

Gazette Supplement



Vice-Chancellor's Oration 2017

Colleagues. Good morning.

It has been quite a year. We have had highs, we have had lows, our very purpose is being questioned, but throughout, as for so many hundreds of years, extraordinary scholars from around the world continue to convene here to push at the frontiers of knowledge, to educate the next generation, and to improve the society in which we find ourselves.

One of the highlights of the year was the fact that, for the second consecutive year, we were named the top university in the world by the *Times Higher Education* Global Ranking. This is a remarkable achievement, and one of which we should all be immensely proud. It speaks to the talent and commitment of the cosmopolitan community of academics and students who work here, and to the dedication of the staff who enable that work. Of course we all know that these rankings are imperfect, that the difference of a few places is almost accidental, but that we belong firmly in the small group of leading global universities is not in doubt. We must all work to ensure that we remain there.

This year, for the first time, the two top-ranked universities in the world were British. This reflects the centuries of commitment to higher education in this country. I can think of no other sphere of national life in which the top two organisations in the world are British. Our great universities are a national treasure, though it doesn't always feel that way. It is up to us to ensure that the British public appreciate the extent to which we serve the British national interest, we drive the British economy, we provide an engine for the social mobility of our youth, we help solve critical societal problems.

In my Admittance speech, when I had been in post a week, I spoke about three external and three internal challenges we face. Externally we face the challenges of globalisation, technological advances and

pressure on costs, internally we face the challenges of organisation, of renewal and of imparting our enduring values in changing times. I now have a keener appreciation of those challenges and how we might go about addressing them.

In the past 21 months the most frequent question I have asked myself is 'How can we be so good, when we organise ourselves in this sclerotic way? How can we be so good, when we spend so much of our most valuable resource, our time, on things that are so far removed from what brought us here to begin with?' I ask myself to imagine how good we would be if we were to focus more of our resources, our time, our money, our superb support staff, on the research and teaching that are most important to us. How much better would we be if we freed up resources for strategic investment to provide seed funding for exciting initiatives? How much better would we be if we made decisions faster, if we were to build more trust between us so that we could make decisions more expeditiously? The most frequent question I have asked other people in these past 21 months is: Where is the locus of this decision? (For the record, I rarely get a straight answer.)

We all know that change occurs slowly at Oxford (we can all cite variations on the light bulb jokes). But the world is changing rapidly around us, and I believe that if we stand still we will enter a period of slow but definite decline. We can ride the waves of globalisation, technological change and pressure on costs, or we can let them wash over us eroding the edges that make us the world-leading university we are.

Research

This past year has presented two terrific examples of our successfully riding the waves of globalisation and technological change.

The MPLS Division have launched a major new research centre in Suzhou, near Shanghai, called OSCAR (the Oxford Suzhou Centre for Advanced Research). This will bring our researchers into close contact with more than 90 Fortune 500 companies located in Suzhou, leading to faster adaptation of new research into commercially available technology. It will also allow us to expand our research enterprise by creating new lab teams with access to the outstanding scientific kit on site in Suzhou.

This year we also opened the world's largest health big data institute, the Li Ka Shing Centre for Health Information and Discovery, including the Big Data Institute and the Target Discovery Unit. The brainchild of Professor Sir John Bell, the centre will house over 600 scientists from a wide range of research areas, working to define disease more accurately, to identify targets for new drugs, and to help us to understand how disease responds to treatment. Molecular and cell biologists, chemists, epidemiologists, statisticians, computer scientists, informatics specialists, engineers and clinical scientists will all be housed under the same roof, to improve the collaboration between different teams. Unusually, the institute will also include social scientists and humanists, for example, a new Wellcome Centre for Ethics, Innovation, Globalisation and Medicine will provide a platform for collaboration within the BDI. This centre will identify and address the challenges to ethics posed by developments in data science, neuroscience and genomics.

There are a great many other research highlights from the past year too:

In March we opened the Begbroke Innovation Accelerator, a new science enterprise hub which was part-funded by the Oxford and Oxfordshire City Deal. The

building will help small and medium-sized businesses take their projects to market and provide facilities for University researchers developing innovative products and technologies.

Professor Andrew Pollard, the Director of the Oxford Vaccine Group, has developed a new vaccine against typhoid that has proven to be both safe and effective. Just a few days ago, an article in *The Lancet* showed that the vaccine Vi-TT will halve the number of typhoid infection cases.

Oxbotica tells us they will be able to demonstrate self-driving cars from central London to central Oxford by 2019.

The international research company Novo Nordisk is investing £115 million in a new research centre in the midst of our medical research area as part of a new type 2 diabetes research collaboration with the University.

The Medical Sciences Division has won support for a new Wellcome Trust Centre for Integrative Neuroimaging, and a renewal of the Wellcome Trust Centre for Human Genetics, and the third renewal for the Oxford Biomedical Research Centre, and the new Oxford Health BRC, one of only two in the country dedicated to mental health and dementia and with total funding of £126.5 million over five years.

Professor Catriona Seth has edited a most timely book on how Enlightenment thinkers approached the question of Europe's political and economic future. The authors found that among the ideas discussed at the time was whether there should be political unity and a common army, and whether trading links should be a basis for an association. The book was published, not coincidentally, on 23 June, this year.

Our social scientists won awards for research leading to the reduction of young people's risk of HIV in South Africa, and for informing the national debate on migration policy. Academics at the Oxford Internet Institute have demonstrated that, notwithstanding parental fears, cyber-bullying remains relatively rare compared to traditional schoolyard bullying. They have also won from President Duterte of the Philippines the description of Oxford as: 'A School for stupid people' after demonstrating that he used 4-500 keyboard trolls during his recent electoral victory.

Our sociologists have demonstrated that British people grew during the Roman Empire, shrank during the Middle Ages and industrial revolution, and are now growing faster than ever.

Our psychiatrists are calling for Ketamine – better known as a horse anaesthetic and illegal party drug – to be prescribed to patients at specialist clinics as they have found it to be so effective in treating depression.

Our archaeologists have suggested that chickens entered our diet around 1000 AD as a way to circumvent religious regulations banning consumption of four-legged animals during fasts.

The sometimes popular Irish airline Ryanair is claiming that its seating allocations, which split up families who do not pay to sit together, are made at random. Our statisticians, however, have demonstrated that winning the National Lottery is ten times more likely than these allocations being made randomly.

And finally, our experimental psychologists have demonstrated, once and for all, that wine really does taste better with a cork than a screw top.

I could mention many, many other examples of the wide-ranging and life-enhancing research taking place across the University.

Students

While research is a critical aspect of what draws us together, teaching is the other and the experience of teaching is immeasurably enhanced by the calibre of the students we attract from all over the world. Many of them are also engaged in research.

Oliver Padgett, a doctoral candidate in Zoology, working with researchers in Oxford, Spain and Italy, has shown that a sense of smell is indeed a key factor in long-distance bird navigation.

A DPhil student in Chemistry, Vanessa Restrepo-Schild, has created a synthetic retina, the first to use natural biological material which will give fresh hope to the visually impaired.

An undergraduate student studying PPE, Paul Ostwald, created the *Journal of Interrupted Studies* to publish work-in-progress by migrants and refugees whose work has been interrupted, most often by violence in Syria. The aim of the journal, which is now to be published by BRILL, is to ensure that the work is not lost and to demonstrate what migrants bring to their new countries.

The words of some of our incoming Rhodes Scholars speak for themselves. One wrote:

'When I told my parents that I might have a chance to go to Oxford, they were almost in tears...to think I would make it from my Palestinian refugee camp of Arroub to Oxford is truly incredible.'

Another said:

'I don't really see words; I see a moving image of what's going on on the page – it's a quick mental snapshot that I think is the result of my autism. Language is difficult for me, but images are easy. My Mom put so much effort into developing me, not only through teaching but to give me the mental strength and ability to control my autism. Her example has propelled me toward public service.'

And finally, the words of a young man who overcame poverty and an abusive father, later incarcerated on a life sentence for murder, to become a campus leader and Division One American Football player:

'One of my motivations was to never give up. Another one of my motivations is to show kids what it looks like to never give in. When I die and I'm standing in front of God, I want to be able to say "God, I don't have any talents left. I used everything you gave me."'

On reading the reports of graduates of our UNIQ summer school programme, what was most striking to me was the frequency with which these prospective students commented on the normality of the other students:

'The students were normal!...they seemed to be just regular people and they genuinely liked their subjects but not in a weird way.'

Another:

'I met a large number of surprisingly normal people who I genuinely got on with.'

And finally:

'The tutors and students were lovely. I couldn't believe that they were so...normal.'

Where our students are not so normal is in their passion for their subject combined with their intellect and potential. These are the qualities that our admissions tutors do such an extraordinary job of identifying.

Access

The subject of widening access to Oxford, and other elite educational institutions, has been very much on the national agenda in recent years, and no less so this year. It is, I believe, the dominant issue in setting the University's reputation in public in this country. I think it fair to say that very few people outside the University have any idea of the depth of the commitment, or the scale of the activities, designed to attract the

smartest students to Oxford irrespective of their background.

A large number of colleges have initiated their own access initiatives. Here are just a few:

Pembroke and **Corpus Christi** work with pupils, teachers, families and communities through a series of hub and link schools. The OxNet project takes university learning directly into schools, brings cutting-edge research into the classroom and places Oxford at the heart of local communities.

University College has increased its intake by 10% to accommodate a greater number of students from disadvantaged backgrounds. Branded the Univ Opportunity Programme, this initiative incorporates a four-week summer bridging course providing targeted academic support.

Christ Church has just announced a package of access initiatives including four new scholarships for outstanding students from low- to middle-income families, a series of maintenance bursaries, and summer bursaries to allow students undertake low-paid internships.

LMH is running its foundation year programme for a second time this year aimed at preparing talented young people for an Oxford education and enhancing the diversity of the college's student body.

Wadham is running a two-year programme introducing over 20 year-10 pupils from Luton to the world of selective universities.

St Peter's is launching a new initiative linking the college with nine secondary schools focused on providing professional development to teachers and educating them about the University admissions process.

The **St John's** Inspire Programme is a series of events, visits and online contact for pupils in Years 9–13 from non-selective state schools in the college's linked London boroughs of Harrow and Ealing.

This year the University also ran a new summer programme jointly with the Sutton Trust.

Having visited the participants in many of these programmes this year, and met with the staff who run them, and having attended many alumni events organised by colleges and focused on access, I have been deeply struck by the interest of our alumni, by the commitment of our staff, and by the impact of these programmes on the participants.

The largest-scale access programme is, of course, the UNIQ Summer School. Since its

inception in 2010 UNIQ has brought 6,375 state school pupils to Oxford for a summer programme. 23% of participants were later admitted to the University. After five years of a very successful programme, last year we made some changes, to put a stronger emphasis on students from areas of low progression to higher education, and those from lower socio-economic backgrounds, in selecting candidates for UNIQ. This shift has led to a significant increase in the percentage of pupils from these backgrounds making applications to the University and going on to take up places after taking part in the programme (from 47% of participants to 85%).

Overall we are making progress too. 38% of the 2017 entry has at least one access target flag. This is the highest since our records began. 284 students who have been flagged both because of socio-economic disadvantage and because of educational disadvantage have been accepted this year, again an increase on earlier years. For the very first time, in the 2017 admissions cycle, students who were both educationally and socio-economically disadvantaged were more likely to be shortlisted and more likely to be made an offer, compared to the overall applicant pool.

We are making definite progress, but it is happening slowly. We are expending large sums of money, but as the Ad-Ex Report makes clear, not all of that money is well spent and not all of our activities are well co-ordinated. This year I will be convening the VC Access Group, a termly meeting of those across the collegiate University who are involved in admissions, to monitor progress, share best practices and ensure that we are getting the results to match our commitment.

University Life

Throughout the course of this past year there were many events to mark: I opened the first non-domestic carbon-neutral building in Oxford, Kellogg's Passivhaus, and topped out the amazing Beecroft physics building. I celebrated the opening of Exeter's Cohen Quad on Walton Street, and the completion of St Anne's new Library and Academic Centre. Two Oxford buildings won awards from the Royal Institute of British Architects, the Berrow Foundation and New Garden Building at Lincoln, and the Magdalen College Library.

There were a fascinating range of lectures in colleges and departments across the University. Among the University-wide lectures I attended was one by Jeremy Farrar, Director of the Wellcome Trust,

to mark the 75th anniversary of the first human treated with penicillin. I introduced lectures by Baroness Lawrence to mark Black History Month, by C N Lester to mark LGBT History Month, by Dr Ruth Simmons as part of the Race and Curriculum lecture series, by Baroness Amos in the Women of Achievement series, and the Romanes lecture by Baroness Scotland. I introduced Michael Ignatieff's lecture on Global Ethics and David Miliband's lecture in the Sheldonian for the Oxford Martin School.

I participated in the celebrations of the launch of the Merton College Girls' Choir, our new professors, our honoured academics, our graduate student scholarship recipients, the Moritz-Heyman and Clarendon Scholars, the launch of TORCH 2017, International Women's Day and many others.

Our men won the boat race, our women lost. In Twickenham our women won, and the men lost. With representatives from across the city, I celebrated the 10th anniversary of The Oxford Hub and the fact that over 21,000 students have engaged in community activities. In June we celebrated our Olympians and our Honorary Degree recipients and in July we welcomed the King and Queen of Spain.

Our supporters have been generous and our Development and Alumni teams have been busy. We held major alumni events in Hong Kong, Singapore and Oxford and smaller ones across the globe. We have now raised £2.65 billion toward our £3 billion Campaign goal. The support and generosity of our alumni and friends is deeply gratifying, especially at this time of public scepticism. It is only with their help that we can secure our future.

In short, it has been a busy, thriving year and I have just sought to capture some of the parts of it in which I have been engaged. We continue to attract bright, curious and ambitious students, we continue to attract brilliant academics who continue to do the most extraordinarily exciting and important work and yet. And yet. We are living through troubled times.

Challenges

As I think about priorities for the year ahead managing, mitigating and even influencing BREXIT loom large. The shadow of BREXIT seems to hang like a dark cloud over the lives of many members of the diverse inclusive community that makes up the University. I want to assure our European students and staff that you are an integral part of the University, you always have been, and you always will be. Our historic success

has been built on our ability to attract the best academics from across the continent and across the globe. Our future success is contingent on our ability to continue to do so.

My colleagues and I are working assiduously to try to influence the political debate to ensure that our staff and students will continue to be able to move freely between universities, that our extensive research collaborations across Europe will not be disrupted by Britain's departure from the EU, and that the legal status of our European staff and their families will be resolved quickly and favourably.

The BREXIT vote revealed the emergence of a deeply troubling fault-line in society. 75% of those with post-secondary degrees voted to Remain, 73% of those without degrees voted for BREXIT. Educational attainment proved to be a better predictor of voting preference than age, income, class or race. The same pattern was evident in the US presidential election. President Trump won the vote of non-college-educated whites by a margin of 39%. Education level was also the critical factor in explaining shifts in voting patterns between the 2012 and 2016 elections.

I see this as a real problem for universities like ours that rely on public support for our ability to operate. Both the referendum campaign in Britain and the presidential campaign in the US provide ample evidence of a decline in respect for evidence and for experts. The infamous quote by one of our graduates about the public having had enough of experts encapsulates this attitude but it was pervasive throughout the campaign. A 2016 YouGov poll showed two-thirds of Leave supporters as compared to one-quarter of Remainers thought it wrong to rely too much on experts. As one caller to a BBC radio programme put it: 'Experts built the Titanic.'

'Post-truth' was named the Oxford Dictionaries Word of the Year for 2016 reflecting its use in the referendum and presidential campaigns. It refers to objective facts being less influential in shaping public opinion than appeals to emotion and personal belief. Perhaps 'alternative-fact' will be next year's word. Technology, of course, is exacerbating the attraction and the impact of alternative truths. With 3 billion social media users, misinformation can spread with astonishing alacrity.

Over 2,000 years ago Tacitus pointed out that '*Truth is confirmed by inspection and delay; falsehood by haste and uncertainty.*' With the 24-hour news cycle and

instantaneous social media coverage, no time is accorded 'inspection and delay'. It has never been more important for universities to represent and to inculcate a respect for 'inspection and delay', for evidence, to educate the next generation to distinguish between the evidence-based and the fabricated, and ultimately, to see truth as an aspiration not a possession. As Professor Philip Howard of the Oxford Internet Institute put it: '*If the role of universities has been as guardians of knowledge, at this point they must become advocates for knowledge.*' If the public were to see us as advocates for knowledge, rather than as advocates for ourselves, I believe we would go a long way in regaining public confidence and eroding the troubling gap in political preferences between those with and without university degrees.

Public Engagement

If we are to win the support of the public, and through them our politicians, we are going to have to engage more systematically than we have done previously. At the moment the debate about universities is all about money. Leading politicians claim that the only reason to attend university is to get a 'highly skilled, well-paid job at the end of it'. Efforts are being made to reduce the relationship between university and student to that of a transactional contract between seller and consumer.

While I don't think we should ever choose to make the case for universities on economic grounds alone, on those grounds alone we make a very strong case. OECD figures have long provided ample evidence of the personal financial benefits of a university degree, but this year we commissioned a report by BIGGAR economics to quantify the University's contribution to the regional, national and global economy. They concluded that we add £2.3 billion a year to the Oxfordshire economy and £7.1 billion to the global economy, of which £5.8 billion is in the UK. We support 50,600 jobs across the UK of which 33,700 are in Oxfordshire. We have generated more spinouts - 136 as of 2015 - than any other HE institution in the UK. Our active spinouts have an estimated turnover of £600 million globally. Another recent study, by software company Sage UK, found that Oxford has produced more founders of \$1 billion business start-ups over the past decade than any other university in Europe. As an aside, and as an indication of the economic contribution of our international staff, 45% of spinouts since 2011 have had a foreign founder or co-founder. For start-ups the figure is 77%.

I should point out that Oxford stands out from British universities in another respect too. It is generally the case that students from disadvantaged backgrounds earn less than their wealthier peers five years after entering the workforce. This is true across the country, but not in Oxford. Our graduates earn the same whether they come from privileged or deprived backgrounds unless they come from ethnic minority backgrounds, in which case they earn more than their peers five years after they enter the workforce. We should ensure that people know this.

We have a very strong economic case to make, but it is by no means the only case, or even, in my view, the most important one. What price can be put on a poem? What value-for-money in the exploration of the human condition? What return-on-investment in the inculcation of empathy experienced in seeing the world through another's eyes?

We should not, therefore, confine ourselves to an economic argument. In fact, throughout the history of science, most of the great discoveries which ultimately proved to have enormous societal benefit were made by scientists driven only by their curiosity, rather than by a desire to be useful. Michael Faraday, who is most responsible for electricity, for example, had no interest in its use. Marconi is credited with the radio, but it was Clerk Maxwell and Heinrich Hertz who made it possible, without considering its applicability. It was curiosity-driven inquiries into the foundation of matter by physicists Niels Bohr and John Wheeler that led to the development of nuclear weapons and John Von Neumann's fascination with calculation that led to digital computers.

As Einstein said: '*Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world and all there ever will be to know and understand.*' Indeed it has been estimated that, without Einstein's theory of relativity, in one day our GPS tracking devices would be off by about 7 miles. It is simply imperative that we not become too preoccupied with short-term goals, and that we persuade the public that institutions like ours have a responsibility to cultivate curiosity in our students, and protect curiosity-driven research by our academics.

The uncertainty across the economic and political life of the country occasioned by the decision to leave the EU provides opportunities for our academics to influence the future direction of the country in the most constructive way possible. One

example of this is provided by Professor Sir John Bell who has been appointed Life Sciences Champion. Sir John has written a report serving as the Life Sciences section of the national industrial strategy designed to secure the future of the life sciences in the UK. In this he calls for major investment in 'moon-shot' projects, in the hope of creating two or three new industries over the next ten years, and for a Health Advanced Research Programme to bridge the gap between government and industry funding.

The work of OUI, Oxford University Innovation, and the investment vehicle OSI, Oxford Sciences Innovation, is enabling an extraordinary range of spinouts and start-ups to launch locally, providing employment, training and the possibility of major breakthroughs.

Oxford University Press brings the University's name into the households of most of the children in the country through their role in providing educational materials for British schools. OUP trained over 350,000 teachers last year and over 7 million children, teachers and parents accessed OUP online resources.

There are a great many other ways in which our academics have been engaging locally, bringing our neighbours into the University to experience our teaching and research for themselves, and engaging them in our research. On Friday last we held the Curiosity Carnival, the largest public engagement research event ever organised by the University, introducing over 8,000 people to the work of 600 of our researchers across seven venues.

In February the Ashmolean succeeded in raising the £1.35 million needed to buy King Alfred's coins. More than 700 members of the public contributed in order to find a permanent home for the locally discovered treasure.

Our gardens, libraries and museums receive over 3 million visitors each year and last year 120,000 school children participated in educational sessions in the museums. The Bodleian estimates that, every second, somebody interacts with the library's electronic collections. We participate in the Oxford Preservation Trust Open Doors Programme attracting 22,000 visitors over a weekend. Academics have engaged the public in their work too. Dr Tom Hart and Professor Chris Lintott have mobilised 44,000 citizen scientists for their project, Penguin Watch. Members of the public have also helped Oxford archaeologists collect the data to map every ancient hillfort in the UK and Ireland, all 4,147 of them. The Public

Engagement with Research Awards in June revealed a dazzling array of extraordinary research projects that involved large numbers of the public.

In spite of all this engagement there remains an image of us as an elitist, remote, ivory tower. The responsibility is on us to change this public image. To do so we will have to be, and be seen to be, fair in our admissions procedures, transparent in our governance, consistent in living up to our principles, and committed to the regional and national wellbeing. Of course, if we are to succeed in changing the public image of the University, we are going to have to be able to act as one university.

One Oxford

On this occasion last year I floated the term One Oxford. I would like to raise it again. I am convinced that much of the success of Oxford University can be attributed to its devolved structure. Colleges provide a highly personalised undergraduate education within an interdisciplinary community that in itself is a powerful educational force. Departmental autonomy has enabled innovation and experimentation and encouraged initiative in securing external support for novel ideas. Nevertheless this structure allows for a great deal of duplication of activities which lead to a waste of resources both financial, and worse, our most valuable resource, our time. At a time of ever-increasing regulatory burdens on universities imposed externally, I would like to see us reduce these burdens internally, to reduce unnecessary complexity and free up our time for the research and teaching that drew us into this University to begin with.

I think it is worth considering what the essential requirements of this local autonomy are, and whether there might be more activities that could be effectively shared. Allow me to give you two examples from within Human Resources. The Temporary Staffing Service was established three years ago on a small scale and now places over 200 workers a month across the University. To date we have saved £1.25 million in agency fees and created a valuable source of recruitment, with over 250 permanent staff being recruited through this service.

Another example is the Staff Immigration Team. The team now monitors immigration and right-to-work compliance across the collegiate University and has set up a centralised record system which can be audited by the Home Office, rather than the Home Office visiting each department. Over

the last three years the team has evolved from providing basic visa sponsorship service to a full-service immigration centre.

In no way do either of these initiatives undermine local autonomy. It is also worth noting that, while one often hears complaints about the growth of administrative staff in the central University, or Wellington Square for short, in fact only 15%, 40 of the 275 FTEs working in HR, are part of the central HR team. Given our devolved structure one would expect HR resources to be distributed, but there must be many more opportunities for greater efficiency, better co-ordination and sharing of back-office activities.

Let me provide you with another example, this time from Finance, 24% of whose staff are part of the central Finance Department. The University makes around 70,000 expense payments a year, mostly related to travel on University business. We have a sophisticated accounting system, Oracle, but use a manual process for our expenses. The traveller must keep their paper receipts, complete and sign the University's paper expense claim form, and then the process chain starts.

The claim form is passed to, then authorised by, their supervisor. Thereafter, it gets passed to the department's own finance professionals, who check the details and apply the relevant 19-digit code. It is then signed off by a budget holder, photocopied for the department's own records, and sent by internal mail to the central Finance Division, where the process chain continues. The Payments Team checks the expense claim is valid, the accounting code is correct, and VAT and payroll taxes have been accounted for correctly. Finally the claim gets paid by Oracle, the only automated step in the process.

Finance estimates that a simple claim, say a £10 taxi receipt, takes 32 minutes of staff time to process. If it is a complex claim, or somebody makes a mistake along the way, twice that. The department has made a conservative estimate that 30 FTEs of staff time every year are devoted to processing expense claims. What if we used an e-expense system like some other organisations? A traveller would use their smartphone to take a photo of their paper, enter some details about their journey and its cost, and transmit the details to the budget holder and, once approved, Finance has all the details needed to make the payment. No paper has been moved around and the records are available electronically. I have asked the Finance Division to see if

it would be feasible for us to move to such a system.

We can all think of many other similar examples like uploading exams for marking online, which is currently being piloted for Medical Sciences, writing exams on computers, providing online degree transcripts, automating University cards and so on, and so on.

We recently ran a pilot open-ideas challenge on 'how to simplify and make support services more effective'. 130 departmental administrators participated and provided over 40 ideas for practical ways we could improve.

This year we took part in a benchmarking exercise with the Australian company Cubane to understand how the full costs of support services in departments, divisions and the central University are distributed, and how they compare to others in the sector (colleges were not included in this work). We found that we are an outlier in a number of respects, a far greater share of our support services are based at the departmental level, and we have an unusually large amount of transactional activity, reflecting paper processes. This latter is important in that it means that in many areas we have a large number of people working at fairly low levels, instead of a more coherent system with clear career paths for our staff who bring a welcome range of talents and diverse perspectives to the University. Aside from the libraries, the central service departments provide between 15% and 45% of the service for which they are responsible.

In the case of IT, for example, we have almost 600 FTEs working on IT within the University but 60% of them are not in the IT department. We spend very significantly more on IT than our peers - 100% more than the Cubane benchmark - on server support, and 75% more on networks. This again is due to our devolved structure and the proliferation of servers and systems across the University. Not only is this expensive, it is also a serious vulnerability in an era of constant cyberattacks.

I have asked my colleagues Professors Ewan McKendrick and Anne Trefethen to take the lead in recasting and simplifying service delivery, which we simply must do in order to position ourselves for the future, to provide more effective and adaptable services for the present, and to save time and money for the activities that are most important to us, research and teaching. These changes will also help us with staff retention by ensuring that there is a path

to career advancement for all our staff. It will not in any meaningful way erode the local autonomy that is so prized across the University. Success will require a change of culture and a willingness to work together.

This past year witnessed some extraordinary examples of One Oxford at work. The Ad-Ex Committee chaired by the Provost of Oriel brought colleges together to examine admissions data with a view to co-ordinating their activities more effectively. Next week will see the launch of the Foundry, a University-wide initiative in which the Business School has taken the lead that will provide incubator space for entrepreneurs from all across the University.

It was, as so often happens, when the chips were down that the real strength of our community was demonstrated. In February we faced an unprecedented situation which required the immediate closure of the Tinbergen Building. This meant the displacement of almost 800 staff and doctoral students in the Departments of Experimental Psychology and Zoology. Lab facilities, testing, meeting, teaching and support space needed to be relocated, as well as lab and teaching facilities for the Department of Biochemistry.

Offers of space and support immediately came flooding in. Zoology has been given space in nine locations across the University and Experimental Psychology has moved across 15 locations. The impact on students was kept to a minimum. I think we should all take great pride in the generous response of colleagues from other parts of the University, and in the commitment and professionalism of our colleagues in the professional services who had to swing into action overnight.

Council has agreed to demolish the building and replace it with a new home for Experimental Psychology and Zoology which will provide improved facilities for the departments as well as an opportunity to think strategically and creatively about the future of sciences in South Parks Road.

But the Tinbergen experience also poses some interesting questions. Why does it take a crisis for us to behave like this? How do we harness the Dunkirk spirit in peacetime? We should have a shared culture which deems it unacceptable for parts of the University not to help when the collective institution faces a problem.

One of the other rare and admirable attributes of this University is our system of democratic self-governance, but it requires engagement if it is to work, and it hasn't been working well. Less than 10% of elections for

University committees are contested. The last Congregation of Trinity term was called after 20 members signed a motion calling for a meeting. Three-quarters of them did not attend. A total of nine people out of over 5,000 members of Congregation attended, four spoke. In order for the meeting to take place the presence of 27 staff was required. This is not an example of a well-functioning system, or wise use of scarce resources.

Just over a year ago, 52% of British voters voted in favour of something many of the remaining 48% thought deeply wrong and damaging to the country, but they believe in democracy and accepted the decision. Almost a year ago, a majority of 3 million American voters voted for the candidate who lost the electoral college vote (so according to the pre-agreed rules, they lost) making a decision many felt to be deeply damaging to the US its economy, society and security. But as democrats they accepted the decision.

I would therefore plead with those who last term lost six votes on the subject of the EJRA to abide by the expressed preference of their colleagues and let the issue rest until the next review, scheduled in four years' time.

Democratic self-governance is a wonderful ideal, it is designed to protect the entire community, not as a mechanism for the promotion of self-interest. The EJRA is a particularly difficult issue for a self-governing community like ours as we all have an individual interest in the outcome, but it is our responsibility to look out for the interest of the whole University, and it is deeply damaging to this scholarly community to tear ourselves apart in an intergenerational row over retirement.

Conclusion

In closing, let me say that over the next year my colleagues and I will be focusing our efforts on managing the impact of BREXIT. We will be working to ensure the financial sustainability of the University at a time of rising costs and declining public investment, and we will be bringing forward plans to address the very serious housing shortage faced by our staff and our students. We are acutely conscious of the high cost of living and poor availability of affordable housing stock which is making it increasingly difficult to recruit and retain the best staff and students. We know that our future success is dependent on our ability to continue to do so.

I'm very conscious of the fact that I am speaking on the eve of the 60th anniversary of the launch of Sputnik. This external shock galvanised a divided and introspective

country into action. Initially it seemed to be a major blow to the US, but as it turned out, served as a watershed moment for American education and research. It prompted the reform of the science curriculum, the creation of NASA and DARPA, and significantly increased funding for science and engineering. Many have traced the present era of microelectronics and the internet to the Sputnik effect. Maybe BREXIT will be such an external shock; if it isn't, we should not wait for one to mobilise for action.

This past year, through initiatives like OSCAR and the BDI, we have demonstrated that we are well positioned to ride the waves of globalisation and technological change. We have been living our values, but losing the battle to explain those values to the wider world. I believe that we will be more effective in confronting the challenges we face if we trust each other and work together. One Oxford is the way to ensure that we remain one of the world's pre-eminent universities by allowing all of us to focus our resources on the activities we care about most, the research and teaching which are, and always have been, the central mission of this great University.

Addendum to the Vice-Chancellor's Oration

This year has seen the retirement of many distinguished colleagues who have contributed to the University's intellectual life over the years: Professor Frank Arntzenius, Professor of Philosophy; Professor Nancy Bermeo, Nuffield Professor of Comparative Politics; Professor Laurence Brockliss, Professor of Early Modern French History; Professor Harvey Brown, Professor of Philosophy of Physics; Professor Martin Browning, Professor of Economics; Dr Peter Bull; Professor Brian Catling, Professor of Fine Art; Dr Alison Chapple; Dr Margaret Charles; Dr Jolyon Cox; Professor Ronald Daniel, Professor of Engineering Science; Professor John Darwin, Professor of Global and Imperial History; Professor Martin Davies, Wilde Professor of Mental Philosophy; Dr Jill Dawson; Dr Chu Dong; Professor Robin Dunbar, Professor of Evolutionary Psychology; Professor Paul Ewart, Professor of Physics; Dr Ian Finlay; Professor Donald Fraser, Professor of Earth Sciences; Dr Elizabeth Fricker; Professor Denis Galligan, Professor of Socio-Legal Studies; Professor Adrian Harris, Cancer Research UK Professor of Medical Oncology; Professor David Harris; Dr Sally Hill; Dr Kevin Hilliard; Professor Christina Howells, Professor of French; Professor Jane Humphries, Professor of Economic History; Professor Terence Irwin, Professor of Ancient Philosophy; Professor Hugh Jenkyns, Professor of Stratigraphy; Professor Alex Kacelnik, Professor of Behavioural Ecology; Professor Bethan Lang; Dr Wai Lau; Dr Anthony Lynas-Gray; Professor Martin McLaughlin, Agnelli-Serena Professor of Italian Studies; Dr Mary MacRobert; Professor Jonathan Mallinson, Professor of Early Modern French Literature; Professor Maryanne Martin, Professor of Abnormal Psychology; Dr Anne Matthews; Professor Terezinha Nunes, Professor of Educational Studies; Professor Stephen Pulman, Professor of Computational Linguistics; Professor Nick Rawlins, Professor of Psychology and Pro-Vice Chancellor for Development and External Affairs; Mr John Smith; Professor Martin Speight, Reader in Entomology; Professor Kathryn Sutherland, Professor of Bibliography and Textual Criticism; Dr Andrew Topsisfield; Professor Gerard Van Gelder, Research Fellow and former Laudian Professor of Arabic; Dr Richard Vaughan-Jones; Dr Alison Ward; Professor David Waters; Professor Joanna Weinberg, Professor of Early Modern Jewish History and Rabbinics; Dr Patricia Whiteman; Professor Edwin

Williamson, King Alfonso XIII Professor of Spanish Studies; Professor Timothy Wilson, Professor of the Arts of the Renaissance; Dr Philip Wiseman; and Professor Bernard Wood, Professor of Earth Sciences.

I would also like to mention those colleagues who have retired from important administrative, library or service posts in the University: Mrs Julia Allen, Mr David Baker, Dr Bruce Barker-Benfield, Mrs Lindsay Battle, Mrs Diane Bergman, Ms Ruth Bird, Mr Brian Blakeman, Mr Malcolm Bradbury, Mr Terence Brown, Ms Anne Brunner-Ellis, Mrs Jennifer Burton, Mrs Anne Catterall, Mrs Sheena Derry, Mrs Valerie Drew, Ms Janet Fennelly, Mrs Dorothy Fitchett, Ms Christiane Flegg, Mr Colin Harris, Mr David Hastings, Mr Graham Haynes, Mr Herbert Heath, Mr David Helliwell, Mr Maurice Herson, Miss Barbara Hinks, Mr David Hutton, Mr Stephen Lee, Miss Christine Lees-Baxter, Mrs Victoria Lloyd, Mr John Macallister, Mrs Jacqueline Millward, Miss Kath Moser, Miss Dorothy Newman, Mr Mark Norman, Mr David O'Connor, Mrs Marianne O'Connor, Mrs Barbara Odell, Ms Margaret Ounsley, Mrs Alena Ptak-Danchak, Mr Alan Roper, Mr Nigel Rust, Mr Walter Sawyer, Mr Charles Shaw, Mrs Jacqueline Shaw, Mr Stewart Simmons, Mr Peter Smith, Mr Nicholas Soffe, Ms Dee Stepney, Mrs Christina Turner, Mrs Izumi Tytler, Mrs Susan Usher, Mr Philip Webb, Mr Robert Williams and Mrs Janet Wood.

This year the University community has lost valued colleagues whose early deaths have been a source of great sadness: Professor Pamela Sue Anderson, Professor of Modern European Philosophy of Religion and Fellow of Regent's Park; Mrs Gabriella Chapman, Electron Microscope Technician at the Department of Materials; Dr Jan Georg Deutsch, Associate Professor in Commonwealth History at the Faculty of History and Fellow of St Cross; Ms Rebecca Ann Hind, Visiting Tutor in Fine Art at the Ruskin School of Art; Dr Abdul Raufu Mustapha, Associate Professor of African Politics at the Oxford Department of International Development and Fellow of St Antony's; Ms Erin Shepherd, Postdoctoral Research Associate in Medicinal Chemistry at the Department of Chemistry; Dr Rosamund Snow, Researcher in the Development of PPI in Medical Education at the Nuffield Department of Primary Care Health Sciences; and Professor David Upton, American Standard Companies Professor of Operations Management at the Saïd Business School and Student of Christ Church.

Finally, we pause to remember the contributions of those colleagues who have died in retirement over the past year: Professor Martin Aitken, Professor Sir Tony Atkinson, Professor John Baker, Professor Brian Bellhouse, Dr Colin Blake, Dr Andrew Bushell, Mrs Pauline Chadwick, Mr Eric Christiansen, Mr Basil Clinkard, Dr Lionel Clowes, Mrs Gillian Cooper, Mrs Marie Corney, Mr Henry Dalton, Professor John Davis, Mr Norman Dexter, Professor Glen Dudbridge, Dr Muriel Egerton, Mr John Eldridge, Mr Ralph Feltham, Dr Geoffrey Garton, Professor Kevin Gatter, Mr Leicester Gill, Mrs Myfanwy Griffith, Professor Rainer Guillery, Mr John Hainsworth, Mr Graham Hall, Dr Roger Hall, Sir John Hanson, Professor Geoffrey Harrison, Dr Roger Highfield, Mr Frederick Hodcroft, Mrs Sheila Holt, Dr George Jones, Dr Xuguang Liu, Dr Neil Long, Mr Simon Loveday, Mr Denis Mack Smith, Dr Diana Magee, Dr Gordon Mangan, Dr Eugene Merrill, Mr Nicholas Middleton, Professor Stephen Moorbatch, Mr James Morwood, Dr Thomas Munro, Dr Derek Parfit, Dr Joshua Parsons, Miss Eunice Pickard, Dr Douglas Rowell, Mr Kurt Schoenenberger, Dr Dennis Shaw, Dr John Stoye, Dr Ann Taylor, Mr Michael Turner and Miss Anna Western.