The Helen Hamlyn Centre for Design is an international leader in people-centred and inclusive design – the process of designing products, services and systems for ease of use by the maximum number of people. We are based within the creative postgraduate community of the Royal College of Art, London, and our design research and projects with industry have one simple aim: to help improve people’s lives.

This Yearbook describes our activities in 2013/14. Our work is organised in three research labs: Age & Ability, Healthcare and Work & City. Each lab takes an approach that is inclusive and interdisciplinary. We develop innovative and empathic research methods – and we exchange knowledge via industrial collaboration, events, external education and publications. We welcome your feedback on our work.
MESSAGE FROM THE RECTOR

Breaking Through is an apt title for this Yearbook as 2013/14 saw the Helen Hamlyn Centre for Design, the Royal College of Art’s largest research centre, advance the reach and impact of its work on a number of fronts.

The RCA has a rich heritage of design for social value and public space. The Helen Hamlyn Centre for Design not only belongs to this tradition of public service, but is constantly updating it with new projects, partnerships, techniques and ideas in inclusive and people-centred design.

The pages of this Yearbook demonstrate the sheer breadth of creative enquiry, from collaborative projects to design a new taxi for London and embed innovation in a working hospital, to large-scale studies to explore ways to reduce domestic energy use across Europe and to design the future of digital public space.

The Helen Hamlyn Centre for Design is right at the heart of many of the RCA’s best endeavours in research and innovation. In the coming year the Centre will move from its Kensington base to its own building on our Battersea campus – this new home will provide additional space and enhanced facilities for it to grow and prosper as part of an RCA research, innovation and knowledge exchange ‘cluster’ on that site.

My thanks to the Helen Hamlyn Centre for Design team, to its industry, government and third sector partners, and to our magnificent core partner the Helen Hamlyn Trust, for making 2013/14 such a dynamic and progressive year.

Paul Thompson
Rector
MESSAGE FROM HELEN HAMLYN

Making a positive difference in the real world is what counts in all of the projects supported by my charitable foundation, the Helen Hamlyn Trust. So I was delighted to see the Helen Hamlyn Centre for Design at the RCA curate an exhibition this year – Breaking Through – that explored the impact of its design research on policymaking, public service delivery and products for the marketplace.

We all want the very best design ideas to break through and help the people of all ages and abilities who need them most. I am really pleased that the Centre is continuing to produce a steady stream of innovative, socially useful projects across the areas in which its three research labs specialise.

Among the many partnerships described in this Yearbook, the HELIX Centre collaboration with Professor Ara Darzi’s global healthcare team at Imperial College London is wonderful news. HELIX is embedding a design team within a working hospital, St Mary’s Hospital at Paddington, and signals a key alliance between two of my Trust’s most significant and longstanding beneficiaries.

The added value of this partnership, which unites clinical and design expertise in the service of better healthcare services and solutions, is something I have strived to achieve for a long time. HELIX is the type of bold initiative that we all want to succeed and many other Centre projects are similarly ambitious for the welfare of people.

I wish everybody associated with the Helen Hamlyn Centre for Design the best of luck for its work in the coming year and I commend their achievements in 2013/14.

Helen Hamlyn
Helen Hamlyn Trust
What is the true purpose of design research? I am asked this question a lot, especially as the cultural, artistic, economic and technical parameters of our field are changing all the time. The answer, at least as far as the Helen Hamlyn Centre for Design is concerned, is a straightforward one.

The purpose of our work has always been to develop new design thinking and practical concepts to improve people’s lives – and to make sure these ideas are advanced in the real-world contexts for which they were intended.

As a result, our work is a mix of research and knowledge exchange, as the pages of this Yearbook illustrate. We train business-facing research associates drawn from among new College design graduates as well as host PhD students in partnership with other RCA programmes. We collaborate with industry and government as well as academics and user groups right across the spectrum of design for human need.

We’ve chosen Breaking Through as our theme for 2013/14 to demonstrate the different ways we achieve impact through our work.

There are products and services that we are developing and piloting through the healthcare system, such as our emergency ambulance or graphic guidance for A&E departments. That’s one way to break through. There are projects that are influencing policymakers such as our pioneering work in design for autism or lighting for schools. That’s another.

There are studies that help to shape the public discourse, such as our Creative Citizens and Creative Exchange projects, both of which explore the use of digital media by communities, or our work on reducing domestic energy use. And there are market-facing industry innovations too, such as our new London taxi or Scandinavian care furniture.

There are many different ways in which our work is breaking through, and this year we chose to showcase them in an exhibition we staged in September 2014 as part of the London Design Festival. The feedback we got from the show was instructive. ‘Ah, now we know what design research is for,’ people told us. This Yearbook continues in the same vein. I hope you enjoy reading about our activities and that you continue to engage with our work.

Professor Jeremy Myerson
Director
The Helen Hamlyn Centre for Design’s end-of-year research exhibition, Breaking Through, was displayed in the Dyson Gallery at the RCA’s Battersea campus from 15 to 24 September 2014 as part of the London Design Festival. Designed by Matt Schwab (All Things) with graphics by Caterina Vasconcelos and Magarida Rego (Ilhas), the exhibition explored how current research by the centre is translating into new products, enhancing public services and informing policymaking. A research symposium accompanied the show.
The Helen Hamlyn Centre for Design collaborated with the IE (Instituto de Empresa) Business School in Madrid to run a three-week summer school for international students on workspace design in July 2014. Pictured here, students explore the movement of the human body in a session on ergonomics (left) and meet a green-shirted Richard Rogers during a visit to the studio of Rogers Stirk Harbour + Partners (above).

The Creative Citizens conference, hosted by the Helen Hamlyn Centre for Design at the RCA in September 2014, explored media, design and community from a variety of angles. The two-day event featured keynote presentations by Nesta CEO Geoff Mulgan (near right) and Paola Antonelli, Senior Curator in the Department of Architecture and Design at New York’s Museum of Modern Art.
The Age & Ability Research Lab asks a simple and fundamental question: how can designers shape a future that includes people of all ages and abilities? We are inclusive of, rather than exclusively for, older or disabled people. The lab addresses the major challenges of daily living using the techniques of design ethnography and socially inclusive design to understand people’s needs, perspectives and aspirations. We see people as equals in the design process across the four strands of our research.

The first strand is *Everyday Living*, looking at how design can increase independence and provide a more engaging experience with the products and services around us. Projects in this area range from new services and technologies for Stannah – this year focusing on balance in older women – to a major industry-funded project designing a new taxi for London, a partnership with RCA Vehicle Design, Hexagon and Karsan.

The second strand is *Ability and Diversity*, improving quality of life for people with different physical, sensory and cognitive capabilities. Importantly we build on people’s abilities, not just design to overcome disability. Work in this area includes our pioneering design for autism programme with the Kingwood Trust, which this year extended into creating a digital tool for support workers called Picture-it, and our collaboration with Arthritis Research UK around ‘hand-healthy’ approaches to kitchen design.

The third strand explores *People & Technology*, addressing the cultural, social and behavioural factors that are key to overcoming barriers to digital inclusion, especially for older people and communities. In 2013/14 we completed seven years of projects in this area with BlackBerry, celebrated in a new book called *Inventory*, and we advanced our work on a European project to explore ways to understand domestic energy use.

*The Business of Inclusive Design* is the fourth theme, looking at knowledge exchange in inclusive design. This year we focused on developing executive education workshops to impart new techniques and ideas in the field to government, business and public sector partners around the world, from Qatar to Norway and Hong Kong.

Rama Gheerawo
Lab leader
This project is exploring balance and vestibular health in the lives of women aged over 55 and looks at ways to reduce the risk of falling. A fall often results from a decline in balance and gait over a number of years, something that can be hard to measure or to visualise. This makes it difficult for people to track their decline or be proactive about their vestibular health as they age.

Prototype diagnostic devices have been developed to allow people to quantify their range of balance as easily as it is to measure their weight with weighing scales. This allows individuals to consider their vestibular health as easily as their cardiovascular health, and to self diagnose and monitor the changes.

The ideas have been co-created with a user cohort of six older women, four of whom have previously had a fall, as well as falls experts and balance trainers. The project focuses on women, as they are at a higher risk for falls-related fractures and have a greater chance of developing a fear of falling.

Researchers
Shruti Grover and Ross Atkin

Research Partner
Stannah
The current London cab is one of the few purpose-built taxis in the world but its design is over 20 years old and in need of modernisation. RCA Vehicle Design and the Helen Hamlyn Centre for Design are working jointly on this major design project with Studio Hexagon and vehicle maker Karsan, both based in Turkey. The aim is to develop a low emission London taxi that meets the needs and aspirations of drivers and passengers of all ages and abilities.

The starting point for the project was Karsan’s Concept V1, a prototype taxi with a large, airy interior that is lightweight in construction. An inclusive design approach underpins the research and development. Central to the study was the use of co-creation workshops and events with Londoners. The project focuses on five areas: driver space (increasing comfort), passenger environment (more flexibility), driver interface (using new technology), iconic look (important for London), and door aperture (to ease access). Design studies and models first unveiled at the Mayor of London’s Zero Emission event in January 2014 have been refined and developed as part of an on-going creative process.

**Project Directors**
Professor Dale Harrow and Rama Gheerawo

**Design Team**
Chris McGinley, Gregor Timlin, Peter Stevens, Clive Birch, Samuel Johnson, Merih Kunur, Niels van Roij, Rakesh Chavda, Ewan Gallimore, Anthony Clough, and Anthony O’Sullivan

**Research Partners**
Karsan and Hexagon
CITIES UNLOCKED

This work was conducted as part of a project between the Future Cities Catapult, Guide Dogs and Microsoft looking at how technology-enabled navigation systems can make living or moving through cities more enjoyable for partially sighted people and their families.

Enjoying a day out in the city depends on being able to get from place to place easily. For blind and partially sighted people, just navigating around urban space can leave them feeling tired, anxious and vulnerable. Technology-enabled navigation provides an opportunity to help make this experience better.

The three researchers conducted detailed shadowing of seven people with sight loss, with findings fed into a digital insight bank. They used a people-centred design approach to understand the issues of mobility, navigation and stress reduction from the view of blind and partially sighted people in the city. Findings will be used to develop inclusive design solutions and street innovations that are beneficial to all people in complex urban environments.

Researchers
Ross Atkin, Tom Stables and Gregor Timlin

Research Partner
Future Cities Catapult

Hand Healthy

This project looks at how older people with osteoarthritis use the kitchen, drawing insights from different cultural and ethnic backgrounds and developing a range of therapeutic design innovations. Osteoarthritis is an age-related condition, although it affects people across the age-spectrum. It peaks between the ages of 45-64 with more women than men experiencing the condition.

Even for people with the condition who are aware that exercise is beneficial, maintaining their physiotherapy alongside daily life can be a struggle. This study focuses on cooking as an everyday activity at which therapeutic interventions can be targeted. Research was conducted in five London cultural centres with people from culturally diverse backgrounds.

Therapeutic design innovations resulting from the project include a recipe book of ‘hand-healthy’ meals and a ‘Kitchen Anchor’ design concept that supports chopping, peeling and grating. By making common tasks less painful, these concepts aim to bring therapeutic benefits to cooking, translating this everyday activity into a gentle and accessible form of exercise and encouraging a ‘hand healthy’ attitude to life.

Researcher Simon Kinneir

Research Partner Arthritis Research UK
PICTURE-IT

This project is developing a digital tool to help care staff at the Kingwood Trust to capture and share positive experiences in the lives of the adults with autism they support. It is the latest in a line of design innovations developed over the past five years to address the sensory preferences and special interests of those with autism. 

Kingwood support staff play an important role in the lives of people with autism, helping them to live fuller and more active lives. To ensure that good practice is not lost, this project explores how expertise, knowledge and insights can be captured, connected and communicated to enrich person-centred support.

Following observations, interviews and two digital trials using the photo-sharing platform Pinterest, a new digital tool was created. Picture-it empowers autistic adults to build their own visual diary of their positive experiences and achievements; it supports staff members by ensuring that their good practice gets captured, noticed and celebrated; it also encourages family members to contribute and feel more connected with their relative’s life on a daily basis.

Researcher
Katie Gaudion

Research Partners
Kingwood Trust, BEING

ARTWORKS I LIKE

This project set out to explore the artwork preferences of autistic people, presenting a number of insights into the qualities of artworks and ways to use different types of visual art to create positive engagement for people with autism.

The study analysed responses to specific artworks covering 21 different categories of work – from animals and countryside to impressionist, abstract and minimal work. This generated a set of 17 artwork principles that guide and inform the selection and installation of artworks for people with autism.

The project formed part of Katie Gaudion’s PhD research, which is supported by the Kingwood Trust and focuses on a designer’s approach to exploring and enhancing the everyday experiences of autistic adults with learning disabilities.

Researchers
Katie Gaudion and Chris McGinley

Research Partner
Paintings in Hospitals
Powerchord: listening to audio feedback of energy use

Drawing Energy: public perceptions of energy expressed in drawings

Two projects are shown here from the European SusLabNWE research project, which is exploring ways to reduce domestic energy consumption. The Helen Hamlyn Centre for Design and Sustain RCA are working with partners in the UK, Germany, Sweden and the Netherlands to explore how people view energy use in the home.

The research began with home visits and co-creation workshops and was followed by a Home Energy Hackday with RCA designers, energy experts and the Internet of Things community. The research found that the ‘invisibility’ of energy presented significant challenges, as people cannot see it or measure it. Two ideas resulted. Powerchord is a prototype system that gives audio feedback on electricity use through birdsong – sparrows, blackbirds and herring gulls – augmenting the ambient soundscape of daily life with an extra layer of information.

Drawing Energy is an ongoing study in which people are contributing drawings in response to the question: What Does Energy Look Like? The growing collection of over 100 drawings will result in a publication that presents public perceptions around energy.

Researchers
Flora Bowden and Dan Lockton

Funded by
Interreg NWE Programme, European Regional Development Fund
**INVENTORY / CONNECTED KINDNESS**

*Inventory* is a book that covers seven years of collaboration between BlackBerry and the Helen Hamlyn Centre for Design, showcasing projects, methods and ideas. It presents the development of an inclusive design approach to taking digital technology into different communities, and it describes the creation of an Insight Bank – a digital repository of insights, quotes and design ideas for BlackBerry.

**Connected Kindness** is the most recent collaboration. The study looks at how digital technology can create trust and altruism. This eight-week student project, organised and led by the Centre, saw five teams from RCA Information Experience Design, Service Design and Visual Communication working with different London communities to explore the challenges. The winning team project, Cressingham Gardens, features the embedding of lighting and digital interventions into a London housing estate to encourage residents to share skills and support each other.

**Researchers**
Chris McGinley, Cristina Gorzanelli, Kiyoko Toriumi and Rama Gheerawo

**Research Partner**
BlackBerry

*Above: Inventory book charts collaborations. Below: digital tool for sharing skills at Cressingham Gardens*

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**Check the skill list**
The Helen Hamlyn Centre for Design’s External Education programme expanded this year as part of the Business of Inclusive Design strand of the Age & Ability Research Lab. Led by Deputy Director, Rama Gheerawo, this programme delivered a record number of international workshops in people-centred design to business executives, small firms, designers and students around the world.

Two social innovation workshops were run with the Social Innovation initiative at Hamad Bin Khalifa University, Qatar, with a number of the resulting ideas being developed further in the region (see top right). Work with the Hong Kong Design Centre continued with inclusive design leadership sessions delivered to more than 100 members of the Hong Kong Government’s Civil Service Bureau (see bottom right).

The strategic partnership with the Innovation for All programme at the Norwegian Centre for Design and Architecture continued with workshops run across Norway and the fourth European Innovation Workshops in Inclusive Design attracting 120 delegates from 17 countries (see centre right).

The Helen Hamlyn Centre for Design also contributed to the London Creative and Digital Fusion initiative by holding inclusive design seminars for London-based SMEs and working more intensively on design research with SME recipients of Fusion’s Design Innovation Awards.

**Researchers**
Rama Gheerawo, Chris McGinley, Shruti Grover, Flora Bowden, and Dan Lockton
The over-arching question that defines the work of the Healthcare Research Lab is; how can designers work with medical professionals, patients and industry to meet healthcare challenges for the 21st century? Our aim is to create effective, system-based design solutions that address both current and emerging challenges.

Our approach is people-centred: we conduct collaborative research with patients and hospital staff, and work with them to create and evaluate new design interventions. We then partner with industry to help bring those design solutions into the healthcare system, paying close attention to commercialisation and routes to market.

A high proportion of the researchers in our Lab have an engineering background, and we have developed a distinctive design methodology using engineering tools like Failure Modes & Effects Analysis and Process Mapping. These tools make sense to the many clinicians, senior consultants and frontline healthcare staff with whom we work. Our projects and partnerships are grouped under three main headings: Information & Policy; Systems & Services; and Products & Processes.

Under Information & Policy, we have built significantly on our early work defining the government’s approach to design for patient safety and devising health communication campaigns. Currently we are looking at the issue of alcohol abuse.

Under Products & Processes, our innovations this year have included a new approach to the process of knee surgery (with DePuy Synthes) and a range of furniture prototypes for the Scandinavian care home market (development in partnership with Kinnarps).

Under Systems & Services, we have continued to develop our new emergency ambulance through a pan-European commercialisation process, and contributed to the successful implementation of a suite of solutions designed to prevent patients who are waiting in Accident & Emergency becoming violent or aggressive.

Finally, our researchers are making an important contribution to the work of the new HELIX Centre, which embeds a healthcare design team inside St Mary’s Hospital, London. This new initiative, a joint venture between RCA and Imperial College, builds on the track record and techniques of the Healthcare Research Lab.

Ed Matthews
Lab Leader
This project has engaged the surgical community in developing a new procedure and instruments for total knee replacement surgery. It focuses on a commonplace surgical intervention for the treatment of severe knee arthritis and challenges current surgical philosophies that prioritise implant longevity and disregard the natural anatomy of the knee joint.

The research has explored a new philosophy of implanting the new knee joint to align it as close as possible to the patient’s natural anatomy whilst maximising the life of the implant. This new approach aims to provide a more familiar ‘feel’ and a more natural motion, minimising damage to the soft tissues around the knee.

The outputs of the study are an algorithm and a set of surgical instrument concepts that help the surgeon calculate the implant position, perform the surgery and check how correct the positioning is. The prototypes will be used by DePuy’s development team to continue their work in improving patient satisfaction with knee surgery.

**Researchers**  
Hawys Tomos and Gianpaolo Fusari

**Research Partner**  
DePuy Synthes Joint Reconstruction
TOGETHERNESS

This project explores new furniture concepts for the care market in the Scandinavian region. It is based on in-depth user research that took place in care homes in Sweden, Norway and Denmark and also with older people living independently in their own homes. The research highlights the limitations of much of the currently available care furniture and opportunities to develop new designs that can improve quality of life.

Research revealed that older people facing challenges in later life, including dementia, want furniture that supports their needs without being patronising or stigmatising. New concepts were developed under the banner of ‘Togetherness’ – a sense of togetherness is what the very best furniture engenders within any care environment, providing psychological and ergonomic comfort.

Four prototypes were tested with users in care homes to demonstrate the potential for innovation. The first is an adjustable modular lounger chair; the second is a tray table/side table with a top that charges tech devices; the third is a dining chair that helps people to sit down and stand up, and the final concept is a conversation chair for people who are hard of hearing.

Researcher
Lisa Johansson

Research Partner
Kinnarps
The HELIX Centre is a joint venture between the Royal College of Art and Imperial College London that embeds a healthcare design unit inside St Mary’s Hospital, London. It engages frontline NHS staff and patients as co-design collaborators in using low-cost, high-impact frugal innovation techniques to improve healthcare.

The HELIX Centre started work in October 2013. Current projects range from the development of an active passive trainer for patients recovering from illness or injury to a project to improve uptake of the NHS bowel cancer screening programme.

The Helen Hamlyn Centre for Design is working closely with the HELIX Centre. Two senior members of the Healthcare Research Lab are seconded to this dynamic new initiative, whose visibility within a working London hospital will be raised by a new pop-up design studio designed by students from the RCA’s School of Architecture, that is scheduled to open in Norfolk Place in January 2015.

Researchers
Jonathan West and Gianpaolo Fusari

Funded by
HEFCE Catalyst Fund
Top: exploring hardware and app elements of an active passive trainer. Above and left: rethinking bowel cancer screening programme.
REducing Violence in A&E

Arriving at the Accident & Emergency department of a hospital can be a stressful and confusing experience for patients who are sick or injured. This project pilots the impact of a suite of design solutions that were developed as part of a multi-disciplinary team project and based on research in three UK hospitals to prevent patients becoming violent or aggressive.

The Helen Hamlyn Centre joined designers PearsonLloyd and other partners in carrying out ethnographic research, creating signs, leaflets and screens to guide patients through the process, and a programme to support staff in managing difficult patients. These solutions were installed and piloted at two A&E departments: Southampton General Hospital and St George’s Hospital, London.

An evaluation was carried out by Frontier Economics and ESRO to test their impact: 75 per cent of patients said the improved signage reduced their frustration during waiting times; threatening body language and aggressive behaviour fell by 50 per cent following implementation; and for every £1 spent on the design solutions, £3 was generated in benefits.

Researcher  Gianpaolo Fusari

Funded by  Design Council and Department of Health

Redesigning the Ambulance

Our new emergency ambulance was co-designed with frontline paramedics, clinicians and patients to help reduce unnecessary hospital admissions by delivering more community care. The Helen Hamlyn Centre for Design is now funded to work on a pan-European development process to bring this design to the market.

This project set out to make the ambulance treatment space fit for 21st century healthcare. Building on several years of research at the RCA, the study began when the designers joined ambulance crews on callouts during 12-hour shifts. Key insights were translated into sketch designs; a full-scale test rig was mocked up in cardboard and foam and a co-design process resulted in a full-size mobile demonstrator of the new interior, validated through three iterations of scientifically-designed trials in controlled test spaces.

The new ambulance is reconfigured to provide 360° access to the patient, which not only improves clinical efficiency but also enhances patient safety. The new interior is designed to be easier to clean. Equipment packs containing specific treatment consumables aid clinical performance, infection control and stock control. There is also a new digital diagnostics and communications system.

Researchers  Gianpaolo Fusari and Ed Matthews

Developed with  Prof Dale Harrow, RCA Vehicle Design

Funded by  NHS London and Helen Hamlyn Trust
The Work & City Research Lab asks how designers can make living and working in our cities more inclusive and sustainable. A key focus is on work, but as workplaces are mainly centred in the city, we cast our research lens across the wider urban environment. We explore the impact of both physical and digital changes on the way people live and work in cities, and we investigate these changes at a number of scales – from the urban master plan to our more intimate interactions with interior space and products.

Our special interest is in creating tools and frameworks that help us understand how cities and workplaces are changing and we advance this interest through four strands of work.

**Workspace** examines new ways in which work environments can be reimagined to meet the needs of people and involve them in the design process. This year we completed projects with Herman Miller, Haworth and Philips Lighting that demonstrate ways to make office environments more sustainable, comfortable and humane. We also worked closely with Megaman on a study to improve lighting in educational workspace and collaborated with Madrid’s IE Business School to run a summer school on workspace design in London.

**Work-Life** is the second theme – this looks at design strategies and innovations that explore the balance or blend between living and working. We are currently working on Family Ritual 2.0, a UK Research Council-funded study of how new technology can help mobile workers keep in touch with their families.

**Digital Communities** studies the impact of digital technology on urban and work communities, examining the connections and conflicts between the physical and the virtual realms. Under this theme, Creative Citizens is a UK Research Council funded project looking at the role of the citizen in digitally enabled local communities. The Creative Exchange programme, funded by the AHRC, is exploring knowledge exchange between arts and humanities academics and practitioners on the theme of digital public space.

The fourth strand is **Urban Infrastructure**, which looks at the city in terms of making core services and infrastructures more inclusive and sustainable – those sometimes invisible systems in which we live and work. Under this theme we are currently developing the Great British Toilet Map, to provide information and provision for all but especially to improve confidence and mobility for people with incontinence. This work has been funded by Research Councils UK and the Nominet Trust and is based on using open data provided by local authorities.

Jo-Anne Bichard  
*Lab Leader*
This project explores how office design can be enhanced by ideas from other environments such as theatre sets, temporary urban events, academic libraries, and ‘extreme team’ settings (air traffic control, media newsrooms and emergency medical departments). A new book based on the research, entitled *Life of Work*, is published in autumn 2014, featuring a new model for rethinking workplace design.

The study views working life as a combination of process and experience – what we do, and how we feel. By exploring analogous environments, it builds up a new picture of the workplace encompassing not only physical settings that support work processes, but also people’s psychological experiences within those spaces. The new workplace model is called FLEX; this combines four values – flexibility, legibility, experiential quality and comfort.

By adopting a series of novel perspectives on how workplace design can learn from other spaces and settings in the world around us, the project describes how the office can transcend its utilitarian roots as an adjunct of the manufacturing age to provide people-centred work environments for the 21st century knowledge economy.

**Researcher**
Imogen Privett

**Research Partners**
Haworth and Philips Lighting
This project looks at alternative, low-energy ways to light the secondary school classroom to support learning. Based on in-depth user research in London, Hong Kong and Trondheim, Norway, it features a lighting set-up to improve mood and motivation – and a lighting guide for teachers and school managers who are often unaware of the impact light can have on the learning process.

Key findings from the research were investigated through a series of classroom lighting workshops and experiments that looked at ways to balance natural and electric lighting, support group learning and address the glare and visual discomfort that arise from a mismatch between lighting and the information and communication technologies now widely used in schools.

This two-year study challenges conventional thinking that just providing more light automatically means better concentration. It takes a more human-centred approach that considers the biological and psychological needs of teachers and students, with valuable guidance on lighting set-up, placement and configuration that can exploit the benefits of emerging lighting technologies.

Researcher
Amanda Buckley

Research Partner
Megaman Charity Trust Fund
This project has developed an online toolkit designed to enable a furniture manufacturer to collaborate with its clients on workspace analysis and employee consultation when creating new people-centred work environments. It shows how workspace can be reprogrammed to be more socially dynamic by addressing programmable surfaces, circulation, large objects and points of interaction.

The project began with a two-year study by architect Benjamin Koslowski, who conducted in-depth user research inside five different types of workplaces occupying different building types at different scales. An architectural framework inspired by the Parc de la Villette in Paris was applied to test a methodology that enabled the research team to adjust key elements of the workspace in response to behavioural requirements identified through a simple engagement process.

The third year of the study has developed this approach into a digital communication toolkit that is concerned with the landscaping of the office and how workspace can be reprogrammed to give people more choice and variety in how they work alongside colleagues.

**Researcher**
Lottie Crumbleholme

**Research Partner**
Herman Miller
FAMILY RITUALS 2.0

This project looks at work-life balance in the digital age and at ways to keep mobile workers connected to key family events. Ethnographic research tools (shown here) have played a key role in the study to understand how the rituals of home life can be maintained when family members are separated due to regular work travel. These tools include a bird box that asks questions and collects the answers, and an interactive emotional map that charts patterns of separation and reunion.

The research is structured in two phases. An initial phase consisted of gathering information through design-led ethnographic case studies with the families of six mobile workers. The findings identified during this period will inform the second phase, where a bespoke design is developed and delivered to each family to live with for a period of time.

Family Rituals 2.0 is an interdisciplinary research project comprising human computer interaction researchers (from Newcastle University), interaction and product designers (from Newcastle University and RCA), geographers (University of the West of England and Bournemouth University) and social anthropologists (Bournemouth University and RCA).

Researcher
Paulina Yurman

Funded by
EPSRC as part of the Digital Economy Programme
We all know how difficult it can be to find a toilet when away from home, but for some, such as older people, those with reduced continence due to a medical condition, or people with young children, this can be much more than an inconvenience.

This website uses open data provided by local councils to give information about public toilets in the UK. It currently displays more than 5,000 toilets and also includes data on privately provided toilets that the public may use, such as those in train stations.

The project began in 2011 as an output from the TACT3 research project and in response to information about publicly accessible toilets being incomplete, out of date and fragmented across hundreds of websites. A pilot for the London area was very well received and now the project is expanding the Great British Toilet Map across the whole of the UK. The project demonstrates how valuable local open data can be to improving public service provision, particularly in combination with other data sources and crowdsourcing.

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

**Funded by**
Nominet Trust
Creative citizens are everywhere. And they do pretty much everything – from community gardening to local journalism, from photography to public safety. Although there is nothing new about most of these activities, there is something new about the digital tools available to them.

This project is looking at the potential for digital media to creatively engage people in community-led design. Social media and web tools offer new opportunities and enable new forms of civic engagement, participation and expression. To learn more, the research team worked with two London community groups, The Mill and Kentish Town Neighbourhood Forum, to co-design and then test media interventions to see if and how they add value to their projects.

These interventions resulted in ‘The Story Machine’, enabling a community’s stories to be shared and, an online neighbourhood plan allowing local residents in Kentish Town to contribute ideas to their neighbourhood plan.

The Creative Citizen is an interdisciplinary project led by Ian Hargreaves, Professor of Digital Economy at Cardiff University, with six universities and six professional partners participating in the study. Initial findings were presented at a Creative Citizens conference and exhibition held at the RCA in September 2014, sparking much debate between the academics, community groups and policy makers who attended.

Researchers Catherine Greene, Dan Lockton, Gail Ramster and Alan Outten

Funded by AHRC and EPSRC as part of the Connected Communities Programme.
THE CREATIVE EXCHANGE

This project is bringing researchers in the arts and humanities, creative businesses and community groups across the UK into an experimental knowledge exchange network to build social value through innovation in the digital arts.

The Helen Hamlyn Centre for Design is working with the RCA’s School of Communication, Lancaster University’s Imagination Centre and Newcastle University’s Culture Lab to run one of four national knowledge exchange (KE) hubs funded by the AHRC as part of a programme to expand the creative economy in the UK.

The Creative Exchange (CX) has a number of distinctive strands: project work that brings academics and industry together around the topic of digital public space and catalyses new products and services; a PhD programme that generates new thinking in this area; and knowledge exchange mechanisms to reach out to new audiences and markets. Six Doctoral candidates are attached to the CX hub at the RCA.

During the year, the Helen Hamlyn Centre for Design led a project looking at the impact of digital technology on working life. Time & Motion: Redefining Working Life resulted in an book of essays edited by Jeremy Myerson and Emily Gee, and published by Liverpool University Press, and an exhibition of design artefacts and experiments at the FACT (Foundation for Art and Creative Technology) gallery in Liverpool, from 12 December 2013 to 9 March 2014.

Funded by
AHRC
Creative Exchange PhDs

Ben Dalton
Ben’s thesis argues that anonymous pseudonymity has a long and rich history within culture and society, and that digital resources and identity governance are tending to strip away its potential. Through interviews and projects, the research seeks to inform strategies to design for digital pseudonymity.

John Fass
John Fass is exploring the ways people understand digital experiences. Using the examples of browser history, social networks and email, this practice-led PhD allows for creative physical expressions of mental models. John’s research consists of public-facing, collaborative project work (see below).

Susannah Haslam
Susannah is exploring the idea of knowledge mobilities in a context of contemporary art theory, government policy and rhetoric around knowledge exchange, and the participatory aspect of digital humanities. The Creative Exchange itself is a case study focus for her research.

Benjamin Koslowski
Ben’s PhD explores architectural representation as a tool to better understand individual privacy in digital space. He uses the theatre and its related notions of actors and audiences to unpick the shifting qualities of interaction, and to help individuals better understand their own position with this.

Veronica Ranner
Veronica is researching the expanding domain of the bio-digital, a converging knowledge space where digital and computational thinking meet biological matter. Her doctoral work couples speculative biomaterial strategies with information experience through design research.

Jimmy Tidey
Jimmy’s study looks at how the ‘digital footprint’ of communities, generated through locally oriented digital public spaces (blogs, forums, Tweets and Facebook pages) can be used to inform local policy, measure outcomes and, importantly, improve communication among different social groups.
THE HELEN HAMLYN DESIGN AWARDS 2014

Innovative footwear to help people with neurological conditions to walk with confidence and a new service to support unpaid carers in the community were among the winners of the Helen Hamlyn Design Awards 2014, all chosen from graduation projects created by Masters students at the Royal College of Art.

The Awards recognise outstanding student design projects that contribute to improving quality of life and have been running at the RCA for more than 20 years. Other winning work in 2014 included an architectural vision for digitally connected cities in the UK and radical new urban mobility concept. The four main award categories were sponsored by Age UK, GMW Architects, MIE Medical Research and the Technology Strategy Board.

Representatives from each organisation handed over the prizes at an awards ceremony on 24 June 2014 at the RCA. There was a total prize fund of £10,000. In all, the Helen Hamlyn Design Awards received 30 nominations from RCA professors representing nine design programmes across the College. An international panel of experts and sponsors judged the work in the 2014 RCA Show of graduating students.

Rewarding Excellence in People-centred Design

Innovative footwear to help people with neurological conditions to walk with confidence and a new service to support unpaid carers in the community were among the winners of the Helen Hamlyn Design Awards 2014, all chosen from graduation projects created by Masters students at the Royal College of Art.

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HELEN HAMLYN DESIGN AWARD FOR CREATIVITY

Joint Winner: Caring Voices
Vivienne Heyhoe, Service Design

A support service for unpaid carers that lessens the individual burden to carers of looking after friends and family at home. It helps carers to monitor, record and value their role and gives them discounts with retailers in the community.

Judge’s comment
“Anything that can help carers and the people they care for will always have my support.” Lady Hamlyn

Joint Winner: Path
Lise Pape, Innovation Design Engineering

This project aims to increase confidence when walking. Based on working closely with people with Multiple Sclerosis and Parkinson’s Disease, Path uses visual and tactile cues to trigger movement and provide enhanced support for balance and gait.

Judge’s comment
“More older people will admit that they have problems with walking. This innovative design has the potential to address the problem.” Lady Hamlyn

Rewarding Excellence in People-centred Design

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Winner: Harry Dobbs of Harry Dobbs Design
RCA Graduate 2001
Helen Hamlyn Research Associate 2002

Harry Dobbs Design is a London based architecture and urban design practice, and has been recognised for its engaging approach to public environments and innovative design; it has won a range of international competitions and been shortlisted for a number of awards including the RIBA Urban and RIBA Sustainable by Design awards and Young Architect of the Year.

Judge’s comment:
“Harry’s work combines architecture, design and people in the public realm in a way that is inclusive, artistic and technically ingenious.” Jeremy Myerson, Director, Helen Hamlyn Centre for Design

Winner: Caring Voices
Vivienne Heyhoe, Service Design

A support service for unpaid carers that lessens the individual burden to carers of looking after friends and family at home. It helps carers to monitor, record and value their role, and gives them discounts with retailers in the community.

Judge’s comment
“For the 6.5 million carers in the UK, removing the burden and isolation of caring is important. This project provides practical, well considered and compassionate solutions to the problem.” Prof James Goodwin, Age UK

Sponsored by Age UK
Awards

**TSB INNOVATION FOR LIVING AWARD**

Winner: **Seyan**  
Henri Peugeot, Vehicle Design

Seyan is an alternative individual mobility concept composed of two compatible vehicles – a smaller wheelchair-sized design emerges from a compact city car, crossing boundaries between inside and out, and reshaping the idea of mobility for all.

Judge’s comment:  
“Finally, an individual mobility concept that trashes the stereotype of unattractive designs around mobility. Instead it embraces the human desire for self esteem, beauty and autonomy to go places in style.”  

Sponsored by Technology Strategy Board

**MIE DESIGN AWARD FOR HEALTHCARE**

Winner: **Path**  
Lise Pape, Innovation Design Engineering

This project aims to increase confidence when walking. Based on working closely with people with Multiple Sclerosis and Parkinson’s Disease, Path uses visual and tactile cues to trigger movement and give enhanced support for balance and gait.

Judge’s comment:  
“The project should be an inspiration to all medical device companies because it puts the user at the centre of solution creation.”  
Brian Firth, MIE Medical Research

Sponsored by MIE Medical Research
**GMW Design Award**

**Work and City**

**Winner:** Cities: Game Over?
James Pockson, Architecture

This project investigates a possible future for public space in the digital age – a future in which connectivity and mobility have become central drivers in the planning of cities. The result is the design for Old Oak Common in London, part of the proposed HS2 network and billed as the ‘most connected place in the UK’.

**Judge’s comment:**
“This project reasserts the role of the architect as agent provocateur.”
Tim Hardingham, GMW Architects

**Sponsored by GMW Architects**

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**RCA Fixperts Award**

**Winner:** The Right Trousers
Fixpert: Alon Meron
RCA Design Products graduate 2008
Fixperts Partners: John Cahill and his London Borough of Hammersmith and Fulham support worker, Michael Hooker
Film Maker: Henry Richards

Fixperts is about a simple idea involving people with making skills who solve problems for others and share their inspiring results online.

**Judge’s comment:**
“This collaboration shows the potential when local authorities work with creative makers...”
PEOPLE

Jeremy Myerson
Director

Rama Gheerawo
Deputy Director and Reader

Jo-Anne Bichard
Senior Research Fellow

Ed Matthews
Reader

Peter Buckle
Research Professor

Jonathan West
Research Fellow

Kay Sandford-Beal
Head of Operations

Margaret Durkan
Communication Manager

Mark Byrne
Administrator

Anna Waring
Research Administrator

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Mark Byrne
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Anna Waring
Research Administrator

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Senior Research Associate

Catherine Greene
Senior Research Associate

Gianpaolo Fusari
Senior Research Associate

Merih Kunur
Senior Research Associate

Dan Lockton
Senior Research Associate

Chris McGinley
Senior Research Associate

Niels van Roij
Senior Research Associate

Flora Bowden
Research Associate

Amanda Buckley
Research Associate

Lottie Crumbleholme
Research Associate
Katie Gaudion  
Research Associate  
PhD Candidate

Shruti Grover  
Research Associate

Lisa Johansson  
Research Associate

Simon Kinneir  
Research Associate

Patrick Morris  
Research Associate

Alan Outten  
Research Associate

Imogen Privett  
Research Associate

Gail Ramster  
Research Associate

Maximo Riadigos  
Research Associate

Hawys Tomos  
Research Associate

Paulina Yurman  
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Peter Ziegler  
Research Associate

Helen Fisher  
Project Researcher

Sam Johnson  
Project Researcher

Jak Spencer  
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Gorzaneli, C., Ramster, G., Outten, A., Lockton, D. (2013). ‘Citadinetti e nuovi media per un’intelligenza creativa’ [Citizens and new media for a creative intelligence]. Urbanistica Tre, 1 (3), 75-84


Conference Proceedings


Keynote and Invited Presentations


Atkin, R. Entropy and the Internet of Useful Things. Presented at South by Southwest Interactive, Austin Texas, 8 March 2014


Crumbleholme, C. (2014) *Advance to Green: Driving Behavioural Change in Environmental Sustainability*. Presented at CoreNet Global Summit, Berlin, 16 September 2014


**Centre Publications**


Gheerawo, R. & McGinley, C (2014) *INVEN'Tory: 7 years, 7 collaborative design projects*. London: Blackberry and Helen Hamlyn Centre for Design, Royal College of Art


Setting up taxi models at the Mayor of London’s Zero Emission Taxi launch event in January 2014