WHY ZUCKERBERG IS PLOUGHING BILLIONS INTO ‘PERSONALISED LEARNING’

OCCUPYING TURIN • DIGGING UP THE PAST • GREATEST MOON MYSTERY SOLVED
It’s now been a year since I became Vice-Chancellor at The Open University. When I first arrived I promised that I would love the OU, and that I would fight for the OU. During that year, I have found that the thing I love most about the OU is our students.

OU students are the most inspiring, dedicated and hard-working people you could ever wish to come across. Recently, I presided at the first graduation of the year in London. One graduate as she stepped towards me was clearly overcome with emotion. “How were your studies?” I asked. “The OU literally saved my life” she replied. I could tell she literally meant literally. We say our learning can be life-changing. In that case it was also life giving.

Last year I encouraged you all to share your support for part-time education through the #PartTimeMatters hashtag, and I’m pleased to report that, although we still have a long road ahead, the Government is listening.

IMPORTANCE OF PART-TIME
We haven’t yet won the fight but I’d say we are winning. All across the UK the needs of mature and part-time students are being recognised more than they were. In Northern Ireland there is new funding available for part-timers. In Wales and Scotland threats to part-time support have been successfully seen off and the unique role of the OU specifically recognised by the governments in those countries.

From Westminster, it’s been announced that new loans will be available for part-time students in England – for those who want to study a second degree in Science, Technology, Engineering or Maths, and for Masters students. We also welcome, the forthcoming review of life-time, flexible and part-time study across the board.

But we’ll need to fight even harder for policy improvements in the year ahead. And you have an important role to play in that fight. You are an ambassador for The Open University and all that it stands for. A University that stands for social justice, for equality and education and for knowledge to be open to all. Share your experience with others you know. Tell people what your OU experience has meant to you, and what it could mean for them.

INCREDIBLE RESEARCH
Generally people know us for our commitment to access and inclusion, for our teaching and television programmes and for the fantastic graduates who go out into the workplace. But they are less familiar with our incredible research and I think it’s time that changed.

Our research is central to who we are and what we do. It is consistently advancing knowledge and understanding across a wide range of fields. It helps to enrich our teaching, our student experience and the wider society. You can read all about our pioneering research in Space and Citizenship and Governance in this edition of OpenMinds.

If you’ve been to the cinema recently, you may have seen our inspiring new advert, encouraging potential students to chase their dreams through study.

But we know that for prospective students a word of recommendation from an OU student or graduate is better than any commercial. You are our best advert and we are incredibly proud to have you as member of the OU family.

Tell us your story. Email ou-stories@open.ac.uk

Peter Horrocks
Vice-Chancellor
HANDS-FREE, BUT NOT HAZARD FREE

HANDS-FREE phones are often viewed as the solution to eliminating hazards while driving. They stop people holding onto a device and the steering wheel at the same time, for a start. But new research, by psychologists at the OU and the University of Sussex found that alarm bells should ring about these devices too. They found that driving while talking on a hands-free phone can be just as distracting as talking on a hand-held mobile phone.

The study, published in the Transportation Research Journal, found that drivers having conversations which sparked their visual imagination detected fewer road hazards than those who didn’t. They also focused on a smaller area of the road ahead of them and failed to see hazards, even when they looked directly at them. This shows the risks of even hands-free phone conversations.

The research, carried out by a collaboration between Dr Gemma Briggs, Psychology Lecturer at the OU and Dr Graham Hole, Senior Lecturer in Psychology at the University of Sussex, found that conversations may use more of the brain’s visual processing resources than previously understood. Having a conversation which requires the driver to use their visual imagination creates competition for the brain’s processing capacity, which results in drivers missing road hazards that they might otherwise have spotted.

PROFESSOR Eileen Scanlon has been awarded an OBE in the Queen’s Birthday honours list for services to Education. This is the latest accolade for her work, which has also seen her receive the inaugural Regius Professorship in Open Education.

Professor Scanlon, Associate Director of Research & Innovation in the Institute of Educational Technology at the OU, is an internationally recognised luminary in the field of educational technology and public understanding of science. During her 40 years of service to the OU, Professor Scanlon has developed an unrivalled insight into learning design which has exerted a major impact on the direction of OU research in these areas.

Professor Scanlon said “I’m delighted that the contribution of The Open University to education has been recognised by the award of this honour. Working as an educational technologist has given me the opportunity to collaborate with inspirational colleagues to develop the outstanding reputation the OU has for teaching but also for research in technology enhanced learning.”

The OU is a pioneer in harnessing and developing educational technologies that widen access to education. Eileen’s work has been instrumental in the OU’s approach to this, as VC Peter Horrocks explains:

“The honour awarded to Professor Eileen Scanlon is well-deserved recognition of her leadership in research in technology enhanced learning and the position of The Open University as a major innovator in learning at scale. We bring the chance to learn to many who would not otherwise have the opportunity. Our research in education is world-leading and I am proud to be able to say that in Professor Scanlon we have the only Regius Chair in the field of Education now honoured with the further award of her OBE.”

INFLUENCE

Professor Scanlon has had significant influence not only through her research agenda, but also on colleagues as Professor Patrick McAndrew, Director of the OU’s Institute for Educational Technology describes:

“Eileen has been a key influence on my own development as a researcher in Educational Technology. Before I joined the OU 15 years ago I was aware of her thinking and leadership in the application of technology to aid learning (now termed Technology-Enhanced Learning – TEL). Her founding with colleagues of the Computer and Learning Research Group 37 years ago was prescient in seeing the need to build a research base if we are to understand the power of computing in learning and appreciate the best ways to harness it.”

THE new OU Digital Archive can help you explore the rich and interesting history of your university by helping you travel back in time to uncover a selection of archive materials. Highlights include an exhibition of Shakespeare taught at the OU since 1971 and The OU Story, a brief look at the history of the OU. www.open.ac.uk/library/digital-archive/
TRY BEFORE YOU BUY

THE OU Business School has become the first business school in Europe to offer MOOCs (Massive Open Online Courses) eligible for credits that can be used towards degrees. The announcement was described by The Times newspaper as “a move that could transform flexible learning” and is testament to the University’s commitment to its mission of extending high quality education to the greatest number of people.

Dr Terry O’Sullivan MOOC Programme Director, OU Business School, said “We have seen a similar MOOC for credit model operating successfully in the US for some time but this is a first for Europe. We [OUBS] have a long and proud history of offering innovative solutions to meet the needs of students and businesses, harnessing the latest technology to educate the leaders of tomorrow.”

In addition to offering a route to academic credit, the OU Business School is working in partnership with Chartered Management Institute and have also produced courses offering formal Continued Professional Development accreditation. These new courses will equip learners with the leadership, management, business and digital skills needed to excel in the workplace.

Courses are available on OU’s social learning platform www.futurelearn.com

Hillsborough campaigner honoured by OU

SHEILA Coleman, a leading member of the Hillsborough Justice Campaign, has been awarded an honorary doctorate from The Open University.

The honour comes shortly after an inquest into the disaster concluded that the 96 fans who died as a result of a crush in 1989 were unlawfully killed. Recognised by the university for her contribution to public service, Sheila has been closely involved in the campaign to seek justice for the fans and their families.

It is fitting that Sheila accepted her degree of Honorary Doctor of the University at a degree ceremony in Dublin. Although she grew up in Liverpool, Sheila’s maternal grandparents were born and lived in Dublin and were married in St Andrew’s Church in Belfast.

For her final year project, David developed an advice leaflet for patients undergoing skin biopsy and plans to have it translated into a number of languages, to help patients to make informed decisions about their treatment and care.

The honour comes shortly after an inquest into the disaster concluded that the 96 fans who died as a result of a crush in 1989 were unlawfully killed. Recognised by the university for her contribution to public service, Sheila has been closely involved in the campaign to seek justice for the fans and their families.

It is fitting that Sheila accepted her degree of Honorary Doctor of the University at a degree ceremony in Dublin. Although she grew up in Liverpool, Sheila’s maternal grandparents were born and lived in Dublin and were married in St Andrew’s Church in Westland Row, near Trinity College. She comes from a Liverpool-Irish family, retaining a close affinity with the city and is a regular visitor.

She said: “Throughout my life and my career, I have learned that adversity takes many forms – but so does success, and the obstacles life throws at us shouldn’t be a barrier to achieving our goals.”

KeeP SKILLS UP TO DATE

THE Open University has been part of the Cisco Networking Academy for over ten years. Teaching up to 600 students per year Cisco networking courses to enhance knowledge and gain industry recognised skills. In a new partnership, Cisco and the OU will soon offer Cisco’s Introduction to the Internet of Everything short course on the OU’s OpenLearn platform www.openlearn.ac.uk This will enable learners to have a precursor to formal study either through The Open University or as a route to other Information Technology, Computing and Engineering studies with the OU. This short course will also offer many former students a way of keeping their skills current and informed by new technologies.

Ou student wins Student Nurse of the Year Award

OU student David Ferran won Student Nurse of the Year Award at a ceremony celebrating 20 years of the Royal College of Nursing Northern Ireland Nurse of the Year Awards.

David is studying for a BSc (Hons) in Adult Nursing. He began his OU journey in 2011 after seeing a poster in the Royal Victoria Hospital where he worked as a Health Care Assistant, encouraging staff members to study for a certificate in health and social care.

He then started a degree in nursing and will complete this year after five years of study.

David says that studying with the OU has enabled him to apply his new knowledge on a daily basis. He says: “I’m currently based in a stroke ward for my final student nursing placement and I’ve been able to apply what I have learnt through my OU modules and put my five years of study into practice.”

His Practice Tutor, Eleanor Weir, who nominated him for this award, said: “David has displayed professionalism in each of his practice learning experiences. His mentors have noted that David always treats patients with dignity and respect. They have also observed that David carries out patient care with confidence and competence.”

For his final year project, David developed an advice leaflet for patients undergoing skin biopsy and plans to have it translated into a number of languages, to help patients to make informed decisions about their treatment and care.

John D’Arcy, National Director

“David has displayed professionalism in each of his practice learning experiences. His mentors have noted that David always treats patients with dignity and respect. They have also observed that David carries out patient care with confidence and competence.”

We are also delighted to continue sponsorship of the Learning in Practice Award at this special ceremony. This award was established to celebrate nurses who support student nurses, health care assistants and qualified nurses with learning and development in practice.”

Employer sponsorship

THE OU has topped a table of providers of employer-sponsored degrees in a new report published by the Higher Education Policy Institute (HEPI). The report — Making a Success of Employer Education — was written by the Vice-Chancellor of London South Bank University (LSBU), and looks at the benefit of employer-sponsored education to students, employers, society and the UK economy.

Art and data collide

MILTON Keynes-based technology and communications company, Tech Mahindra, will be sponsoring the OU’s interactive art installation at the Milton Keynes International Festival this July. Created by internationally renowned artists Wesley Goatley and Georgina Voss, the installation will utilise live data from sensors around MK through the MK:Smart data hub. The data will feed into audio speakers and create a large projected visualisation map on the installation floor.

Art and data collide

MILTON Keynes-based technology and communications company, Tech Mahindra, will be sponsoring the OU’s interactive art installation at the Milton Keynes International Festival this July. Created by internationally renowned artists Wesley Goatley and Georgina Voss, the installation will utilise live data from sensors around MK through the MK:Smart data hub. The data will feed into audio speakers and create a large projected visualisation map on the installation floor.

Art and data collide

MILTON Keynes-based technology and communications company, Tech Mahindra, will be sponsoring the OU’s interactive art installation at the Milton Keynes International Festival this July. Created by internationally renowned artists Wesley Goatley and Georgina Voss, the installation will utilise live data from sensors around MK through the MK:Smart data hub. The data will feed into audio speakers and create a large projected visualisation map on the installation floor.
HAPPY 10TH BIRTHDAY OPENLEARN

THIS year, the OU’s free learning portal OpenLearn celebrates its 10th anniversary, hot on the heels of welcoming its 40 millionth visitor.

In 2006 the OU was the first UK university to make course materials freely available online in the form of an educational resource website. OpenLearn, created in 2006 with a gift from The William and Flora Hewlett Foundation, allowed the OU to both harness its expertise using web technologies and to extend its mission of making education accessible to everyone. By the end of its first year, OpenLearn had attracted more than 1 million visitors, 90 per cent of whom were new to the OU with 50 per cent being international visitors.

Such was the belief in OpenLearn that it received praise from both figures in the educational and political arena. In particular the project was highly commended by MP Sarah Teather, who at the time was Liberal Democrat’s Education spokeswoman. She said, “Politicians may talk about tearing down barriers to education -- this really achieves it. I applaud the OU for being the first in the UK to make their teaching material available in this way. I hope that this encourages other institutions to do the same, ensuring our country is firmly on the cutting edge of these new developments in learning”.

Today, OpenLearn includes much more in the way of media-rich, interactive features. It also plays a key role in continuing the learning journey started by many of the OU broadcast programmes, such as The Bottom Line, Genius of the Ancient World and Secret Life of Books. It attracts almost 5 million visitors a year from more than 230 countries and offers 835 courses in the form of 9,000 hours of free content.

Originally intended as a resource to support skills development, the most popular courses originally focused on law, fiction writing, study skills, business and plate tectonics. In 2015, changes in the business and social environments mean that computing, languages and finance are all now feature in the top ten most popular courses.

Visit www.openlearn.educ to discover the variety of learning available for free.

Alumni benefits

ENJOY exclusive benefits and discounts on everything from holidays to magazine subscriptions.

http://bitly.com/alumniesclusive

TAKE advantage of our Careers Advisory Service for up to three years after graduation.

http://bitly.com/oucareers

POSTGRADUATE Open University Business School (OUBS) alumni automatically become members of the Alumni and Careers Network.

http://bitly.com/businessalumni

JOIN our alumni group on LinkedIn.

http://bitly.com/oulinkedin

The Guide

INSPRING TV

THE OU’s unique partnership with the BBC has led to inspiring and ground-breaking programmes. They also provide rich resources for our teaching and learning for example Science and Health (SDK100) as seen in, Food, or Philosophy (AB53) explored in Genius of the Modern World. Alongside our TV series you can find further content about subjects, and for some we also produce free booklets and posters. Find out more: www.open.edu/openlearn/whats-on

Look out for Full Steam Ahead (BBC2, Summer 2016) but in the meantime here are a few highlights that will be on your screens and devices in the coming months...

Food: How it Works*

USING ground-breaking specialist photography, microscopy and CGi, this compelling three-part series will take us deep inside a hidden world of food. It will reveal the science behind what food is made of, what it does to our bodies and why we eat what we eat.

(BBC2, Autumn 2016) *working title

To Walk Invisible

A NEW one-off drama takes a fresh look at the extraordinary Brontë family, telling the story behind three remarkable women who, despite the obstacles they faced, came from obscurity to produce some of the greatest novels in the English language.

(BBC1, Winter 2016)

Genius of the Modern World

HISTORIAN Bettany Hughes examines three great thinkers whose ideas shaped the modern world: Karl Marx, Frederick Nietzsche and Sigmund Freud. Together they re-imagined global economics; questioned the very foundations of morality and society; and unravelled the workings of the human mind.

(BBC4, Summer 2016)

Child of Our Time

THE BBC has followed the lives of 25 children since the year 2000. Now 16 years old, Child Of Our Time discovers what life is like for young people in 2016, and how they are influenced by the changes in their biology, upbringing and the society around them.

(BBC1, Autumn 2016)

Exodus: Our Journey to Europe*

12 MONTHS ago, KEO films gave out camera phones to some of the million people attempting to reach Europe to escape war, poverty or persecution. The result is a terrifyingly intimate yet uniquely epic portrait of what has become the biggest story of the decade. (BBC2, Summer 2016) *working title

©KEO Films

Helen Czerski takes us on a spectacular journey into the world of sound.

Food: How it Works*

Using ground-breaking specialist photography, microscopy and CGI, this compelling three-part series will take us deep inside a hidden world of food. It will reveal the science behind what food is made of, what it does to our bodies and why we eat what we eat.

(BBC2, Autumn 2016) *working title

To Walk Invisible

A NEW one-off drama takes a fresh look at the extraordinary Brontë family, telling the story behind three remarkable women who, despite the obstacles they faced, came from obscurity to produce some of the greatest novels in the English language.

(BBC1, Winter 2016)

Genius of the Modern World

HISTORIAN Bettany Hughes examines three great thinkers whose ideas shaped the modern world: Karl Marx, Frederick Nietzsche and Sigmund Freud. Together they re-imagined global economics; questioned the very foundations of morality and society; and unravelled the workings of the human mind.

(BBC4, Summer 2016)

Child of Our Time

THE BBC has followed the lives of 25 children since the year 2000. Now 16 years old, Child Of Our Time discovers what life is like for young people in 2016, and how they are influenced by the changes in their biology, upbringing and the society around them.

(BBC1, Autumn 2016)

Exodus: Our Journey to Europe*

12 MONTHS ago, KEO films gave out camera phones to some of the million people attempting to reach Europe to escape war, poverty or persecution. The result is a terrifyingly intimate yet uniquely epic portrait of what has become the biggest story of the decade. (BBC2, Summer 2016) *working title

©KEO Films

Helen Czerski takes us on a spectacular journey into the world of sound.

Food: How it Works*

Using ground-breaking specialist photography, microscopy and CGI, this compelling three-part series will take us deep inside a hidden world of food. It will reveal the science behind what food is made of, what it does to our bodies and why we eat what we eat.

(BBC2, Autumn 2016) *working title

To Walk Invisible

A NEW one-off drama takes a fresh look at the extraordinary Brontë family, telling the story behind three remarkable women who, despite the obstacles they faced, came from obscurity to produce some of the greatest novels in the English language.

(BBC1, Winter 2016)

Genius of the Modern World

HISTORIAN Bettany Hughes examines three great thinkers whose ideas shaped the modern world: Karl Marx, Frederick Nietzsche and Sigmund Freud. Together they re-imagined global economics; questioned the very foundations of morality and society; and unravelled the workings of the human mind.

(BBC4, Summer 2016)
THE PHD STUDENT

Victoria Holt is a Data Platform Architect and Senior Database Administrator at Eduserv. She gained a First Class BSc Open degree with the OU while working in the field of actuarial systems, and then switched career to IT.

While doing database work she got the inspiration for her research, she says. “I began to think there must be a better way of doing database administration and management of systems.

He used his artistic flair to draw the first Data comic strip on the basis of Victoria’s sketches. A second strip, illustrating the further progress of her research, was drawn mainly by Victoria.

The juxtaposition of comic strips with serious academic research isn’t as unlikely as it may seem today. Today’s researchers are increasingly being called on to use their creativity to make their research accessible to a wider audience.

Every year PhD students at the OU take part in a competition to design an attention-grabbing poster which explains what they do to people outside the ‘ivory tower’ of their own discipline.

You can see the results at http://researchposters.open.ac.uk.

ARTIST TURNED TECHNICAL EVANGELIST

Andrew Fryer is Technical Evangelist at Microsoft UK, where his current role is about making the next generation of technologies relevant to today’s business. But his childhood passion was for art.

“My father was in IT. But when he brought those reams of paper with holes down either side I never looked at the side with the writing on, I used the other side to draw.

However eventually the DNA kicked when I was using computers at work, and I am lucky enough to have role where I can combine my creativity with technology.

“My focus is on advanced analytics including data science, big data, and machine learning. While I didn’t learn these at the OU, the discipline that I acquired to research and understand new technologies and make the complex simple is a key skill for me, as was the confidence I got to even apply for the role at Microsoft.”

GET ANIMATED ABOUT RESEARCH

It’s a challenge every researcher faces – how do you explain to the rest of the world how exciting and important your research is? Two Open University graduates have found a way, by letting loose their creativity.

OM 11
Around the world, multiple issues including a lack of effective project management mean that two thirds of donor-funded projects don’t achieve what those living in poverty really need them to. To help deliver the United Nations’ Global Goals in the next 15 years, from ending poverty to providing education for every young person, we need to think more innovatively about how we define what the challenges really are, how to approach solving them and how to test whether the solutions actually work.

Designed for international development practitioners, from global NGOs to individual social entrepreneurs, the DIY Learn (Development Impact and You) project is an online learning programme providing easy access to free learning materials that equip practitioners to create projects which are more effective, innovative and sustainable.

The modules support the top 10 tools from innovation charity Nesta’s DIY Toolkit that practitioners themselves have said are the most useful in practice. DIY Learn aims to reach 500,000 people working in development.

Teemac, an organisation in India working to connect college students to extra-curricular activities used the tools to plan a key project. “We usually follow our gut instinct… For a change, we thought we would adopt a more evidence based approach. “We used a combination of the Problem Definition and Evidence Planning tools to both define and create a logical evidence-based plan for the problem we are trying to solve… It helped us rethink an entire system we were going to create based on our intuition.”

Bitesize learning by the OU to support each tool will help practitioners know when and why to use the tool, plus how to get the most out of it. Project workers can instantly find and apply the tools they need while working in the field, and swap ideas with fellow development workers in DIY Learn’s online forum. A trainer’s guide supports anyone to deliver the modules in a classroom setting; for example, with their project team or partners.

The DIY Learn initiative is made possible by the Rockefeller Foundation and delivered in partnership with Nesta. As Open Educational Resources, the DIY Learn modules are free to download, use and adapt by anyone.

Online Toolkit Delivers Offline Impact

Only one in three development projects deliver the impact they set out to – new resources will help hundreds of thousands of development practitioners make a bigger difference.

Study with us

There are nearly 1,000 research students registered for postgraduate degrees with the OU. You can study for a PhD or MPhil on a full-time or part-time basis.

We are global leaders in research and innovation:
• The Research Excellence Framework 2014 assessed 72 per cent of the OU research overall submission as world-leading or internationally excellent (4* or 3*)
• We rank in the top third of UK universities for the quality of our research

See www.open.ac.uk/postgraduate/research-degrees or for advice about applying for a research degree, or sponsoring a research student, call +44 (0)1908 654882.
Arriving at the Olympic Village in Turin, the stage for the 2006 Winter Olympics, it is easy to guess which buildings have been maintained as student houses and youth hostels, and now house refugees. The peeling blue and grey paint is visible evidence of Olympic enthusiasm turned to detachment.

**OCCUPying TURIN**

Since 2013, four of the seemingly unempt kitchens which stretch across this side of the city have been occupied by up to 1,400 people from around 30 countries.

Italy faced the sharp end of the 2008 global financial crisis. As a result, welfare was stunted and unemployment in some regions has surged. So it is, perhaps, understandable that there are limited financial resources to provide support for new arrivals. But concerns about Italy’s response to refugees extend beyond the financial. In the face of rising numbers of migrants, Italy has struggled to maintain humane conditions for these people.

Indeed, at the end of 2015, Médecins sans Frontières announced that it would cease work in migrant reception centres in Pozzallo, Sicily and the southern province of Ragusa, as a protest against the authorities’ failure to improve conditions. Centres are often overcrowded, unsanitary and provide little legal advice or options for activities.

In other areas of Italy, EU efforts to reduce migrant intakes include increasing deportations from so-called “hotspots”, and in some cases, riot police have been dispatched to deal with xenophobic violence against refugees, who are blamed for crime.

The occupation of Turin’s Olympic Village is not exempt from such problems: since January 2015, authorities have been trying to evict refugees – a case which remains at court. An informal border surrounds the four buildings; police maintain watch from 8am to 8pm, and the marines patrol the area four times a day. But this is more like a sideways glance than heavy surveillance; especially compared with the scrutiny faced by migrants in other European countries including Britain and Greece.

**Peaceful Coexistence**

But despite the legal challenges to the occupation in Turin, and moments of spontaneous unrest, there seems a mutual tolerance between the police and local residents of each building are discussed and resolved in meetings held every month. Unlike the Afghani, Syrian, Pakistani, Kurdish and Iraqi refugees arriving in Greece, most of those in Turin have fled North and Sub-Saharan Africa. This reflects Italy’s own geographical position, sandwiched between Northern Europe and North African countries such as Libya, the target of NATO airstrikes in 2011.

The people who we spoke to were from Chad, Algeria, Libya and South Sudan: countries caught in revolution or at war. Most have made their way to Turin through the Central Mediterranean route, from Tunisia or Libya to southern Italy. More than 100 lives have been lost on the route this year alone.

Yet within the four damp-ridden buildings of Turin’s Olympic Village, refugees have managed to develop two small shops selling African and Italian foods, a pop-up barbershop complete with multiple mirrors and music, a Senegalese restaurant, and perhaps most impressively “La Scuola” (the school): a classroom stocked with books, a chalkboard and mismatched tables and chairs.

**Tolerance, Acceptance and Rights**

People come here to socialise and learn Italian – a pastime that refugees teasingly suggest we might want to take up ourselves, as we struggle through conversations with pigeon phrases.

As migrant rights researchers and activists based in Britain and Greece, it doesn’t escape our attention that this kind of autonomy would not necessarily be possible for refugees elsewhere. As the EU begins to deport migrants from its shores under a new deal with Turkey, Greece continues to bear the greatest responsibility for those who arrive in Europe seeking a new life. As a result, the number and size of refugee camps across Lesvos, and the occupation of public spaces and abandoned buildings in Athens, are on the rise – as is the policing of such spaces.

The occupation of public buildings is formally illegal under Greek Law. These “illegal” settlements are tolerated by authorities to some extent; it serves their purpose to conceal the state’s stunted response behind the vital support offered by local and international activists who work there.

But the new plans, following the agreement of the EU-Turkey deal, include that all new irregular migrants crossing from Turkey into Greek islands from March 20, 2016 will be returned to Turkey as well as the evacuation of all camps on the Greek islands, something that demonstrates how quickly the state can become intolerant of such initiatives.

Indeed, a similar phenomenon can be observed in the "Jungle" of Calais – an informal camp for migrants and refugees. The area has been allowed to grow and then partially demolished several times over the course of the last decade, much to the distress of those who are living there.

And British laws against squatting are even more restrictive. Refugees’ occupation of state-owned territory would be a short story in Britain, more likely to end with a prison sentence, deportation – or both – than a school and a hair salon.

A mutual tolerance of shared spaces has made it possible for refugees in Turin’s Olympic village to find some modicum of stability in their daily lives. It is by no means ideal; tolerance is not acceptance, nor does it guarantee support or the observance of human rights. But in the face of increasingly restrictive border controls, the growing hostility of the European public and the continual erosion of refugee rights, it’s astounding to witness what the residents of Turin’s Olympic village have accomplished.

aMutual Tolerance of Shared Spaces Has Made It Possible for Refugees in Turin’s Olympic Village to Find Some Modicum of Stability in Their Daily Lives
GIVING EMPLOYERS WHAT THEY WANT

G ranted, there will always be a substantial number for whom higher education is an end in itself but there’s a far larger – and growing – proportion that will be seeking promotion, recognition or a complete change of direction.

The rising cost of higher education and the growing supply of graduates has only increased the determination of many prospective students to ensure that their years of study will deliver a return on investment. Yet, however good your degree, diploma, certificate or masters, there will always be plenty of other interview candidates with grades to match yours.

To gain the necessary competitive advantage, you need, of course, to emphasise those factors that demonstrate an Open University education uniquely equips its grads to deliver what employers want. It’s no secret that industry leaders (in the UK and elsewhere) complain on a perennial basis that graduates are ill-equipped for the modern workplace; in part they say, because universities themselves have too little appreciation or inclination to provide what is needed.

Previous year disclosed more than half of respondents considered university leavers unprepared for the workplace. The then Director General of the BCC, John Longworth, commented on his members’ consequent reluctance to employ recent graduates, explaining: “Business people tend to favour more skilled and experienced applicants … their primary function is to run a business which means making business decisions.”

That may not be encouraging news for most UK graduates released into the job market every year, not least because these same employer reservations tend to resurface on an annual basis. Yet it provides a unique selling point both for the OU and its graduates, thanks to their special connection with, and understanding of, the world of work.

Therefore, it’s essential to keep in mind the factors that distinguish the OU as a university and benefit you as an applicant:

**EMPLOYER RESPECT**
- The OU is in the top fifth of UK universities rated by employers (bit.ly/empchoice) in the last Global Employability Survey. That’s higher than the likes of Durham, Birmingham, York, Warwick, Glasgow, Cardiff, Exeter, Queen Mary University London and Brunel – to name a few.
- We have more employer-sponsored students than any other British university and nearly twice as many as our nearest competitor.

(Making a Success of Employer Sponsored Education Higher Education Policy Institute 2016)

• 80 per cent of FTSE 100 companies and 2,400 organisations overall have used the OU to deliver workplace-based training. www.open.ac.uk/business/who-we-work-with

**LIFE EXPERIENCE**

More than three-quarters of our students are engaged in full or part-time work even before they begin OU study. An OU graduate brings proven ability to the workplace, not raw talent – genuine career and life experience, rather than work experience.

**UNIQUE SKILLS**

Balancing distance learning alongside the demands of work and home places a level of pressure on a student that ordinary university study doesn’t: flexibility, self-motivation, work discipline, deadlines and a greater commitment to ensure that collaboration with tutors and fellow students works. All of these are transferable skills that bring benefit to the workplace.

**YOUR CAREER NETWORK**

Common senior says that, when you’re seeking a job in a particular sector or company, you should aim to get insider advice. The OU LinkedIn education page lists details for 172,000 alumni — where they work, what they do, who you know in common. Responses are never guaranteed but with so many targets and a shared university background, your odds of building contacts are vastly improved. It is, after all, the very principle that underpins the ‘Old Boy Network’ - which has worked pretty successfully for a certain strata of society. Make it work for you too.

One question, more than any other, motivates the thousands of people who register every year for OU study: “Will it boost my job prospects?”

_“We particularly value candidates from the Open University because they bring us both academic and industry skills. The academic quality of the OU is first rate and when this is combined with work experience in the public or private sectors we get very well-rounded individuals.”_— Bernard Szczezek, Chief Executive, IBM Services Centre UK Limited

_**“The study proved to be a very important part of changing my role; it changed the way I thought about situations and was extremely helpful during my application.”**_— Philip Moses. BSc (Hons) Criminology and Psychological Studies

For direct communication, join The Open University Alumni group. www.linkedin.com/groups/2380651

Lastly, update your LinkedIn profile with a photo, a summary and full details of current job etc. Unless you do, you will provide others with little reason to connect. It’s also the first place recruiters will go to find out more about you.

**LinkedIn**

The key to using LinkedIn is building connections: each contact brings you a host of secondary contacts. The best place to start is your university LinkedIn ‘education’ page; with 205,000 followers (80 per cent of them alumni) – The Open University’s is one of the largest in the UK. 


Its most useful tool is the ‘Explore Careers’ filter with searchable details for 172,000 alumni.

www.open.ac.uk/business/who-we-work-with
**OPEN UP THE FUTURE**

We believe where you start in life shouldn’t limit where you can go. Do you?

We believe that anyone can be anything. A stay-at-home mum can become a scientist, an African schoolboy living in poverty can learn to set up his own business and a dog can help detect cancer.

The Open University changed the game in higher education fifty years ago, but the game doesn’t stand still - and neither do we. The OU has transformed millions of lives, but many more remain to be unlocked.

**NEARLY FIFTY YEARS OF LIFE-CHANGING LEARNING**

Almost 50 years ago, many people said a “university for all” could not be done. Hostile opponents said the idea of an ‘open’ university was madness, it was nonsense. Like the best revolutionary ideas, the OU and its students faced the naysayers and broke open the doors of higher education for everyone.

This world-changing force for social good rapidly outstripped even its supporters’ expectations. Nearly two million people have studied based on the OU model have two million people have studied and its students faced the naysayers and broke open the doors of higher education for everyone.

Yet today, national cuts and restrictions to funding for both

students and universities present a threat to those hard-won opportunities. Compared to just ten years ago, two out of five potential part-time students have not been able to start their studies in 2015. It is time to spark our revolutionary spirit again, to share the gift of education with all who need it.

**TAKING OUR CORE MISSION INTO THE FUTURE**

When you signed up with the OU, you didn’t just choose to study with the UK’s biggest university. You joined a movement of millions, sharing the joy and possibilities of learning, transcending borders, conventions and boundaries.

You can help offer scholarships to potential students who can’t afford to study, provide free online learning for everyone and support vital discoveries in the diagnosis and treatment of cancer, dementia and stroke. To continue delivering on the OU’s mission, our first major fundraising campaign, Open up the future, aims to raise £50 million by the OU’s 50th birthday in 2019.

We believe we can, once again, shape the future of learning. We hope you’re excited by that possibility too. Together we can change one life and millions more.

**OPEN UP OPPORTUNITY**

- Scholarships and bursaries to help more people from low-income and disadvantaged backgrounds fulfil their potential
- Create opportunities for women in science, technology, engineering and mathematics (STEM)
- Study opportunities to help offenders turn their lives around and build a positive future

Dr Robert Bevers, one of the OU’s “founding fathers”, left a legacy to the OU to support research students. Seguya Henry Kizito is investigating how farmers in Uganda can respond to climate change, to protect their vulnerable livelihoods; “I hope to be able to help farmers feed their families, and produce a surplus for schoolbooks and medicines.”

**OPEN UP THINKING**

- Create special technology that helps dogs detect cancer earlier than any machine, and to support people with disabilities in living full lives
- Develop haptic bracelets that enable stroke survivors to regain their mobility
- Help organisations create a society more responsive to the needs of people with dementia

The Allan and Nesta Ferguson Trust has supported the OU’s programme to train teachers across Africa for over a decade. The Trust says, “Teachers are the essential connection to delivering quality education to all children. We are delighted to help deliver exceptional learning resources through innovative means to teachers far and wide.”

**OPEN UP MINDS**

- Free access for everyone, whether an OU student or not, to short courses online
- Discover how cognitive neuroscience can prevent miscarriages of justice in UK courts
- Invest in a digital archive of open learning, which students and universities can use to expand access to learning

Dangoor Education, the educational arm of The Exilarch’s Foundation, is supporting free online science courses. New courses for 2016 explore healthy human tissues and the use of natural resources. David Dangoor said: “We hope these pioneering courses will help more people turn an interest in science into a qualification and even a career.”

**OPEN UP LIVES**

- Provide vital free learning resources and support to unqualified teachers in developing countries, equipping them with the knowledge to give their pupils the best possible start in life and a route out of poverty
- Qualifications and free courses on global health issues, such as the cost of medicines

More than 1,200 OU alumni have supported the OU’s work with cancer detection and assistance dogs. Dr Clara Mancini, Head of the OU’s Animal-Computer Interaction Lab, said, “Your gifts will mean that we can make significant progress towards supporting the amazing work of dogs who spend their life helping vulnerable humans.”

**TOGETHER WE CAN OPEN UP THE FUTURE**

www.open.ac.uk/giving

We hope you’re excited by that possibility too. Together we can change one life and millions more.

[Image: Students and universities present a threat to those hard-won opportunities.](image)

[Image: Nearly two million people have studied based on the OU model have two million people have studied and its students faced the naysayers and broke open the doors of higher education for everyone.](image)

[Image: More than 1,200 OU alumni have supported the OU’s work with cancer detection and assistance dogs. Dr Clara Mancini, Head of the OU’s Animal-Computer Interaction Lab, said, “Your gifts will mean that we can make significant progress towards supporting the amazing work of dogs who spend their life helping vulnerable humans.”](image)
While some argue whether this is a philanthropic act or a shrewd business strategy, others will ask: what is personalised learning anyway? Because despite some politicians’ enthusiastic endorsements of personalised education, there’s still no clear definition.

Many in education would argue that personalised learning is what all good teachers do as a matter of course – modifying learning materials and teaching styles to accommodate the different ways pupils learn. Others see it as an antidote to top-down, centralised school bureaucracy, with the term “personalised” used interchangeably with individual, learner-centered or customised. It’s far from clear how teachers are supposed to support such personalised learning with personalised resources on a per pupil basis, nor who should bear the costs of doing so.

Zuckerberg has a clear definition in mind, however. For him, personalised learning is about teachers “working with students to customise instruction to meet the student’s individual needs and interests”. Although the Chan Zuckerberg Initiative’s Personalised Learning Platform is not part of Facebook, the underlying principles are the same: human work is replaced by technology, algorithms provide users with content based on an analysis of their past behaviour and demonstrated interests. This is similar to how Facebook’s news feed works, and other commercial personalisation models based on text and behaviour analysis.

There has been much hype about the potential for new technology or approaches to disrupt education and, not unreasonably, there’s concern that investment in personalised learning may be a boost for Silicon Valley but a kick in the teeth for teachers.

**WHY ZUCKERBERG IS PLOUGHING BILLIONS INTO ‘PERSONALISED LEARNING’**

Facebook founder Mark Zuckerberg believes personalised learning is the answer to many of education’s current woes, and is one of the four key areas that he and his wife Prescilla Chan’s US$45 billion Chan Zuckerberg Initiative will fund.

**AUTHORS: NATALIA KUCIRKOVA / ELIZABETH FITZGERALD**
but also about acquiring general knowledge. By feeding children only the content they’re interested in, we may end up with many specialists and few generalists.

Second, while learners may cope poorly with trying to learn in a way that’s not suited to them, in the real world life will not always be so accommodating. Their lack of ability to compensate may mean they suffer as a result.

Finally, children’s preferences are not fixed – in fact they often change as immediate responses to the environment. To predict content relevant for children there needs to be sensitive, human-directed input – not automation.

Otherwise we end up with what might be called de-personalised learning, and classrooms with little conversation between student and teacher. In subcontracting out teaching to technology, the risk is that the valuable social contact between students, teachers and parents that’s inherent to effective learning will be reduced.

There is also the issue of ensuring that children’s data is not misused. Recording children’s personal progress, preferences and needs poses a privacy risk if it is not managed properly. The recent example of Vtech, whose internet-connected children’s toys and gadgets were hacked revealing millions of images of internet-connected children’s toys and gadgets, illustrates the dangers – the promise of a brave new (and unrealistic) world where the different between every learner can be accounted for.

A COMPROMISE APPROACH

Other organisations combine user data with standard educational content, for example adaptive course-ware platforms such as those from Smart Sparrow or Pearson. Personalised learning by McGraw Hill allows educators to choose between the adaptive or customized study plans. The former adapts all topics to a learners’ pace, while the latter provides a course modified according to the teacher’s knowledge of what fits the students best.

If personalised learning is conceived of as the means to adapt and customise a pupil’s learning according to their needs as well as teachers’ experience and school requirements, it holds promise. As Mike Sharples and other OU colleagues write in their Innovating Pedagogy 2015 report, personalised learning combined with emotional analytics, personal inquiry, dynamic and stealth assessment could be a very powerful combination.

But this requires developing the strategies which can marry the needs of children and teachers in education. This is something that takes time, conversation and collaboration, and cannot be hurried through by simply pouring millions of dollars into technology – even if your name is Mark Zuckerberg.

WHERE PERSONALISED LEARNING COULD HELP

Motivation is crucial for effective learning, and personalised learning gives children a sense of ownership and relevance, while personalised assessments are regarded as effective. These values are at the core of AltSchool, which recently raised US$100m (including monies from Zuckerberg, who funded its expansion). AltSchool is a community of micro-schools whose personalised learning experience involves collecting data about pupils’ attainment, grades and also memory test results and energy levels. This data is crunched together with the pupil’s interests and preferences to tailor the content.

So far we don’t know how well it works, or whether it works at all. What we do know is that this is only one vision of personalised learning, underpinned by evidence that is ambiguous at best. With Zuckerberg’s endorsement, the danger is that this could be the new kid, if not the only kid, on the education block. The end result would be undeserved kudos and the promise of a brave new (and unrealistic) world where the different between every learner can be accounted for.

DIGGING UP THE PAST

A team of archaeologists has recently discovered a 2,500 year old stone on which is an inscription in an ancient, extinct language. We spoke to one of the academics leading on the project, Professor of Archaeology, Phil Perkins, about the impact of this on our understanding of the past:

OPEN MINDS: What is the ‘Etruscan Stele’?

PHIL PERKINS: “Basically, it is a big stone with writing on it in the extinct Etruscan language. It was discovered in the Mugello Valley, Italy, on an excavation project established by colleagues from universities in Switzerland, the USA and the UK.

“The earliest Etruscan inscriptions can be dated to about 700 BCE (Before the Common Era). The language has always been intriguing; it’s widely considered to be unintelligible. Whereas the characters are related to the Greek alphabet, it is unlike any other European languages. It actually became extinct in about 0 BCE, and we don’t have any surviving Etruscan literature to help us read the texts.”

OM: What does the inscription mean?

PP: “We don’t know what it actually says yet! It’s being studied in Florence at the moment and, being 2,500 years old, it’s in really poor condition.”

“We are able to transliterate the inscriptions; we can say what letters are there. Then the argument and difficulty is in trying to translate the text into other languages in its entirety as that involves understanding nouns and verbs and the grammar of the language. The challenge with this latest discovery is that we have to figure out which words are known already and how we should interpret the other words. Hopefully, in the next couple of months, there will be a preliminary understanding of what is written on the stone.”

OM: Is this the first example of Etruscan language to be discovered?

PP: “There are about 15,000 texts known, most of which usually consist of two or three words; this inscription has approximately 120 individual letters so is the second longest inscription on stone ever discovered. There are longer texts on bronze tablets, and even one that was written on cloth, later used to wrap an Egyptian mummy.

“Most Etruscan inscriptions are discovered in tombs and just consist of the name of the individual in the tomb, and perhaps their parents; this inscription was discovered on a sacred site, which suggests that it potentially contains information other than simply names; it’s really exciting. All that we can read at the moment are the names of the two most important divinities, Uni and Tinia, the Etruscan equivalents of Roman Juno and Jupiter, and this just adds to its importance.”

OM: What impact will translating the inscription have on our understanding of Etruscan culture?

PP: “The Etruscans were actually the first culture in ancient Italy to build temples with columns and decorated roofs, and much of what we know about the Etruscans comes from their temple buildings.

“From where it was discovered, we can quite confidently say that the Etruscan Stele contains a sacred text and may have provided instructions for the rituals and sacrifices that would have been appropriate at that temple. We are really lucky that it names the deities that the temple was dedicated to as the two most important Etruscan gods. Now, we can hope the inscription will help us to develop our knowledge of the sorts of rituals that went on at this Etruscan temple.”

THE IDEA IS TO GET TUTORS TO ADOPT A MORE POSITIVE APPROACH TO THE ATTAINMENT OF ALL THEIR STUDENTS"
One of the moon’s greatest mysteries has long been whether it has any water. During the Apollo era in 1960s and 70s, scientists were convinced it was dry and dusty – estimating there was less than one part in a billion water. However, over the last decade, analyses of lunar samples have revealed that there is a considerable amount of water inside the moon – up to several hundred parts per million – and that it’s been there since the satellite was very young.

But exactly where this internal water came from has remained an enigma. There have been many suggestions, such as comets or asteroids bringing it there. Another is that some of the water could have been there since the moon formed, from material that originally came from the Earth. Now our new study suggests that most of the water inside the moon must have been delivered by asteroids some 4.5 to 4.3 billion years ago.

The moon formed some 4.5 billion years ago – shortly after Earth. But whereas Earth has been constantly renovated through the effects of plate tectonics, the moon has been relatively quiet. The Earth’s ever-changing face means that we know very little of its earliest history. The moon, however, has acted like a time capsule, helping us better understand its history – and the Earth’s.

DIGGING FOR WATER
To probe how water got to the moon’s interior, we performed calculations using published data for water in lunar samples and bulk estimates of water inside the moon. We also used data available for the water content and composition of meteorites and comets. The model also accounted for different types of water, (such as ‘heavy water’ which is made up of relatively more deuterium than hydrogen). This is very useful because water in different objects in the solar system has different signatures – most comets, for example, have heavy water.

By calculating different mixtures of water from different sources and comparing the results to what we observe for the moon, we discovered that water-rich carbonaceous asteroids are the most likely candidates for bringing the majority of “volatile elements” (elements and compounds with low boiling points) to the moon – such as water, nitrogen and carbon. We also found that comets most likely delivered a maximum of 20 per cent of such elements to the lunar interior.

Based on the data and models currently available, we think that these impacts happened over a couple of hundred million years after the moon formed, just before its huge magma ocean solidified. The asteroids and comets crashed into this magma ocean and were likely retained (rather than boiled off) due to a thermal lid which formed at the surface of the huge pool of magma.

The results are important because they tell us about the kinds of objects that struck both the moon and the Earth more than four billion years ago. Potentially it could also help us understand the origin of water in the Earth. In fact, water inside the Earth is so similar in composition to the water in the moon that, along with other geochemical evidence, it seems likely that our water also came from asteroids.

Of course, this is not an open and shut case, there is still a lot that we do not know about water and other volatiles in the moon and how they relate to each other. For example, we still need to fully understand the processes that operated inside the moon over geological time and work out what happened to the volatiles when lavas were erupted to the lunar surface. We can gain a huge amount of information from further study of samples returned from the Apollo and Luna missions. There are some 382kg of such samples, but only two per cent have been investigated for analyses of volatiles.

But ultimately, we need to explore the entire moon to properly understand it. Our work is timely especially in light of the plans to send robotic and human prospecting missions to previously unexplored regions of the moon. In fact, the Apollo astronauts covered a distance on the lunar surface equivalent to a return journey from Edinburgh to Glasgow, so there is every possibility that rocks from the far side and polar regions of the moon may tell a different story.

In addition to the water trapped in glasses and minerals, there is also water-ice and other volatiles on the surface of the moon. As national space agencies gear up for the next era of lunar missions they are primarily focused on investigating how much water is on the surface, where it is and in what form. This will be crucial to determine whether water can be used as a resource for sustaining a moon base or enabling further exploration of the solar system. My feeling is that our nearest neighbour still has a lot to show and tell, and that the next 10 to 20 years are going to be eye-opening.
Is the internet a global equaliser or global divider? The OU’s Academic Director for International Development, Anna Childs, explores the digital divide (below) while (right) we look at how it might be bridged.

DIGITAL DIVIDENDS

By 9.30am today I will have skyped Malawi, emailed Ghana, Facebooked Nepal, paid a bill online and used the satnav on my mobile phone. According to Digital Dividends, a new report from the World Bank, more than 40 per cent of the global population now has internet access. On average, eight in 10 people in the developing world own a mobile phone. Even in the poorest 20 per cent of households this number is nearly seven in 10, making cellphones more prevalent than toilets or clean water.

OPPORTUNITY FOR MILLIONS

There is no doubt that the world is experiencing a revolution of information and communication technology, bringing about rapid change on a massive scale. But despite great expectations, it has fallen short and is unevenly distributed, with the most advantages going, as ever, to the wealthy. The World Bank argues that increasing connectivity alone is not going to solve this problem.

At their best, the report finds that inclusive, effective digital technologies provide choice, convenience, access and opportunity to millions, including the poor and disadvantaged.

For every person connected to high-speed broadband, five are not. Worldwide, around four billion people do not have any internet access, nearly two billion do not use a mobile phone, and almost half a billion live outside areas with any mobile signal. Divides persist across gender, geography, age and income.

Across Africa the digital divide within demographic groups remains considerable. Those who are not connected are clearly being left behind. Yet many of the benefits of being online are also offset by new risks.

The poor record of many e-government initiatives points to high failure of technology and communications projects. Where processes are already inefficient, putting them online amplifies those inefficiencies.

Technology augments higher skills while replacing routine jobs, forcing more workers to compete for low-skilled work. Not surprisingly, the better educated, well connected, and more capable have received most of the benefits – circumscribing the gains from the digital revolution.

The report emphasises that investment in connectivity itself is not enough. In order to achieve the full development benefits of digital investment, it is essential to protect internet users from cybercrime, privacy violations and online censorship, and to provide a full set of ‘analogue complements’, including regulations, improved skills and accountable institutions.

Ultimately, while the World Bank continues to champion connectivity for all as a crucial goal, it also recognises the tremendous challenge in achieving the essential conditions needed for technology to be effective.

In my privileged home, digital technology brings me choice and convenience. It will be a long time before the digital revolution brings similar returns for everyone, everywhere.

The Open University has been working with the UK Space Agency and global satellite communications company Inmarsat to help bridge Africa’s digital divide.

The OU’s contribution is to adapt its OU’s award-winning, web-based, OpenScience Laboratory to bring practical science teaching within reach of Kenyan schools which lack laboratory facilities.

Called the Open n-Lab, it is a virtual laboratory that allows students to conduct scientific experiments on-screen, manipulating scientific apparatus and analysing the results as they would in an actual physical laboratory.

It has been developed by the OU to provide the skills and experience of doing practical science ‘at a distance’.

This is well matched to students who have limited access to traditional laboratories and equipment – and, as recent space missions have shown, a lot of serious practical science has to be carried out remotely.

The OpenScience Laboratory’s technology has obvious potential for Kenya, where practical science teaching often suffers because schools do not have access to well-equipped laboratories.

However, accessing the OpenScience Lab requires good internet connectivity, and schools’ internet connections may be restricted and, in developing countries, slow, unreliable or non-existent.

NEXT GENERATION SCIENTISTS

So for the Open n-Lab the OU has created a version of OpenScience Lab which works offline – providing an onscreen experience similar to internet connectivity but without the immediate need for it.

Further developments will incorporate asynchronous updates and other processes that are compatible with intermittent connectivity.

The pilot version offers three scientific experiments that are difficult to carry out in Africa that could be helpfully presented (Teacher Education in Sub-Saharan Africa) from all over Africa, this material was greeted with great enthusiasm,” the report says.

“They quickly supplied us with a list of experiments that are difficult to carry out in Africa that could be helpfully presented in this way.”

For the future, the OU plans to develop more content in collaboration with local providers in Kenya and other parts of Sub-Saharan Africa.

The project’s final evaluation report, published in March this year, highlights the key role that practical activities play in inspiring and encouraging the next generation of scientists.

It concludes the Open n-Lab has the potential to make a ‘significant impact’, not just in Kenya but elsewhere where laboratory resources and internet connectivity are lacking.

“When demonstrated to teacher educators working on the OU’s TESSA (Teacher Education in Sub-Saharan Africa) from all over Africa, this material was greeted with great enthusiasm,” the report says.

However, accessing the OpenScience Lab requires good internet connectivity, and schools’ internet connections may be restricted and, in developing countries, slow, unreliable or non-existent.

The report emphasises that investment in connectivity itself is not enough. In order to achieve the full development benefits of digital investment, it is essential to protect internet users from cybercrime, privacy violations and online censorship, and to provide a full set of ‘analogue complements’, including regulations, improved skills and accountable institutions.

Ultimately, while the World Bank continues to champion connectivity for all as a crucial goal, it also recognises the tremendous challenge in achieving the essential conditions needed for technology to be effective.

In my privileged home, digital technology brings me choice and convenience. It will be a long time before the digital revolution brings similar returns for everyone, everywhere.

The Open University has been working with the UK Space Agency and global satellite communications company Inmarsat to help bridge Africa’s digital divide.

The OU’s contribution is to adapt its OU’s award-winning, web-based, OpenScience Laboratory to bring practical science teaching within reach of Kenyan schools which lack laboratory facilities.

Called the Open n-Lab, it is a virtual laboratory that allows students to conduct scientific experiments on-screen, manipulating scientific apparatus and analysing the results as they would in an actual physical laboratory.

It has been developed by the OU to provide the skills and experience of doing practical science ‘at a distance’.

This is well matched to students who have limited access to traditional laboratories and equipment – and, as recent space missions have shown, a lot of serious practical science has to be carried out remotely.

The OpenScience Laboratory’s technology has obvious potential for Kenya, where practical science teaching often suffers because schools do not have access to well-equipped laboratories.

However, accessing the OpenScience Lab requires good internet connectivity, and schools’ internet connections may be restricted and, in developing countries, slow, unreliable or non-existent.

NEXT GENERATION SCIENTISTS

So for the Open n-Lab the OU has created a version of OpenScience Lab which works offline – providing an onscreen experience similar to internet connectivity but without the immediate need for it.

Further developments will incorporate asynchronous updates and other processes that are compatible with intermittent connectivity.

The pilot version offers three scientific experiments tailored to secondary school-level biology, chemistry and physics, with virtual equipment including a Bunsen burner, a microscope and a bench-top electron beam.

It has received a positive response in trials with more than 6,000 students and 500 teachers in 10 Kenyan secondary schools.

The project’s final evaluation report, published in March this year, highlights the key role that practical activities play in inspiring and encouraging the next generation of scientists.

It concludes the Open n-Lab has the potential to make a ‘significant impact’, not just in Kenya but elsewhere where laboratory resources and internet connectivity are lacking.

“When demonstrated to teacher educators working on the OU’s TESSA (Teacher Education in Sub-Saharan Africa) from all over Africa, this material was greeted with great enthusiasm,” the report says.

“They quickly supplied us with a list of experiments that are difficult to carry out in Africa that could be helpfully presented in this way.”

For the future, the OU plans to develop more content in collaboration with local providers in Kenya and other parts of Sub-Saharan Africa.
Just how far should businesses go in offering financial education to their staff? The question is increasingly being asked in the wake of the clear evidence about the poor level of financial capability amongst adults in the UK.

Research undertaken in 2014 by Secondsight found that 67 per cent of the working population receive no financial education from their employers. Only 20 per cent of employees had a coherent financial plan and a third claimed to have only a vague idea about money management. Half of employers surveyed said that their staff had asked for help with financial education.

More recent research by The Open University Business School has reinforced these findings with 81 per cent of employees surveyed saying they would value workplace personal finance learning, but with only 7 per cent reporting that they received this support from their employer.

Clearly there is a financial education gap that needs filling. But why should this be the responsibility of businesses, particularly as personal finance is now on the school curriculum across the UK?

One good reason is that offering education to staff is likely to be good for morale in the workplace by enhancing employee engagement. This arises when there is a two-way commitment between employer and employee to what matters to each other. Supporting employees understanding of their personal finances offers significant benefits at a modest cost to the employer.

GUIDANCE ON PENSIONS AND SAVINGS

Engaging with staff with financial education can be viewed as a logical follow-up to the rolling out of auto-enrolment workplace pensions – with all employers required to offer such schemes to their staff by 2018. With this should come guidance on the schemes offered and on the need for employees to augment their state pensions – particularly with the state pension age increasing.

Supplementing pension provision with workplace savings schemes is a logical further development employers should consider. Additionally the process of providing guidance on pensions and savings feeds through to other aspects of financial education. Assessing how much income is needed in retirement requires budgeting skills and an understanding of taxation. In effect access to pension schemes and the related pension guidance is a stepping stone to wider financial education.

Providing financial education is clearly good citizenship but it makes good business sense too. Money worries are one of the most common causes of keeping people awake at night. Certainly financial competence reduces the risk of getting into money problems and is therefore conducive to greater productivity by reducing stress levels. Research by the University of Warwick shows that happy employees are 12 per cent more productive than the ‘average’ employee. This link between happy staff and successful businesses with growing shareholder value has been supported by research undertaken at the London Business School.

There are other potential benefits. Providing financial education is perceived as an employee benefit and can help with employee retention. Additionally, assisting with pension planning will help the transition to retirement of older employees. This would help with succession planning by providing further options for younger employees that might otherwise not be available given that the compulsory retirement age has been abolished.

Financial education can also reduce risks of employee crime. A frequent factor in theft from employers is employee indebtedness and despair about finding a way out. In a difficult economic climate, financial risks to employees increase. Financial education and counselling can help fix such problems early.

Although most employers do not have the resources and skills to provide financial education there are freely available services to help provide support. The Money Advice Service, Citizens Advice and Age UK provide guidance and simple and easy to use on-line financial tools.

Good personal finance education is not just about facts and figures, it is about addressing our anxieties, fears, hopes and dreams. Employers should therefore think positively about the social benefits and the business sense of bringing financial education into their workplaces.

AUTHORS: MARTIN UPTON / PROFESSOR MARK FENTON O’REEVY
The True Potential Centre for the Public Understanding of Finance (True Potential PUFin) at The Open University Business School.

Currently three courses, Managing My Money, Managing My Investments and Managing My Financial Journey are available on the OU’s social learning platform OpenLearn, and are regularly presented on FutureLearn. The Centre and FutureLearn courses have been made possible thanks to the generous support of True Potential LLP.
Understanding How the Brain Works and Its Impact on the Law

Science has made huge strides in understanding how the human brain works. But what are the implications for our legal system and wider society, asks Head of The Open University Law School Paul Catley.

The last few decades have seen huge technological advances which have enormously increased scientists’ understanding of the workings of the human brain.

The next few years are likely to see even greater progress. The European Union’s Human Brain Project, announced in 2012, has a budget estimated at €1.19 billion and the USA’s BRAIN Initiative was launched in 2013 with a pledge of $100 million.

The impact of this research is already apparent in our courts of law. Personal injury cases which involve head injuries will typically include evidence from brain scans showing the extent of the injury and the prognosis – both important in assessing the amount of damages.

Brain images can also be used to determine the cause of injury. This has implications for one of the most difficult types of criminal case, where a court has to decide whether the sudden and unexpected death of a young child is the result of a deliberate killing.

The issue was brought to public attention with the cases of Angela Cannings and Sally Clarke, mothers who were wrongfully convicted of murdering their children.

Following these miscarriages of justice, the Court of Appeal examined the cases of four people who had been separately convicted of causing brain injury by shaking a child. The appeals turned on expert evidence, much of which was neuroscientific. Two of the murder convictions were quashed and a third was reduced to manslaughter.

Young Offenders

Another important area where our increasing knowledge raises questions is the treatment of young offenders.

New insights into brain development indicate that changes in important neural circuits which underpin behaviour continue until at least the age of 20. The brain’s prefrontal cortex, which is central to decision-making and impulse control, has been found to be the slowest area to develop.

Should young people without fully developed decision-making and impulse control facilities be given criminal records which will affect their future, for offences that they would not commit when more mature? In view of these new insights into brain development, The Royal Society has questioned whether the current English law approach of setting the age of criminal responsibility at 10 is appropriate.

Genuine Memories?

The Law Commission has also identified developmental maturity as an issue warranting further investigation, and in the United States it has already influenced Supreme Court decisions regarding juvenile offences.

Some areas are contentious. Is it possible to use brain imaging to detect whether an individual is lying? Companies such as No Lie MRI and Cephos claim that the technology to do this already exists.

Some neuroscientists also claim brain scanning can be used to tell if an individual has memories of certain events or places. Evidence of this type has been allowed in the Indian courts and has led to both convictions and acquittals.

Aside from the question of whether these claims are scientifically robust, the courts must also grapple with the human rights issues: should our thoughts remain private?

And the issues extend beyond the courtroom. The same technology could be used to assess the risk posed by offenders due to be released, or those suspected of offences (particularly suspected terrorists). It could also be used by, for example, employers deciding who to hire.

At the OU we are at the forefront of assessing the challenges and opportunities of these advances for the law, and for society generally.

Advice on Best Practice

Dr Lisa Claydon, OU Senior Lecturer in Law and I have been part of a major project working with colleagues in Europe, Asia and North America to look at the use of neuroscientific evidence by those accused of criminal offences in different jurisdictions. Not just to understand what is happening, but also to advise on best practice. We have given presentations internationally and been involved in leading research into law and neuroscience.

With OU Law Lecturer Dr Stephanie Pywell, I have been looking at developments in the ability to communicate with patients in minimally conscious states, and its implications for treatment and end of life decisions. We have also been looking at assisted suicide, and the use of brain–computer interfaces to enable patients to express their wishes.

And in the field of sport, OU Lecturer in Law Claire Sumner is looking at performance enhancement, including neuropharmacological enhancement – which links to a wider debate as to when such enhancement amounts to unfair advantage.

Increasingly, we are looking to link our research into our teaching. Our new module on Law, Society and Culture, launching in October this year, will include units on neuroscience and the law, memory and the law and the linked field of robotics and the law.

Learn more at www.open.ac.uk/courses/modules/w340
Charlie Sheen’s recent disclosure that he is HIV positive echoes a similar announcement made by another movie star, Rock Hudson, 30 years ago – and it’s interesting to compare the two cases.

**THE CHANGING FACE OF HIV STIGMA**

Both tried unsuccessfully to conceal their HIV status. Hudson was betrayed by his appearance: he was visibly unwell and others tried unsuccessfully to conceal their HIV status. Hudson’s use of the word “undetectable” has done much to a healthy life expectancy. He might also expect to be non-

Of the roughly 80,000 people with diagnosed HIV in the UK, 95 per cent are having regular blood tests to measure levels of the virus. Of those, 90 per cent are on treatments, and 90 per cent of them are “viral suppressed” or “undetectable”. This means that for the majority of people with diagnosed HIV in the UK: (a) their disease progression has been essentially halted and (b) they are functionally non-

HIV stigma has come a long way, too. Perhaps it was because the symptoms of HIV were so visible in the 1980s that those who first wrote about it were cultural theorists. Recent cinematic histories such as *How to Survive a Plague* and *United in Anger* show that HIV stigma, and the response to it were messy, political, confrontational and often theatrical.

However, between the decades, the concept of HIV stigma has itself been transformed. HIV stigma has been metricised. Like all diseases, HIV has bio-medical, interpersonal and social/political dimensions. The challenge for public health systems is to formulate effective responses on all three fronts; and to measure effectiveness, we need metrics.

Demonstrating the efficacy of biomedical interventions is relatively straightforward. Likewise, we can measure the effectiveness of interpersonal interventions to improve knowledge and change behaviours. But intervening on the social/political level is more complicated.

Consensus in the early 2000s that HIV stigma compromises both the health of people with HIV and HIV prevention efforts led to the establishment of global targets for the reduction of stigma and the proliferation of instruments to measure stigma. Thus, HIV stigma has emerged as pretty much the only ‘social’ metric used by public health systems to measure the effectiveness of responses to HIV.

While no one would argue that HIV stigma does not present a major barrier to HIV treatment and care, this “metrification” proposes a simplified construction of stigma: as something bad that “society” does to people with HIV or as something to be eradicated by interventions.

The work of Foucault and Goffman and – in relation to HIV – Richard Parker, however, reminds us of richer constructions of stigma; of stigma as it works on, between and within different groups to regulate behaviours and preserve or undermine existing power balances.

**WHY STIGMA IS HERE TO STAY**

Our own work shows the ways in which people with HIV are affected by stigma but also how they as individuals and groups are constrained to use stigma to maintain group and individual difference. Stigma is productive: for better or worse, it can’t be eradicated because it is an integral part of the way we work as a society.

This allows us to think about how HIV stigma has changed over the decades. In the early days, HIV infection itself was stigmatised: all people with HIV were the subject of moral condemnation. Later, a distinction arose between the “innocent victims” of HIV (those infected through blood products or in utero) and those who had “brought it on themselves” through their lifestyle: gay men, sex workers and people who use drugs.

**‘BAD’ WAYS OF LIVING**

However, more recently, the focus of stigma seems to be shifting away from how you contracted HIV infection and towards how you live with HIV. HIV stigma perpetuates ideas that there are ‘good’ and ‘bad’ ways of living with HIV.

The “good” way is to be responsible: to take medications properly and look after yourself. Preferably one should be undetectable and should disclose one’s HIV status to all partners. The “bad” way is to be irresponsible: to be sexually promiscuous, inject drugs, be a sex worker, to not adhere to medications, to be unhealthy and probably have a detectable viral load.

Thus we see that in the same breath that he discloses his HIV status, Sheen distances himself from these aspects of “bad” HIV: he uses a lot of recreational drugs but was never involved with “needles and that whole mess”; he had a lot of sexual partners, but “always led with condoms and honesty”; he hired sex workers whom he is quick to describe as “unsavoury and insipid types”. Above all, he is under medical supervision.

HIV stigma presents those of us involved in public health with a dilemma. Stigma serves to perpetuate highly normative yet highly desirable (in public health terms) behaviours and attitudes: personal responsibility, treatment compliance, a healthy lifestyle etc. However it also demonises those deemed “irresponsible”: those people with HIV who, for whatever reason, cannot or will not adopt different behaviour. HIV stigma is simultaneously productive and divisive and that makes us very uncomfortable indeed.

TheConversation.com

**THE FOCUS OF STIGMA SEEMS TO BE SHIFTING AWAY FROM HOW YOU CONTRACTED HIV INFECTION AND TOWARDS HOW YOU LIVE WITH HIV**
RESEARCH PROVES A NOVEL IDEA

Associate Lecturer Emma Claire Sweeney was struggling to progress her writing career from short pieces to full-length books. Then she realised she could do the research for her novel as part of a PhD...

I completed a Masters degree in Creative Writing at the University of East Anglia and ended up teaching creative writing at some American universities as well as working as Associate Lecturer at the OU.

I had an idea for a novel about learning disability and was having to do a lot of research in order to write it. Nearly all the academic papers I was reading had come out of the OU’s Social History of Learning Disability research group. This made me start to think it would be a good subject for a PhD.

With Creative Writing PhDs we submit a novel and an accompanying thesis. As a creative writer I wanted to push the boundaries of what an academic thesis could be. I tried to interweave autobiography, being upfront about how my relationship with my sister who is disabled informed some of my thoughts, with biography about Virginia Woolf whose half-sister Laura Stephen was diagnosed with ‘imbecility’, which nowadays we would call autism.

‘OU WAS THERE TO FILL A SPACE’
The novel that was submitted alongside the thesis is out with Legend Press in July this year under the title Owl Song at Dawn. The PhD really led to the publication, in part because I had such immensely helpful advice from supervisors.

It felt for me that the OU was there to fill a space in higher education that wasn’t being filled by anyone else. I was allowed to be inventive in my thesis in a way that other universities might have been more cautious about. The OU is an example of really good practice in terms of the amount of freedom that it gives students.

My parents both did OU degrees. They had three children, all toddlers, one severely disabled, so they really had their hands full, and they were working as well.

My advice to anyone studying with the OU would be to find a way of building a sense of community. Having a couple of study buddies who you might communicate with online, or occasionally meet up with, can be a huge help. My other advice would be to try and attend the day schools.

My ambition for the future would be to alternate between fiction and non-fiction. I have an idea for a new novel and an idea for a new non-fiction book, both of which actually stem from my PhD research. It was a really unexpected benefit that the research I did for the thesis, would end up giving me the idea for a new novel.

https://emmaclairesweeney.com

NOT SO AVERAGE NOW...

Gina created the Exeter Dementia Action Alliance (EDAA) in 2015 and has trekked the Great Wall of China to raise funds for Alzheimer’s Research UK, in addition to receiving a Pride of Devon award in 2015 and achieving the national finals of the Dementia Friendly Awards for her ‘outstanding contribution to dementia friendly communities’.

She is a ‘Dementia Friends’ champion, an Alzheimer’s Society-led initiative, having run more than 80 local information sessions. And just this month she achieved the Lord Mayor of Exeter’s Commendation for her voluntary work. She said: “It was fear that prompted me to study dementia. My grandmother delivered creative arts classes in care homes when I was a child and I used to accompany her to the sessions with my sister.

“During my visits, I noticed that some people were very engaged in what was going on, but there were others who weren’t. I was quite afraid and I now realise they were living with dementia.”

As well as campaigning to raise awareness, including hosting a local radio show Living Better with Dementia and appearing in video broadcasts, Gina is also an OU student. She’ll graduate next year with a BA (Hons) in Health and Social Care.

“I’ve always been interested in the human mind and it was a friend who first introduced me to the OU in 2009 when she was studying K301 An introduction to health and social care. She thought I would enjoy the content and structure of this module so encouraged me to register – which I did.

“Catalyst for everything I’ve achieved”

“I didn’t initially envisage taking a degree path as I thought this would be too much for me, but five years later here I am on my sixth module.”

During a difficult period, Gina’s family advised her to give up her studies or her dementia awareness work.

“I realised I couldn’t do either. The thought of the graduation ceremony for my diploma inspired me to continue with my studies and experience what it would be like to collect my degree award. One module in particular has also kept me going: K235 Dementia care.

“It has been the catalyst for everything I’ve achieved in the area of raising awareness of dementia in my home city of Exeter.”

Share your OU study story with us by emailing ou-stories@open.ac.uk
I f so, you may be interested in a new loans scheme starting this year that is designed to contribute to the costs of studying for a Master’s in England. The Government has ensured that the scheme works for mature students and for those studying via distance learning.

The scheme’s introduction is seen as opening the door to a postgraduate qualification for many who may have found the financial concerns a barrier to undertaking study at this level.

See www.open.ac.uk/postgraduate/fees-and-funding or call our advisers on 0300 303 5303 for full details, including eligibility criteria, plus other suggestions of how to pay.

KEY FACTS:

- Non means-tested loans of up to £10,000 will be available to Master’s degree students aged under 60. Loans will not be available to students intending to study postgraduate certificates or diplomas.
- Loans will only be available to students resident in England and EU students coming to study in England.
- Loans will not be available if you already hold a Master’s degree qualification.
- You must be studying a qualification that can be completed in no more than three years, although study breaks may be allowed.

The Open University is incorporated by Royal Charter (RC 000391), an exempt charity in England & Wales and a charity registered in Scotland (SC 038302). The Open University is authorised and regulated by the Financial Conduct Authority.