STEM, with creative arts and design - represented by the 'A' for arts. This year, the Helen Hamlyn Centre has collaborated with the RCA's Computer Science Researchers on AiDLab, exploring how artificial intelligence and machine learning can improve physical and mental wellbeing for individuals experiencing chronic back pain - those under 30 and those aged over 60.

Another vital area of research undertaken by the Centre on behalf of the UK's Foreign, Commonwealth and Development Office focussed on sexual violence in war zones or conflict areas; in this instance, senior researchers at the Centre used Augmented and Virtual Reality technologies in order to encourage victims' participation in International Criminal Court proceedings. And in the field of medical technology, Dr Laura Salisbury continues her pioneering work on e-textiles for use in rehabilitating stroke patients.

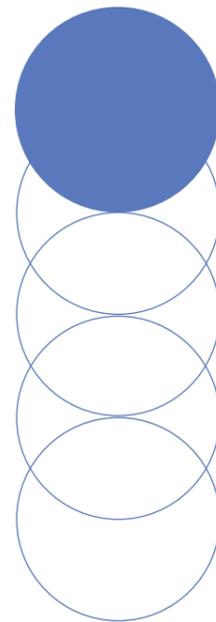
**All of these projects - and many others - demonstrate how design plus tech - along with the unique focus on human behaviours that the Centre brings to bear - result in truly transformational solutions to a broad swathe of issues.
- Dr Paul Thompson, Vice-Chancellor**

**DESIGN.
DIFFERENT**

SEASON OF EVENTS

2023

DESIGN. DIFFERENT



Design.Different is a series of public lectures and seminars, hosted by HHCD researchers and academics, that share thoughts and ideas on inclusive design from within the centre and our network. The events reflect on how design can affect pressing issues around age, ability, gender, race, health, sanitation, architecture, fashion and business, and speak to a deep, global yearning to be more equitable and inclusive.



Design empowers us. Design makes us independent. Design makes us able, or it doesn't. And when it doesn't, it's not Design. It's Design failure. It's not inclusive. It's exclusive.

- Patricia Moore

DESIGN.INCLUSIVE

**Rama Gheerawo in conversation
with Patricia Moore**

The 2023 Design.Different season kicked off in March, with an in-person event, featuring inclusive design icon Patricia Moore in conversation with Rama Gheerawo. Patricia reflected on her career that spans five decades, the experiences that have helped to shape her as a designer, and the wisdom she has gained along the way.

DESIGN.HEALTH: HONOURING PERSONHOOD IN A HEALTHCARE SETTING

Tom Stables

During this conversation about representing and maintaining the personhood of someone receiving care in a healthcare setting, researcher Tom Stables asks, "How do the people treating a person connect with them, find common ground, reflect their wishes, and explain what is happening in a way that is relatable and understandable? In what ways should life in a healthcare setting reference life outside a healthcare setting?"

The panel, made up of designers, researchers and healthcare professionals, featured representatives from 3 organisations, who presented projects on the theme of personhood in healthcare. The contrast of insights relating to observations, aspirations and the practicalities of delivering care made for an interesting conversation, and a starting point for further discussion.

DESIGN.RESILIENCE

Madelaine Dowd

HHCD Design Researcher Madelaine Dowd hosted this event, which examined how, in a world where technologies are constantly advancing and providing dynamic new capabilities, humanity can look to thrive alongside technology. It asked the question 'with tensions around artificial intelligence's rapid rate of development, is humanity keeping up to ensure it still serves people needs?'

DESIGN.CONVENIENCE

Professor Jo-Anne Bichard

Hosted by Professor Jo-Anne Bichard, Professor of Accessible Design, this event drew on the premise that there is an inherent convenience necessary in cities and urban spaces, in order for people to move around safely and effectively. However, what may be convenient for one person may be inconveniencing another. The question, then, is how to design cities that are inclusive of all.

DESIGN.VALUE: THE MISSING CONNECTION OF DESIGN AND POLITICS

Ve Dewey

Innovation Fellow Ve Dewey hosted this event, which explored the dynamic between design and politics, how it currently stands, how it could be changed and evolved, and what is needed for this evolution.

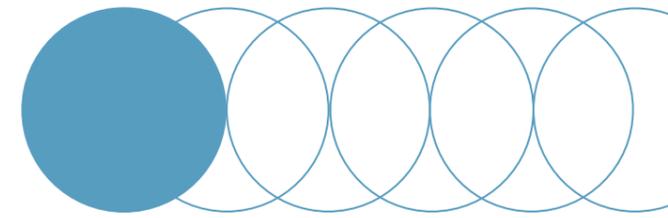
DESIGN.WISDOM

Design Age Institute

What is wisdom? How does it impact us as a society and as individuals? Should we design with wisdom in mind? This conversation investigated the intersection of wisdom, age, and design. Join Dr Dilip Jeste, a world leading expert on wisdom and author of the book *Wiser: The Scientific Roots of Wisdom, Compassion, and What Makes Us Good*, and Design Age Institute Director Colum Lowe for a conversation facilitated by DAI Knowledge Exchange Fellow Carly Dickson.

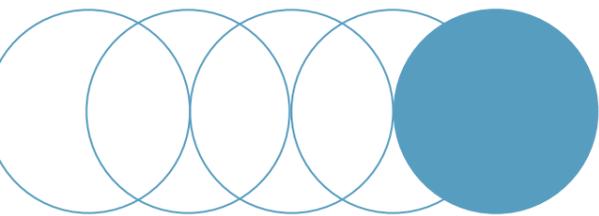
The panel explored if and how sharing people's unique and diverse experiences of getting older can help us design a world that works better for everyone. Jeste's research identified that there is an inverse relationship between wisdom and loneliness - the wiser we are, the less lonely we are. Using this as the starting point, the panel considered the role design can play in supporting the exchange of wisdom between people of different ages and whether this could simultaneously contribute to combating loneliness, ageism, and generational divides.

A YEAR OF EVENTS



CREATIVE LEADERSHIP & INCLUSIVE DESIGN MASTERCLASS FOR THE ANNUAL TATA CONSULTANCY SERVICES SUSTAINATHON, 11 NOVEMBER 2022

Rama Gheerawo and Dr Ninela Ivanova delivered a Creative Leadership - Inclusive Design Masterclass for the TATA Consultancy Services Sustainathon, which was open to 40 universities across UK and Ireland, and encouraged student teams to think about the power of digital technology to address global sustainability challenges. The Masterclass focused on creative and people-centred approaches to designing solutions that place inclusion at the heart of technological considerations.



KNOWLEDGE OF DESIGN WEEK, HONG KONG, JUNE 2023

Rama Gheerawo ran masterclasses on creative and dynamic leadership at KODW 2023, with the support of Tom Stables and Tong Lo, who also presented their work on the AIDLab project, a collaboration with Hong Kong PolyU. Tom Stables and Tong Lo supported the Masterclass for 40 people and also presented their work on the AIDLab project, a collaboration with Hong Kong PolyU



INDEPENDENT AGEING EXPO, OCTOBER 2023

Dr Chris McGinley spoke at the Independent Ageing Expo and Convention in October 2023 in Aichi, Japan.



UK CREATIVE FESTIVAL IN MARGATE, 12 JULY 2023

Ve Dewey, Rama Gheerawo and Madelaine Dowd both appeared at this event, speaking on panels that, among other things, explored the urgency and criticality of opening leadership for everyone, breaking biases and outdated ideas of what leadership is.



NORTHUMBRIAN WATER INNOVATION FESTIVAL, 10-13 JULY 2023

Dr Ninela Ivanova and Madelaine Dowd ran a Design Sprint at NWG Innovation Festival. The sprint was about stronger communication, and asked the question "In a world of digital evolution, how do service providers better communicate with their customers, especially those without access to digital channels?"



RCA PODCAST RECORDED SEPTEMBER 2023

Professor Jo-anne Bichard and Gail Ramster recorded a podcast about improving access to toilets for the RCA's new podcast channel.



IMPROVING PUBLIC TOILET PROVISION IN TIMES OF FINANCIAL PRESSURES, 18 APRIL 2023

Gail Ramster speaking at 'Improving public toilet provision in times of financial pressures' co-hosted by Age UK London and the think tank London Councils. 18th April 2023

Rosily Roberts

A LOOK INSIDE OUR NEW HOME

The Rausing Research and Innovation Building



In late 2022, the Helen Hamlyn Centre moved into its new home on the 4th floor of the Rausing Research and Innovation Building on the RCA's Battersea Campus, generously supported by a £1 million donation from the Helen Hamlyn Trust. The Centre's new home, which encompasses both the HHCD and the Design Age Institute, offers a purpose-built space for inclusive design to grow in strength and stature, enabled by the Trust's generosity.

The Rausing Research and Innovation Building makes up part of the RCA's regeneration of the Battersea Campus. Designed by Swiss architectural practice Herzog & de Meuron, the new campus is the most significant building development to have taken place in the RCA's 185-year history. As well as the HHCD, the Rausing Building is home to the RCA's other research centres, the Intelligent Mobility Design Centre, the Materials Science Research Centre, the Computer Science Research Centre, and the Robotics lab, allowing for new channels of collaboration between the centres. The building is also home to InnovationRCA, the RCA's in-house incubator, Executive Education, and labs for AR and VR visualisation. The top floor can be used for seminars, conferences and other events.

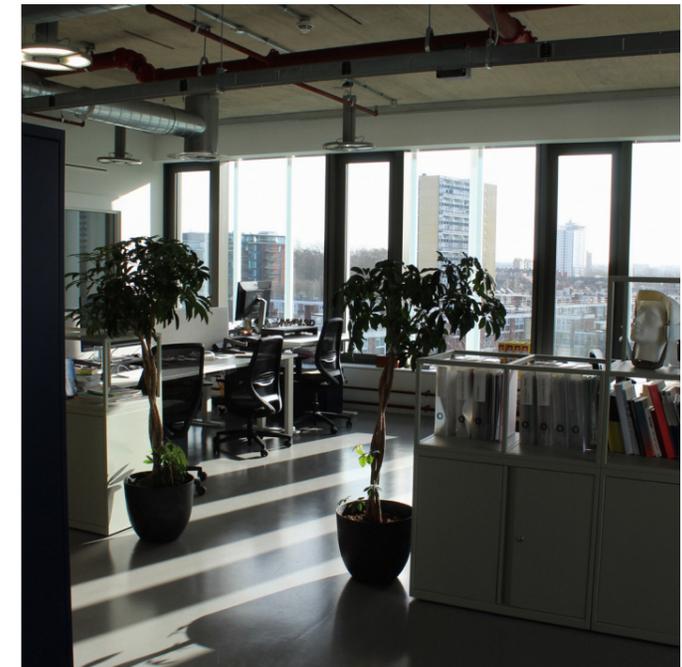
The new Studio building features four floors of studios and workshops, including purpose built spaces for Sculpture and Moving Image courses. At the heart of the new development sits the Hangar space, a double-height, 350 metre multifunctional activity and exhibition space, with large folding doors to allow the installation of heavy or large works of art.

In October 2023, it was revealed that the Herzog & de Meuron designed campus was shortlisted for the 2023 edition of the Prix Versailles, an annual series of architectural competitions that recognise the finest contemporary projects worldwide. As well as innovation, the shortlist awards projects on the basis of intelligent sustainability, taking the projects' ecological, social and cultural impacts into consideration. The new RCA buildings are certified BREEAM Excellent, thanks to a £3 million investment that enables a combination of integrated design and low and zero-carbon technologies.

Our new home allows us the space to grow, both physically - the size of the centre - and in scope - with new possibilities for collaboration, innovation and public engagement.

Lady Hamlyn CBE: "I am so proud of the achievements of the Helen Hamlyn Centre for Design, now a global leader in inclusive design. We started 30 years ago to address the need for 'New Design for Old' to address design issues to help older people live independently for longer. I am so pleased to have been able to support this important Centre at the RCA and to see it now in its own purpose-built space, recognising the fundamental role it is playing in improving quality of life through inclusive design."

Dr Paul Thompson, Vice-Chancellor of the Royal College of Art: "The vision for our Battersea campus is one of innovation and collaboration - and of enabling art and design to forge real-world impact. The Helen Hamlyn Centre for Design embodies this vision, and I look forward to seeing how the Centre's dedication to inclusive design continues to shape our collective future."



I am so proud of the achievements of the Helen Hamlyn Centre, now a global leader in inclusive design. I am pleased to have been able to support this important Centre at the RCA and to see it now in its own purpose-built space, recognising the fundamental role it is playing in improving quality of life through inclusive design.
- Lady Helen Hamlyn

Colum Lowe

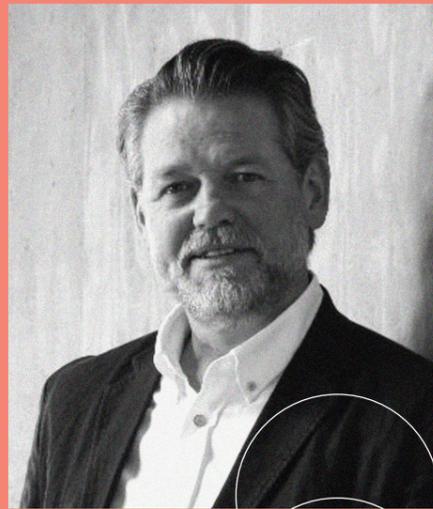
DESIGN AGE INSTITUTE

The last year has certainly been eventful at Design Age Institute. Now happily settled into our new office at the RCA's Battersea Campus, our team has grown both in number and ambition.

Supported by an additional £1million award from UKRI, we are delighted to be working with 11 new pathfinder companies that are developing more products, services and environments to help people live healthy, happy longer lives. Our current cohort specialise predominantly in transport and personal mobility, which is inextricably linked to a person's independence and dignity in later life.

This year has equally seen us ramp up our public programming, with a display hosted at the Design Museum, V&A Dundee and our very own Hangar Space, alongside countless talks, seminars and workshops highlighting the outputs of our fine research team. We are thrilled to once again be sharing our insights into designing for an ageing population in our Executive Education Masterclass this November. We are equally delighted to be publishing our research paper, Money Well Spent?, in collaboration with the International Longevity Centre UK which addresses the barriers and motivators to spending in later life.

Looking ahead, we will continue to advocate for the inclusion of older people in the design process with the intention of making the world a more equitable, inclusive place. After all, every one of us is ageing.



Individuals of all ages should have the opportunity to dwell in homes tailored to their needs, facilitating ongoing connections with friends, neighbours and communities.

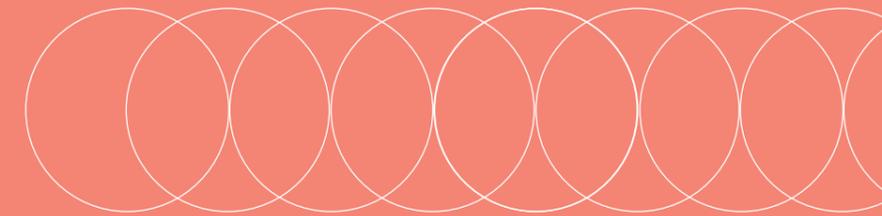
Funded by the Dunhill Medical Trust, and in partnership with the Guinness Trust, this project explores the design of technology and living environments to improve later life connectivity. We are investigating future living environments, encompassing the physical, social, and technological realms, stepping beyond simple accessibility and care provision towards age-inclusive spaces and connected experiences.

Technology solutions promoting connectivity currently come in many forms, from the familiar landline telephones and smartphones to, increasingly, home sensor systems. However, the intended users of these technologies are rarely engaged within the design process. Using design research tools, cohorts of older residents across three distinct Guinness sites will engage

in communicating their experiences and co-designing concepts to imagine desirable technology futures. This is key to ensuring they are able to connect, engage and be part of their communities in the ways they want.

This project hopes to shed light on social isolation and loneliness and suggest potential themes and opportunities that fit within the ageing experience. The main aim of the project is to explore how a people-driven and design-centric approach to technology can amplify community building, fostering increased social connectivity among ageing populations.

Our mission extends beyond the betterment of the lives of Guinness Partnership housing residents; it also encompasses the enrichment of future technology design, benefiting subsequent generations of older adults and society as a whole. Ultimately, this project will provide the design disciplines with fresh insights and improved practices for collaborating with older individuals when crafting solutions for our collective future selves.



Dr Chris McGinley

ENHANCING FUTURE COMMUNITY CONNECTIVITY FOR AGEING WELL IN PLACE

Co-designing technology and environments

Design Age Institute's mission is to support the creation of aspirational products and services that people of any age can use by focusing on human centred and inclusive design principles. This year, thanks to two key funds from Research England (RE) and InnovateUK (IUK), the Institute has been able to support a cohort of new projects addressing the physical and social aspects of staying healthier and happier at home for longer.

The partnership with Innovate UK funds entrepreneurs across the country working on innovative products, services and environments that support access to transport and personal mobility in later life. Eight promising companies were selected from the round of applications.

The overall theme of the Transport Pathfinder cohort emerged as wayfinding, with two companies, BriteWay-XR and Waymap, utilising Augmented Reality (AR) to overlay directional cues to complete a journey using sounds, haptics or visuals.

BriteWay-XR uses virtual reality navigation and indoor position tracking, allowing users to plan their journeys more effectively, and travel independently with real-time accessibility information and help from staff or family and friends to develop further confidence.

Waymap is an accessible navigation app that guides users to within 1 metre of their destination without the need for a GPS signal. It works inside buildings, outside and underground, integrating transport locations and live public transport timetables to make journeys easier.

Simultaneously, we have two projects aiming to create healthy behavioural change. Applied Information Group (AIG) are incentivising people to be more active, by creating an inclusive national standard of wayfinding to support walking, cycling and wheeling and Hanger19 are promoting the adoption of electric vehicle usage to older adults, by creating a safer and inclusive experience at charging terminals.

Our Mobility Pathfinder cohort has an equally wide range of exciting projects:

Supersmith is developing a portable and safe mobility scooter which adapts quickly to different terrains and allows users to sit taller in their seat.

Centaur, a two wheeled personal electric vehicle, will be developing a deeply intuitive Human-Machine Interface (HMI), allowing users of all abilities to operate it comfortably for long periods.

ProCare, will be bringing joy to our homes and gardens, by developing beautiful dual purpose mobility and plant accessories.

And finally Trainor Jim will be inspiring movement and fitness to those recovering from injury or with limited mobility with a low-tech exercise aid, The Shuffler.

Alongside these Transport and Mobility focussed projects, Design Age Institute teamed up with Zinc, to support three of Zinc's Healthy Ageing Catalyst Award holders and portfolio ventures with funding to tap into design that can support their research-led products and services on the journey to market.

Squiboon, by Play Well for Life cultivates intelligent discourse amongst care home and social housing residents using AI and visual prompts.

BelleVie Care is rejuvenating the recruitment process for local carers, using design thinking and a values based apprenticeship system for a focused and aligned workforce.

Irdia Health's Eyecatcher, a PROMs (Patient-reported outcome measures) app for people suffering from glaucoma, provides users with a much-needed oversight of their eye health over time.

All of these products, services and environments aim to be closer to or at market in 2024, and available for you to explore!



Mobility issues are one of the main barriers to independence and richness of life for those in their later years. Our latest rounds of Pathfinder Projects respond to the growing demand for transport and personal mobility options that are safe, affordable, sustainable and desirable for all ages. We are pleased to offer our support to these projects as they prepare to launch to market.

- Tracy Sharp



Centaur

Tracy Sharp

MEET DESIGN AGE INSTITUTE'S NEXT COHORT OF PATHFINDER PROJECTS

Carly Dickson

DESIGN AGE IDEAS

In October 2023, Knowledge Exchange Fellow Carly Dickson published *Design Age Ideas*, a report that brings together her research and provocations on designing for happier and healthier ageing. Here, she outlines the four main ideas that have come out of that research. The Design Age Institute aims to demonstrate how inclusive design can help us all to age well.

As a Knowledge Exchange Fellow, I've had the pleasure of exploring research that my colleagues at the Institute, our partners, and other experts in the field have created to support this mission. The research has suggested 4 'Design Age Ideas' to help us move towards a more age-inclusive society:

UNDO AGEISM

Negative views on ageing limit our ability to use design to achieve positive outcomes. Research by our partners at Oxford Institute of Population Ageing (OIPA) shows that we are heading towards a century of centenarians, making it more critical than ever that we address ageism and negative outlooks on ageing.

In their Design Age Institute report 'The Development of the Healthy Ageing Economy', OIPA argue that institutional structures, such as almshouses and pension systems, have historically negatively defined and segregated older people in the U.K. Defining people based on ageist stereotypes does not provide a full nor an accurate picture. Actively undoing ageism can reveal the opportunities and attributes of ageing.

"Ageing has a marketing problem" Ross Bailey, CEO of Appear Here, Designing for Your Future Selves Design Museum panellist

BLAME BAD DESIGN (OF LACK OF IT)

Bad design, or indeed lack of design, can exclude people from spending their time and money on what they want and need. Our joint report with the International Longevity Centre UK (ILC), 'Money well spent? Overcoming barriers to spending in later life', highlights how inaccessible design often excludes older people from participating in society and in the economy. One older person interviewed stated that it comes down to access. ILC Director David Sinclair expands this by calling for more elegant access that meets both our wants and needs.

"What are the design assumptions at work here? Do we care whom we are including — and whom we are excluding — by our design choices?" Shefaly Yogendra, The age of un-empathy, Designing for Your Future Selves Design Museum panellist.

The full *Design Age Ideas* report can be downloaded for free or purchased at designage.org.

DESIGN AGE BETTER

DAI believes that the best way to design age better is to design with older people. By banning assumptions and listening to and learning from older people's diverse lived experiences, we can better understand what people need and want in order to feel empowered, enabled, and enriched by design. This, in turn, allows us to better create and advocate for design processes and practices that enable elegant access and desirable experiences across the life course.

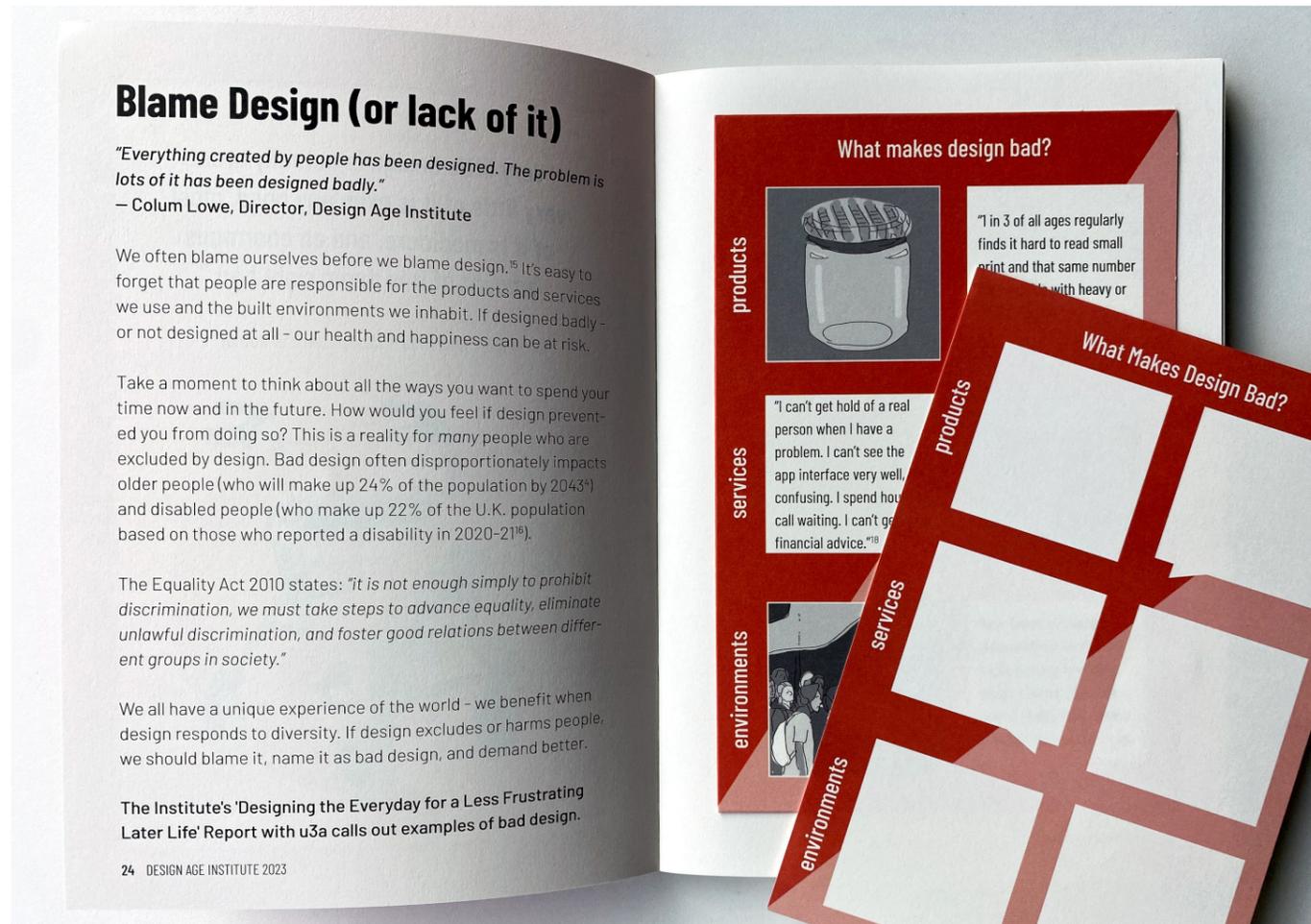
"Design should carry us across the life course. I've got one life, I want it to be as good as possible. I want an environment that supports me across that life." — Sarah Harper, director of Oxford Institute for Population Ageing & DAI Partner

DEMAND DESIRABLE DESIGN

Many people may not have the time, capacity, or interest to think about what their future selves may want and need. We believe if people are exposed to more diverse, desirable choices, it could make planning ahead easier and more appealing, giving people greater opportunities for a healthy, happy lifespan. By making designing for our future selves desirable, we are more motivated to think about it, demand it, choose it, and use it.

Many corporations and charities already realise the opportunity. However, it's important that this societal shift is supported by appropriate policies as OIPA's 'Policy and Ageing: An overview of policies for older adults' report explains: "inappropriate policies (or indeed the lack of any policies at all) could lead to problems rather than challenges and opportunities."

By demanding and advocating for inclusive design policies and processes, we can better understand design's role in reducing health inequalities and increasing a sense of belonging, purpose, and choice. Whether as designers or as users, consumers, and citizens, we can all think critically about designing and demanding a more desirable age-inclusive society for our future selves.



Victoria Patrick and Imme Dattenberg-Doyle

WHAT'S THE KEY TO AGEING WELL?

The Impact Team asked you!



As you get older, you kind of wonder what's going to be there to help me as I age, hopefully for decades to come. So it's always good to see that there are people working on things like that, and just kind of feeling comfortable ageing, like that's going to be there for me.
- A visitor to the Design Museum

Design Age Institute is known for advancing innovative design solutions for an ageing society. However, our work extends beyond that. We are equally committed to countering negative stereotypes associated with ageing. This year, our exhibits The Future of Ageing and Designing for Our Future Selves toured between the Design Museum, the V&A Dundee and the RCA's Battersea campus. The exhibits showcased sixteen healthy ageing projects that are supported by the DAI, including pioneering designs for promoting healthy ageing, as well as stories and experiences to encourage a more positive and forward-looking perspective on later life. The exhibits attracted over 210,000 visitors, encouraging audiences to consider the contributions and exciting potential of design to reshape how we age with agency and joy.

'As you get older, you kind of wonder what's going to be there to help me as I age, hopefully for decades to come. So it's always good to see that there are people working on things like that, and just kind of feeling comfortable ageing, like that's going to be there for me.'
- A visitor to the Design Museum

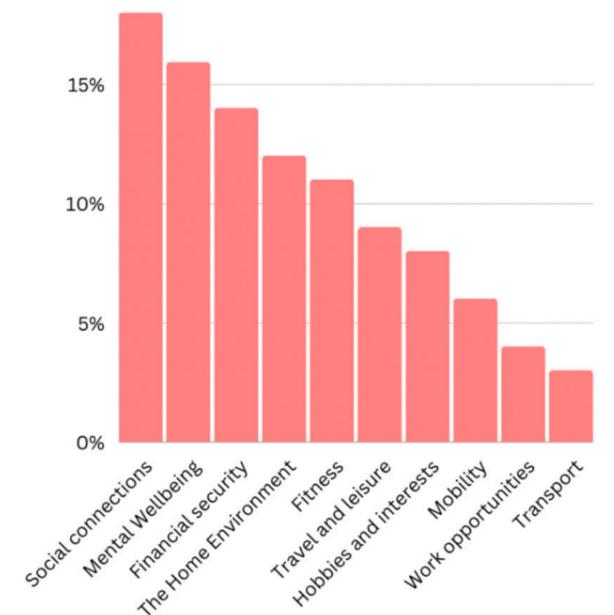
Interactive panels also prompted visitors to cast their votes on the most significant factors contributing to a joyful ageing experience. Whether it be the home environment, meaningful social connections, personal mobility, public transportation, physical fitness, mental well-being, hobbies, travel and leisure, work opportunities, or financial stability – public priorities emerged.

Social connections, mental well-being, and financial security were seen as the most important, with transportation ranking last. While the poll results were not surprising, they served as a poignant reminder of the invisible nature of good design. Accessible transportation systems often go unnoticed until they are no longer available to you. These everyday services are pivotal for happiness at every age, facilitating social bonds, pursuit of interests, entertainment, employment and maintaining independence. Design Age Institute's ambition for happier

and healthier ageing largely revolves around bringing these "invisible" everyday products, services and environments towards the market, to encourage greater choice in how we spend potential extra years.

'I definitely think it challenged [stereotypes] both by having older people in the exhibit, and also demonstrating that a lot of ageing is just an incompatibility between the person and the environment, not the person themselves.' - The Design Museum, general knowledge of design, 48

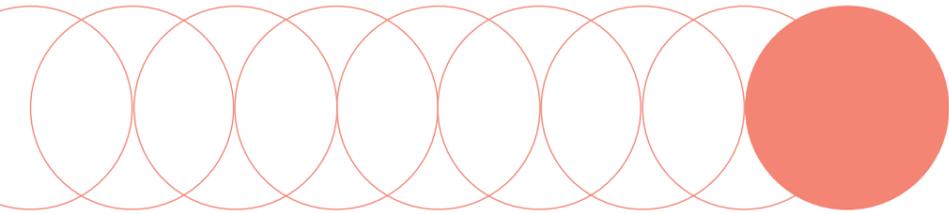
In line with our vision, we were thrilled to launch a Community Insights Group through our positive-ageing platform, This Age Thing, this year. Understanding older consumers' desires is crucial, and we're pleased to see many of our pathfinder projects tapping into this valuable resource to improve their products with user testing from the earliest stages of development. Older people are not a homogenous group and understanding the diverse needs, interests, lifestyles and aspirations for later life, and highlighting diversity of experience is central to our work both at Design Age Institute and This Age Thing.



Melanie Smith

WE ARE ALL AGEING

A curated collection from RCA2023 by Manager Melanie Smith



As part of this year's RCA Graduate Exhibition, RCA2023, the Design Age Institute's Manager, Melanie Smith, curated a collection of student projects entitled 'We are all ageing.'

2022/23 for Design Age Institute has been all about 'impact' with our touring display travelling around the UK showcasing our seed funded Pathfinder Projects, growing our community network This Age Thing and securing additional funding from Innovate UK to award even more innovative projects to demonstrate the power of design, innovation and creative thinking - all to help us try and age more healthy and joyfully.

My selection of some of the exciting student work in relation to 'Design' and 'Age' that have caught my eye, and I'm sure will challenge your thinking on what it means to grow older. If the pandemic taught us one thing it was how kinship and community is vital to a functioning and healthy society.

Innovation Design Engineering's Zijian Chen's project speaks to our digital community platform This Age Thing through 'making kin not population' stressing the importance our spatial and experimental approaches to relationships can contribute to our sense of belonging.

Anej Golčar's disturbing film reminds us of the harsh realities of caregiving, personifying the puppet's emotional constraints in a dramatically visual way.

Ran Zhou takes a contemporary art practice twist on the deep-rooted social control and regulation bodies speaking to the medicalised model of ageing that pervades our societal stereotypes and narrative of ageing.

Darshan Shah's 'Leap' offers an interesting technological alternative to customisable footwear to meet specific needs of the user, a project that complements our Pathfinder Project 'Walk with Path', and as one step further you may add, to take the user with wearing a desired shoe whilst assisting with any potential fall detection.



a still from 'Just Keep Breathing' by Anej Golčar (MA Animation, 2023)



Kin Festival



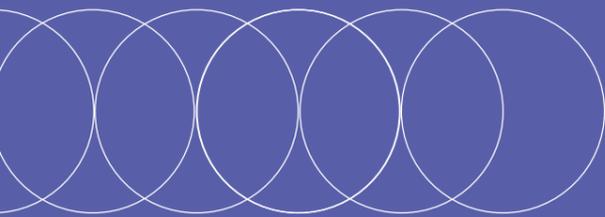
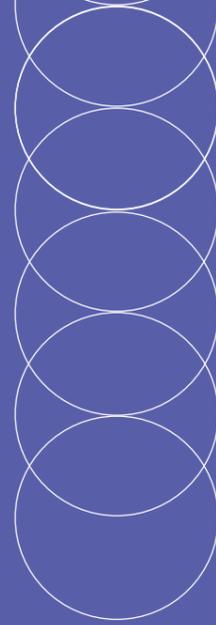
'LEAP' by Darshan Shah (MA Design Products, 2023)



'LEAP' by Darshan Shah (MA Design Products, 2023)

Dr Chris McGinley

AGE AND DIVERSITY



Since its inception, the Age and Diversity research space has explored topics of inclusion and equity in relation to designed outputs within everyday living contexts. These have predominantly been along spectrums of age and ability, with an ongoing intention to broaden our diversity remit.

This year sees the completion of several projects which have allowed us to do just that. The 'Believe In Us' project, with long-term partner Heart n Soul, explored the possibility of redesigning health services, putting people with learning disabilities and autistic people at the centre. Also in the area of neurodiversity, Streets for Diversity, a scoping project funded by the Rees Jeffery's Road Fund, investigated neurodivergent experiences of streetscapes. On the earlier end of the age spectrum, our PACES project with KCL continues to develop and test a child-friendly wearable, in order to understand the potential impact of an objective measurement tool for ADHD.

Housing and technology have emerged as dominant themes in recent years. We concluded our two-year Knowledge Transfer Project with Cartwright Pickard, exploring new building typologies for age-inclusive architecture; we are undertaking a scoping study with development company TLC to explore experiences in relation to 'home', 'healthy ageing' and 'places

and spaces'. We also continue our project working with the Guinness Partnership, funded by the Dunhill Medical Trust, to explore how older communities use technology. Connected with this, our work with TCS and BSI defining and developing concepts around Vocal Accessibility continues.

In 2023, as we settle from the storm that was the pandemic, we are braced for new challenges – the 'cost of living crisis', inflation and rising prices, public service decline, the housing crisis, a struggling social security system, to name just a few. The need for design intervention and engagement with citizens and communities towards improved life experiences is critical in these times. We must continually and actively engage with the complex conversations happening around us, challenge assumptions, be open to change, growth and development. We look forward to doing our part in these challenging times and remain optimistic about the role design can play.

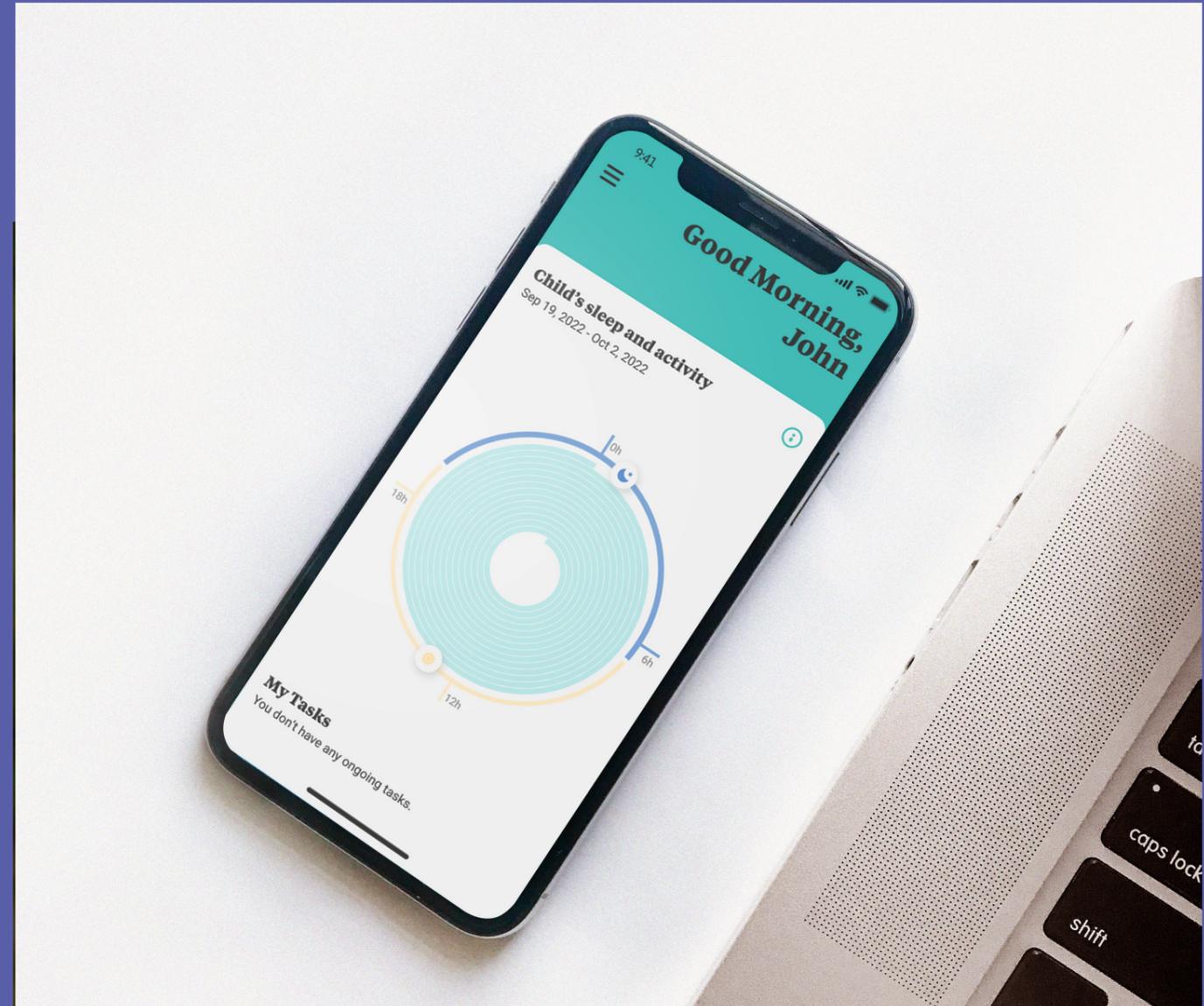


Dr Chris McGinley

PACES

The PACES project is an innovative initiative in collaboration with King's College London, addressing the challenges posed by Attention Deficit Hyperactivity Disorder (ADHD) in children. ADHD is a prevalent condition affecting approximately 1 in 25 individuals, and manifesting as symptoms such as impulsivity, inattentiveness, and hyperactivity. For many children with ADHD, medication is a crucial part of managing their experience, but must be closely monitored. Currently, the assessment of ADHD symptoms relies heavily on subjective paper-based questionnaires, which can lead to inaccuracies in diagnosis and treatment.

The PACES project is pioneering the development of an innovative solution – co-designed with children and young people with ADHD – the PACES Band, and a dedicated mobile app that syncs with the device, a unique objective measurement device for ADHD. By continuously tracking their movements, this integrated system aims to provide healthcare professionals with valuable data to fine-tune medication dosages and effectively manage ADHD. As the PACES project enters its fourth year, we are navigating the complexities of manufacture and medical device certification, while setting up trials and product testing. This ambitious endeavour holds the promise of revolutionising the way ADHD is addressed in children, with the intention of improving their quality of life.



Dr Cecilia Zecca

PALLS: PIONEERING ARCHITECTURE FOR LATER LIVING SECTOR

Knowledge Transfer Partnership Research Project

Funded by the Knowledge Transfer Partnership (KTP) Innovate UK, this project, a partnership between our Centre and Cartwright Pickard Architects (CP), aims to create an innovative and inclusive housing model for later living. The knowledge gained aims to generate new business in the UK sector. The partnership links business with an academic institution to bring in new skills and the latest academic inputs, research and findings.

The project challenge is to develop, through applied research, new housing model for later living by proposing more inclusive, mixed-use building, spaces and schemes. These targets have attracted the interest of four industry partners that have signed-up to participate in the research, to sponsor and support delivery of the research objectives.

The challenge is to act against age-restricted housing segregation and propose in-town design solutions that offer mixed tenures for the entire community and public including Built to Rent options for residents of all ages. With a focus on wellness, physical and mental wellbeing, the key outcomes will be the reduction of isolation, increased mixed-use buildings in urban areas and the consequent regeneration of town and city centres.

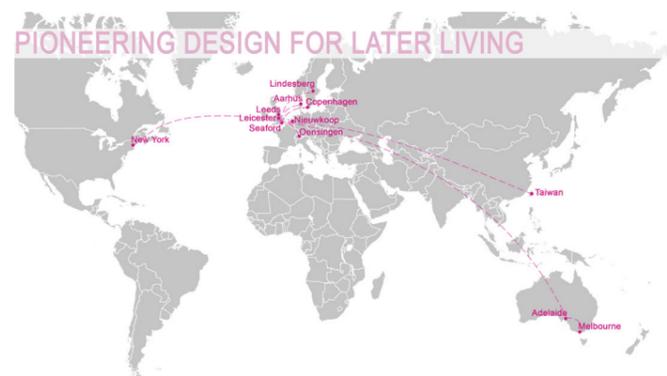
Over the last two years, the research explored UK housing legislation, tenure models, inclusive design approaches for an ageing population and for people in later life more in general. The work has enabled the identification of gaps in the practice of designing for later living and has led to the individuation of the best inclusive design practice examples.

Initially, 60 case studies were collected and presented to a panel of experts. The 13 most exceptional, which ranged in location from, UK, Denmark, Sweden, The Netherlands, Switzerland, USA, Taiwan and Australia, were shortlisted. They were then deeply investigated through site visits, interviews with residents and relevant stakeholders.

The visits highlighted the need of more inclusive approach in the UK that can truly improve people lives through the creation of meaningful places and spaces.

The site observations, in-depth interviews and community engagement enabled the development of design guidelines which include overarching design objectives and related design principles for innovative later living housing models. From this research, a series of Design Objectives and Design Principles were then developed and revised through workshops with local people.

The inclusive design approach takes into consideration the broadest range of people reasonably possible, including those with different needs, impairments or disabilities and enhances multidisciplinary collaborations. The design objectives and principles aim to provide flexible and adaptable solutions that respond to the diversity of people across parameters such as age, ability, gender and race. "If you design a space for everybody, it will work for nobody." Interview with Simon Saint, 2022. Woods Bagot Architect of U-City



Map of case studies visits. The image shows a map of the globe with the 13 case studies' cities labeled. The housing schemes we visited are in UK, Denmark, Sweden, The Netherlands, Switzerland, USA, Taiwan and Australia.



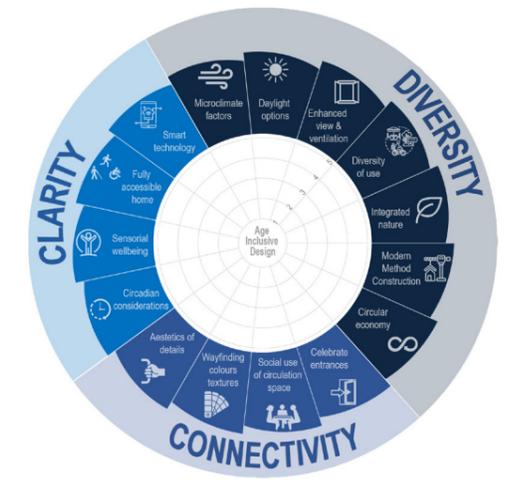
Final workshop, June 2023. Participants in the final workshop working on co-creation.

One key principle of Inclusive Design in Architecture is to recognise where 'non-typical' or 'extreme' users (e.g. someone using a wheelchair; person with sensory impairment; etc) are being excluded or limited due to the environment.

In these instances what may initially require a bespoke solution can be purposely considered and extended to benefit all, acknowledging the diversity of those interacting with it. The deep understanding of older people, the attentive reading of their social context and the physical surrounding space that they (and we – in most cases the 'future old') experience were the main drivers for making informed design decisions. "A nice building is not enough to motivate me to move there. I want to be part of a community." Interview with a resident living in a later living scheme in the UK, 2022.

Our age inclusive design challenge is not to design a series of apartments for later life but rather to complement private spaces with communal and public spaces in a way that supports the creation of communities. In this sense, the challenge is to create a meaningful balance between private and collective spaces so that residents can feel being part of the community as well as maintaining a high level of privacy within their home.

The research journey, findings and partnership between the Helen Hamlyn Centre for Design and Cartwright Pickard Architects are described in a book that will be published in 2024 and presented at a symposium attended by experts in the sector.



Age Friendly Design Principles Evaluation Tool. Radial graph for age inclusive design solutions evaluation. Each design principle can be scored from 0 to 5.

The design objectives and design principles are as follows:

- Design Objective 1: Sustainability & Diversity**
- Design principle 1: Microclimate as integral part of the project.**
- Design principle 2: Balancing Daylight, quality of natural light and thermal comfort.**
- Design principle 3: Enhance View, Ventilation.**
- Design principle 4: Create diversity of use**
- Design principle 5: Integrate nature, biodiversity and landscaped design in the project.**
- Design principle 6: Embrace design modularity through the use of Modern methods of Construction.**
- Design principle 7: Incorporate circular models by designing alternative tenure and services.**
- Design Objective 2: Social, Spatial & Visual Connectivity**
- Design principle 8: Celebrate the building entrance**
- Design principle 9: Make social use of the Circulation space.**
- Design principle 10: Clearly communicate the space by articulating the built elements through different colours, texture, light and wayfinding.**
- Design principle 11: Aesthetics and details: avoid stigmatising, clinical adaptations for the accessibility features.**
- Design Objective 3: Health, Wellbeing & Clarity**
- Design principle 12: Enhance wellbeing by following the natural circadian cycle.**
- Design objective 13: Aim at wellbeing and sensorial perception.**
- Design principle 14: Design fully accessible homes with additional space.**
- Design principle 15: Incorporate Smart technology and controls.**

Dr Chris McGinley

TRULOCOM PART OF TLC GROUP: SCOPING STUDY

An Intergenerational Village

Earlier this year the Centre began a partnership with Trulocom, part of the TLC, who are operators and developers in the social care sector and specialists in older peoples housing and housing with care. The partnership explored the topic of age-inclusive multigenerational environment.

Paavan Papat, Trulocom's Founder and member of the governments Older Persons Housing Taskforce highlights 'the HHCD team have been a key research partner working with us in establishing the future of health placemaking for an ageing population'.

The partnership began in the form of a scoping study around headline themes of 'Built Environment & Spatial Design' 'People & Community' 'Services, Systems & Schemes,' in the context of later life and multi-generational living. 12 sub-themes were identified, such as 'intergenerational care' and 'access beyond just mobility'

for further exploration in defining the characteristics and aspirations that would make up an age-inclusive village, on a speculative future site.

These themes were validated and further developed through expert interviews and design engagement activities with the local community in Bushey, Hertfordshire.

The research has created a foundation from which to envision aspirational multigenerational living in the UK, with special attention given to retirement populations. Trulocom intend to take this research and use it to develop an exemplar project centred around mixed housing tenures for people of all ages, with new supported and extra care housing, and incorporating a new transport hub and public open space. The Centre hopes to help them realise this ambition in a continued partnership in the future.

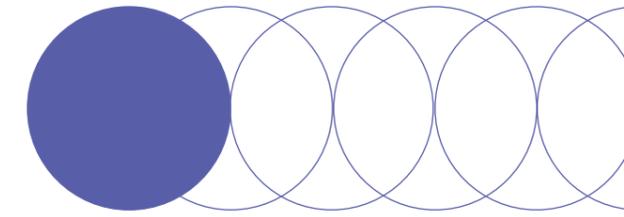


HHCD Research Associates Madelaine Dowd and Tong Lo participating in a week long Trulocom public engagement event, gathering insights from the local community about intergenerational living, inclusive design and accessible architectures.

Dr Katie Gaudion and Dr Will Renel

BELIEVE IN US

Design through Collaboration



Healthcare services can be confusing and overwhelming for anyone to navigate, but even more so for people with learning disabilities and autistic people.

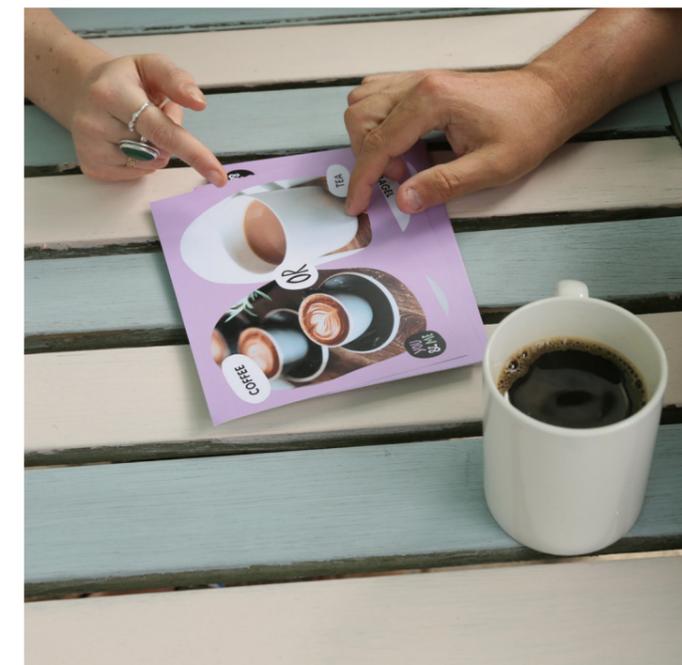
Believe in Us is a project that brings people with learning disabilities and autistic people together with health and social care professionals and designers to collaborate in a truly equal and inclusive way. Throughout the project, they participated in a series of co-design workshops, called Design Jams. During the Design Jams, the participants shared knowledge and made collective decisions with the aim of developing a radical new approach to designing healthcare services so that they care for the whole person and improve mutual wellbeing.

The Design Jams were centred on chosen themes, connection, communication and being heard, and led to a collection of creative outputs.

On the theme of being heard, the design team created four films that shared powerful experiences of health and social care services and showcased important messages and ideas about what needs to change in order to make healthcare truly accessible.

On the theme of communication, the design team explored how to build trust and meaningful connections to improve the care plan experience. They designed a playful ice breaker game called You & Me and a pre-care letter, to help get to know each other beyond job roles and support needs.

Lastly, on the theme of connection, the design team explored three different types of creative connections: connection through music, connection through dance, and connection through signs and symbols. The aim was to show how creatively connecting with one another can provide positive health and social care outcomes. The Believe in Us project lives on through the Allsorts Taking Part programme for adults with learning disabilities and autistic people. Allsorts takes place at the Sherard road day opportunities centre at Eltham, and involves co-produced creative sessions that allow participants to socialise, make friends and try new things together.



2 participants playing the 'You & Me' ice breaker game

Dr Katie Gaudion, Dan Philips and Stephanie Pau

STREETS FOR DIVERSITY

Streets are public places that belong to everyone. They not only enable us to get around, but also define and shape our neighbourhoods and form an important foundation for our everyday lives. They can have an enormous impact on the way we live, how active we are, how well we know our community and our overall well-being.

Despite the central role streets play in all our lives, there is very little knowledge on how neurodivergent people experience them. Streets for Diversity aimed to bridge that gap in research and hypothesise that our current streets and public realm may, by design, design some of us that are neurodivergent.

This project, a collaboration between HHCD and the RCA's Intelligent Mobility Design Centre, invited neurodivergent citizens and transport experts to participate in a range of co-design activities. These included 'walk and talks,' which allowed participants to travel around in urban areas, and share their reflections on their experiences in real time. The 'walk and talks' were supplemented by online surveys, interviews, and a co-creation workshop, which together explored the challenges and opportunities found in our urban streets.

Collecting, organising, and analysing the rich collection of street experiences helped identify 14 key insights into how neurodivergent people experience and think of streets. These insights included, for example, the complexity involved with preparing to go out on the street; dealing with unpredictable situations when out; and the tools that neurodivergent people have developed to manage the sensory landscape of the street. From the insights, the researchers were able to draw out 12 design opportunities. These included, for example, the introduction of sensory stations or quiet spaces, friendly restrooms, community initiatives, more seating, and spaces to pause. These insights and design opportunities have been outlined in a report and were used to design an animation which creatively communicates what the street experience might feel like for neurodivergent people.

This project highlights that while we all have different experiences of our streets, neurodivergent people may bring new responses and values to the public realm. The hope is that, in the future, this research will help us to reimagine how we can design our streets for our diverse bodies and minds.



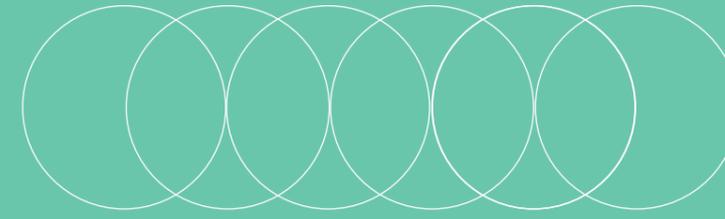
A researcher and participant during a Walk and Talk

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Sharply contrasting patterns (even dark grout against pale bricks) are disorientating. Walking past railings with the sun shining through them is also very difficult and makes me dizzy.



A still from the animation that visualises how the streets might feel for neurodivergent people

HEALTHCARE



Each of the projects in the Healthcare research space has their own unique requirements, challenges and opportunities. The common thread that runs through them all over the past year, however, has been innovation and communication.

The Major Haemorrhage project is about effective and timely communication. Successful management of major haemorrhage requires a protocol-driven multidisciplinary team approach involving senior medical, anaesthetic and surgical staff working collaboratively to control excessive bleeding to ensure survival of the patient. Working with a major NHS Foundation Trust, this project is about clarity, speed, accessibility and accuracy of information and communication aimed at increasing patient survival rates.

AiDLab is the first research platform that focuses on the integration of Artificial Intelligence (AI) with design. It was jointly established by The Hong Kong Polytechnic University (PolyU) and the RCA in 2022. Professor Calvin Wong, Centre Director of AiDLab at PolyU says, "We enhance creativity in tackling tomorrow's challenges by taking an interdisciplinary approach to our research. Our research endeavours aim to uncover new knowledge to create cutting-edge design processes and products that will empower all stakeholders from intelligence-enhanced creativity to algorithm-driven systems. All these innovations create advances in design improvements in societal well-being, and the promotion of policies pertinent to creative and technology communities."

The AiDLab back health project is an interdisciplinary research collaboration between the RCA's Computer Science and HHCD research centres. A major part of the AiDLab back health project is about how expert health information is communicated in a range of learning styles that can be personalised and individually adopted.

Our UCLH collaboration looks at different types of communication in an intensive care unit and explores digital opportunities for addressing these in light of lessons learned during covid and insights emerging in post-covid environments.

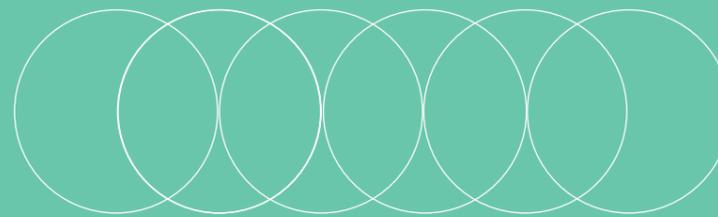
Communication in a healthcare setting can be many things: ceremonial, informal, medical, anecdotal and informative in both directions. Staff are not only staff, patients are not only patients. They are all equity stakeholders with diverse needs, yet communication structures and hierarchies can be rigid and limiting. We have seen that how a person is talked to, how they understand what they are told and how well they are able to represent themselves or a loved one in a healthcare setting, shapes their experience of receiving and giving care.

The need for using inclusive design principles and practice to improve communication and other measurable treatment and patient related outcomes is great. In all of these projects we are excited about the opportunities to create protocols, visual aids, adaptive and adaptable delivery methods and better spaces to facilitate meaningful and effective communication.

This year we welcomed designer Tong Lo to the team to work on the back health AiDLab project. Tong is a highly skilled designer and researcher and recent graduate of the MA/MSc Global Innovation Design double Masters programme run jointly by the RCA and Imperial College London. Along with HHCD Director, Rama Gheerawo, we were able to visit the PolyU team in Hong Kong. It was phenomenal to see the work of other AiDLab teams from across the RCA, their varied approaches, the sensing technologies they are developing and some initial outcomes. We returned home inspired and full of ideas of possible ways to move our own project forward.



Rama Gheerawo, Tom Stables and Tong Lo with Ali Asadipour, Computer Science Research Centre, and the PolyU team during a visit to Hong Kong in Spring 2023



AIDLAB

AI Meets Design

AiDLab is research collaboration between Hong Kong Polytechnic University and the RCA that explores the potential uses of Artificial Intelligence (AI) in design. The project has a number of research streams situated in the Schools and Research Centres. The HHCD project is a collaboration with the RCA's Computer Science Research Centre (CSRC), and looks at how the use of artificial intelligence and machine learning can improve physical wellbeing, focusing particularly on back health.

The British Chiropractic Society states that 49% of people in the UK experience back or neck pain on a weekly basis, with 20% pointing to work as a key trigger. Work situations that lead to poor posture are a key trigger of back pain.

The prevalence of blended working means that, instead of working from offices that are setup for good working practices as was previously the norm, we are now working in a range of less suitable locations including cafes, public spaces, kitchen tables, sofas and even beds.

The research to date indicates that back pain is caused by three factors: working environment, habitual behaviours and natural geometry. A combination of these factors - working in the wrong place, in the wrong way with no capacity for customisation - can result in poor posture and habits that ultimately lead to back pain. The research undertaken as part of this project has engaged with chiropractors, back specialists, ergonomists and workplace wellbeing advisors. In addition, the project has engaged other experts from more diverse fields, such as dance teachers and yoga instructors. We are keen to hear from anyone who specialises in body ergonomics. Our research with people experiencing back pain is with two cohorts - those under 30 years of age, and old and those over 60.

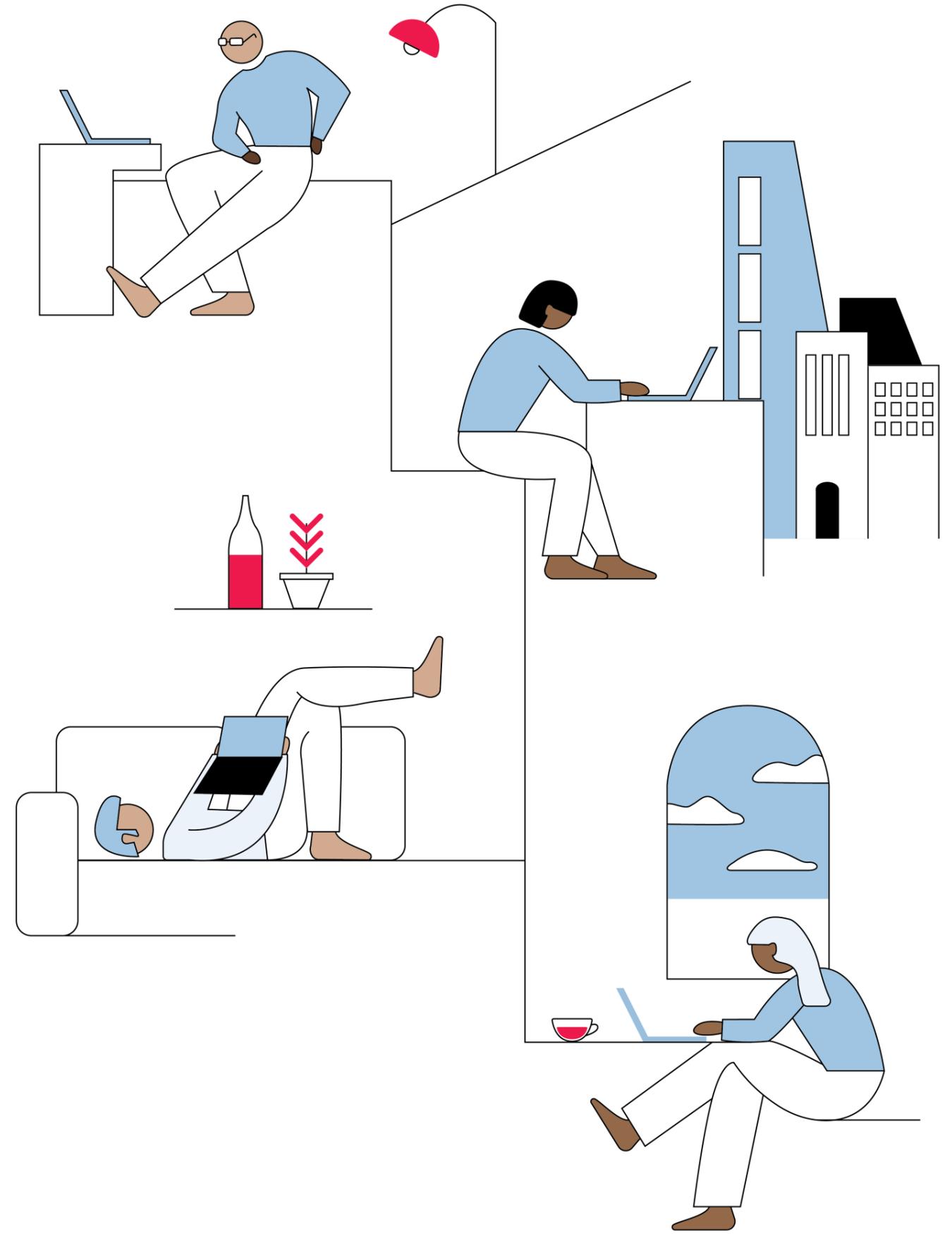
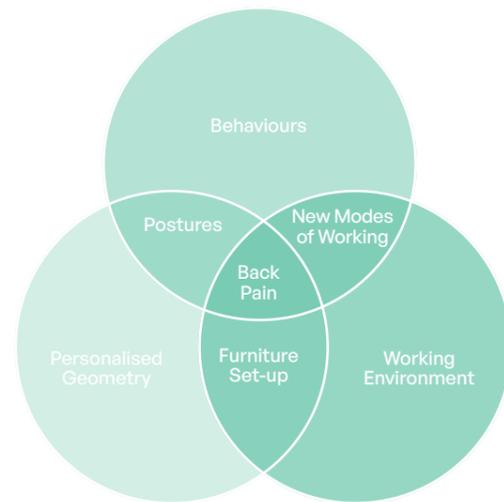
We have developed a research tool that enables us to map a person's journey with back pain and discover the places they worked, their attitudes to back health, the solutions they have tried and the steps they have taken

to prevent further pain. Our aim is to understand people's level of knowledge around back health.

In one of our studies, we asked people to demonstrate a habitual working posture, and then a posture that they think is correct. What has been interesting is that no one said the same posture for both. Often, when we show these images to experts, the habitual posture is not as incorrect as people perceive it to be, and the so-called correct posture is often problematic.

We also asked the over 60s to give their younger selves advice around back health. We are keen to generate language models that could be helpful. How do we describe back pain and how can words or visual icons be used to help us better articulate back health?

The CSRC have developed a novel sensor incorporated into a wearable device that can map posture, which will be central to our solution. To complement it, we at the HHCD are designing solutions that use AI in other ways to address factors such as movement. How long we remain in a seated position is as important as how we sit. Our aim is to create solutions that consider nuanced environment-based factors, personal habits, and cultural influence across a spectrum of shapes and sizes, to create personalised interventions.



A lot of postures people believe to be bad are actually well within what we'd expect as normal posture.
- Chiropractor and injury expert

Tom Stables

MANAGING MAJOR HAEMORRHAGE

In collaboration with with The Royal Free Hospital NHS Foundation Trust

Management of major haemorrhage is a time critical, team-based emergency which can occur in any department within a hospital. While theatre staff have good experience with managing major haemorrhage, this is often not the case on wards and remote sites such as interventional radiology, endoscopy, and the Accident & Emergency department.

Early and appropriate management not only reduces the patient's illness and risk of death, but also improves use of blood products which can limit risk to patients and reduce costs to the Trust. The Royal Free Hospital NHS foundation Trust has re-designed the protocol to enable staff to quickly and successfully manage patients with a massive haemorrhage. It takes into account unfamiliarity of staff, skill mix and context specific issues.

The care pathway is currently communicated using a poster. Any staff member can call a major haemorrhage and, once they do, a specific team is assembled who are well practised in treating such an event. The poster, at this point, is no longer relevant as the team already has the knowledge needed.

There are two parts to the project. The first is to improve the function and aesthetic of the overall pathway explanation, including looking at how to integrate the pathway with the electronic healthcare records. The second is to design around the moment where communication is most needed

and knowledge most lacking, i.e. the first responder. By helping that staff member identify a major haemorrhage more effectively, they will be able to start the protocol sooner and so reduce risk to patient life. This may be a smaller and more specific intervention within the entire protocol and the research team continues to explore options of what this could be.



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As well as improving the function and aesthetic of the overall pathway explanation, the project will also design around the moment where communication is most needed and knowledge is most lacking; the first responder. If that staff member can identify a major haemorrhage more effectively they will be able to start the protocol sooner and reduce risk to the patient.
- Tom Stables

Tom Stables

INTENSIVE CARE UNIT COMMUNICATION

A Scoping Study with University College London Hospital

The healthcare industry is still feeling the long term effects of the Covid pandemic. Some aspects of ways that healthcare staff, patients and their friends and families communicate, for example, remain significantly altered. This project works with UCL Hospital to explore these ideas.

During the pandemic, visiting patients in intensive care in person was not possible, undeniably leading to a worse experience, not just for the patients, but also the staff and the patient's friends and families. As a result, we were forced to become more digital in the way that we receive and consume healthcare information, support each other, collaborate with each other and share experiences. This brings with it endless opportunities. Time, place and delivery of communication have new possibilities. While, in other areas of our lives, many of these digital interactions have persisted in our lives post pandemic, communication in the ICU is still reliant on physically being in the room. This project aims to use design principles to take advantage of this new opportunities afforded to us by digital communication.

There is a significant opportunity to improve communication within the ICU - between staff, also between staff and patients and their support networks. How can digital methods support face-to-face, written and verbal communication and ensure medical staff are understood and the patient's sense of personhood is maintained?

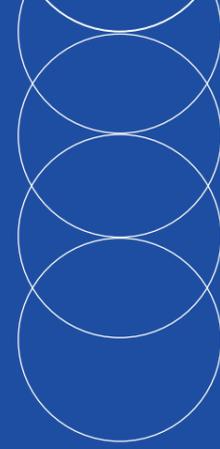
Communication in the ICU can be many things, ranging from the ceremonial to the informal, the medical and informative to the anecdotal, in both directions. There are sharp contrasts in familiarity - the ICU is everyday for staff, yet extreme and unknown for the patients and their families.

A shared language is needed, and it is what this project aims to facilitate. The outcomes could:

- **Allow care and communication to happen and involve the support of the patient, beyond the ICU room they are being treated in.**
- **Improve the sense of personhood of the patient by building a better view of the whole person. To contextualise their stay in ICU within their life outside it.**
- **Align treatment plans within the team and the communication of that plan to the patient and family.**

Led by Consultant Intensive Care physician Tim Bonicci and Point of Care founder Jocelyn Cornwall, a working group has been established that includes clinicians, academics specialising in interactions, data scientists and people who were previously patients.

INCLUSIVE DESIGN FOR BUSINESS IMPACT



The Inclusive Design for Business Impact (IDBI) section of the Helen Hamlyn Centre for Design was set up in August 2019 in recognition of the Centre's well-established work with industry over the past three decades. From workplace design to technology, energy and finance, the core proposition is taking a people-centred design research approach to innovate inclusively for businesses, whilst ensuring that value is created for diverse stakeholder groups throughout the entire process, from discovery to implementation. Since IDBI's inception we have partnered with companies from a range of sectors to enable them to achieve the impact that they are seeking – internally for their organisation, and externally for their customers and communities. The work has varied from developing tangible guidelines for more inclusive products and services, through bespoke executive education, to working with visionary organisations on defining topics of strategic value.

In 2021, we worked with OnePlus to scope how the technology sector could be more resilient, as well as being able to support individuals and communities in developing behaviours that lead to greater resilience for people and planet. In 2022, we defined 'human betterment', and the roles sport and sportswear could play in encouraging diverse demographics on their journey to self- and collective development. In this issue of Design.Different we present three different types of industry engagement and the potential business and societal outcomes and impact.

DESIGN SPRINTS

Design sprints are one of our pathfinder engagement models. They provide an entry point to inclusive design, and result in the creation of a portfolio of design propositions, innovation opportunity areas, prototypes, and user scenarios. As part of our ongoing collaboration with Northumbrian Water Group, we have delivered design sprints at their last two annual Innovation Festivals. The sprints centre on more inclusive and stronger communication design to address the needs of marginalised or excluded groups.



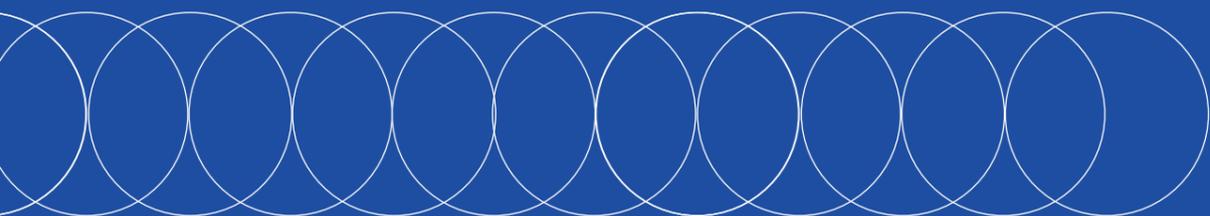
KNOWLEDGE EXCHANGE

Knowledge exchange is a core activity of the Helen Hamlyn Centre. It focuses on the effective deployment of the Centre's inclusive design expertise and methods to address contemporary and futuristic business needs and challenges. Knowledge exchange projects vary from scoping studies and consultancy to longer-term knowledge transfer partnerships. In this issue, we are proud to announce our recent work with Unilever. Led by a multidisciplinary team of HHCD researchers with expertise in neurodiversity, product and experience design, technology, and innovation, we developed an inclusive design guide for deodorant and packaging.

COLLABORATIVE RESEARCH

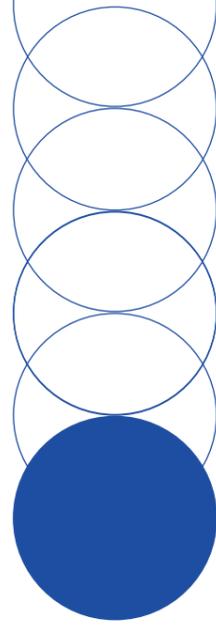
Generating new knowledge is the top goal of the College's 2022-27 Strategic Plan. Collaborative research is one of our most favoured modes of engagement with industry, government, SMEs, and other external partners. It allows equally for the creation of knowledge, as well as pushing the boundaries of innovation. It enables us to develop new inclusive design theory and praxis, and empowers our project partners to challenge the status quo and lead industry transformation. This year, we celebrate a decade of collaborative engagement with TATA Consultancy Services (TCS). To mark this occasion, we interviewed G Subramanian, TCS Chief Technology Officer for UK & Ireland, who shares his vision about where and how inclusive design can intersect with emerging technologies to achieve business and societal impact.

The next stage of IDBI sees us partnering with leading organisations in finance, real estate, and essential services amongst others, to realise the value of inclusive design in areas that intersect and directly impact on the livelihood and quality of life of people every single day.



**Dr Ninela Ivanova in conversation with G Subramanian,
TATA Consultancy Services**

10 YEARS OF COLLABORATION: THE ART & SCIENCE OF THE POSSIBLE



This year, we celebrate a decade of strategic collaboration between the Royal College of Art and TATA Consultancy Services (TCS). In 2013, we signed the first memorandum of understanding (MoU) between the two organisations, which signalled our shared commitment to creating inclusive technologies for a better world.

Since then we have worked on a variety of IT projects as varied as air control operations, chatbots and insurance. To mark this anniversary, we caught up with G Subramanian, Chief Technology Officer for UK & Ireland, who shares his vision about where and how inclusive design can intersect with technology to deliver both business and societal impact.

How did the collaboration between TCS and the RCA begin? Why did you start engaging with inclusive design?

Before we signed a strategic partnership with the Royal College of Art (RCA) we did not have a dedicated design and innovation lab in London. The RCA was an obvious choice for us to collaborate with because of its worldwide reputation for pioneering work in art and design and our ambition to support design and technology innovation in the UK.

Back in 2013, digital technologies such as artificial intelligence (AI) and the prevalence of social media were just starting to take off. These technologies required expertise in innovation and design thinking, not just to reimagine the existing technology into new solutions, but to recreate the entire workflow which had to be overlaid with inclusive design features.

What was the value that you saw in inclusive design?

At the time we started work together, mobile phones had become ubiquitous but nobody was using mobile applications like they do now. Initially, our main design consideration was to cater to all mobile device users who would be accessing personal banking applications. We developed a flexible digital design framework that functioned just as effectively on any mobile device, laptop, or even a larger screen which could be easily accessible to different kinds of people.

Before inclusive design was properly understood, it was called personalisation, which is just another way of changing the design features and user interface to suit a certain demographic. The question of how to customise new designs for different audiences was how we began to collaborate with the RCA for inclusive design requirements.

Back in 2013 it was mobile technologies driving the need for inclusive design. What is the state of play now? Which are the new technologies where we could start seeing the value of inclusive design?

There are many areas of technology that can benefit from inclusive design. The obvious one is the recent rise of AI, which has taken over the technology landscape since the launch of ChatGPT, followed by the metaverse and Extended Reality (XR). The explosion of data and the rise of analytics solutions is another area that could be improved by inclusive

design. Sustainability is not necessarily a technology area, but it does also require technological intervention. Beyond these examples, building inclusive design into quantum computing solutions could potentially be a real game changer.

If you take inclusive design, or 'people-centered' design, and overlay it across all these technology subcategories, you will see design requirements need to move in slightly different directions depending on their application. It is no longer just about generic interaction or accessibility - it must be much more than that. For example, with generative AI, design has a vital role to play in developing ethical applications and considering the wider implications.

Today, the prevailing view is that anything can be accomplished with the help of technology but the question is about usage. This means considering how we make these technologies seamlessly intuitive, satisfying and easy for anyone to use. That is where inclusive design thinking will be very important in future technology.

If we get the balance of these technologies and inclusive design right, how would that affect the quality of life for the individual?

We see there is a proliferation of technology and devices today, with a huge number of the younger generation very comfortable using it as they were born into a digital world. However, this is not sustainable in the long term, as having so many different devices for different purposes will eventually become too much for everyone to manage. I think the next progression would be to combine everything into one device, or one seamless experience. That is the potential power of unifying AI, data, personalisation and cloud computing. However, this is not just a simple technology issue, as businesses will have to evolve their entire operating models. Additionally, the way people work today will have to be completely redesigned, whilst still catering to a wide range of people from different demographics, with varying levels of education, technology competence, and income levels. Inclusive design can lend its expertise to ensure that all these factors are considered to ensure the experience is completely seamless and alleviates any stress for the user.

Of all the different projects that we have done together, which one is the highlight for you and why?

There are many highlights and favourites, but if I had to pick one, it would be the vocal accessibility research and the long-term collaboration leading to a new British Standards

Institution ((BSI) standard. The project started off as a small research problem statement and gradually evolved by keeping an open mind - which is a true reflection of the early part of design thinking! From there it has evolved into other areas that are very pertinent and the true value of it is immediately obvious, both to customers and businesses.

On the tactical level, I am very proud of the work that we did for large consulting firms on chatbot design. Chatbots have become so prolific now, and the work between RCA and TCS has resulted in successful and productive outcomes that are relevant and reusable today.

What is your future vision of how we collaborate and work together?

When we started working together with the RCA back in 2013, we did not envisage a long-term 10-year relationship. We are extremely pleased to extend our partnership with such a respected British academic institution. Now, we have an opportunity to plan strategically for the next decade.

Everyone at TCS is very excited about the new UK Pace Port - Research and Innovation lab, which is set to launch in London very soon. The new Pace Port will provide us a platform to collaborate, co-innovate and bring together new ideas and concepts which we can present to our enterprise customers.

Finally, we want to continue with our business model re-imagining for enterprises and building an ecosystem experience for our future collaborations. Going forward, we have to be agile enough to overcome fast-changing technology challenges in relation to the global economy and harness the potential of building collaborative ecosystems in UK, and internationally.



Rama Gheerawo

INCLUSIVE DESIGN FOR SOCIAL IMPACT

The Inclusive Design for Social Impact research space is based on the question 'how can the principles of Inclusive Design be used to work with individuals and communities addressing pressing social issues in different global contexts?' A relatively new research space, it allows us to build on our past work, and take our expertise and experience into local community projects. This further enhances the opportunity to focus on, and work in collaboration with, parts of the population that may have previously been excluded by economics, geography or politics. In a world increasingly monopolised by the polarisation of thinking and ideology, the opportunity to use inclusive design to bridge divides is more pressing now than ever before.

A flagship project in this new research space is a ground-breaking exploration of the use of augmented and virtual reality technologies to support conflict related sexual violence accountability in international courts, a collaboration between the UK Foreign Commonwealth and Development Office (FCDO), international criminal law specialists and the HHCD. The outcomes of this

project have been an important step in improving the engagement of vulnerable witnesses with the International Criminal Court. For us, this project has been an important demonstration of what success in a social impact research space can look like, and how, as a centre, we can collaborate with organisations such as the FCDO in the future. We hope that this project will pave the way for many more to come.

Our work on improving access to public toilet facilities, which has been an important facet of the HHCD for the last few years, has continued to make strong progress. Following a successful culmination of the project Engaged at the start of 2023, Professor Jo-anne Bichard and Gail Ramster have been sharing their knowledge with councils and campaigners, as well as appearing at conferences, and on local and national media. The long-term legacy of our projects is as important as the outputs created within the parameters of the projects themselves, and the Public Toilets Research Unit is one that is delivering lasting effects on society and infrastructure.

Prof Jaye Ho, David Vigoureux and Prof Jo-Anne Bichard

AR/VR FOR CONFLICT RELATED SEXUAL VIOLENCE ACCOUNTABILITY

Professor of Accessible Design Jo-Anne Bichard was invited to participate in a ground-breaking project that explored if augmented and virtual reality technologies could support conflict related sexual violence accountability in international courts.

Led by the UK Foreign Commonwealth and Development Office (FCDO), the team consisted of Professor of Accessible Design Jo-Anne Bichard, HHCD Research Associate Indira Knight, HHCD Associate Director of Research Melanie Flory, Erin Farrell Rosenberg, adjunct professor at the University of Cincinnati College of Law and an international criminal law specialist and Brink's Innovation Manager David Vigoureux.

Conflict related Sexual Violence (CRSV) is a heinous crime and an abuse of human rights. When perpetrated in the context of and associated with armed conflict, CRSV is a serious violation of humanitarian law and war crime (Gov.UK) Women and girls are primarily victims of CRSV, although sexual violence against men and boys is generating increasing attention. This project employed a survivor-centred perspective to explore the role of augmented and virtual reality technologies to reduce the re-traumatisation of survivors, and potentially improve the accountability outcomes of an international court like the International Criminal Court (ICC).

A survivor-centred approach means looking through the eyes of the survivor and thinking about this technology

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A survivor-centred approach means looking through the eyes of the survivor and thinking about this technology beyond the courtroom, through the whole justice chain. This starts from the moment a crime is reported, through to a local investigation and post-conviction redress.

beyond the courtroom, through the whole justice chain. This starts from the moment a crime is reported, through to a local investigation and post-conviction redress.

Initially, the project aimed to identify new solution ideas that aligned with the legal parameters of international investigations and prosecutions, as well as with a survivor-centred approach. Each of the proposed solutions came with a list of ethical considerations, by assessing them against the Murad code - a global code of conduct for interacting with CRSV survivors when gathering their information and evidence.

In November 2022, members of the team travelled to The Hague to present their initial findings to the ICC and other stakeholders to gather feedback and engagement.

Eleven project ideas were developed, which included: AR to show the survivors' injuries, AR for witness representation/identity while testifying, and VR representation of a conflict community and of the conflict environment. VR could also be used for court familiarisation for survivor and witness mental health, outreach and external education. These were presented at the 2nd Preventing Sexual Violence in Conflict Initiative (PSVI) conference in London on 28-29th November 2022.

The work has now gone into development with VR company Immersional to help vulnerable witnesses engage with the International Criminal Court.

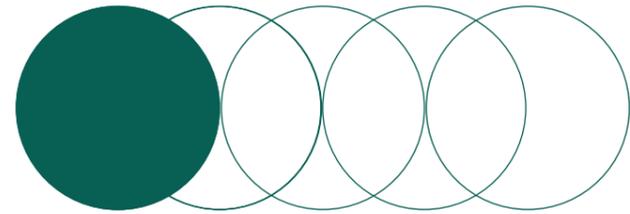
**Prof Jo-Anne Bichard
and Gail Ramster**

ENGAGED

A Toilet on Every High Street

Engaged, a project which investigated how to reuse empty premises as public toilets, was successfully completed at the start of 2023. Since then, Gail Ramster and Jo Bichard, who ran the project, have been sharing what they learnt with councils, campaigners and others interested in high street toilet provision.

Funded by the Mayor of London's 'Designing London's Recovery' programme, Engaged proposed that empty shops could be given a new, dual use: part inclusively-designed public toilet, to meet the unmet needs of Londoners; part local business, to act as a guardian of the space, and support local regeneration. An Engaged toilet would benefit public health and wellbeing, by providing drinking water, handwashing, infant feeding spaces and peaceful places for sitting and recuperation. Alongside partners PiM.Studio Architects, the Engaged project developed designs for shipping containers, to create temporary public spaces with toilets alongside other shops, hospitality, business and community spaces.



Since the project was completed, Gail has spoken about inclusive toilet design, Engaged and The Great British Public Toilet Map at various events, including the Greater London Authority, organised by Assembly Member Caroline Russell, for community campaigners; she also spoke at a London Councils event co-hosted by AgeUK London. The Engaged researchers have built connections with toilets for night time, delivery drivers, tourism, theatres, community toilet schemes and new facilities.

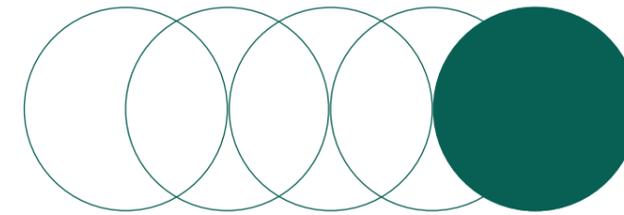
By working with regeneration officers across London, Engaged demonstrated that better toilets could be built as part of new council developments. One significant challenge, however, is prioritising the need throughout long development processes, so the access is not watered down, restricted or removed. This could be helped by a unified approach to toilets, in the form of a local toilet strategy or a dedicated public toilet council officer or councillor.



Gail Ramster presenting at Healthy City Design, 11-12 October 2022 held at the Royal College of Physicians, London

**Prof Jo-Anne Bichard
and Gail Ramster**

PUBLIC TOILETS RESEARCH UNIT



The Public Toilets Research Unit is the UK's only dedicated research unit that focuses on the issue of public toilet design. Co-led by Professor of Accessible Design Jo-Anne Bichard and Senior Research Associate Gail Ramster, the PTRU undertakes research and knowledge exchange that addresses the need for wider public toilet provision, and with design solutions that are equitable and inclusive.

Through our web resource TINKLE (Toilets Innovation and New Knowledge Exchange), the PTRU also connects with other researchers, academics, and practitioners in the field of public sanitation, and aims to be a one-stop shop for designers wanting to improve their publicly accessible toilet

design (this is all toilets that the public have access to including train stations, supermarkets, department stores etc.)

With a combined 30 years of research into public toilets from numerous UKRI and NGO funded projects, Jo-Anne and Gail are in the process of bringing this together in their book 'Designing Inclusive Public Toilets: Wee the People' to be published by Bloomsbury in 2024. Their InnovationRCA spin out company Public Convenience Ltd continues the development and growth of the award-winning Great British Public Toilet Map which remains the largest database of public toilet provision in the UK.



Professor Jo-Anne Bichard and Gail Ramster at the Mayor of London's Designing London's recovery programme exhibition at the V&A, Autumn 2022

Dr Melanie Flory, Dr Laura Salisbury and Dr Gopika Rajan

WEARABLE MEDTECH

Every five minutes someone in the UK succumbs to stroke. These numbers are set to double by 2040. Stroke occurs in all age groups and affects everyone in different ways. Census 2021 estimates almost 1.2 million people are living with stroke at a care-cost of £26 billion. About 65% of survivors will have a disability with two-thirds of working-age survivors unable to return to work and more likely to be unemployed 8 years after their stroke.

Although survival rates have increased, around 50% of survivors have little or no access to recovery treatment for hand and arm function. Instead, they are taught how to live with their new disabilities. Physiotherapy helps people with milder symptoms, but for those more severely affected, symptoms often worsen over time. Brain Research UK says investment in stroke-recovery innovation and access has not kept pace with the increase in strokes across all ages and genders.

The Wearable MedTech Lab (WMT), founded by Dr Laura Salisbury and now in its second year, is resolved to reduce current inequalities in the care and recovery of stroke survivors. The team are developing a wearable medtech garment aimed at helping survivors regain lost hand and arm movement. Regaining movement means regaining independence and amounts to a better quality of life for survivors, and by implication, the people and systems serving them. Dr Salisbury says, “We are in an exciting stage of development and are proud to work with stroke survivors, carers, clinicians and partners to ensure the device is fit for purpose, without whom this work would not be possible.”

The WMT Lab works closely with Movement Neuroscientist, Professor Stuart Baker, who leads the University of Newcastle’s Movement Laboratory. Based

on Baker’s research on the neural correlates of movement, Salisbury has developed a compact e-textiles component called the PowerBead, which is now a patented technology that can be sewn into the sleeve of a garment. It delivers short, sharp taps to a single location on the arm, thereby activating specific muscles and areas of the brain connected with arm-hand movement. An exciting new development is that of pairing the bead-tapping with a ‘startling’ sound, based on research linking sound and muscle activation.

Dr Flory states, “As we continue to develop this neurotechnology, the potential for positive impact on the lives of those suffering from severe neural pathway damage, becomes real for us.” It could mean return to employment, hugging one’s children, and hiking.

The WMT Lab’s e-textile development is supported by exceptional partners in neuroscience located at Newcastle, and material science at Imperial’s Henry Royce Institute. The WMT team consists of garment technologist Dr Laura Salisbury, cognitive neuroscientist Dr Melanie Flory, and wearable technologist Dr Gopika Rajan. The lab excels in interdisciplinary research, demonstrated by Dr Rajan’s comment on completing a digital knitting course, “As a wearable technologist, it was essential to learn how knitted garments are patterned and produced to better integrate medical devices and other electronic components seamlessly within textile garments.”

The WMT Lab aims to develop other game changing wearable technologies that will better serve the evolving world of health and care. The team are developing educational and thinktank activities to ensure greater collaboration worldwide.



We are in an exciting stage of development and are proud to work with stroke survivors, carers, clinicians and partners to ensure the device is fit for purpose, without whom this work would not be possible. - Dr Salisbury



As we continue to develop this neurotechnology, the potential for positive impact on the lives of those suffering from severe neural pathway damage, becomes real for us. It could mean return to employment, hugging one’s children, and hiking. - Dr Flory

Rama Gheerawo, Vanessa Dewey and Madelaine Dowd

CREATIVE LEADERSHIP

Creative Leadership (CL) uses the people-centred practice of inclusive design to develop a novel model of leadership. It is for established leaders, emerging leaders and the biggest group of all - those who were never billed to be a leader!

Creative Leadership was pioneered by Rama Gheerawo over a decade ago, in order to counter widely accepted hierarchical models of leadership. It addresses the urgent need for leadership reeducation and training. The aim is to improve life for the individual, the institution, and ensure that wellbeing is fostered across an organisation. The model is founded on the three values of empathy, clarity and creativity, and based on the premise that, with these three values, anyone has the potential to not only lead, but lead well. Creativity is a universal ability to develop solutions that positively impact ourselves and others; empathy is the hallmark of a 21st century leader; and clarity – the missing link in aligning vision, direction, and communication.

All three values are universally available to all humans and can simply be remembered as Head (Clarity), Hand (Creativity) and Heart (Empathy). They are spectra that can change, interact and interplay with each other. They can be developed and evolved using tools and techniques that the team have been creating over the last year. Blueprints for bringing Creative Leadership into an organisation have also been developed alongside further research into how the values overlap with each other (e.g. empathic clarity, clear creativity etc.). We have looked at how to apply the three values in areas such as racial equity, disability visibility, personal development and business application.

Building on a basis of 15 years of research and on the book *Creative Leadership: Born from Design*, the

Centre's team has delivered events, presentations, keynotes, projects and training internationally. A few examples are given below.

Working with a Russell Group University, a Bronze Race Equality Charter (REC) institution, to help support their anti-racism and decolonisation initiatives for cultural change and their renewal submission for REC. An initial workshop included cross-institution actors, from students to department heads. There have been follow-up drop-ins and a CL book club to commence this month.

Open Masterclasses for the RCA: two open masterclasses have seen nearly 60 students from US, UK, Europe, Middle East and the Far East came to the RCA for in-person workshops taking principles back to their respective countries.

The Valuable 500: A year-long global delivery of a bespoke programme working with 75+ leaders from global brands and organisations to help them use CL to raise disability awareness and action within individual companies.

The Helen Hamlyn Trust: Creativity In Education study aims to provide school leaders with the tools and the skills to transform relationships. This is achieved by developing effective systems, building communities to succeed personally, professionally and for the benefit of the wider school community.

Academy of Fine Arts in Katowice: Metropolitan Science Support funded delivery of "Creative leadership - a new area of design competence". This is a new learning module in the curriculum for the student and faculty of the Academy. of the second degree program at the Faculty of Design of the

Academy of Fine Arts and Design in Katowice. International networks: the team continued to deliver work for partners across the globe such as the Hong Kong Design Centre, the Singapore Design Council, the Inclusive Africa conference and EIDD-Design for All Europe. We delivered talks and keynotes for organisations in the UK, Hungary, Africa, Japan, Norway, USA amongst many others.

Business clients: the team worked with companies such as Tata Consultancy Services and Amazon.

Conferences and speaking engagements are:

2023 AIGA Executive Leadership Summit, Washington D.C. a workshop for US design leaders at the American Institute of Graphic Art's (AIGA) inaugural summit. Within the workshop Rama guided attendees through the three CL values and how each leader could bring them back to their organisation.

The AIGA NYC chapter, in partnership with RSA US, hosted the talk "Creative Leadership: a radical rethink"

as part of AIGA NYC's event Series: Fresh Dialogue; In Session, 'Is Creativity Missing in Leadership?' Ve Dewey hosted a conversation between Adam Kingl a global authority on generational paradigms in the workplace, and Rama Gheerawo to discuss the emerging idea of creativity in leadership.

US RSA Virtual Salon, 'Creating leadership through inclusivity' Rama Gheerawo hosted a conversation between Minnie Mol, CEO of the Design Council and Christopher Patnoe, Head of Accessibility and Disability Inclusion, EMEA at Google

NationWide - Habits of Highly Innovative Organisations Ve Dewey discussed Creative Leadership with Nationwide employees and how they can utilise it within their organisation.

So Creative Leadership is garnering interest from individuals and organisations across the globe, speaking to emerging notions of inclusive leadership and design leadership.. However, it is not just for designers, but for the 'creative' that lives in us all - and that is something truly for us all.



Participants from Newton Business School at a bespoke CL workshop, hosted at the RCA in summer 2023

EXEC ED COURSES

Throughout the last year, Helen Hamlyn Centre researchers have run several short courses, both online and in person, in conjunction with the Royal College of Art's Executive Education department. The same courses will run again over the next year, so keep an eye on the RCA's Executive Education page for future dates.

CREATIVE LEADERSHIP SEPTEMBER 2022, MARCH 2023

Creative Leadership is not a typical leadership strategy. At the heart of this model are three leadership values that apply to everyone:

- Empathy is the hallmark of a 21st-century leader (widely spoken about by Forbes, Harvard Business Review and others)
- Creativity is an innate ability to develop solutions (this course is delivered by creatives with international profiles)
- Clarity is needed to balance and activate empathy (this is often undervalued, but we will give you a grounding in this)

This course aims to demonstrate how this model of leadership can unlock new potential for innovation.

DESIGN THINKING & INNOVATION OCTOBER 2022, MAY 2023

This course is designed to help participants understand the purpose of design thinking in promoting innovation and learn real-world applications and strategies for design thinking. Explore the emergent role of design within the landscape of innovation, the key players in design-led innovation teams, how to combine convergent and divergent thinking, the real world versus the world of ideas, the power of visualisation and ways to scale up your

design concept. Using case studies and innovation stories that draw from current exhibitions and the permanent collection at the Design Museum, the masterclass will explore the curatorial context and provide a rich and stimulating mixture of new ideas and practical tools.

At the core of the masterclass is the opportunity to work as part of a creative team on a real-world project that you bring to the session. Whatever business sector you are in, or level of design interest or expertise, this course will equip you with a robust model to apply design thinking in your own working life.

CREATIVE STRATEGIES FOR THE FUTURE OF WORK NOVEMBER 2022

Learn how to apply creative thinking and strategic design thinking principles to the future of work and workplace, enabling you to address the challenges of hybrid and remote working with new tools and frameworks, delivered live online. The world of work and workplace is undergoing its most significant transformation for decades in the aftermath of the global pandemic - people, place and technology are all facing change.

Led by Jeremy Myerson, RCA Professor Emeritus in design and co-founder and director of WORKTECH Academy, and Dr Imogen Privett of Worktech Academy/Unwork, this masterclass tools and frameworks to navigate change across all aspects of the workplace - from rethinking the purpose of office space to meeting sustainable goals and supporting the mental health of remote workers. It demonstrated how to use creative thinking and design thinking principles to create new strategies and ideas in the emerging era of flexible working. At a time when every organisation and every worker is grappling with the implications of the new world of work, this unique short presented a comprehensive methodology to ask the right questions and shape the right solutions.

PHD STUDENTS



NICK BELL - Chatterhood: widening access to participatory civics for seldom-heard voices

Nick is prototyping contactless methods to widen access to community-based participatory activities for residents may be excluded by existing neighbourhood outreach. Nick's prototype, Chatterhood, offers a safe, secure, and playful mode of citizen engagement, making existing outreach activities more inclusive. Through Chatterhood, participants engage in asynchronous dialogues offline without meeting face-to-face. Participating is much easier for those who will have most to gain from taking part.

His work explores the impacts of inclusive participation on cross-community cooperation, neighbourhood resilience, health, and wellbeing. It probes theories purporting that neighbourhoods teeming with social connections can better improvise responses to threats, protecting shared concerns.



WENBO AI - Empowering design literacy and engagement in Chinese Health Promoting Hospitals

Social healthcare services have been shifting from curative treatment to more dynamic social health promotion. The health promoting hospitals (HPH) are expected to expand hospital roles into more dynamic social health promotion, shifting from treatment-centred to health promotion-centred cultures and empowering a deeper community context.

Through this research, design frameworks - designerly ways of knowing, thinking and doing are produced- and applicable to transmit these to Chinese HPH systems. Chinese healthcare practitioners can access a systematic, comprehensive understanding of what design thinking means for HPH implementation. This design research also projects future multiplex functions of hospital roles contributing to public health and wellbeing.



SARAH BRITTEN JONES -
The university otherwise: reimagining organisational arrangements for inclusive, effective, and continuous feedback action cycles

Sarah's PhD research explores the use of speculative organisation design to understand and reimagine university systems with others. Using Oxford Brookes University as a field site, Sarah is working with employees and students to visually understand and then reimagine the university by proposing different organisational arrangements. Her research explores the potential of alternative structures and systems for the continuous and inclusive organisation design of the university. This will allow the university to understand itself differently and develop mechanisms for the effective application of diverse knowledge to reshape itself (otherwise) to thrive in a rapidly changing world.



MUYAO HE -
The Contribution of Design to Inclusive Policy Innovation in China: An Example of Public Policy for the Inclusion of Museum Services

Blindness and visual impairment affect 17+ million people in China, depriving them of equal learning opportunity and educational experience at museums. Development and change in current public policy can prove an effective measure in improving this issue. Policy making processes, however, are generally top-down, and making them more inclusive may lead to improvements in policy content, inclusion and implementation. This PhD aims to explore how design can promote inclusive policy innovation in China to enable museums to address the needs of their visitors who are blind or visually impaired.

RUTE FLADEIRO -
A conversation between design and Intimate Partner Violence

Rute's research offers a critical engagement with designers' implication in the structures of intimate-partner violence (IPV) by investigating designers' embodied experiences.

Through conversations with designers who are developing interventions for IPV, the research describes experiences of implementing design in these contexts, how social change may be achieved through design, and designers personal experiences when exposed to the work.

The outcomes of this research will examine designers' critical self-engagement as a space for shifting perspectives towards transforming how IPV and other vulnerable situations are approached.



JUDITH BUHMANN -
Radically inclusive citizens: designing a new approach to citizenship education for children in the UK

Judith's research explores how a radically inclusive citizenship education programme for young children in the UK might look. The current offering, meant to prepare young people for life in modern Britain, was last updated almost 10 years ago. This outdated curriculum is no longer fit for purpose in a political landscape that is unrecognisable in comparison to a decade ago.

This PhD is an investigation into how inclusive design might enable the creation of a new approach to civic education that aims to equip children to engage in citizenship through democratic practice as an alternative to the current method of teaching them about the theory of democracy.



PEIQI WANG -
Developing neonatal care doctor-parent communication: Design tool intervention

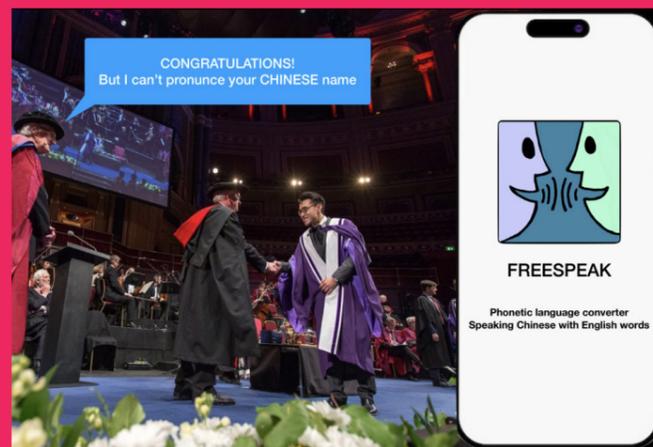
Peiqi's PhD is investigating the potential of design to enhance communication between parents and medical professionals, as well as promoting active parental engagement in neonatal care, within China.

The advancements in neonatal medicine in China over the past four decades have led to notable improvement in the levels of diagnosis and treatment. Consequently, there has been a reduction in the mortality rate of preterm infants and an improvement in their overall health. Nevertheless, there has been no substantial overall shift in the extent of parental involvement in the care of their newborns. Although certain neonatologists in China have taken steps to address this issue and acquire knowledge from the Family Integrated Care (FICare) model, there remains a knowledge gap regarding the transformation of the Chinese context towards a participatory model.

The study has provided guidance for the development of a new communication framework that aims to enhance the agency of participants, specifically doctors and parents, by the use of a designerly approach. This approach facilitates a comprehensive understanding of their respective roles in the provision of newborn care and long-term healthcare for premature infants.

HELEN HAMLYN DESIGN AWARDS 2023

The annual Helen Hamlyn Design Awards recognise creativity in human-centred and inclusive design across all disciplines of the College. The winning projects are chosen from the RCA's MA and MRes graduating cohort who put forward their designs for consideration. A shortlist of twelve applicants presented their projects to a panel of judges, made up of Helen Hamlyn Centre researchers and representatives from each of the award sponsors, which this year included the Snowdon Trust, Northumbrian Water, Experience Haus and the Helen Hamlyn Trust. From this shortlist, four winners were chosen, and the awards presented a ceremony at the Royal College of Art in September 2023.



FREESPEAK - Winner of the Northumbrian Water Award for for Inclusive Innovation, Wanqi Wang, MA Contemporary Art Practice

Freespeak is a language conversion service that utilizes phonetic matching to bridge gaps between different languages, based on pronunciation and sounds. The specific focus of this system is to enable English speakers to effortlessly speak Chinese without any prior knowledge, by employing a carefully curated selection of English words that closely match the original Chinese pronunciations. By doing so, the project aims to address the frequent problem of English speakers mispronouncing Chinese names, which can lead to misunderstandings and unintended disrespect in various contexts.



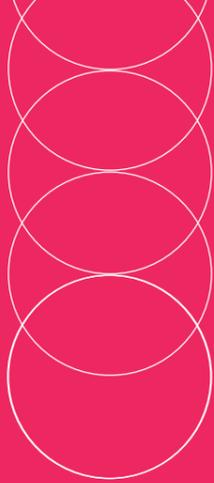
CHANNI - Winner of the Experience Haus Award for Impact and Change Priyanshu Mukhopadhyay, MA Innovation Design Engineering

Channi is a robust, affordable, and rapidly deployable water-based filtration system for capturing particulate matter from solid fuel stove emissions; reducing air pollutants in developing countries while preserving cultural livelihoods.



PLEURAL - Winner of the Helen Hamlyn Award for Creativity, Yihan Dong, Daniel Hale, William Eliot, Fergus Laidlaw, all MA Innovation Design Engineering

Pleural is an airway clearance device designed to help those individuals suffering from debilitating airway mucus. It uses intelligent analysis to provide the most effective treatment and monitoring to patients for relief and reduced infection risk.



ALUMNI AWARD WINNER IVELINA GADZHEVA -

Ivelina Gadzheva is an inclusive designer who consults public and private sectors, bringing a deep understanding of people-centered design and qualitative research. She is the founder of Design for All Bulgaria Foundation, a member organisation of Design for All Europe, and is co-founder of the Service Design Network chapter Bulgaria, a member of the Global Service Design Network. Ivelina has a Master's degree in Inclusive Design from Mid Sweden University, and was the first person to champion Inclusive Design in Bulgaria. She consulted on the first pedestrian wayfinding system in Sofia, and created the first hub for Social Innovation. An international award winner, she is currently consulting on a large kindergarten, school and community project and a diagnostic AI for newborns with rare diseases.



WE ARE IN THIS TOGETHER - Winner of the Snowdon Award for Disability, Joy Lu, MA Design Products & Beatrice Sangster, MA Visual Communication

The project aims to address the issues surrounding navigating higher education in art and design as a disabled person, through creating a handbook, a curated set of discussion objects, and a set of activity cards that would provide some guidance, prompt conversations around related topics, assist self and peer reflection, etc. It is envisioned as a communal inclusion plan that welcomes everyone into the conversations on disability and neurodiversity.



FIXPERTS AWRD -

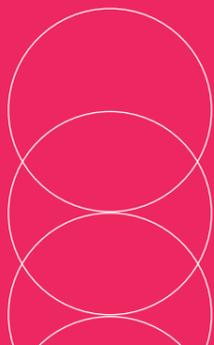
Each year, the HH team select a winner of the Helen Hamlyn Fixperts Award, a global award that champions human-centred design that positively impacts people's lives. This year, we were pleased to award Chi Hoang and Anna Eerdman for their project A Trike Seat for Zara, a bespoke bike seat for their client Zara, a leg amputee. Because of Zara's amputation, she has only bone and tissue on her right side, which can make sitting extremely uncomfortable, or even painful, and she needs extra padding to prevent injury. Chi and Anna worked closely with Zara to design various iterations to ensure that the seat fit met her particular needs. Their final solution was a hammock-style seat fixed to a trike that enables Zara to ride around Brighton.



Team Pleural receiving their Awards



Ivelina Gadzheva with Rama Gheerawo at the Award Ceremony



Rosily Roberts

WATERAWARE

We catch up with two previous winners on life after the Award

“Inclusive design embodies the art of shifting perspectives, breaking free from auto-pilot, and embracing a mindful approach,” or so says Ryan McClure, 2022 winner of the Helen Hamlyn Award for Creativity. After winning the award and graduating from his RCA MA/MSc Innovation Design Engineering, he teamed up with another award winner, Luisa Jane Charles, who took home the 2022 Northumbrian Water Award for Innovation, and founded Wateraware Collective.

Both Luisa and Ryan’s projects centred on collecting water quality data. Ryan won for his project, Neaho, which sought to develop an innovative, creative way for people to passively engage in collecting vital environmental data for waterways while doing their favourite water-based hobby. Luisa’s project, FLOAT, a robotic Unmanned Surface Vehicle (USV), that measures water quality data in real time, was her final project on her MA+MSc Global Innovation Design course. Northumbrian Water saw the potential value of both projects for the future of water, and offered them support to Neaho further.

Taking the form of a tow float dry bag that records water quality data, Neaho can be used by people doing any number of water activities, from kayaking to paddle boarding and even swimming! The aim was to connect different groups, and bridge the gap between concerned citizens, hobbyists, scientists and grassroots activism, thus developing a way to tackle environmental issues more inclusively.

Part of this year of development included a trip to Guyana to work with indigenous communities to co-design an

environmental monitoring solution. The experience, Ryan says, was “not only incredibly humbling, but also a poignant reminder of the values of empathy, learning and perspective.

It underscored the importance of blending modern technology with indigenous knowledge and practices to safeguard and restore the rights of both people and the rest of the natural world. I feel it’s absolutely vital to be reminded of our inherent positive and collaborative nature as we face global challenges - whereby we look not only to creating a more hopeful future, but by listening to crucial lessons and practices of the past to do so.”

The Wateraware work demonstrates the strength of inclusive design when applied to global contexts and issues. It can be a powerful process to bring people into the environmental process and conversation. Ryan and Luisa’s journey from Helen Hamlyn student winners to setting up a company represents a pathway of innovation that the Centre truly supports.

As Ryan says: “By embracing inclusive design principles, we can strive to create environments that foster a sense of wonder, address accessibility concerns, and promote healing experiences with water. It is through this holistic and inclusive lens that we can redefine our connection to water, ensuring that it becomes a source of solace, joy, and fulfilment for all individuals, while also nurturing and preserving the natural world around us”.



Not only humbling, but also a poignant reminder of the values of empathy, learning and perspective, this trip underscored the importance of blending modern technology with indigenous knowledge and practices to safeguard and restore the rights of both people and the rest of the natural world. It’s vital to be reminded of our inherent positive and collaborative nature as we face global challenges - whereby we look not only to creating a more hopeful future, but by listening to crucial lessons and practices of the past to do so. - Ryan McClure



WITH THANKS

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