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THE NEWSLETTER FOR OUR RESEARCH COMMUNITY

RESEARCH FORUM

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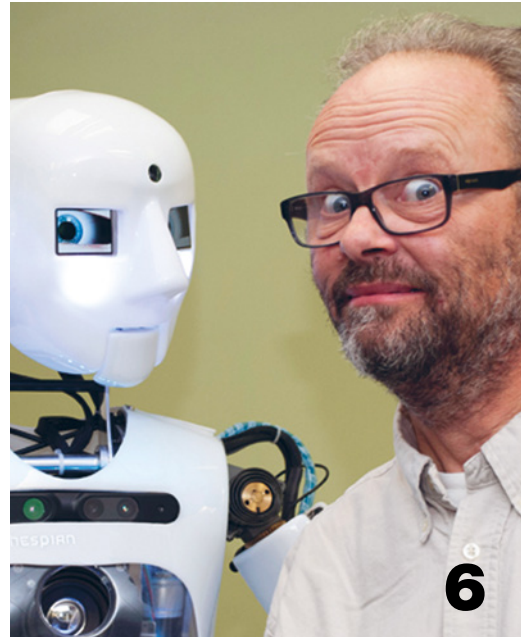
Setting the agenda

Our academics on this
year's major stories

PLUS THE REF: WHAT NEXT? | THINK BABY | LATEST EVENTS

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This issue and back copies of Research Forum are available at www.brookes.ac.uk/about/publications/research

Research Forum, the research magazine of Oxford Brookes University, is published twice a year.

Contributions are welcome from all sections of the University and should be sent to

researchforum@brookes.ac.uk

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Hello and welcome...



to December 2013's edition of Research Forum, the University's magazine that showcases our research.

As we approach 2014, some of our leading academics and researchers offer analysis and insight into key research areas and issues affecting wider society, such as climate change, transport, compassionate care and an aging population.

We also catch up with all the latest news from around the University, including funding success focusing on research on young people with developmental disorders. We hear about Robert Llewelyn's (aka Kryten from Red Dwarf) visit to our Psychology department's new cognitive robotics laboratory and about a current research project developing online learning for trainee health visitors.

Finally, now that we have made our final submission to the REF (Research Excellence Framework 2014), we turn our attention to proposals for Open Access with a helpful guide on what this means for you.

We hope you enjoy reading Research Forum. We always welcome your feedback, comments and suggestions, so do please email us at researchforum@brookes.ac.uk

**Alistair Fitt,
Pro Vice-Chancellor,
Research and Knowledge Exchange**



The REF

our submissions
are now in

Brookes made its final submission to the Research Excellence Framework (REF) 2014 ahead of the deadline on Friday 29 November.

The REF is the new system for assessing the quality of research in UK higher education institutions and replaces the Research Assessment Exercise. It will determine the allocation of research funding to higher education institutions from 2015-16.

Professor Alistair Fitt, Pro Vice-Chancellor for Research and Knowledge Exchange, commented: "A significant number of staff from across the University have been heavily involved in the REF."

"I would like to personally thank everyone for their efforts, support and expertise. This has been a long process, but one which we hope will be rewarding for the University in the coming years."

The University now awaits the outcomes of the process and the amount of funding we are due to receive when results are published in December 2014.

Helping children with developmental disorder

Reader in Rehabilitation, Dr Dido Green, has been awarded £50,000 from the Waterloo Foundation for a three year collaborative research project.

The project will use brain scans to compare connections in the brains of young people with developmental co-ordination disorder (DCD) with samples of typical peers. DCD is thought to affect up to four per cent of school-aged children, who struggle with learning co-ordinated movements and may have speech, language and attention difficulties.

The study aims to identify a neural

basis for DCD and reduce isolation and frustration for affected families through increased awareness of the condition.

The project will start in January 2014 and run for three years, and builds on work co-led by Dr Green which suggested that children with DCD using Wii Fit could see improvements to their motor proficiency and perception of their own motor ability.

Dr Green has also been awarded funding from the Higher Education Innovation Fund to set up a weekly activity club for children with movement disabilities, the 'Detective Club'.



Dr Dido Green

Influencing Government white paper

Professor of Psychology Vince Connelly led a study on workplace cultures in the army which has informed a government white paper on the future of the country's armed forces reserves. Along with senior army personnel, Professor Connelly interviewed full- and part-time army staff with a view to understanding the friction between integration of these groups.

The White Paper, entitled 'Reserves in the Future Force 2020: Valuable and Valued', aims to better integrate regular and reservist soldiers within the armed forces and has been presented by Professor Connelly at an international conference on armed forces.

IN BRIEF

John Payne

Distinguished engineer, inventor, and Brookes alumnus, John Payne, sadly passed away in September.

John enjoyed a successful engineering career in Oxfordshire and continued to develop his deep connections with the University throughout his life. In 2010, the John Payne Building was named in his honour.

He was inventor of the Oxford Hoist, the first wall-mounted patient lifting device, which was later accompanied by a mobile version, sold across the world.

Busy bee

Undergraduate, Jayson Quayle, is undertaking research for his dissertation with the help of a hive of black native honey bees.

Working with Dr Louise Hughes, from the Faculty of Health and Life Sciences, he is studying global samples of honey, pollen and wax, which he hopes will lead to improvements for hive designs and also raise awareness of ideal hive locations to increase bee survival.

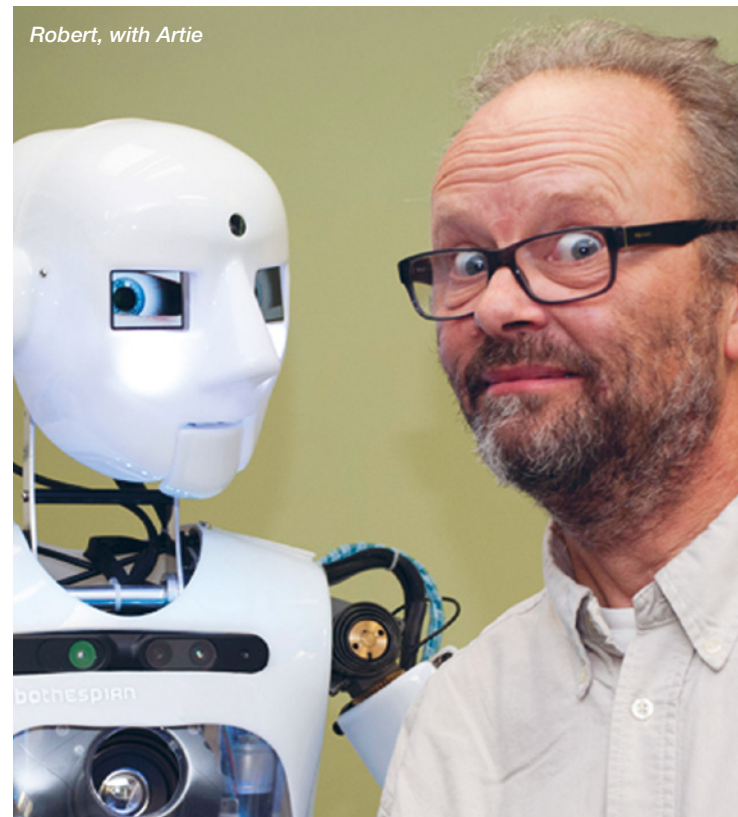
The Warré hive, installed on campus, is a more sustainable and natural method of keeping bees than are the more traditional models, which tend to focus on honey production.

Seminar series on British-Africa policy

Dr Stephen Hurt, Senior Lecturer in International Relations, has successfully bid for funding to hold a seminar series on British policy towards Africa.

The funding of over £25,000, from the ESRC, will support a 28-month series, which will be hosted at Brookes and partner institutions.

The final seminar will be held in the Kenyan capital, Nairobi.



Robert, with Artie

When Kryten met Artie

Actor Robert Llewellyn visited Brookes to talk to digital media students about his experiences in the media industry in front of and behind the camera. Robert most famously played the mechanoid Kryten in the sitcom *Red Dwarf*.

He later visited the department's new cognitive robotics laboratory to meet its first permanent resident, Artie. Artie, a 'RoboThespian' life sized humanoid robot created by Engineered Arts in Cornwall, is part of the department's cutting-edge research in human-robot interaction and allows students to apply what they are learning about programming to the control of sophisticated robots. A new undergraduate degree in Robotics System Engineering is planned for 2015.

Robert later tweeted: "Had the bizarre pleasure of meeting Mr Robothespian today. He's an amazing chap." Robert has other links to the University as he took part in a large-scale trial of electric vehicles to assess driver behaviour. The UK-wide project involved the University's Psychology department who interviewed hundreds of drivers of electric vehicles about their driving experiences.

Women in accountancy

Brookes research on the reasons why women are put off entering the accountancy profession was quoted by Martyn Jones, president of the Institute of Chartered Accountants in England and Wales (ICAEW), in the November issue of *Economia*, the ICAEW journal.

Catherine Dilnot, Karen Handley and Jill Millar of the Faculty of Business were commissioned by the ICAEW two years ago to examine influences on career choices (including accountancy) of final year students across degree subjects at eight English universities, using an online survey and focus groups.

The ICAEW, which recruits mostly from non-accounting graduates, is concerned that only 38 per cent of its trainees and only 26 per cent of its qualified members are women.

Significant differences in the perception of the career by gender were found, with women considering chartered accountancy more computer-based, male-dominated and intellectually challenging than men.

School of rock

School of Education's Dr Patrick Alexander is researching the processes of learning and knowledge construction in a rather unusual setting - a famous rock band. On tour and on stage, Dr Alexander investigates how an untrained, musically illiterate group of rock musicians are able to learn and write songs. He's also getting them to successfully perform together and to understand what it means to construct one's identity as a rock musician in the fast-changing world of the contemporary music industry.

The research considers the ways in which learning and knowledge construction in this informal setting might be applied to formal processes of education in schools.

To find out more, please contact:
palexander@brookes.ac.uk

What makes good feedback?

Brookes researchers, in collaboration with Cardiff University, have been awarded £60,000 by the Higher Education Academy to understand what makes good feedback. The project, which will work across business and science disciplines, will explore students' perceptions of the quality of feedback they receive from lecturers

and will involve students themselves as co-researchers. Findings of the project will benefit the development of a toolkit and online tutorial to support staff in providing good feedback experiences. The project will run until December 2014. To find out more, please visit: www.brookes.ac.uk/aske

Supporting cycling in older age

A new three year research project which started in October 2013 will investigate ways in which people can be encouraged and helped to cycle in older age. Whilst cycling accounts for 23 per cent of all journeys for people aged 65 and older in the Netherlands, 15 per cent in Denmark and nine per cent in Germany, it represents only one per cent of all journeys in the UK.

Tim Jones, Senior Research Fellow of the Department of Planning, will be leading a team of researchers in the £1.2 million study focusing on whether cycling could play a more significant contribution to the mobility, health and wellbeing of an ageing UK population. Find out more about Tim's project on page 16.



Working with Natural England

The Centre for Ecology, Environment and Conservation (CEEC), based in the Department of Biological and Medical Sciences, has been chosen to perform Invertebrate Site Assessments throughout the UK for a second year.

Carried out on behalf of Natural England, these will assess the quality of all SSSIs (Sites of Special Scientific Interest) by sampling insects within the sites.

Natural England uses the data from these assessments to feed into a report into the state of nature for the UK Government. The processes and outcomes of the work are also incorporated into the masters and undergraduate modules within the department, so underpinning teaching with current research.

IN BRIEF

Women of the Year lunch

Dr Anne Osterrieder, Research and Science Communication Fellow, attended an annual event in October to celebrate the achievement of women.

Dr Osterrieder was invited due to her research, as well as for her pioneering work in the communication of science, for which she was recognised by the Society of Experimental Biology last year. Held in London, a total of 400 leading women attended the lunch.

Professor joins Academy of Excellence

Professor of Sustainable Architecture and Climate Change, Rajat Gupta, has been voted into the Building4Change 2013 Virtual Academy of Excellence.

Professor Gupta joins 12 other academics, nominated by their peers, in recognition of work on sustainability in the built environment, which has included helping to develop a common carbon metric for the United Nations.

You can read more on page 18.

Debate about 21st century neighbourhoods

A symposium was held at Brookes to discuss how Oxford's neighbourhoods could be better planned to meet the needs of modern living.

Professor Wulf Daseking, credited with the sustainable regeneration of Freiburg, Germany, spoke about how to build a successful, expanding low-carbon city. The conference also looked at the development of nearby towns such as Bicester, to be more eco-friendly.

The REF is over *Long live the REF!*

The deadline for submission to REF2014 has now passed but serious discussions on the format of its successor have already been taking place. The most significant area for debate has been Open Access.

Consultation is taking place on proposed criteria that outputs submitted to post-REF2014 should be made Open Access at the point of publication.

It is seen as an effective way to support knowledge exchange and ensure that universities and colleges can play a leading role in stimulating the knowledge economy.

Open access to the outputs from publicly funded research has perceived clear benefits for research, higher education and the UK economy. So in order to raise awareness of this developing area, Brookes held a panel event in October that included presentations and a lively question and answer session.

So how is Brookes dealing with Open Access?

Launched four years ago, RADAR (Research Archive and Digital Asset Repository) is the institutional repository for the University. It is multi-purpose, allowing the storage and discovery of research outputs (journal articles, conference papers, book chapters, monographs, images works, audio recordings) carried out by Brookes academics. Articles and conference papers will also be stored and made openly available to all, complying with funding body requirements.

It also has the potential to make digitised special collections available, making RADAR a possible publishing platform for Brookes. Open educational resources (OER) and teaching resources available via Moodle on RADAR are blurring the boundaries between teaching, learning and research, and could be used to support the development of Massive Open Online Courses (MOOCs). To find out more, please visit: www.brookes.ac.uk/go/radar

This session was just the start of the process of raising awareness on open access for the next REF. From the event we've put together some FAQs:

| | |
|---|--|
| What does Open Access mean? | It means outputs that can be accessed by the public and/or industry and which are held on an institutional repository (eg RADAR, Brookes' institutional repository). |
| Will there be exceptions? | Yes, probably. For example, for researchers who worked for institutions outside the UK. |
| What outputs are included? | The intention is that journals and conference proceedings only are included. |
| What about outputs that are not journals or conference papers? | The requirement does not yet extend to books, monographs or other outputs, but this should not be interpreted as a sign that Open Access will not affect these output forms in the future – in fact the reverse is the case – ways to make other forms of output Open Access are being actively pursued. |
| How will publishers respond? | Many publishers already have processes in place to meet Open Access requirements. There are staff in the Directorate of Learning Resources who can advise on complying with these processes. |
| Green vs Gold – what do these criteria mean? | <p>Green – This means depositing the final peer-reviewed research output in a repository. Repositories can be run by the researcher's institution, but shared or subject repositories are also commonly used. Access to the research output can be granted either immediately or after an agreed embargo period</p> <p>Gold – This means publishing in a way that allows immediate access to everyone electronically and free of charge. Publishers can recoup their costs through a number of mechanisms, including through payments from authors called article processing charges (APCs), or through advertising, donations or other subsidies.</p> |
| What does the University think? | <p>The University has produced a Position Paper on Open Access. This can be accessed at: https://www2.brookes.ac.uk/research-support/open_access/index_html</p> <p>The University is very much in favour of Open Access for both outputs and research data and wishes to be responsive to what is an evolving picture. The University's position on research data can be found in the Research Data Management Policy, found at: https://www2.brookes.ac.uk/research-support/managing_data</p> |
| When might this proposal for Open Access come into force? | The current consultation process is suggesting that the requirements for Open Access take effect from 2016. This means that outputs should be made openly accessible (subject to embargo periods of the publisher) from that date, at or very close to, the point of publication. So an output published in 2017 will have to become Open Access in 2017 – not some years later. Discussions are already starting in the University to make sure we can provide evidence of when outputs were made accessible. |

To find out more, please contact Sarah Taylor: staylor@brookes.ac.uk

SPECIAL FEATURE

Tackling the major issues

To demonstrate how Brookes' research is making a real difference to the world we invited some of our academics to offer their opinion on some of 2013's major stories.

Opinion and analysis include examining how transport is one the biggest drivers of change in society, both on a public and private level, and how failures in the NHS have led to a review of care practices in hospitals - and what Brookes is doing to address them.

We also look into this year's Intergovernmental Panel on Climate Change and the rising costs of energy bills as well as how we're shaping senior citizen's health and wellbeing through cycling.



The current debate over the pros and cons of HS2 is far from settled. The business case isn't firm, the direct beneficiaries are small in number and the projected costs are huge.

High speed?

Professor Allan Hutchinson, head of the Sustainable Vehicle Engineering Centre at Brookes, weighs up the statistics for the future of transport in the UK.

The evolution of transport represents one of the most significant drivers of societal change, and the motor vehicle has greatly influenced the development of mobility and international trade. However, our current transportation system is placing unsustainable demands on finite resources of energy, minerals and materials, as well as contributing to significant emissions. Change is therefore essential.

The current debate over the pros and cons of HS2 is far from settled. The business case isn't firm, the direct beneficiaries small in number and the projected costs huge. A third of the estimated cost could be used to benefit far more people, more quickly, by upgrading the existing infrastructure and rolling stock to increase capacity, and constructing a direct link into Heathrow airport from the west.

The UK has a mature and highly-developed transport system of infrastructure, services and users, including almost 250,000 miles of roads and 10,000 miles of railways. The total number of road transport miles travelled in Great Britain was around 500 million miles in 2010; almost double that of 1970 and nearly 10 per cent more than in the mid-1990s. Greenhouse gas (GHG) emissions from domestic transport account for around one-quarter of the UK total. They rose by 11 per cent from 1990-2010, even as total emissions fell by 21 per cent.

The Sustainable Vehicle Engineering Centre (SVEC) at Oxford Brookes University is concerned with current and future challenges facing the automotive industry. We are driving innovation to create effective, affordable, energy- and resource-efficient transport. The global automotive industry, including the motorsports sector, has now reached a crossroads. This makes it one of the most interesting times in the entire history of this industrial sector that is worth over 10 per cent of UK gross domestic product.

The car accounted for 64 per cent of land-based trips and 79 per cent of distance travelled in 2011 while the number of cars has increased by one-third since the mid-1990s. Total traffic

volume increased by 20 per cent from 1993 to 2011 with the highest rate of increase on motorways. There is therefore a compelling case for introducing more energy efficiency and the associated reduction in emissions generated.

Public transport's share of journeys rose from nine per cent to 11 per cent from 1995 - 1997 to 2011, largely because of increases in rail and bus travel in London. Local bus trips outside London decreased by 15 per cent. Rail passengers travelled 21 billion miles in 2010/11, 42 per cent more than in 2000/01.

Domestic freight movements in 2010 were similar to 20 years earlier, at around 140 billion tonne miles. Around 60 per cent of movement is by road and nine per cent by rail.

There were 200 million passenger arrivals and departures at UK airports in 2011, a 24 per cent increase in a decade; 90 per cent were international passengers, and overall growth was driven entirely by scheduled international travel.

Technology is an enabler and can deliver significant benefits and cause step changes in the way people and freight move around. Extraordinary improvement in transport has already been achieved through the adoption of new technologies. Particular technology drivers in transport development are cost, health, environmental impact, customer experience and demand. Looking ahead, it is clear that technology innovations in more efficient energy use, transport autonomy and connectivity can bring enormous benefits and commercial opportunities.

To find out more on the Sustainable Vehicle Engineering Centre, please visit: www.mems.brookes.ac.uk/industry/svec

Associate Lecturer **Claire Chambers** tells us how the NHS can build a culture of leadership and compassionate care.

The media reports concerning the failures in care at the Mid Staffordshire NHS Foundation Trust were hard to read and hear, and the public inquiry report highlighted many issues that contributed to these distressing human stories. A culture that focused on measuring compliance but not on the patient experience, an abdication of responsibility for monitoring standards of care and a tolerance of poor standards, and of risks to patients, were some of the points highlighted in the report (Francis, 2013).

So how do these media reports of failing care in a hospital far away have any impact on Brookes? The Faculty of Health and Life Sciences provide programmes to a great many pre-registration nursing, health and social care students. In addition many qualified health and social care practitioners look to Oxford Brookes for their post qualification and postgraduate education and continuing professional development.

The report calls for enhanced education, training and support, particularly for those in leadership positions, to focus on the practical requirements of delivering compassionate care. Oxford Brookes was leading on the issues raised in these recommendations long before the distressing events were captured so memorably by the media, in various different hospitals and care settings.

I am the joint author of two books on compassion and leadership - *Compassion and Caring in Nursing* and *Excellence in Compassionate Nursing Care: Leading the Change*, published in 2009 and 2012 - and have been including it in my teaching on the public health nursing and community specialist practice postgraduate programmes.

To facilitate debates around the nature and importance of a compassionate culture, a collaborative project between Oxford Brookes University and Oxford University Hospitals NHS Trust has run interactive group sessions entitled energising for excellence and compassionate care – building resilience and combating compassion fatigue. These comprised two sets

of multiprofessional group sessions focusing on the nature of compassionate care, stress management, building resilience and positivity. The importance of taking a lead on developing a culture which is compassionate towards patients and clients was highlighted, as was the need to develop a compassionate place to work.

The Trust has a strong focus on compassionate and excellent care and this was a good place to start our discussions. Different participants, according to their practice environments, are now piloting strategies. They are aware of the need to evaluate these on an on-going basis, and all want to make sure that their suggested strategies continue to evolve.

Health and social care practitioners all need to believe that they are leaders, whatever their role and seniority. However, they often fail to recognise this. However, they often fail to recognise this, “and what feels so special to those in their care. If they dismiss this as just “normal” care they can not take a lead in helping this to become the norm in their practice area”. This is an important point for their leadership in compassion.

Times of change and challenge need good leadership, and these practitioners are those leaders, but they often underestimate the role they play in “taking a lead” in excellent and compassionate care.

Developing the culture of compassionate care (Cummings and Bennett, 2012) highlights the importance of the six Cs – care, compassion, communication, competence, courage and commitment. Having the skills to carry out care with competence, and excellent communication skills, needs a commitment to compassion and the courage to speak out when care is substandard, dangerous or inhumane; this is what strong leadership is about.

To find out more about Claire’s work, please email:
cachambers@brookes.ac.uk

A little compassion

Times of great change and challenge need great leadership, and they are those leaders, but I feel they often underestimate their importance and the role they have in taking a lead in excellent and compassionate care.

...the recent assessment report by the IPCC has confirmed that there is no longer any doubt that climate change is occurring, and the dominant cause has been human actions.

Time for change

As Director of both the Oxford Institute for Sustainable Development and the OISD Low Carbon Building Group, **Professor Rajat Gupta** is tackling climate change and rising household fuel bills head on through low carbon research.

Millions of households in the UK are facing gas and electricity price rises which takes the average annual bill to around £1,500. New research from investment bank UBS has predicted that energy prices will rise by 46 per cent in the years to 2020, meaning the annual fuel bill could rise above £2,000 by 2020.

The recent report by the Intergovernmental Panel on Climate Change has confirmed that there is no longer any doubt that climate change is occurring, and the dominant cause has been human actions in pouring greenhouse gases into the atmosphere as a result of burning fossil fuels, mainly to provide energy.

To avoid dangerous levels of climate change, beyond 2°C, the world can only emit a total of between 800 and 880 gigatonnes of carbon. Of this, about 530 gigatonnes had already been emitted by 2011. So the need for rapidly reducing household energy use, associated carbon dioxide emissions and fuel costs has never been more urgent.

The Low Carbon Building Group (LCB) based at Brookes addresses these global challenges by conducting research on advanced low carbon refurbishments and low carbon communities. Through a multi-disciplinary approach, it draws on the disciplines of building science, social science and information technologies. The research seeks to create a body of evidence on building performance and energy behaviours to help inform future policy formulation and strategy implementation for meeting national targets.

The LCB group's Oxford Whole House Carbon Reduction Project, funded by Technology Strategy Board demonstrates that advanced low carbon refurbishment of even a Victorian terrace can lead to over 80 per cent energy and carbon emission reductions, provided the solutions implemented are robust, appropriate, user-centred, and fine-tuned using building performance evaluation. The group's award-winning carbon mapping software model, DECoRuM®, has helped to provide a range of environmental, public policy and practice benefits to homeowners, communities, local authorities

and architects. Through the DECC-funded Local Energy Assessment Fund DECoRuM® model has enabled a local community in Bicester to prepare for the National Green Deal programme, by assessing the potential for applying costed refurbishment interventions based on a combination of best practice energy saving measures, and low carbon technologies.

Since community-based initiatives on reducing domestic energy use are on the rise in the UK, the LCB group is leading a major £1.14 million research project (entitled EVALOC), funded by the Economic and Social Research Council, that is evaluating the impacts, role, effects and limitations of low carbon communities in motivating energy reduction and renewable energy investment amongst local residents. The main work streams take place on two levels; community and household, using a variety of research methodologies and survey instruments including community events (14 events across the six communities), three rounds of focus groups, carbon mapping of 1,800 homes and case study household monitoring and surveys of 88 households across the six communities.

Other methods are more open-ended, such as the exploration of how knowledge and know-how are transmitted through social networks at a community and household level. Early findings show that community groups are seen to provide an important 'missing' link between individual households and larger local and national players. They undertake a range of delivery roles at different levels, from innovative approaches, partnership working with local authorities, business and housing associations, as well as inspire, advise and support other community energy projects. They also develop acceptance for government action on climate change, influencing policy.

To find out more about Rajat's work, please visit: www.brookes.ac.uk/lowcarbonbuilding

Dr Tim Jones, Senior Research Fellow, is leading a major project to understand how the design of the built environment and technology is shaping older people's engagement with cycling and how this affects mobility and wellbeing.

As the UK and Europe grapples with an increase in the older population, there is greater need to support 'active aging' through the implementation of policies that support older citizens' autonomy and participation in society, and that promote life-long health and wellbeing. The ability for older citizens to remain mobile is an important component in maintaining wellbeing as it allows engagement in meaningful activities outside the home.

Cycling offers the potential for healthy aging by improving the cardiovascular and musculoskeletal systems therefore helping to prevent disease. Cycling can also act as a mobility aid for people who are unable to walk very far, who do not drive or are constrained by poor public transport service provision, and to carry things that may otherwise be difficult to transport on foot or by bus. However, as people age, cycling does become more physically challenging, and fear of injury and concerns about safety forces many to stop. This may account for the fact that only one per cent of all journeys of people aged over 65 and older in the UK are by bike, compared to 23 per cent in the Netherlands, 15 per cent in Denmark and nine per cent in Germany - countries who have invested more in cycling (Pucher & Buehler, 2012).

Older people in the UK are typically portrayed as lacking the capacity to cycle despite the contribution that cycling could make to their lives - This is not to mention the increasing proportion of older people who already lead healthy and active lives. Many adapt to changing physical circumstances and continue to cycle into older age and many would possess the desire and capacity to cycle if the built environment was more supportive. Further developments in assistive mobility technology such as the growth in the availability of electric bicycles ('e-bikes') may also provide an aging population with enhanced opportunities to continue to cycle.

The result is a general absence of discourse on designing the built environment to support older people's cycling needs, resulting in scant

attention to it in policy and design guidelines. A recent example of this myopia is the Department for Communities and Local Government's Lifetime Neighbourhoods (2011) initiative that promotes design of walkable neighbourhoods for older people but fails to address the role of cycling. This means that current infrastructural projects aimed at encouraging cycling continue to be implemented without prior knowledge of how their design affects older people's mobility and general wellbeing. The low uptake of cycling in the UK amongst the population, compared to countries that give more attention to cycling infrastructure and design, therefore comes as no surprise.

The Cycle BOOM project seeks to address this. It will engage with around 250 older people from across the Oxford, Reading, Bristol and Cardiff areas to understand the role of physical and technological design in shaping engagement with cycling, and how this impacts wellbeing.

The mixed methods approach will involve life history interviews to understand the role of cycling through older people's life course. Selected of participants will also take part in mobile interviews whilst undertaking a cycling activity which will involve tracking and videoing and linking their emotional response to the built environment using technologies that record physiological measures. The study will also incorporate electric-bike trails based at Oxford Brookes and Reading universities to investigate the impact on mental function and general wellbeing. Finally, trends of older cycling will be uncovered and compared across Europe so that the UK can learn from cities that have successfully encouraged and supported older cycling. The study started in October 2013 and will run for three years.

To find out more about Cycle Boom, please visit: www.cycleboom.org

One per cent of all journeys of people aged over 65 and older in the UK are by bike compared to 23 per cent in the Netherlands, 15 per cent in Denmark and nine per cent in Germany.

Supporting silver cycling

In statistics

Transport

4.6 billion

passenger journeys were made on local buses in the UK in 2012/13 – **40.4 million** of which were in Oxfordshire.

1501.7

passenger journeys (in millions) on trains in the UK in 2012-13, up over **50%** in 10 years.

503

passenger miles (in billions) on trains in the UK in 2012.

The average Briton spends

361 hours

per year travelling on 954 journeys

Source: dataportal.orr.gov.uk

Healthcare



3 out of 4 nurses graduating from Brookes will go on to work in the Oxford area.

76.5%

of patients are happy with their hospital experience.

In research by the Commonwealth Fund in 2010, the NHS was ranked **1st in terms of efficiency, effective care and cost-related problems** and 2nd for equity and safe care.

(NB this was out of 7 healthcare systems)

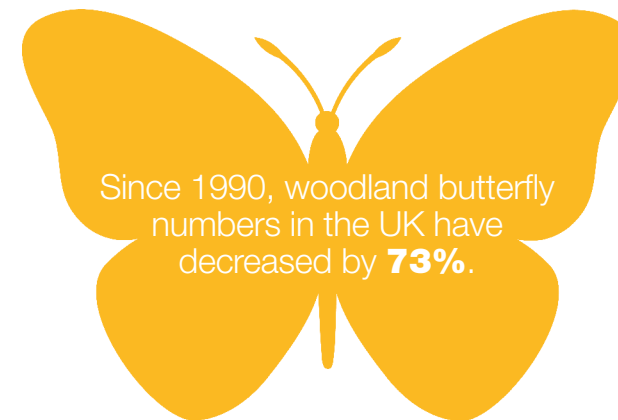
There were **369,868** nurses in the NHS in 2012 – **34,006** more than a decade earlier.

Source: www.nhsconfed.org

Climate change/environment

Methane (CH4) levels are **150% higher** now than in 1750.

Global temperature has increased **0.72°C** since 1901.



Time spent by volunteers working with the natural environment is up by **36%** since 2000.

Source: www.climatechange2013.org www.gov.uk

Senior citizen cycling

Cycling represents **23%** of all journeys by over 65s in the Netherlands, **15%** in Denmark, **9%** in Germany

but only **1%** in the UK.

There is an average of **8** bicycle trips per person per year in the over 60s, compared with an average of **19** throughout the ages 20-60.



An average of **46** miles is cycled per year in 60-69-year-olds (11 in over 70s), compared with an average of **76** for ages 20-60.

(This compares with 2002 figures of **23** in 60-69s (11 in over 70s), and **48** for 20-60s.)

Source: www.criticalmasslondon.org www.gov.uk



Think Baby:

Developing online learning resources for trainee health visitors

The first in a series of articles examining Brookes research on the ground...

Research team: Jane Appleton, Margaret Harris, Irmgard Huppe, Cat Kelly

Timescale: October 2012 to August 2013

Funder: The Higher Education Academy

Aim: To develop online training resources to help student health visitors build their skills in assessing mother-infant interactions.

Background: The Think Baby project aims to address a need, identified in the team's previous research (Appleton et al, 2013), for improved education amongst health visitors. It found initial training left them ill-prepared to assess the intricacies of mother-infant relationships.

'Think Baby' sought to develop online training resources for student health visitors using video footage of mothers and babies to illustrate different types of interactions. Once developed, the materials were evaluated and adapted for wider roll out.

Findings from the first study suggested that three distinct, but inter-related skills needed to be embedded into health visitor education, namely:

- observational skills, to enable students to analyse how they perceive mother-infant interactions
- the ability to compare evaluations of interactions by health visitors and to identify good practice
- the ability to reflect on how an observational framework, provided in training, can be applied in clinical practice.

Initial stages: The first step was to recruit an 'expert' panel of student specialist community public health nurse (health visitor) students. Six Brookes part-time students assisted in developing initial versions of the materials through peer discussion and review. A communication forum was set up on Moodle (the Brookes e-learning platform) for sharing ideas and for testing materials. The mothers who participated in the original study were asked to reaffirm consent to use their videos in the training materials

Development of training exercises:

Over four months the team mapped out a series of short training exercises for examining interactions between mothers and babies aged 12-16 weeks. The materials were then incorporated into an on-line format, using Moodle.

The structured exercises enable trainee health visitors to learn about observing interactions, including the importance of watching the baby and baby's responses to the mother, as well as the mother and her responses to the child. They include looking at how interactions consist of 'actions' and 'reactions' and recognising that babies are just as actively involved as mothers.

In one exercise, trainees listen to commentaries from different health visitors assessing mother-infant interactions and are asked to identify the characteristics of an evidence-based evaluation that accounts for both infant and mother behaviour.

In another exercise, students consider what they can expect developmentally from an infant of 12-16 weeks; the behaviours that they might see during a visit or clinic contact, and indicators of a successful interaction. These have been structured around the following areas of infant development:

- personal, social and emotional development
- communication and language
- knowledge, understanding and exploring the world.

When practitioners are observing an interaction, they need to be aware of what is 'normal' for both parties and whether what they are seeing is a 'normal' behaviour pattern, whether something is missing and if further action is needed.

Progress to date: Piloting of the materials with groups of students from three universities and teachers who train student health visitors in clinical practice resulted in favourable feedback. The materials were then fine tuned and findings were shared at the Community Practitioners' and Health Visitors' Association Professional Conference in October.

Future plans: Roll out of the training materials is underway, with all student health visitors in Oxford and London in early 2014. It is hoped the materials will inform training across the UK.

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