## DESIGN.DIFFERENT

Vol 3, September 2022

THE HELEN HAMLYN CENTRE FOR DESIGN

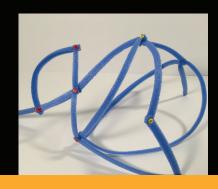
















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#### **Design.Different**

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## HELLO

This magazine describes the work of the Helen Hamlyn Centre for Design at the Royal College of Art that took place between October 2021 and September 2022, a period of opening up, new possibilities and intense activity following the past two years of the pandemic. It features articles from our team describing inclusive design – a process whereby designers include the widest number of people, especially those excluded by age, ability, gender or race. 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!



Rama Gheerawo, Centre Director Photograph by Ezzidin Alwan

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Rama Gheerawo - Director

## DESIGN.WIDE

To say that the year since our last Design. Different has been interesting would be an understatement! It has been a time of widespread change and transition. Most of the world has gone from a state of lockdown, in which people were tied to their homes and neighbourhoods, to one in which we can open our eyes and attention outwards as we step back into the world. This is where we make a call for inclusive design to reach further and wider than ever. Inclusive design has always aimed to address social issues and instances of exclusion. Now, many of these have become critical. An example is our growing interest in neurodiversity, mental health and wellbeing that goes beyond the physical to look at all the dimensions of human life.

The challenges that have shaken up healthcare systems due to the pandemic, and the impact of this on populations, means that the structures and strategies that we had in place need to evolve. We have also taken inclusive design into places which have not been easy to engage with before: the fields of architecture and fashion have been a focus. We launched our Design Age Institute in the depths of the 2020 lockdown, crystallising a driving focus on the ageing of our populations to encourage the market to adapt, rather than simply paying lip service to their needs.

"INCLUSIVE DESIGN WAS STARTED TO FOCUS
ON EXCLUSION DUE TO AGE OR ABILITY. THIS
REMAINS AT THE HEART OF OUR THINKING AND
INFLUENCES EVERYTHING WE DO. NOW ITS
APPLICATION REACHES ALL AREAS OF LIFE FROM
THE PERSONAL TO THE PROFESSIONAL, FROM
HEALTHCARE TO MOBILITY. THE CENTRE'S REMIT
IS THROUGH DESIGN TO IMPROVE QUALITY OF
LIFE, AND DURING LOCKDOWN, THE PROJECTS
HAVE BUILT MOMENTUM AND CREATED IMPACT."

- Helen Hamlyn



We are starting to explore how inclusive design can look at gender exclusion, helping all humans to stand strong in their identity. Following the murder of George Floyd, and the rising interest in equity, diversity, and inclusion that followed, we believe that inclusive design can have a global impact by embracing people of all races, ethnicities and cultures.

Many types of exclusion have gone unnoticed. One of the most obvious instances of this was when RCA graduate Ackeem Ngwenya realised that spectacles were not made for people whose everyday experience includes different landscape features. In particular they exclude people of African and Asian heritage. Here, exclusion was actually staring us right in the face!

We also applied the principles of inclusive design to address broken models of leadership. A book, Creative Leadership: Born from Design, was launched in 2022. Based on universal human qualities of empathy, clarity and creativity, we say that it is for three types of people: established leaders, emerging leaders, and the biggest group of all – those who never expected to be leaders! Inclusive design should speak to unheard and invisible voices. It should not simply be applied to vocal, visible, urban populations. So now is not the time to limit our thinking. We have to open our arms as far as they can reach to embrace all human need. This is where our discipline of design, and particularly inclusive design, can make a difference.



"WE MUST SECURE INCLUSION AND SUSTAINABILITY FOR OUR PLANET, COMMUNITIES AND THE SYSTEMS THAT SUSTAIN AND ENLIVEN THEM. REDEFINING VALUES IS AT THE CORE OF THIS GLOBAL ENDEAVOUR.

INCLUSIVE DESIGN HAS ITS WORK CUT
OUT OVER THE NEXT DECADE AND MORE."

- Dr Paul Thompson, Vice-Chancellor RCA

**Dr Melanie Flory – Associate Director of Research** 

## DESIGN.DEF

2022 ushered in the fourth decade of the Helen Hamlyn Centre for Design. Our 30-year history in people-centred and inclusive design research and collaborative projects with industry have been invaluable to our learning and leadership in the field. Our primary intention has been to measurably improve the day-to-day lives of as many people as possible, which has underpinned the 300 or more projects we've been a part of. We have journeyed far.

As we embark on the third decade of the twenty-first century, we ask, is this enough? Lived experience and research evidence undeniably reveal that global striving for inclusivity and optimal user experience have come at a high cost. We have neglected and overlooked the needs of our planet, non-human life forms, the environment, natural, and man-made systems. We are all in this together.

Designing with people, not for people, coupled with our empathic tools of engagement and techniques, have undoubtedly helped shape, impact and inform new agendas for social equity and inclusion across industry and in research. We mustn't stop now.

The time has come for us to participate and lead in crossing boundaries, breaking free of constraints and expanding inclusive design thinking, theory and practice. To enable the ignored, unrecognised and unheard distress of people and planet to be on par. If ever there was a time to come together as equals across disciplines and sectors, to collaboratively rethink, build, restore, heal, redress and rebalance, it is now. We must keep pace.

Inclusive people- and planet-centred design is our forward-facing agenda. Changes that deeply transform the definition, meaning and value of inclusive design for people and the planet is the work we've set for ourselves. It will not be easy, as the current economic, political, social, and often disconnected technological advances, unravel. We do not shy away from these challenges.

The design and innovation heart of the Helen Hamlyn Centre beats with excitement and anticipation at leading, partnering, designing and innovating to safeguard and create pathways to enable people and our planet to flourish. We look forward with purpose and hope.

## DESIGN. UIFFEREN

From Autumn 2021 to March 2022, Design. Different evolved into a full season of inclusive events featuring a diverse range of world renowned researchers, creatives, activists and designers. Each event explored different aspects of inclusive design at its most powerful, creative, conscious and empathic.

On World Toilet Day for Design. Sanitation, brought together a discussion on the dual challenges of sustainability and inclusivity in sanitation and public toilet provision. Speakers included Dr Alison Parker of Cranfield University as well as presentation of the awardwinning film Bathroom Privileges by filmmaker Rupert Williams and animator Ellie Land.

Design. Fashion challenged the role exclusivity plays in fashion with giants of the fashion world, Stella McCartney, Zandra Rhodes, Harris Elliott and Sue Timney in conversation with the fashion students from the RCA. representing future innovators in the sector, and new more inclusive tomorrows. For Design.Age, one of the giants of design for healthy ageing, Pattie Moore, sat down with Colum Lowe from the Design Age Institute and George Lee from This Age Thing, to discuss all things age related.

Design. Wicked brought together thought leaders Matthew Trowbridge and Banny Banerjee to present their perspectives and experiences on the role of design in tackling wicked problems. In celebration of the Centre's 30th anniversary Design. Neuro reflected on how neurodivergent related projects have grown and evolved at the centre, bringing together four neurodivergent creatives to consider the opportunities and challenges of neurodivergent-led design.

Drawing on the experience of external speakers Carole Bilson, and Ouchii Ikechi-D'Amico, as well as the expertise of the Centre's own researchers.

Design. Continuity explored the role design could play in enabling companies to successfully seize the opportunities of an innovation economy and create new ones.

Finally the season concluded with Design.Leadership, the launch of Creative Leadership: Born from Design, a new publication by Centre Director, Rama Gheerawo.



Include is the Centre's global conference series that focuses on inclusive design and its peoplecentred, creative approaches, 2022 marked the 11th edition, held online to extend global reach.

'Unheard Voices' speaks to ideas that are not mainstream, especially ones that are actively ignored. As well as distinguished speakers from across the globe, we heard from those who are less vocal, and less visible. Inclusive design does not mean getting louder to be heard. This conference brought together a community of intent to address exclusion in meaningful and effective ways. **Alongside two** academic sessions, six conference sessions addressed the following themes:

#### **DECOLONISING:**

#### **NEW FRONTIERS IN DESIGN**

Colonialist ideas pervade society, including political structures, societal frameworks, economic realities, academia and the world of creativity. Colonialism stifles creativity, something designers know only too well. This session stepped beyond hashtags and rhetoric to unfold futures that are more equitable, diverse and inclusive.

#### **FASHION-ABLE:**

#### **BODY SIGNALLING BEYOND APPEARANCE**

For decades people have had to fit themselves into body shapes and sizes dictated by the world for equity that is so urgently articulated in of fashion. Age, ability, gender and race are just a few of the characteristics that are now being considered. This session looked at how we can enable each one of us to style, adorn, dress and signal our bodies in the way we want to.

#### **UNRAVELLING AGEISM: BEYOND THE HASHTAG**

If living in a crucible of bias is a daily reality, then the ageing population may experience it more than anyone else. Ingrained stereotypes are prolific. This session asked, 'What progress have we actually made, and how do we actively employ empathy to hear the evidence and act on it?

#### INCLUSION:

#### HEARING THE ONE BILLION

Why have the voices of one billion people living with disabilities gone unheard, and how do we right this wrong? This session asked whether the development of technology is a bridge, a barrier or anything in between.

#### **SOCIAL SUSTAINABILITY:**

#### THE ROLE OF INCLUSIVE DESIGN

In the context of sustainability, the social aspect is considered less often than environmental or economic ones. Often it is flatly ignored. This session looked at the role that inclusive design can play in bringing a human voice to largescale global strategies.

#### **CREATIVE LEADERSHIP: EXPRESSING UNHEARD VOICES**

Creative Leadership responds to the need leadership today and applies the principles of inclusive design to broken models of leadership. In this session we explored how the tools of design can inform the next generation of leadership.

# DESIGNAGE INICATION

It's been another unusual year for us all (at some point we'll be able to stop saying that, I hope) as we crept slowly out of lockdown and ventured blinking into the sunlight. Unfortunately, our return to the office was slightly delayed by having to wait for our beautiful new building to open, but in January things finally started returning to some semblance of normality. This gave the Institute the chance to generate some pace and deliver on our objectives, but this time, and for the first time, face to face and in real time.

Our research team won a significant award from the Dunhill Medical Trust which will keep them busy for another two years or so; our design management team have met all their targets and are now working with 15 or 16 pathfinder companies; we have started to deliver our executive education programme, and as I write this I am recovering from the private view of our first exhibition with the Design Museum – all this in less than two years!

In the future we want our advocacy site
This Age Thing, in partnership with u3a, to
lobby the government for legislation change
on inclusively designed products and services.
We want to roll out our masterclasses, training
and consultancy, win more research grants
and source funding to maintain our pathfinder
investment programme. These are all big asks
but we have a team capable of delivering on
all of these targets – so watch this space, and
hopefully next year we will have even more
news to talk about.

THE DESIGN EVALUATION TOOL

Pathfinder Projects is a portfolio of projects supported by Design Age Institute (DAI) across the areas of home, health and work. These are projects that directly address issues associated with ageing but which are also pertinent to the wider community. The Helen Hamlyn Centre for Design has consistently been a pioneer in inclusive design and the Pathfinder Projects follow that lead.

The DAI support includes design expertise, financial support and access to research. It aims to make a significant contribution to moving these ideas towards a market launch and ultimately success in both user benefit and financial terms. Placing and maintaining the user at the centre of thinking is another core aspect of the Institute's approach and will be instrumental in achieving that success. The entrepreneurs behind the supported projects range in age across four decades and are from a variety of backgrounds in design, academia and existing SME businesses.

When working on Pathfinder Projects, it became clear that the DAI needed to develop a framework to describe our inclusive design ambitions for the projects we support.

The Institute's director, Colum Lowe, had throughout his design management career resisted the temptation to create a method of measuring the design quality of goods and services, believing that if the design process was sound – that is, if it involved users and stakeholders, was visual, inclusive, iterative, systemic, etc., then the end product would also be sound. Unfortunately, this is frequently not the case for products and services designed for older adults.

The inspiration for the Design Evaluation Tool came from The Commonland Method, created by Georgina Lee, which proposed 10 vectors for measuring design, visualised on a spider chart. Building on this Colum and Georgina, working with Jeremy Myerson, Helen Hamlyn Professor of Design at the RCA, created three overarching design motives: Empowering, Enabling and Enriching, subdividing these into nine new specific design traits - the DAI Design Evaluation Tool was born (see image).

Over the last year the Design Age Institute has been using the Design Evaluation Tool to work with our clients, in sectors as diverse as banking and consumer food, mobility aids and diagnostic devices, to assess products, services and environments, evaluating what is already on the market, carrying out gap analysis on competing products and comparing them to user expectations. It has proved to be an enlightening tool to give an objective user-led perspective, and is one we aim to integrate further into our work.

Design Evaluation Tool, Design Age Institute 2022



I can't state enthusiastically enough how proud I am of the whole team, of what they are achieving and the impact they are having on design and healthy ageing, how delighted I still am to have been chosen to lead this amazing Institute, and how ambitious we all are to achieve even more over the next 12 months.

tool to give an objective user-led perspirate is one we aim to integrate further into

Design Age Institute, Royal College of Art, 4 Hester Rd, Battersea, London SW11 4AN

Design Age © 2021



Concept designs for a new rollator by Michael Strantz

During the Design Age Institute's first public event in April 2021, Helen Hamlyn, Patron of the Helen Hamlyn Centre for Design, described the walking frame, or 'walker', as 'the most degrading object that we can give to anybody'. Committed to changing the perception of these stigmatised mobility aids, in March 2022 Lady Hamlyn commissioned the Design Age Institute to launch 'The Hamlyn Walker Challenge' design competition to students and recent alumni of the Royal College of Art.

THE BRIEF: TO REDESIGN THE WALKER AS AN ENGAGING AND DESIRABLE PRODUCT THAT SUPPORTS AND PROMOTES ACTIVE MOBILITY AND **BRINGS INDEPENDENCE, CONFIDENCE** AND JOY TO THOSE WHO USE IT.

The current, standard-issue walking frame appears to suggest that as we reach a certain age our opinion about aesthetics ceases to matter. Devices that are provided by public or charitable organisations are only required to fulfil a plan for getting it to market. functional requirements which can stigmatise the person using them.

For the purpose of the brief a walker was defined as a walking frame with wheels, known as a rollator. The solution could be interpreted as a combination of static feet and wheels or a frame that transformed into a rollator, or vice versa. In May a panel of expert judges, including Lady Hamlyn, evaluated the entries we received against a set of criteria which considered whether a design proposal was useful, usable and desirable, and also whether it changed the narrative of walker design whilst ensuring safety for its user.

The jury was unanimous in selecting the design by Michael Strantz (MA Design Products, 2022) as the winner of the Hamlyn Walker Challenge.

Michael's concept proposed a frame that could meet the needs of multiple generations. Combining aspects of a rollator, an electric scooter and a balancing board, Michael's vision supports usability and function for different age groups to reduce the stigmas associated with traditional mobility devices, as well as increasing desirability through an elegant design aesthetic.

Michael will be developing his concept to transform the walker at PriestmanGoode in September 2022, considering both interior and exterior use. We'll be tracking his progress with interest and supporting

Watch this space!

Sidse Carroll PhD, Dr Gerard Briscoe and Dr Chris McGinley - Design Age Institute Research Team

## **ENHANCING** FUTURE COMMUNITY CONNECTIVITY **FOR AGEING WELL IN PLACE**

SOCIAL **ENVIRONMENT** COMMUNITY CONNECTIVITY **TECHNOLOGICAL PHYSICAL** ENVIRONMENT ENVIRONMENT In July 2022 we started a project centred on co-designing technology and environments with older people, funded by the Dunhill Medical Trust. The Principal Investigator is Dr Chris McGinley, and the Co-Investigators are Dr Gerard Briscoe and Sidse Carroll PhD.

Suitable living environments for an ageing population require more than meeting accessibility and housing requirements. They are about contributing and staying connected to society and communities of support and interest. This community building requires the connection of different types of enabling environments, including the physical, social and technological.

In order to future-proof 'ageing in place' for our future selves, there is an urgent need to understand the challenges and opportunities of Technology Futures for increased connectivity. This equally requires a design-led approach to 'future-proofing' older people's use of technology to advance and enable desirable Technology Futures. The major objective of the project is to investigate how a people-driven and design-led understanding of technology can enhance community building, increasing social connectivity among future ageing generations.

Technology and ageing in place is often approached from a mostly health-based perspective, with smart home solutions that focus on safety, security and health monitoring. More studies are needed that focus on the use and design of technologies that target the needs and challenges of staying connected. Our aim, therefore, is to alleviate social isolation and loneliness through enhancing the connectivity factors related to later life experience.

We expect to create new knowledge in three key areas: Technology Futures for ageing populations; remote digital co-design practices from the COVID-secure methods developed in the project and comparisons to international best practices.

Research focus at the intersection of different types of enabling environments, including the physical, social and technological, by Gerard Briscoe and Sidse Carroll

Victoria Patrick - Impact Manager

### HOW CAN DESIGN SUPPORT THE NEEDS OF YOUR FUTURE SELF?

In summer 2022, a new exhibit curated by the Design Age Institute and the Design Museum invited visitors to the Museum to explore these questions and more, in a free exhibition offering insights into the live design process of six ongoing initiatives being developed by the Institute and its partners.

'The Future of Ageing' aims to showcase the ways that design and designers can help us reimagine products, services and environments that will enhance our experience of later life through a selection of prototypes, sketches, research and insights from designers, researchers and ageing individuals and communities.

Among these are 'The Centaur' – a self-balancing, two-wheeled personal electric vehicle for people who have difficulty getting around, created by Centaur Robotics; 'Gita', a handsfree cargo-carrying robot from Piaggio Fast Forward, creators of the Vespa scooter; 'Home Office to Age in Place' – a project being led by Northumbria University that aims to integrate flexible living and working space for later life as part of South Seaham Garden Village, and 'Hearing Birdsong', a digital 'audioscape' app that uses the sound of birdsong to engage visitors with their hearing health, created by design studio Kennedy Woods.

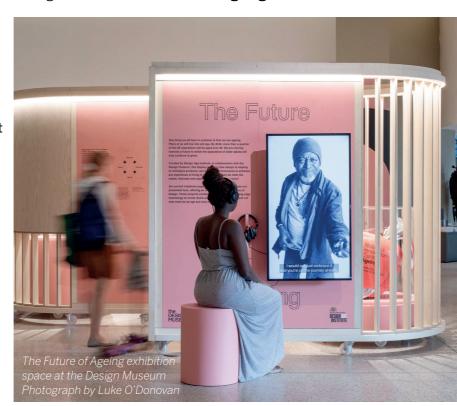
The exhibit also presents 'Growing Together', a long-term participatory project that explores opportunities for an intergenerational garden at the Design Museum, and 'This Age Thing', a community of age advocates established by the Institute in 2021.

'The Future of Ageing' not only highlights the role of designers in tackling the challenges of an ageing society, but also seeks to reimagine how we talk about getting older by platforming positive stories and experiences of later life.

A new film commission produced with Chocolate Films puts the spotlight on five inspiring individuals who are celebrating getting older and challenging the pervasive idea that ageing is primarily about decline and dependency.

Visitors to the exhibition also have the chance to pick up a limited-edition newspaper produced by 'This Age Thing', that includes an exclusive poster created by the celebrated designer Michael Wolff (who is approaching 90!).

The Future of Ageing exhibition will now hit the road, and will next make an appearance in Scotland, spending a few months at the V&A in Dundee, before returning to the Design Museum to be updated for a second London outing in March 2023. #WeAreAllAgeing





The Future of Ageing exhibition space at the Design Museum Photograph by Luke O'Donovan

George Lee - Community Lead

**POSITIVE AGE** 

**BELIEFS REALLY** 

**ARE A MATTER OF** 

**LIFE AND DEATH** 

This Age Thing newspaper

## THIS NEWSPAPER WILL CHANGE YOUR LIFE

To coincide with the launch of 'The Future of Ageing' at the Design Museum, This Age Thing has launched its first – but definitely not last – This Age Thing newspaper.

The newspaper is full of stories showing that getting older doesn't automatically mean a decline, that there are so many ways to age positively. Yes, there are challenges – as there are at all stages in our lives – but every story challenges the negative narrative of ageing, embedded in society, that so many of us have taken as the truth. It is time to declare loudly that age is not a 'problem'. That there is so much to celebrate. A greater sense of who we are and what is important to us. A richer life perspective gained through lived experience. A mature brain which explains why we are able to solve problems from a wider range of perspectives. The central poster for our very first issue was created specially for This Age Thing by a giant of design, Michael Wolff (89 years young), and NB studios. The quote they have used says it all: 'Age is an issue of mind over matter.'

As Professor Becca Levy says in the lead story, changing our attitude to ageing and encouraging more positive beliefs about age is the key to helping us live not only longer but more healthily. Not just one or two years, but an extra seven and a half years of healthy living.

You can get your copy of This Age Thing at the Design Museum until the end of September. If in the meantime you want to catch up with positive stories about ageing (and the extra healthy years which come with these) or want to get involved in helping real research into creating products, services and places to work, live and socialise for all of us, throughout our lives, then join our growing community at thisagething.co.uk

Together we can redesign a world to help us all live longer, more healthy and happier lives.

ED BY MICHAEL WOLFF (APPROACHING 90) AND NB: STUDIO 2022

## IS AN ISSUE OF MIND OVER MATTER.

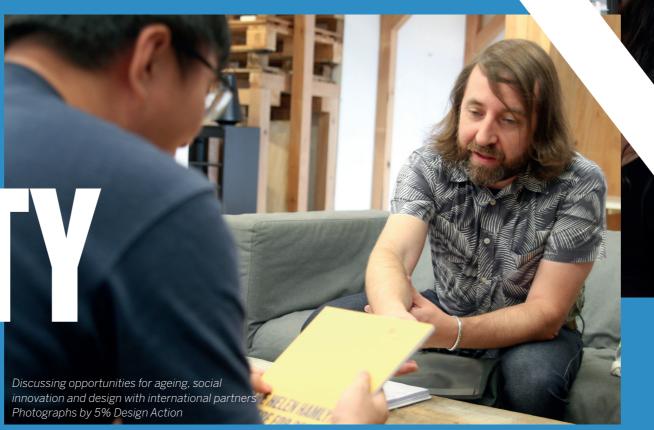
## DON'TOU DON'T MIND, MATTER,"

**MARK TWAIN** 



An interview with Dr Chris McGinley - Senior Research Fellow

# 





#### **HOW DID YOUR BACKGROUND LEAD YOU TO THE HELEN HAMLYN CENTRE FOR DESIGN?**

When I was a child my family migrated to try their luck in Canada. In our final year there I spent an extended period in hospital, surrounded by unfamiliar people, places, products and procedures – unable to move from my bed as a dying hip joint was rebuilt. Shortly after this, having returned to Scotland I underwent physiotherapy to regain strength in my leg in a geriatric ward where older people were recovering from falls, all interested in chatting with the wee boy with the strange accent and 'broken' hip. It was at this point that my interest in people-watching began. Later, my product design engineering degree found me doing compulsory design work in a shipyard in Glasgow, designing frigate deck equipment: it felt like I was designing for death. This led me to a very clear decision for the future: I chose to design for life. Inevitably I ended up at the HHCD (nearly 20 years ago). I've always felt design should be about improving lives. People and their stories are central to my approach – it's where I find most joy and inspiration, for my work and beyond. I received an RCA Fellowship for my work in the A&D space earlier this year: after two that runs through them all is inclusion: they all decades of work in inclusive design, it feels like I made a good choice.

#### WHAT DOES INCLUSIVE DESIGN **MEAN FOR YOU?**

The emphasis for me is always on real people, the real world, and all the 'messiness' that includes that's the gold – not to be ignored nor overlooked, as it is where new ideas are often found. I believe a large part of inclusive design is about exploring and embracing different perspectives and engaging those who might be considered 'nontypical', who are often overlooked in the design process. Getting out there and collaborating is crucial: actively searching for instances in which people's voices are under-represented and using design to bring them into the process is vital. Inclusive design should be rigorous, thoughtful and sustainable; it has to be about connecting, bringing people and intent together to move towards shared goals. Insight is only part of the journey however; without impact (however small) we will struggle to reach the inclusive futures we all aspire to.

#### WHICH PROJECTS IN THE A&D SPACE **ENCAPSULATE THESE VALUES?**

All of them, I hope. Although the projects for this coming year are broad and varied, the thread speak to empathy and shared intentions to make things work better for all. Areas we are working in include age spectrums; neuro-divergent younger people; later life housing; new technology; sensory diversity; medical services; accessibility and hidden disabilities. Some of the areas are truly under-explored, and the potential for positive change and tangible impact is massive.

We're engaged with partners who are genuinely as passionate about the projects as we are - which is amazing. We've connected with citizens and communities keen to work alongside us towards shared visions of inclusive futures. I'm also lucky enough to have a team of talented designers and researchers on the ground, committed to making a positive impact through design. It's going to be an exciting year.

#### WHAT ARE YOUR AMBITIONS FOR A&D AND WHAT'S COMING UP NEXT?

It's difficult to single any one project out, as we have a collection of brilliant projects this year. I am very excited to reconnect with the Guinness to deliver than dialogue, so tangible impact is Partnership, through a new project funded by the central to our future ambitions and we hope to Dunhill Medical Trust to develop suitable living environments and communities for an ageing population – you can read about it further in this publication on page 20.

My ambition is for inclusive design perspectives to be present at every level of decision-making. To make this happen we'll continue to engage in dialogue at all levels, from our own talented student body to leaders in industry. I want to ensure that inclusive design methods and approaches are the go-to tools for co-constructing understanding and for influencing positive and sustainable futures through design action.

The Age & Diversity research space was named in a deliberately broad way, with no hard boundaries or limits, as the conversation is a dynamic one. I'm keen for us to bring people together to move the inclusion agenda forward, and to ensure that our own team continues to learn and grow. We are open to all, and I invite people to reach out to us: community is key, and only when we are brought together can we truly create positive change. Although the term 'inclusion' is increasingly prevalent, I've worked in this space long enough now to know we're far from finished. Action is far more difficult work together with others to create a genuine impact on the world in positive and inclusive ways.

Dr Cecilia Zecca - PALLS Postdoctoral Research Associate

### IONEERING ARCHITECTURE FOR LATER LIFE SECTOR

notions of care provision, economic dependency and imply an unproductive population, which may generate inequality and inconsistency in policy agendas.

Stereotypes of the ageing population have contributed to negative perceptions of older people, framing this category as a threat to the future rather than an achievement of the modern era.

Despite the fact that UK policy encourages the inclusion of older people, there is still a lack of knowledge and intervention in relation to how people experience the space both outside and inside their homes. In the last 25 years there has been a tendency in the UK to marginalise elderly groups in institutionalised buildings, and as a result segregation has doubled during this period.

As the Future of Housing has observed, accessible homes, well connected with the neighbourhood, would keep older people active as well as ensuring more interaction with younger people, exchanging cultural values.

The pioneering Architecture for Later Life Sector research project, carried out in collaboration with the award-winning architects Cartwright Pickard, aims to develop an inclusive, socially and economically sustainable housing model in towns and city centres, challenging the stereotypical representations of the third age and avoiding segregation by age.

Images of older people are often associated with Challenging the common strategy of basing market models on assumptions, maximising the development of housing and designing at minimum standards, we argue that we urgently need to better understand people's needs and to include a range of other spatial qualities in architectural projects that will improve the human experience first, and the performance of the space later.

> The codification of inclusive and empathic methods in architecture can become an effective practice to improve the sensory and emotional experience of the space, as well as providing the opportunity for more social interaction.

How can these principles be pragmatically translated in architectural practices?

Considerations of empathy and inclusivity lead to these main concepts:

- To provide social and spatial connectivity which can restore the sense of belonging to a place.
- The deinstitutionalisation of a building can be achieved by creating a better relationship with the outdoors and by designing more spaces for people to spend time in.
- To provide sustainable design through an affordable 'build to rent' model and through a more self-sufficient building with reduced energy costs and wastage.
- To provide more accessible levels of care, as well as spaces that enable more balance between wellbeing, social engagement and personal life.



Participant in an in-depth interview

In other words, we propose an inclusive design approach for housing models that enhance social values and that can be fully experienced by different kinds of people of all ages.

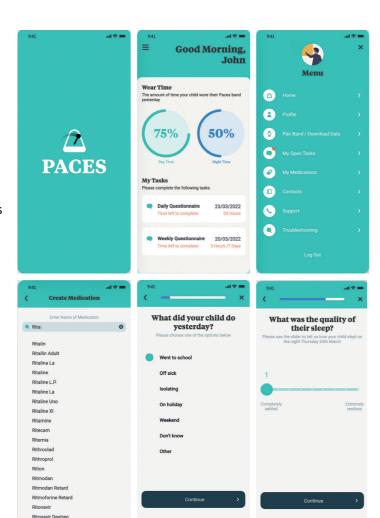
PALLS project site visits in 2022



### **PACES**

The PACES project, in collaboration with King's College London, focuses on ADHD (Attention Deficit Hyperactivity Disorder) in children. This common condition affects 1 in 25 people, who can experience impulsivity, inattentiveness and hyperactivity. Half of children diagnosed with ADHD require medication, with the resulting side effects and impact needing to be closely monitored. Currently, ADHD symptoms are tracked via paper-based questionnaires, with results often being subjective, potentially leading to inaccurate results.

The team is working to develop the world's first objective ADHD measurement tool, the PACE Band. A companion app has been developed, linking to the band to track the hyperactive activity of children. This combined system aims to monitor children's movement, helping to determine the correct levels of medication to help effectively manage their ADHD. Currently in the third year of a four year study, they are about to test the band with newly diagnosed cases of ADHD. 150 are being manufactured for trial in September 2022.



PACES app portal for patients

Katie Gaudion

Dr Katie Gaudion - Senior Research Associate

### HAVE A **CUP OF TEA** AND PARK THE RESEARCH HAT

I am currently working on a project called 'Believe in Us', with people with learning disabilities, autistic people and healthcare practitioners, to explore ways to improve health and social care services. An important aspect of this project is to explore different ways to meaningfully connect, build trust and form relationships with one another: the most important part of any design project. Throughout my design career I have found that connecting and building trust with people can be difficult. Embracing my vulnerable side has helped me with this, which researcher Brené Brown would say is the gatekeeper of connection.

I have spent many years trying very hard not to appear vulnerable, seeing it as a sign of weakness that could lead to uncertainty and failure. But what designing with people in different contexts has taught me is that being vulnerable is the most important tool that any designer can have. Being vulnerable helps us to be open and authentic, and to meaningfully connect with others. Being vulnerable helps us to empathise with people and enables us to understand ourselves and share moments that others can relate to.

That being said, being vulnerable, or showing our vulnerable side, is not always that easy. It can feel uncomfortable. But it is about embracing the comfortable in the uncomfortable. I have learnt that getting together over a cuppa is a great leveller and place to start practising. A cup of tea creates a moment where we press the pause button, shake off our job roles (our research hats) and start to connect with each other through different aspects of ourselves. From my experience it is a moment where people feel more at ease and relaxed and therefore happier to share and open up to each other, something which is vital for any successful inclusive design project.

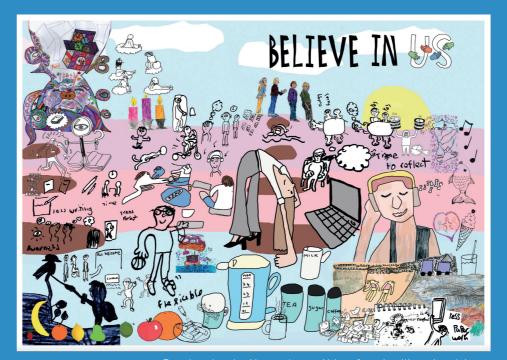
Students often contact me for advice on how to engage with different people for their design projects, and my advice is to have a cup of tea together and, if possible, park your research hat.

Believe in Us is a project that seeks to improve The Believe in Us project is currently in its second health and social care services through coyear. Three co-design teams have been formed design processes led by people with learning where people with learning disabilities, autistic disabilities and autistic people. The project people and health and social care practitioners is grounded in a new visionary collaboration are working together at monthly Design Jam between NHS staff and disabled people who use sessions. The Design Jams involve creative NHS services in Greenwich. Within the Believe activities exploring themes such as design, in Us co-design process, lived and professional research, care, and positive change. We are at experiences are shared, decisions are made an exciting stage in the project, where each collectively, relationships are re-contextualised design team will focus on a theme or a particular and health and social care services are radically aspect of health and social care services that is important to them and work together to codesign new ways to make it better.

Dr Katie Gaudion - Senior Research Associate and Dr William Renel - Research Associate

BELIEVE IN US

reimagined for the better.



**Dr Chris McGinley – Senior Research Fellow** 

## HOMES FOR HEALTHY AGEING

Homes for Healthy Ageing is a testbed initiative being undertaken by the Connected Places Catapult, targeting UK businesses and innovators with solutions they want to develop, trial, and showcase in real-world environments.

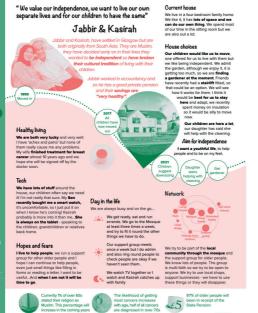
In collaboration with the Helen Hamlyn Centre for Design, over two six-week engagements a selection of diverse living experiences in relation to healthy ageing in the UK were investigated, captured and communicated. The outputs were not exhaustive, but were instead intended to stimulate conversation, highlighting diverse individual experiences, conveying the messiness that is commonplace in lived experience. These were used as part of briefing materials to inspire the companies engaged in the initiative to dig a little deeper when considering how people actually navigate later life experiences within their homes.

The conclusion of the research presented the lives of a cohort of UK-based older people from a range of diverse backgrounds, geographies, cultures and lifestyles, and included their needs, desires and hopes. The material was presented through a bank of personal stories, created through combining primary research into individual experiences and cross-referencing this against broader demographic data, to produce detailed yet accessible design ethnography stories that spoke to individual experience and UK-based trends.





Images from the Homes for Healthy Ageing Report





Dr Gerard Briscoe - Research Fellow, Design Age Institute

## TECHNOLOGY FUTURES FOR AGEING SOCIETIES

Icons representing future technologies that relate to the Iongevity economy by Gerard Briscoe

The Longevity Economy of ageing societies was recently estimated to generate nearly £11 trillion of economic activity, and there is considerable interest in emerging digital technologies that would bring living 'longer' closer to living 'well'. While this promise is inspiring, older people are rarely consulted in digital technology development, and the Longevity Economy has an inherent duality: the majority of older people have diverse functional capacity, and only a minority are disabled. Acknowledging this duality leads to age-friendly design in the development of mainstream digital technologies, moving beyond medical products to aspirational age-inclusive design. However, this requires

a better understanding of the relationship between emerging digital technologies and the future needs of older people in the Longevity Economy. We therefore considered Technology Futures, specifically age-inclusivity, through an enhancement model for the development of mainstream digital technologies —enhancing the lives of people of all ages with diverse functional capacity, inherently providing support for those with differing ability resulting from age or disability. We then identified emerging digital technologies significant to the inherent duality of the Longevity Economy. We have presented our Technology Futures Roadmap in the Design Age Institute chapter of this publication.

The Healthcare Research Space saw another spate of major change over the last year. Elbowdeep in grappling with questions about the impact of inclusive design on frontline healthcare the newly emerging challenges of humanising - How can we reduce the impact of Covid-19? How can systemic design address immediate and longer-term needs of UK health and care systems already operating in environments of scarcity - too few staff, too few beds, buildings unsuitable for effective infection control? - we also faced internal disruption.

Jonathan West aka Jonny West, Senior Research Fellow and Healthcare Design Lead, embarked on a two-year sabbatical with Flomark Ltd in June 2020, having worked for 16 years within the healthcare design space.

#### Flomark: Redesign of the Hospital Drip

Jonny West and colleagues had spent time rapidly prototyping and bench testing over 100 designs to develop a new hospital drip that would easily, intuitively and reliably show the flow rate of a drip. The result is a patent pending device - Flomark - which clearly shows fluid level and flow rate, thereby removing the need for human intervention and saving nurses valuable time.



#### **Project Researcher for Healthcare**

Filling Jonny West's shoes was no mean feat. We did some rethinking and reorienting around 21st century healthcare in the context of the home, hospital, community and beyond. In January 2022, we were thrilled to offer the new position to Tom Stables, an RCA Product Design alumnus. During this short time Tom has worked with our partners in industry, government and third sector developing projects ranging from the role of Artificial Intelligence in developing inclusive and ergonomic design solutions for back pain, to a collaborating with the School of Biological Sciences at Queen's University of Belfast, in submitting a proposal to mobilise community-based assets to tackle health disparities.

Research Associate Indira Knight

### TOM STABLES

I am a graduate of RCA Design Products and I was a research associate at the the Centre for three years. I am now rejoining the centre after nearly a decade away.

In the interim I have worked as a multidisciplinary designer, following my interest in people and their experiences rather than a particular genre of design. This interest has led me to work predominantly in healthcare design, where experiences can be particularly rich, challenging and interesting. Health events happen to people, so the solution should feel like it's happening with them. I find that the starting point of a situation a person did not choose and a product or service they perhaps don't want, is full of potential and is one where design can have a meaningful impact. Projects have included a communication app for people in intensive care and the design of the first GP surgery solely for 13-19-year-olds.

In the healthcare space at the HHCD, as part of the broad aim of humanising healthcare, we are focusing on three key areas to improve the experience of people delivering and receiving healthcare; the role of language, the role of technology and the role of the environment. Language is important, as a person's ability to treat someone is based on that person's ability to articulate their experience. The ways we communicate are changing and becoming more visual: could healthcare reflect this better? Technology is a key part of modern healthcare, so we Tom Stables

are looking at how digital therapeutics can be integrated into traditional healthcare models, and how Al and machine learning can impact the delivery of healthcare and help create new methods of healthcare research. Environment has an impact on the wellbeing of the patient, their family and healthcare professionals, so we are looking at how all perspectives can be considered.

I am also working with Dr Melanie Flory, Associate Director Research, psychologist and neuroscientist, to create research frameworks in which we test design interventions to understand and build new applications of motivation theory. This could have a real impact on any healthcare delivery that relies on motivation to be effective, such as taking medication or engaging with physiotherapy.

Jonathan West - Senior Research Fellow

**GAMECHANGE** 

The Centre has played a key role in developing a virtual reality (VR) treatment for people using psychosis services. The gameChange VR programme represents the largest-ever clinical trial of VR for mental health – one of the first such treatments to reach this stage.

Led by researchers at the University of Oxford, gameChange is designed to help people diagnosed with psychosis re-engage with dayto-day activities. A series of carefully designed everyday environments simulated in VR allows users to experience common activities in a controlled way.

RCA Research Associate Indira Knight led research which placed people with lived experience of psychosis at the heart of the design process, gathering over five hundred hours of feedback and publishing the methodology in the peer-reviewed Design for Health journal.

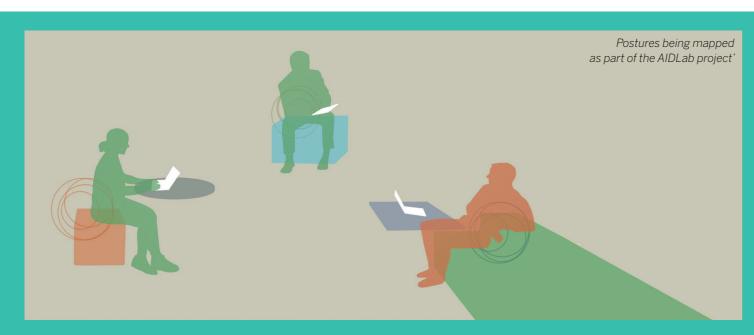
Research published in The Lancet Psychiatry details that treatment with the gameChange programme led to significant reductions in the avoidance of everyday situations: patients who found it hardest to leave the house were able to undertake activities they had previously found unthinkable, which were maintained at a sixmonth follow-up.

Funded by the National Institute for Health Research (NIHR), it's hoped the gameChange programme will widen access to effective psychological therapies.

## HEALTH CREATION: RACE EQUALITY AND INCLUSION

In October 2021, Rama Gheerawo was invited to take part in a webinar panel produced by SALUS TV, talking about the role of design in addressing the challenges of race, equality and inclusion to support a healthy and health-creating society. Hosted by Lord Nigel Crisp, co-chair of the APPG on Global Health and former Chief Executive of the NHS between 2000 and 2006, the panel explored ideas from his book, Health is made at home, hospitals are for repairs, published by SALUS Global Knowledge Exchange, one of

the core healthcare partners for the Centre. This was part of a series of webinars exploring health creation in connection with topics such as housing, design, community and environment. This session also featured Yvonne Coghill a former NHSE lead on race talking about the new NHS Observatory on race and health and Professor Sian Griffiths, former head of the Public Health Department Chinese University of Hong Kong, together with Rama who drew upon on his work in Creative Leadership.



Rama Gheerawo - Director

# INCLUSIVE DESIGN MEETS ARTIFICIAL INTELLIGENCE

The Royal College of Art (RCA) and Hong Kong Polytechnic University (PolyU) came together in 2019 to create the Artificial Intelligence Design Laboratory (AIDLab). This is the world's first and leading research facility championing the integration of Artificial Intelligence (AI) into the design of products and services. It addresses industry demands for efficiency, automation and the customisation of products and services. Its research deliverables will support industries that include healthcare, manufacturing, hospitality and retail services.

For one of the RCA-led projects, the Centre has teamed up with Dr Ali Asadipour and his team at the College's Computer Science Research Centre to initiate a significant research inquiry that brings

Professor Jeremy Myerson - Helen Hamlyn Professor of Design

# The Healthy City Design In is an annual partnership be Hamlyn Centre for Design Knowledge Exchange. It is a wide range of public heal urban planning professional researchers and policy-marks.



The Healthy City Design International Congress is an annual partnership between the Helen Hamlyn Centre for Design and Salus Global Knowledge Exchange. It is dedicated to bringing a wide range of public health, design and urban planning professionals together with researchers and policy-makers to explore how interdisciplinary collaboration can support the development of healthier, more sustainable urban centres.

Helen Hamlyn Professor of Design, Jeremy Myerson, is the academic convenor, co-organiser and chair of the Congress, which took place on 11-14 October 2021, in a virtual format due to the pandemic. Its theme was 'Back from the Brink', focusing on how cities are fighting back to become more resilient after the impact of COVID-19. Almost 400 people, from 30 countries, participated over four days, with over 100 talks in 36 sessions across different time zones. On 10-11 October 2022, the Congress returns in a face-to-face format to the Royal College of Physicians in London with the theme 'The Next Frontier: Diversity, Inclusivity and Opportunity for All'. Several HHCD researchers will be presenting alongside international experts at this event, and HHCD Director Rama Gheerawo will be giving a keynote address, 'Creative Leadership for the Healthy City'.

Al technology and inclusive design processes together. Incorrect posture can lead to severe musculoskeletal spine conditions and disorders at work. This is one of the leading causes of injury in modern industry, that brings significant impact to both employers and employees. In addition, we have adopted new ways of working through the pandemic and use our homes, coffee shops, and offices in emergent ways.

This project focuses on mapping postural behaviours in the 3D environment using novel sensory solutions to assess the effects of incorrect posture on workplace wellbeing and general health, and to suggest personalised interventions. Through an inclusive design approach, we will understand the issues and create solutions that

reflect people's needs and lifestyles.
In recent years, machine learning has been shown to outperform classical computational methods in various applications. However, our preliminary review highlights a lack of accurately modelling posture in 'real life' scenarios rather than laboratory environments. This is key in maintaining privacy when delivering personalised healthcare experiences.

The project will use advances in AI to assess the needs of back pain sufferers to understand the physical and cultural context of their situation and create 'behaviour-enhancing' design ideas to support our twenty-first-century lifestyles.

# DESIGN FOR BUSINESS

Dr Ninela Ivanova. Photograph by Petr Krejči "DESIGN HAS ALWAYS CREATED PROSPERITY. IT DRIVES GROWTH, EXPORTS, AND PRODUCTIVITY. WE ALSO KNOW THAT DESIGN HAS SIGNIFICANT SOCIAL, CULTURAL, ENVIRONMENTAL, AND DEMOCRATIC IMPACT. TODAY, WE NEED TO ENSURE THAT DESIGN IS AT THE HEART OF A GREEN AND EQUITABLE ECONOMY."

- Minnie Moll, CEO, Design Council

Thus reads the foreword to the new Design Economy report, recently published by the Design Council to demonstrate the social, environmental and economic value of design in the UK. It speaks directly to the call from governments, the World Economic Forum, and top management institutions for design-led, people-centred and collaborative approaches to tackling the pressing and complex challenges we are faced with post pandemic.

At the Helen Hamlyn Centre for Design, working with business and industry has always had the objective of delivering human value and benefit through the products and services we design. This past year, we have worked closely with our clients and partners, using design thinking and practice, to enable them to achieve the impact that they are seeking to create – internally for their organisation, and externally for their communities and client groups.

The projects that are presented in this section demonstrate the various ways in which inclusive design research and practice can open up innovation opportunities and create pathways to impact: from defining a new topic of strategic importance to a sporting goods company – through bringing stakeholder groups together to scope how virtual reality can serve communities better – to working directly with staff to grow the innovation capability of a utilities company.

Our key takeaway from this work is this: The value of the project outcomes, and their potential for impact, are only as good as:

- the people you bring around the table;
- the rigour and integrity with which you design,
   plan and prepare for delivery; and
- the openness, flexibility and creativity, with which you allow ideas, interactions and insights to flow, morph and unfold.

## THE FUTURE OF BETTERMENT

Many companies saw the Covid-19 pandemic as an opportunity for innovation and development of new business models around innovative ways of thinking about products and services. In exploring what inclusive design can do to enable companies in their pursuit of business impact, we have seen a real shift towards future-focused, visionary and conceptual briefs, alongside our more traditional inclusive design projects.

This year, we were approached by a Global Sporting Goods Company to bring inclusivity thinking and design to their strategic work around the future of sport. The question at hand was:

What is 'human betterment' and how can it inform the next generation of sportswear products, services and business models?

A team of three design researchers – Indira Knight (creative technology), Madelaine Dowd (social innovation) and Stiliyana Minkovska (design for healthcare) – worked on a ten-week scoping study to define 'human betterment' and map key concepts, central themes, processes, factors, stakeholders, and innovation opportunities emerging in this space.

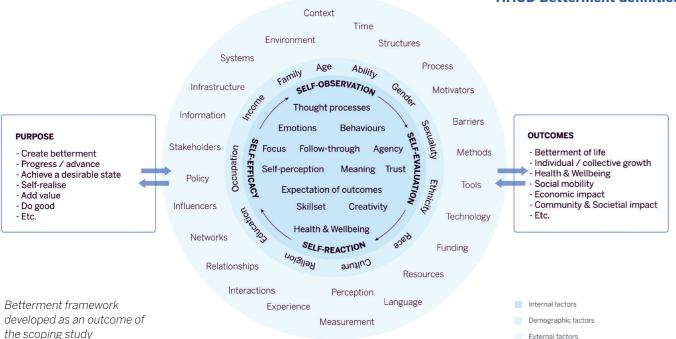
The project uncovered few existing definitions of 'human betterment', which were predominantly in the areas of economics and social welfare.

Developing a definition for betterment, that is relevant to sport and sportswear, was considered imperative in enabling the Sporting Goods

Company to create opportunities for human betterment via its future products and services, in different contexts and at various scales.

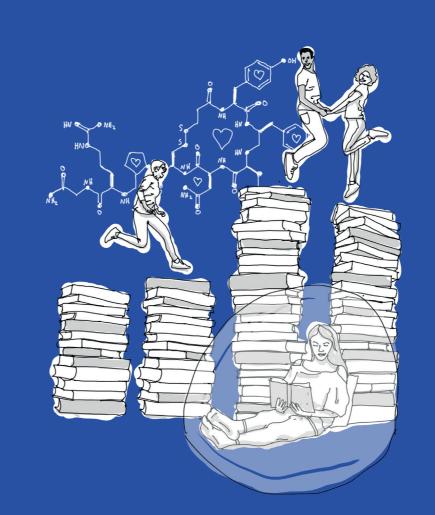
Betterment is a value, a process and an outcome of individual, collective and societal development. It is inherent in us as human beings. The process starts with observation and evaluation to inform oneself about what and where change needs to happen to achieve a desirable state. In other words, it is a pursuit to exceed the current (self-defined) state of being to a preferable one, to selfrealise. In bettering from one state to another, individual components, or a group of components, become the target of thoughts, behaviours, tools and processes for change. Whilst betterment appears goal-orientated, it has the overall objective to seek and create value - the best quality of life one can have at any given point in time. Through the pursuit of individual betterment, one also becomes a conduit for community and societal betterment. The purpose of betterment is to create betterment.

- HHCD Betterment definition



Dr Ninela Ivanova - Innovation Fellow

## INCLUSIVE DESIGN FOR A VIRTUAL LIBRARY PILOT: READ, LEARN, CONNECT



Oxytocin Hits for Fun and Pleasure: concept design for the Virtual Library pilot developed by workshop participants. Illustration by Louise Lenborg-Skajem, RCA MA/MSc Global Innovation Design Business impact equals social impact. This is well evidenced by a scoping project we delivered for the City of Westminster and the Royal Borough of Kensington and Chelsea. The aim of the project was to outline key inclusive design considerations that would inform the development of a virtual library, to complement and advance the service provision of the nineteen physical libraries across the two boroughs. The wider vision for impact was to drive equality across the bi-borough communities as the most inclusive library service in the UK.

The core delivery team included Gail Ramster (Senior Research Associate: Inclusive Design for Social Impact), Indira Knight (Design Researcher and Creative Technologist) and Dr Ninela Ivanova (Innovation Fellow and project lead). Furthermore, the project presented a fruitful opportunity to bring together the diverse expertise of the Helen Hamlyn Centre for Design and our networks across inclusive design, accessibility, neurodiversity, service design, and technology futures amongst others.

We ran a three-part series of workshops with the local community, designers, and technology experts, to blueprint the virtual library and explore a range of scenarios for the pilot design, which is now progressing towards prototyping and delivery.

## **CREATIVE LEADERSHIP** FOR INCLUSIVE INNOVATION

#### **GROWING INNOVATION CAPACITY FROM WITHIN**

The Helen Hamlyn Centre for Design has been delivering bespoke executive education and open masterclasses in Inclusive Design, Design Thinking and Creative Leadership for over a decade. Building on this legacy, this year, we designed and delivered a bespoke sixmonth programme on inclusive innovation for Northumbrian Water Group (NWG).

NWG is an organisation that places inclusion, innovation and impact at the heart of their business thinking and work delivery. This is why we were delighted when Angela MacOscar (Head Inclusive Design. of Innovation) and Eddie Wrigley (Innovation Facilitator) invited us to train 34 innovation leads 
The six innovation briefs explored ideas and from across the organisation in two of our core competencies and pillars: Inclusive Design and Creative Leadership.

The course was led by Rama Gheerawo, HHCD Director, and Dr Ninela Ivanova, Innovation Fellow. It ran between January and June 2022, with a flexible format of live workshops and a virtual learning environment for independent study, to offer optimal learning experience and outcomes. Course facilitators included inclusive designer Ivelina Gadzehva and RCA graduates Stiliyana Minkovska (MRes Healthcare Design) and Hemal Dias (MA / MSc Innovation Design Engineering).

Dr Melanie Flory, HHCD Research Director and Founder of neuroscience-based consultancy MindRheo, delivered keynotes on the neuroscience of Empathy, Clarity and Creativity to enhance participant understanding and practice.

A core component of the programme was an inclusive innovation challenge, which took place over twelve weeks following the design thinking "double-diamond" innovation process.

The overarching theme for the challenge was 'Pitstop Projects'. This was inspired by a Formula 1 video in which clear purpose, optimal design and teamwork allow the F1 Red Bull Racing team to change the car tyres in two seconds.

Participants were divided into six teams. Each team identified an area of their work in NWG that they would like to "pitstop" through the values and processes of Creative Leadership and

solutions that would enhance business impact, both internally for NWG staff, and externally, for NWG customers and communities.

Employing an inclusive design thinking approach and embedding the values of Creative Leadership throughout the innovation projects. from defining the problem to final designs, proved challenging but fruitful.

The programme offered a new way of thinking about work, innovation and impact delivery. Participants report that they are already using the design tools and processes in their daily work and that they are committed to implementing the ideas in practice across NWG.

#### Wider Collaboration

The Creative Leadership for Inclusive Innovation programme is part of a wider ongoing collaboration between Northumbrian Water Group and the Helen Hamlyn Centre for Design. This includes an annual Northumbrian Water student award for Inclusive Innovation (see p.51) and us joining NWG's Innovation Festival as an Inclusive Innovation Partner on their Better Bills design sprint in July this year.

"We went into the training with a degree of nervousness - we were asking 34 of our leadership cohort to take time out of their busy schedules to engage and explore important topics (inclusivity, innovation and leadership) in a novel way - and we were delighted with what happened! The **HHCD** team delivered sessions in an engaging and inspirational style, which really sparked the energy and enthusiasm of the cross-disciplinary teams when it came to the Innovation Projects. You could feel the pride in the room when they presented their results, and it's been a joy to see our colleagues grow in confidence as they embrace the core concepts of empathy, clarity and creativity."

> - Angela MacOscar, Head of Innovation & Eddie Wrigley, Innovation Facilitator, Northumbrian Water Group

NWG participants during the final (hybrid) event of the programme. Photography by Ezzidin Alwan.



- Design solutions to make the transition to hybrid working and return to the office more inclusive and enjoyable
- A novel programme for enhancing employee experience and advancing career progression
- A knowledge transfer platform for new managers
- A series of solutions to supercharge NWG's workforce diversity through more inclusive recruitment
- An inclusive approach to better gather customer data
- A campaign to Increase sign-ups to NWG's Priority Services Register which supports vulnerable customers.



As inclusive design becomes more embedded in the global landscape of design, and as issues of equity, diversity and inclusion are foregrounded, the application of our methods and tools become increasingly important in creating social impact.

In the three-pillar model of sustainability, where environmental and economic factors are more prominently addressed, we see inclusive design as playing a role in addressing social factors. Understanding social sustainability is key, and frontline understanding is very much part of the design lexicon.

Building on projects with communities in China and focusing on maternal health in Mozambique, we are starting to engage with organisations that have adopted approaches of social sustainability. Language is still being defined, as are the tools, methods and principles.

Our interest in social impact applies the peoplecentred principles of inclusive design to tackle systemic global challenges that include health, mobility, sanitation, energy and situations where people are marginalised. Our belief is that inclusive design can be applied to a global view, and that it should continue to do so. Dr Katie Gaudion and Gail Ramster - Senior Research Associates

## INCLUSIVE DESIGN: IT'S NOT EASY

When we hear the term 'inclusive design' we might think of participatory design, removing barriers, design for all, usability and accessibility. What we don't often hear are words like 'confusing', 'challenging', 'messy', 'complex', 'vulnerable' and 'uncomfortable'. These are all things we have experienced whilst 'doing' inclusive design, particularly when things go wrong. Inclusive design is not easy, and we want to share with you and open up the discussion and thinking around the 'not so easy' side of inclusive design, to keep learning and improving.

**Gail:** We were asked to find out why young people weren't using the local community centre. But to do this, we needed to talk to teenagers ourselves. This felt like a flawed proposition: 'how to engage young people to ask them why they don't want to engage'.

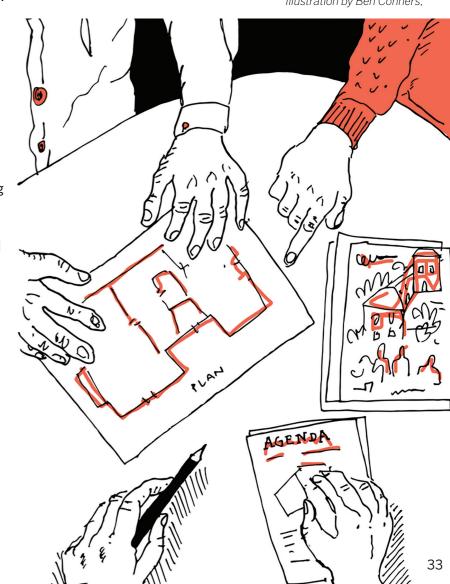
In community design projects, the initiators are often keen to talk to those who aren't taking part. But we've learnt the importance of valuing 'the usual suspects', too. We don't view them as an easy win that allows us to tick the consultation box 'done', but as active citizens and gatekeepers who, if they share our inclusive mindset, can bring their knowledge and networks to build trust and link us directly to the 'hard to reach'. The next time we wanted to talk to young people, we found someone with links to the school. Playing to our strengths, we delivered a bespoke Year 10 Art & Design class, starting a conversation about what they would like to see in their neighbourhood.

**Katie:** I knew something wasn't quite right the minute David entered the workshop: he looked uncomfortable with the sound of the fan and the group of unfamiliar people. The room suddenly felt too small, the chairs (particularly in David's case), too close together. David didn't stay for long as the whole experience of a group participatory workshop was too overwhelming for him. I felt uncomfortable and so guilty that I had created a workshop that did not consider

David's needs. This experience taught me that some 'go-to' co-creation methods – for example, a participatory workshop – may be neither appropriate nor as possible as the 'inclusivity' imperative assumes, and that at times designing remotely and with someone's familiar support circle offers an effective way round this.

We think we know what 'inclusive design' means, but this doesn't always mean including everyone, all the time. This can change depending on who you are. We'd love to speak to different people to understand more holistically what 'inclusive' means to them. Once we understand this better, maybe inclusive design, with this new approach, will feel easier.

Participatory workshop, Illustration by Ben Conners,



Professor Jo-Anne Bichard – Professor of Accessible Design and Gail Ramster – Senior Research Associate

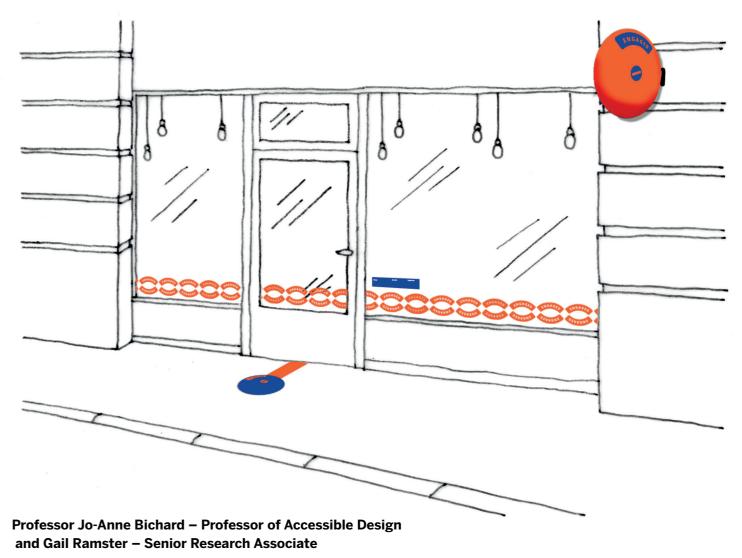
### PUBLIC TOILETS RESEARCH UNIT

The Public Toilets Research Unit undertakes inclusive and people-centred design research to improve toilet provision for all. The PTRU is co-led by Professor Jo-Anne Bichard and Senior Research Associate Gail Ramster. Their outputs include the award-winning Great British Public Toilet Map, the InnovationRCA spin-out company Public Convenience Ltd and TINKLE (Toilets Innovation and New Knowledge Exchange), a web-based resource that connects people to peer-reviewed papers, guidance on public toilet design, and experts in the field of public toilets research, design and British Standards. Jo-Anne and Gail are currently preparing a book, titled Designing Public Toilets: A Case for Inclusivity, to be published by Bloomsbury in 2024. The book will be drawn from their collective three decades of research into the successes and failures of public toilet provision and design. Designing Public Toilets will highlight the dilemmas many people face when leaving

home and needing to use the toilet on journeys to work and when taking part in leisure activities, as well as day-to-day toilet needs such as just popping to the shops on local high streets. The book will stress how greater consideration must be given to the design of public toilets, not only to meet the physical challenges many people face when using the loo, but also the cultural and social requirements of undertaking this private activity in public space.

In 2022, Jo-Anne and Gail delivered online presentations on the work of the PTRU to Uber and Crisis; Jo-Anne was invited to talk about the PTRU's work at an in-person event held at the Japanese toilet company Toto's London showroom for the Clerkenwell Design Festival, and Gail presented the PTRU's current research project, 'Engaged', at the 'Sustainability Means Inclusivity' festival in Norrkoping, Sweden.





### **ENGAGED:**

## A PUBLIC TOILET ON EVERY HIGH STREET

In the past year, Gail and Jo-Anne have been joined at the Public Toilets Research Unit by HHCD Research Associates Dr Rosanna Traina, Indira Knight, Madelaine Dowd and Maurizio Mucciola from PiM Studio Architects on the project Engaged.

Engaged is one of 20 projects that make up the Mayor of London's Designing London's Recovery programme in response to the 'High Streets for All' mission. The program is supported by CUSSH, the Design Council, LEAP and the RCA's Research and Knowledge Exchange department.

Engaged recognises that people are at the heart of the high street, but public toilet provision is essential for them to spend more time participating in local community activities and the local economy.

Graphic design for the Engaged project signage and brand identity by Amy Etherington

The experts have identified several barriers that Engaged will need to plan for, including:

- Economic sustainability for long-term provision
- · Conflicting needs of Engaged toilets and neighbourhood businesses
- · Legal and bureaucratic issues restricting adaptations to buildings
- · Finance and set-up
- Negative perspectives on public toilets
- Managing ongoing anti-social behaviour issues

However, our experts also responded positively to Engaged on the basis that it had the potential to:

- Support regeneration, local businesses and tourism
- · Generate local revenue
- · Make use of vacant units and the existing facilities
- Make toilet provision more accessible and inclusive
- Mitigate anti-social behaviour issues
- · Reduce public urination and defecation
- · Establish a successful model that others can build on

As well as addressing these concerns and possibilities, Engaged will propose design principles that include:

- Inclusive Gender-based principles
- Space for other uses such infant feeding.
- Ease of maintenance and cleaning
- Wayfinding and branding
- Accessible features for physical and neurodiverse needs
- Safety, by including 'design against crime' elements
- · Sustainability, including water reduction and reuse

The researchers have worked closely with local and national stakeholders to understand the current barriers and issues surrounding public toilet facilities. This has included a workshop with 13 London regeneration officers, 10 expert interviews and two site visits to explore the realities of provision on the ground.



Paul Murphy

## **INCLUSIVE FASHION**

One of the areas that inclusive design has struggled to reach is the world of fashion. Despite a recognition of human diversity across age, ability, gender and race, that is more prominent in other fields of design, such as products and services, the world of fashion remains largely unengaged.

In 2021, renowned designer Sue Timney, whose clothes and interiors have received global acclaim, started working with the Centre to change this attitude. In autumn 2021 a Design. Fashion event was held, headlined by Zandra Rhodes, Stella McCartney and Harris Elliott. Alongside presentations from four RCA students and graduates, they spoke about the need for a more diverse approach, not just to the way we preconceive everything that the word 'fashion' conjures up - but how this preconception also then colours the work and thoughts we may have in the context of this term.

There was discussion about the way we think about 'fashion' in our world today, and whether a more appropriate word might be 'style'. Fashion is of the moment, it is temporary, whereas style, or indeed body style, endures and is perhaps more timeless. Body style helps us to signal what we want to say, about ourselves, our bodies, our feelings, our intentionality, and is a core expression of who we are. Our work on inclusive body style is just the beginning. Do watch this space!

signage and brand identity by Amy Etherington

Graphic design for the Engaged project



Engaged is investigating how to reuse empty premises as public toilets, sharing space with business or community initiatives to provide public health infrastructure and support high street regeneration.

During the summer of 2022, Engaged are running a programme of community co-design activity to develop a proposal for one London high street. The Engaged project continues until the end of 2022. Please see TINKLE and the Public Toilet Research Unit's webpage for the final outcomes and findings of the project.



Concept render of Engaged pop-up structure in Hackney, Mare Street Toilets by Madelaine Dowd

## FUTURE LEADERS



Salisbury won the 2021 Mayor of London Award for Health and her PowerBead is patent-pending with a strong Freedom to **Operate Report. The PowerBead technology** has received interest from private clinics within the UK and the USA, a major London hospital and global media, including The Times and the BBC.













## WEARABLE **MEDTECH LAB**

Headway East



2021 was an exciting and busy year for PhD candidate Laura Salisbury. Salisbury managed to win the Mayor of London's Entrepreneur Award, receive her doctorate, secure a £1.2m UKRI Future Leaders Fellowship award and launch her Wearable MedTech (WMT) Lab at the Helen Hamlyn Centre for Design, without breaking a sweat!

Dr Salisbury's practice-based thesis and her smart textiles start-up, KnitRegen focus on developing wearable physiotherapy to aid post-stroke recovery by combining expertise in technical textiles, neuroscience and material science. Motor and neurological recovery are vital to regaining movement by targeting specific neural pathways in the brain. Salisbury says, 'With incidences of first-time stroke set to double worldwide in the coming years, delivering effective treatments that are intuitive, easy to use and which fit easily into daily life, is a top priority.'

The WMT Lab's core team are designer and garment technologist Dr Laura Salisbury, psychologist and neuroscientist Dr Melanie Flory, and soon to join materials scientist and smart textile researcher, Dr Gopika Rajan, whose expertise is in graphene technology and developing lightweight and washable e-textiles is a welcome addition to the team, which is set to grow.

The WMT Lab is firmly founded on HHCD's people-centred inclusive design approach.

This approach shapes the research and design thinking every step of the way. In exploring, developing and designing materials, technology, and garments, the capacity of design to acknowledge identity and behaviour, imbue a sense of belonging, empower people and provide choice in their own healthcare, is the foremost consideration. Even in the excitement of the challenge to reduce recovery time and enable a better range of recovery in comparison to current healthcare outcomes, a people-centred approach takes precedence over materials or technology.

Our work to boost motor recovery by designing nanofibre yarns and novel 'bead' structures - the PowerBead – to be incorporated within everyday familiar garments is underway. Salisbury's PowerBead is patent pending, and its research and commercialisation journey will continue via the WMT Lab and KnitRegen.

The WMT Lab has demonstrated that the current PowerBead device successfully elicits muscle response in healthy and stroke-survivor participant groups that have been tested to date. This presents a very promising prospect for the PowerBead to potentially influence preventative as well as treatment opportunities. Many questions remain, although recent testing has uncovered potential additional benefits, specifically to stroke survivors with severely reduced upper limb sensation, supporting our hypothesis of positive retraining of sensory and motor deficits. Our work has just begun.



WHAT IF A SERVICE WHAT IF

BALANCE?

EMPATHY IS CORE TO LEADERSHIP - WHAT OTHER VALUES BALANCE IT?

BROKEN MODELS

EMPATHY IS CORE TO A CORE

WHAT IF
A LEADERSHIP BOOK
WAS WRITTEN

Creative Leadership has become an important part of the Centre's offer, building on and extending our activities in inclusive design. It applies the peoplecentred principles of inclusive design to broken models of leadership.

With over a decade of research at the RCA, bringing together design and neuroscience, we now have delivered workshops to thousands of individuals and organisations across the globe. A major achievement this year was the publishing of a book, Creative Leadership: Born from Design, by the centre's director, Rama Gheerawo. The publisher, Lund Humphries, commissioned the book as part of their Designing Now series.

Creative Leadership is a transformational process based on Empathy, Clarity and Creativity, that can be applied to individuals, groups, organisations, technologies and projects. Whilst it draws on practice from the creative industries it transcends disciplines, roles and institutions. It is also not just for designers. It is for any human who wants to use creativity to enable them to lead. It is based on the following principles:

Everyone has leadership potential, and most of us can access these three values; Creativity is a universal ability to develop ideas that positively impact ourselves and others; Empathy is the hallmark of a twenty-first-century leader and is a signature value; and Clarity is the link that aligns vision, direction and communication.

AND RA

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### BORN FROM DESIGN

In March 2022, Helen Hamlyn Centre for Design Director, Rama Gheerawo published 'Creative Leadership - Born from Design' with Lund Humphries. Based on a decade of research and 20 years of collaboration between designers and business professionals, the book argues that creatives should play a role in defining much needed new forms of leadership in society.

#### IN CONTEMPORARY SOCIETY. DISCOURSE ABOUT GOOD AND BAD LEADERSHIP HAS NEVER BEEN MORE NECESSARY. OR URGENT. HOW DOES THIS BOOK ADDRESS THESE CONCERNS?

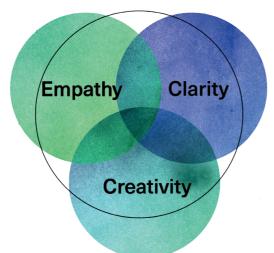
This book is of the moment. As we try to become more globally connected, and address historical forms of exclusion, servitude and ignorance, we need leadership which will enable us. We need to acknowledge that leadership starts with yourself - lead yourself and you can lead others. We do not need leadership that's locked into the past, with the loudest, most alpha figures broadcasting from a podium. Life today demands authenticity, and the human values of empathy, clarity and creativity make that happen. Together they offer a roadmap for a leadership future that shifts to something more human, more enabling and more inclusive.

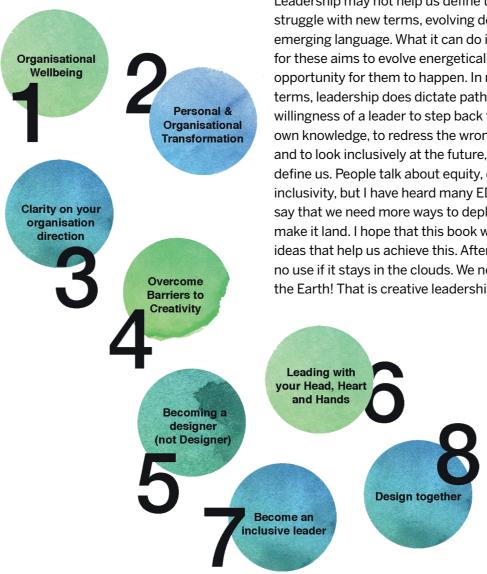
#### CAN YOU GIVE A LITTLE BIT OF INSIGHT INTO THE UNIQUE WAY YOU STRUCTURED THIS BOOK AS A STORY, AS OPPOSED TO A **TEXTBOOK OR MANUAL?**

I grew up hearing stories. The Indian wisdom tradition is full of them. World traditions are built on tales and myths that speak to human truths. I could not understand why modern forms of teaching ignore this. Instead, you are cratered into a mechanical form of learning, of repetition, much of which seems to strangle the imagination. Stories ignite the skies of your thoughts, and take you beyond the boundaries of your own learning. Everyone can access them. Stories soften knowledge, taking it from feeling like an infliction towards easy acceptance. So, having heard stories all my life, I tentatively believed I could write one! And why should it not be a book on leadership that takes you on a journey?

#### WHAT ARE THE KEY INGREDIENTS FOR GOOD LEADERSHIP?

The book speaks to three core values that are universal, and that almost everyone has access to. These are creativity, empathy, and clarity. Unfortunately, they are edited out of us. The creativity we feel as a five-year-old can sometimes be lost as a 50-year-old. Empathy is making its way back onto the leadership platform, but for years it has been ignored in, and even bullied out of, leadership training. Clarity is magical, and perhaps the least studied of the values, yet clarity is often what we seek, but do not get. These three values were born from working on hundreds of design projects with some of the most excluded people across the globe. They were born from observing leadership styles that do not strut across the stage. The three values are essentially about balance. They need to be in balance with each other for leadership to be effective. This balance should not be static, and the values need to change according to circumstances. This is the work of a true leader, a self-reflective one. Understand these three values in yourself, and then deploy them in the external world. Together, these values lead to authenticity, something that we all look for in a leader. Our research shows that many leadership values can be mapped across these three.





#### CAN YOU EXPAND ON HOW THIS BOOK **POSITIONS ITSELF IN RELATION TO BOTH EASTERN AND WESTERN KNOWLEDGE?**

I consider myself Indian by ancestry, Guyanese by descent and British by birth. The DNA of my ancestry is in the DNA of this book. Broadly speaking, it tries to harmonise different worlds, ancient and modern traditions. I could not understand why we only accept a human truth that our grandmothers knew, that our ancestors knew, until the modern world heard it from an esteemed researcher at an esteemed university. Both tradition and modernity carry wisdoms, and we should not favour one over the other. So this book represents my personal journey as a yogi, meditator, artist, designer, engineer, researcher, and now writer! I am not only one of these. I am all of them! None of us are ever just one thing.

#### **HOW CAN LEADERSHIP HELP US ACHIEVE EQUITY. DIVERSITY AND INCLUSIVITY?**

Leadership may not help us define this, as we struggle with new terms, evolving definitions and emerging language. What it can do is give space for these aims to evolve energetically, and the opportunity for them to happen. In no uncertain terms, leadership does dictate pathways. The willingness of a leader to step back from their own knowledge, to redress the wrongs of the past and to look inclusively at the future, is what will define us. People talk about equity, diversity and inclusivity, but I have heard many EDI managers say that we need more ways to deploy it, and make it land. I hope that this book will offer some ideas that help us achieve this. After all, water is no use if it stays in the clouds. We need rain to hit the Earth! That is creative leadership.

#### **HOW CAN A LEADERSHIP MODEL INCLUDE ALL AGES, ABILITIES, GENDERS AND RACES?**

Very simply, this model evolved from inclusive design, which looks at how people are excluded. There are four primary ways in which this happens: through age, ability, gender and race. Many other qualifiers sit around these, but they are a fundamental starting point when mapping exclusion. The creative leadership model was born from working on hundreds of inclusive design projects. In a tearful moment, after witnessing so many forms of exclusion, I thought: if you change leadership, would it reduce instances of exclusion? Would changing leadership change everything? Years after this starting point, a colleague said: 'What you have done is apply the principles of inclusive design to fix broken models of leadership.' I think they were right.

#### **HOW HAS CREATIVE LEADERSHIP BEEN** INCORPORATED INTO THE ACTIVITIES OF THE **HELEN HAMLYN CENTRE FOR DESIGN?**

Creative leadership is now a core part of our offer. Hundreds, if not thousands, of people have taken our courses and lectures and have benefited from the projects we have run. Organisations come to us asking not just for inclusive design projects, but also for leadership training that will communicate the values of creative leadership to their colleagues, clients and customers. Governments, business, academia and the third sector have all shown interest. It has become a core part of the training that we offer. But perhaps the most personally impactful ways in which we work have been with the individuals involved in organisations, the people who were never intended to be leaders, who walk away with a sense of strength and purpose after engaging with our programmes.

#### WHAT'S NEXT FOR CREATIVE LEADERSHIP?

Creative leadership was never meant to be an elite concept, created for the few. Whilst we continue to develop the tools and the methods we are throwing it open to the world. As this magazine launches, so we launch the Creative Leaders Circle, which will be a platform for everyone to take part. When I started this journey, it was almost self reflective. So it is honouring and humbling to see so many engage with creative leadership, and increasingly demand it. It is their energy that will take it forward, and at the Centre we are here to fill the space in leadership that the world is asking for.

### CREATIVE LEADERS CIRCLE

In February 2021, we held an initial meeting where 125 people from 34 countries and regions logged on to co-create 25 leadership manifestos. In the year since then, having analysed the manifestos and looked at what people were asking for, we have launched a LinkedIn group to bring like-minded individuals together.

Creative Leadership is for three types of people: established leaders; emerging leaders, and the biggest group of all – those who never expected to be leaders.

The Circle has grown from the demands of many people who wanted us to create a community of thought, emotion, connection and action. It is a coming-together of people of all ages, abilities, genders, cultures, job titles and so forth, to envisage, act on and enable new models of pathways for global leadership.

The circle is a community of intent to action and activate the three values of Creative Leadership and to share knowledge, discoveries, and pathways forward. It requires engagement at a level chosen individually, with a passive or active approach. It is a way for everyone to contribute, participate and apply principles in their daily life and work.

To see more, please search for 'Creative Leaders Circle' on LinkedIn and click the link to join.

When empathy runs out, that is when you need Clarity.

@Rama Gheerawo



#### What if...

...you could draw inspiration from all those around you, not just those who look like you?

@Rama Gheerawo



Rama Gheerawo - Director and Dr Ninela Ivanova - Innovation Fellow

## **EXECUTIVE EDUCATION**

External education forms an important part of the Centre's offer. In the last year, we moved many of our activities online, conducting online workshops, masterclasses and lectures in inclusive design and Creative Leadership.

We have run Creative Leadership workshops, one in November 2021 and the second in September 2022, the former online and the latter in person. Both were organised by the Innovation Education team at the RCA as part of their programme of Masterclasses. Design Thinking workshops have been delivered by Professor Jeremy Myerson, the Helen Hamlyn Chair of Design, in partnership with the Design Museum. Dr Ninela Ivanova and director Rama Gheerawo designed and delivered a six-month-long project with Northumbrian Water Group, offering a new form of bespoke engagement to upskill companies in creative practice.

The centre is constantly developing training, teaching and external education, so do get in touch to find out more.

### MANIFESTO FOR CREATIVE LEADERSHIP

RADICAL

Around 100 people came together to define aspirations for leadership in February 2021. these are their words. these are their ideas. this is the call to action!

Visit creativeleaderscircle.rca.ac.uk



#### STRATEGIC VISION

A leader needs to be authentic, visionary, futuristic, have the capabilities to address and respond to volatile, complex, and uncertain scenarios. Capacity to lead with both sides of our brains, Left& Right, rational and creative in order to work with compassion.

#### EVOLVING BEHAVIOURS AND RELEARNING LEADERSHIP

Leaders commit to breaking the patterns, acknowledging their biases and redefining roles

#### AUTHENTIC PERSONAL JOURNEY & PURPOSE

Empathy is the necessary foundation of leadership, whether its for users, customers, or teams, to solve and make a change. It encourages designers/leaders to dive into the real situation of issues/audiences and get clarity and makes them less hesitant to solve problems.

#### WILLINGNESS TO LISTEN

Being empathetic. Being able to adapt to different roles in a conversation from an active listener to active speaker and vice versa. Listen to first understand, not listen with the immediate intent to respond.

Picture by Adam Hollingworth

#### KNOW Thyself

Before you lead others, you need to see yourself clearly and objectively through reflection and introspection.

#### HUMAN Reflection

Human values to embrace diverse thought and social complexity.



#### **Georgina Lee** - Community Lead

Age has to be the place to start with inclusive design because of its universality. Age concerns

everyone. We are all ageing and living longer every day. My inclusive design research over the last eight years has shown without a shadow of a doubt that age-neutral principles are what people of all ages want to see in the products and services they use, and in the places where they work, live and socialise. My 10 intergenerational design principles are now being used within the Design Age Institute to show that there is a new way to design which works across all ages. I believe inclusive innovation must be based around everyone, young and old alike, and on what we have in common across all ages. Why? Because if we insist on categorising people as either young or old, we create falsely conflicting groups for attention and action. And focusing on erroneous stereotypical differences only creates further division in an already divided world.



Dr Gopika Rajan -Postdoctoral Researcher, **Smart Yarns** 

feels left behind. An inclusive

technology is accommodating and transcends the impactful, as it was more commercially focused. barriers of age, gender, personal circumstances or ethnicity, while being flexible and responsive. It ensures that the technology is convenient to all and can be used with dignity. Each and every element of the end-product designed is sensitive to the variety of needs and wants of the endusers. Inclusive design has the potential to usher in a new wave of wearable technology. It can overcome the stigma associated with assistive technology and improve the quality of life.



**Sidse Carroll PhD**  Research Fellow, **Demand - Design Age Institute** For me, design and architecture are about improving people's

lives. To do so, inclusive and participatory practices are essential. This involves developing inclusive and participatory processes, tools and methods that invite people and stakeholders to take part in exploring issues and opportunities as well as designing solutions. Since graduating as an architect more than a decade ago, I have been privileged enough to meet and engage in this way with many people and stakeholders when we were exploring challenges that they were facing in their lives. For the past six years, my work has focused on research into ageing, which has given me the opportunity to collaborate with older people in various locations, including Denmark, Greenland, Hong Kong and the United Kingdom.



**Stephen Douch - Research Associate, REMAIN** 

For me, inclusive design has been transformative and enlightening. I was first

drawn to design because it's primarily about Inclusivity happens when no one improving people's lives. However, when I started out, engagement with end users wasn't very The evolution and proliferation of inclusive design has enabled me to help a more diverse audience across domains in a more meaningful way. This led me to the HHCD where I currently collaborate with child mental health clinicians from King's College Hospital to help deliver novel products and services to improve patient care. My current work is some of the most exciting and important of my career.

## PEOPLE PATHWAYS

**Dr Melanie Flory – Associate Director of Research** 

## SUPERVISION

Research is a rich and vital part of the Helen Hamlyn Centre for Design. Our staff co-supervise PhD candidates registered with the Schools of Architecture, Communication, Design, and Arts & Humanities. Research topics vary extensively and range from design of new medical innovations and citizen science to more experimental research involving biomaterials and biomimetics. All of HHCD supervised projects are people-centred, inter- or multidisciplinary and entail inclusive design for real world challenges.

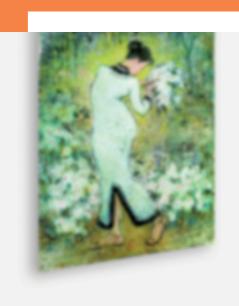
In 2022 the HHCD co-supervised 8 PhD candidates with the RCA School of Design and School of Communication.

The following PhD candidates are partnered with the School of Design and co-supervised by Professor Jo-Anne Bichard, Dr Ninela Ivanova, Dr Chris McGinley and Gail Ramster (HHCD) with Dr Chang Hee Lee; Dr Laura Ferrarello, Dr Qian Sun, Dr Alex Williams, Anne Toomey and Dr Nick De Leon.

Peiqi Wang, Sarah Britten Jones, Rute Fiadeiro, Judith Buhmann, Muyao He, **Sicong Xiao and Silke Hofmann** 

The following PhD candidates are partnered with the School of Communication and co-supervised by Professor Jo-Anne Bichard and Gail Ramster (HHCD) and Professor Teal Triggs.

Nick Bell and Wenbo Ai





#### Muyao He - PhD Candidate

#### **DESIGN FOR POLICY: EXPLORATION OF HOW DESIGN CAN FACILITATE INCLUSIVE POLICY** INNOVATION IN THE MUSEUM SECTOR IN CHINA

Blindness and visual impairment (B&VI) 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 addressing this issue. Policy making processes, however, are generally topdown, 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 B&VI visitors.



## SIIKE HOFMANN – PhD Candidate PROTOTYPING ALTERNATIVE BREAST SUPPORT: HOW CAN INDIVIDUALS AFFECTED BY BREAST CANCER ARTICULATE THEIR NEEDS, AND HOW CAN THESE BE IMPLEMENTED THROUGH DESIGN?

Silke's research explores the aesthetic and ergonomic breast support needs of individuals affected by breast cancer who live with either different-sized female breasts, one breast, or no breasts after a mastectomy. Through collaborative processes with affected individuals and a team of experts, Silke is developing modular and mass-customisable breast support clothing. This approach is different from normative garment construction based on body symmetry, and responds instead to specific clothing needs and unique body topologies through soft, decentralised breast support structures on engineered knit. Silke's investigations into additive manufacturing processes have been funded by the European Social Fund through DesignFarm Berlin and the European Commission's Horizon 2020 initiative through Re-FREAM.



### Wenbo Ai – PhD Candidate EMPOWERING DESIGN LITERACY AND ENGAGEMENT IN HEALTH PROMOTING HOSPITALS

Health Promoting Hospitals (HPH) are a concept for hospital innovation development, expected to expand roles to more dynamic social health promotion, shift the hospital culture from treatment-centred to health promotion-centred and create an empowering community setting. This PhD research aims to improve participation across HPH users, leading to nuanced, heterogeneous approaches tailored to diverse groups. This could be a change from standard to a varied range of implementation, from top-down policy making to bottom-up strategy. Enabling more people to design and navigate their own experiences, services, tools and artefacts can be seen as the core of health promotion activities.

### Rute Fiadeiro – PhD Candidate A CONVERSATION BETWEEN DESIGN AND INTIMATE PARTNER VIOLENCE

Rute's research offers a critical engagement with design's implication in the (re)invention and (re)production of gendered structure. The research explores this by focusing on intimate partner violence (IPV) in humanitarian settings. When designing in IPV contexts, including people in the design process may pose challenges due to the normalisation of violent behaviours, and risks of re-traumatisation. As a result, new forms of design are emerging to address IPV. Through an exploration of the practice-based knowledge of professionals engaging in these contexts, Rute has been documenting and understanding how design has been reconfigured as a result.

#### Sarah Britten-Jones – PhD Candidate DESIGNING THE LEARNING UNIVERSITY

Sarah's research explores the use of participatory systems design to effectively apply stakeholder feedback within the university. Working with university staff and students to collaboratively and visually map the current state of university feedback processes, Sarah intends to speculatively co-design feedback action cycles for continuous improvement. This research uses design methods to envision alternative organisational feedback mechanisms that harness the diverse knowledge and experience of stakeholders, enabling rapid and informed organisational responses to change.



CONNECTIONS, KNOWLEDGES AND
IDENTITIES AS SOCIAL INFRASTRUCTURE FOR
NEIGHBOURHOOD AGENCY: AN OPEN, PEERDRIVEN, CONTACTLESS, PARTICIPATORY ACTION
RESEARCH APPROACH.

Nick's practice-led study aims to make participatory civics more inclusive by prototyping a participatory action research method that is physically contactless. The prototype, called Chatterhood, has been tested in a series of asynchronous, conversational relays between residents in an urban heterogeneous social setting. Chatterhood is a safe, fun, and easy-to-use channel of communication for entering into crosscommunity dialogue with neighbours unlike you. Exchanges are offline, slowed to a pace that allows listening and reflection to have parity with the voicing of interests. The intended impact of Chatterhood will be that neighbours can establish connections, nurture trust, and, over time, it will bridge communities by developing understanding on matters of shared concern.





Peiqi Wang - PhD Candidate

## DEVELOPING HEALTH-CARE COLLABORATION BETWEEN PARENTS AND DOCTORS IN NEONATAL CARE BY DESIGNING CONVERSATION BEHAVIOUR

This PhD explores the elements and the process of parent-doctor conversation through design intervention. Combining cybernetics considerations, it defines and develops conversational design tools for parents and doctors in the process of prenatal consultation, and re-understanding the conversational behaviour between family members and doctors and the long-term health of newborns through design tools. Peiqi Wang has recently been awarded Young Scholar grants from Peking University. This design research bridges the conversation system and health-care collaboration model in neonatal care by working beyond the boundaries. It helps to rethink how the conversation supports doctors and parents in learning and collaborating.



Sicong Xiao - PhD Candidate

### THE RELATIONSHIP BETWEEN DAILY LIFE OF ELDERLY POPULATION AND DEVELOPMENT OF TECHNOLOGY

Sicong's research investigates the relationship between the daily life of the elderly population and the development of new technology to discuss the possibility of AI technologies in the elderly daily life. Gathering data from different age groups of the audience through design research, Sicong has designed different unique 'personas' that can briefly represent the elderly group's people who were born in different generations. By comparing these 'personas', this research will discuss the adoption of a different generation of old people to the latest technology at that time and find out the trend of attitude changing between the elderly population and new technology.

# 

The Helen Hamlyn Design Awards celebrate the most visionary, inclusive and innovative RCA graduate projects. Category winners were announced during an awards ceremony at Battersea South in July 2022, the first public event hosted by the Helen Hamlyn Centre for Design since the pandemic, with special guests Patricia Moore and Lady Helen Hamlyn in attendance. Each student project applies design to improve people's lives, and demonstrates the impact people-centred approaches can have across disciplines at the RCA.

#### **Global Disability Innovation Hub and Heart n Soul Award for Access Winner 2022**

Winner: Emma Naylor MA Architecture, 2022

**Project: Enabling the Cycle** 

'Enabling the Cycle' asks whether the built environment can be inclusive for the disabled cyclist? And what would the building industry need to do to achieve this? Disability is not simply a design problem, it is our problem, it is society's problem, we are the ones who perpetuate the social exclusion of disabled people.

The project examines inclusion. It looks at how the building profession approaches inclusive and accessible design, situating the work within Herne Hill Velodrome and cycling. The site becomes a testing ground for prioritising the disabled body, by exploring different approaches to inclusive cycling infrastructure which fights for mobility justice. The site becomes a model for further research into making our environment more accessible for all.



Winner: Luisa Jane Charles, MA/MSc Global Innovation Design, 2022 Project: Float



Float is a robotic device; an Unmanned Surface Vehicle (USV) that measures water quality data in real time. It was developed alongside members of Colombo City's wetland communities, and is designed to be built by unskilled citizen scientists out of low-cost and easily accessible materials. With support from The International Water Management Institute,



Enabling the Cycle, Emma Naylor

#### **The Sure Award for Inclusive Products**

Winners: Xuechun Ni, Jiawei Wu, Yi Dong MA/MSc Innovation Design Engineering, 2022 Project: **Knees No Worry** 



KNW combines soft robots and VR games to help patients doing exercise at home, and make the process more engaging and less painful. Users can use their leg to control a tiny leg and go through a series of scenes in VR with a soft robot which can help them achieve the quantity and quality of daily rehabilitation exercises.

Working with a professional physical therapist, we pick up 5 exercises people can do at home. We found a person who broke his knee when he played basketball, so we asked him to become our user and work with us closely for testing. During the test, the whole process feels like a meditation for the user, first breath in and bend their



#### TATA Consultancy Services Award for Digital Inclusion

Winners: Shefali Bohra and Debra Babalola MA/MSc Innovation Design Engineering, 2022

Project: 'Dotplot'



Dotplot is a breast health monitoring tool that helps women look after their breasts with confidence. The patent-pending technology guides women through breast self-checks on a monthly basis and creates month-by-month comparisons to help flag abnormalities in breast tissue as early as possible. The device is used to build a map of the torso which is required to facilitate Dotplots camera-free guidance. Unlike breast cancer campaigns that have targeted particular demographics, Dotplot aims to reach women of all ages to ensure breast health care becomes routine. It is also designed to cater to every breast shape, colour and size.

#### MindRheo Award for Best Systems Design Approach to Complex Societal Problems

Winner: Sweta Lakshumanan Sanker

MA Architecture, 2022 Project: **Kid Fiction** 



Kid Fiction questions the existence and the ability to give agency to children through the methods of design, speculation and narration. Through a collaborative approach that involves the ideas of fictional world building and collective gameplay, the project focuses on the ideas of how we can better understand, value and empower children as individuals in their own right, rather than being seen as dependent beings in need of constant guidance and protection.

#### The Helen Hamlyn Award for Creativity

Winner: Ryan McClure

MA/MSc Innovation Design Engineering, 2022

Project: Neaho

Neaho is an exciting and new radical approach for tackling water pollution which allows anyone to passively engage in collecting vital environmental data for waterways whilst doing their favourite water-based hobby. An intelligent tow float dry bag records and distributes open-source water quality data alerting communities as it is pulled along bridging the gaps between concerned citizens, hobbyists, scientists, and grassroots activism. By connecting many different groups of people through doing something they love, environmental problems can be collectively tackled more inclusively helping to form new diverse networks and drive meaningful change.



#### Hamlyn Walker Challenge

Winner: Michael Strantz MA Design Products, 2022

The Design Age Institute (DAI) was delighted to announce Michael Strantz (MA Design Products, 2022) as the winner of the Hamlyn Walker Challenge, with Michael receiving his award at the Helen Hamlyn Design Awards ceremony. This career-defining design competition was initiated by Lady Helen Hamlyn, Patron of DAI, who invited RCA students and recent graduates to rethink the walker and recreate it as a desirable and joyful product – an everyday mobility device that is useful, reliable, beautiful, and, above all, safe to use.

#### The Snowdon Award for Disability

Winner: Jiawei Wu

MA/MSc Innovation Design Engineering, 2022

**Project: Access City Builder** 

Access City Builder is an AR crowdsourcing game for mapping and building an accessible urban environment which allows citizens to scan and map the accessibility of public spaces together. Within the game, digital characters have the same ability as a wheelchair user – meaning players often need to help them pass specific barriers by building facilities. Through play, the system records the accessibility of public spaces and gathers location information about where new accessible facilities are needed.



Access City Builder, Jiawei Wu

Photograph by

Ezzidin Alwan

#### **FIXPERTS**



Assist Tripod for Iddo, by Omri Steinmetz and Yoav Dagan

The Fixperts learning programme has taken place in 45 universities and higher education institutes across 23 countries since 2013, with teams of students working on design projects that positively impact our daily lives. Each year, the Helen Hamlyn Design Awards presents a Fixperts Award for the best of the Fixperts projects from this global network. For 2022, the Fixperts Award winning project was Assist Tripod for Iddo by Omri Steinmetz and Yoav Dagan from the Holon Institute of Technology in Israel. The runners up were One Hand Zip by Nitay Rachmirel Neta Lip from the Kibbutzim College of Education, Technology and the Arts, Israel and Tap Accessory for Phyl by Liam Hayes and Jack Kellet of the National College of Art and Design in Dublin.

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#### **ALUMNI AWARD**



This award is presented to a previous Research Associate of The Helen Hamlyn Centre for Design and for 2022 was awarded to Ross Atkin.

Ross was at the Centre between 2013 and 2015 where he worked on design projects in partnership with companies such as BT and Stannah, as well as charities the Royal London Society for Blind People and Scope.

Since then Ross has gone on to win the 2019 Emerging Design Medal at London Design Festival. He was an invited 'inventor' for the BBC TV programme The Big Life Fix, which explored new life-changing solutions to everyday problems. He has also started his own company, Ross Atkin Associates, where he continues to work with older and disabled people, digital technology and public spaces.

### WITH THANKS

#### People -

Rama Gheerawo – Director

Dr Melanie Flory – Associate Director of Research

Professor Jeremy Myerson – Helen Hamlyn Professor of Design

Professor Jo-Anne Bichard – Professor of Accessible Design

Dr Chris McGinley – Senior Research Fellow

Dr Ninela Ivanova – Innovation Fellow

Tom Stables - Industry Project Researcher

Dr Katie Gaudion – Senior Research Associate

Gail Ramster – Senior Research Associate

Gianpaolo Fusari – Senior Research Associate

Stephen Douch – Research Associate, REMAIN

Dr Laura Salisbury – Senior Postdoctoral Researcher, Smart Yarns

Dr William Renel – Research Associate, Common Ambition

Dr Cecilia Zecca – PALLS Postdoctoral Research Associate

Dr Gopika Rajan, Postdoctoral Researcher, Smart Yarns

Sean Donahue – Visiting Scholar

Ivelina Gadzheva – Visiting Researcher

Michaela Cullen – Helen Hamlyn Administrator Tatiana Kmetova – Research Centres Administrative Assistant Thea Stanton – Research Centres Content Officer Jane Savory – Research Centres Manager Aoife Shanley – Head of Research Centres

Madelaine Dowd - Design Researcher: Creative Leadership

#### Design Age Institute -

Colum Menzies Lowe – Director
Melanie Smith – Institute Manager
Fiona Myles – Senior Design Manager
Andy Cripps – Senior Design Manager
Melanie Andrews – Design Manager
Dr Gerard Briscoe – Research Fellow
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Nick Bell
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