



AUTUMN 2017



today

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Student demand and UCD points

– a strong reflection of our reputation among prospective students



EILÍS O'BRIEN
Director of Communication and Marketing

This year's cohort of Leaving Certificate students faced some added anxiety around getting their results as they had to wait and see the impact of the changes to the grade bands and points allocated. The primary purpose of this reform was to take some of the steam out of the upward trend in points. On a national level this seems to have been effective with points falling in a large number of courses across the university and higher education sector and significantly more students being offered one of their top three CAO preferences.

At UCD we now have 39 DN codes for entry to undergraduate degree programmes with 2 additional routes into graduate entry medicine and graduate entry veterinary medicine. Of course, the revised grade bands and points makes direct comparison imprecise, though still inevitable.

Of these 39, a cursory comparison of round 2 offers with final round offers from last year saw 22 codes fall in points. But, moving from bands of 5 to absolute numbers did reduce large points swings and indeed, only 3 codes for relatively small courses; DN514 Planning, Geography & Environment (+65), DN515 History (+43) and DN513 English (-35) changed dramatically. The introduction of a revised suite of arts, humanities and social sciences combinations will help address this type of fluctuation from 2018 onwards.

UCD has the highest points in the country for quite focused degrees: medicine, physiotherapy, general nursing, engineering, science, computer science and agricultural science. These points reflect the student demand for these programmes here and the fact that these are all large-number entry routes indicates how strong our reputation is among prospective students. We have come a long way since the introduction of UCD Horizons.

UCD thanks...

Contributors: Judith Archbold, Jonnie Baxter, Marie Boran, Kate Conroy, Sarah Conroy, Pádraig Cunningham, Mags Darcy, Jamie Deasy, Damien Dempsey, William Fitzmaurice, Andrew Fogarty, William Gallagher, Helen Graham, Judith Harford, Shauna Hughes, Anna Kadzik, Anna Kelly, Sinead Kelly, Claire Kilty, Naonori Kodate, Christine Linehan, Kate Manning, Juno McEnroe, Lynda Mulvin, David Nevin, Clár Ní Bhuachalla, Claire Ní Dhubhcháin, Claire O'Connell, Colm O'Donnell, Andrew Parnell, Elaine Quinn, Barry Smyth, Mary Staunton, Cathy Timlin, Krishna Vadlamannati, Patrick Paul Walsh, Míceál Whelan

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QS World University Rankings: UCD up eight places

This year's improvement in the QS World University Rankings to 168 is welcome, and reflects the impact of increases in both academic and employer reputation surveys.

It is also a sign of some recovery in the staff-student ratio, which had fallen outside the ranking of the top 500 last year and is now at 439. Back in 2008, UCD ranked 86 under this measure, which accounts for 20% of the overall ranking score. Funding cuts by Government have bitten hard on the higher education sector in Ireland since the economic crash in 2008 and the recovery has yet to reach the resource-challenged universities.

Contextualising the staff-student score, Professor Andrew Deeks, UCD President said:

"Because of the failure of the Government to address the funding issue facing the sector, the

only way for the University to increase the number of staff has been through using non-exchequer income raised primarily by recruiting additional non-EU students. This has directly improved UCD's ranking under the staff-student ratio criterion, but the ratio remains unacceptably low compared with our competitor universities overseas. Unless there is movement on the funding of Irish students soon, the University will have to seriously consider the option of reducing the number of places available to Irish students in order to preserve quality."

"We continue to pursue our ambitions to provide a great educational experience for our students and to be a centre of research excellence that impacts on society through the work of our academics. I wish to thank staff for their continuing dedication through a difficult time for Irish universities."



Pictured (l-r) were: Professor John Walsh, UCD School of Earth Sciences, receiving the William Smith Medal from Malcolm Brown, President of the Geological Society of London

UCD Professor awarded William Smith Medal

Professor John Walsh, UCD School of Earth Sciences and Director of the Science Foundation Ireland-funded Irish Centre for Research in Applied Geosciences (iCRAG) has been awarded the William Smith Medal by the Geological Society of London.

The award is given for international excellence in contributions to applied and economic aspects of geoscience.

Professor Walsh's research has investigated the long and short-term (i.e. earthquake) growth of fault systems, the impact of faults on fluid-flow on a range of scales (e.g. basin to mineral deposit), and the definition of new analytical and modelling techniques for a range of fault-related technical issues.

On receiving the award, Professor Walsh said, "I am deeply honoured to receive the William Smith Medal. The award is a huge endorsement of the work of our group, the Fault Analysis Group, over the years. I look forward to continuing our research both as members of the Fault Analysis Group and, more recently, as members of iCRAG."

Professor Andrew Deeks, UCD President commented, "this award recognises the truly global excellence of Professor Walsh's research in applied geoscience. It is a wonderful acknowledgement of his dedication and commitment to scientific research for the past 30 years".

Also congratulating Professor John Walsh was Professor Mark Ferguson, Director General of Science Foundation Ireland and Chief Scientific Adviser to the Government of Ireland, "I am delighted to see one of Ireland's leading scientists, and Director of the world-leading SFI Research Centre iCRAG, recognised for his outstanding research over many years."

Founded in 1807, the Geological Society of London is the oldest geological society in the world.

iCRAG is funded under the Science Foundation Ireland Research Centres Programme and is co-funded under the European Regional Development Fund.



Picture (l-r) were: Professor Jennifer McElwain, UCD School of Biology and Environmental Science; Professor Finola O'Kane Crimmins, UCD School of Architecture, Planning and Environmental Policy; and Professor Aidan O'Sullivan, UCD School of Archaeology

UCD academics admitted to the Royal Irish Academy

Three UCD Professors have been admitted to Ireland's leading academic society in recognition of their "unique contributions to education and research."

Professor Finola O'Kane Crimmins, UCD School of Architecture, Planning and Environmental Policy was selected for her "groundbreaking publications on the history of Irish landscape design". Her research examines the designed landscape history of Ireland and the Atlantic world. She has a particular interest in the cultural, philosophical and aesthetic dimensions of this area.

Professor Jennifer McElwain, UCD School of Biology and Environmental Science was recognised for her "major contributions to our understanding of the relationships between

plants and their changing environment in the geological past." She is Director of the UCD Program for Experimental Atmospheres and Climate (PEAC). PEAC focuses on sustainable crop production and the development of plants containing new or increased amounts of health promoting substances.

Professor Aidan O'Sullivan, UCD School of Archaeology was admitted to the Academy for his "international reputation in the field of wetland archaeology" and as a "leading researcher on the archaeology of early medieval Ireland." Professor O'Sullivan is a Principal Investigator on the Early Medieval Archaeology Project (EMAP). EMAP is a collaborative research project investigating the history, character and results of early medieval archaeological excavations in Ireland.



Pictured (l-r) were: Professor William Gallagher, Director, UCD Conway Institute of Biomolecular and Biomedical Research; Assistant Professor Conor McAloon, UCD School of Veterinary Medicine; Associate Professor Orina Belton, UCD School of Biomolecular & Biomedical Science; Dr David Crosby, National Maternity Hospital and Merrion Fertility Clinic; Associate Professor Margaret McGee, UCD School of Biomolecular & Biomedical Science; Dr Conor Magee, St James Hospital; Associate Professor Amanda McCann, UCD School of Medicine; Dr Clodagh Kearney, UCD School of Veterinary Medicine; and Triona McCormack, Director, UCD Research

New €2.2 million Strategic Fund announced by UCD

On 16 June, UCD announced the first round of eight awardees of a new strategic fund to support health-related researchers.

The objective of the UCD Wellcome Institutional Strategic Support Fund (ISSF), worth €2.2 million over five years, is to drive key research initiatives within UCD's research themes of Personalised & Translational Medicine and One Health.

Professor William Gallagher, Director, UCD Conway Institute, and lead academic overseeing the Fund said, "The calibre of the awardees within the first round of these schemes is absolutely superb, representing a broad range of disciplines across the university".

Professor Orla Feely, UCD Vice-President for Research Impact and Innovation said, "I am delighted that the University has been awarded this prestigious funding, which will have a major impact on the UCD research community,

enabling our researchers to overcome systemic barriers in career and network development."

The Fund has three separate schemes: 1) The Clinical Primer Scheme 2) The Mid-Career Stimulus and Diversification Scheme and 3) the Networks of Excellence Scheme.

The 4 UCD awardees in the Clinical Primer Scheme are Dr Conor Magee, Specialist Registrar Rheumatology, St James Hospital, Dr David Crosby, Clinical Research Fellow and Specialist Registrar Obstetrics & Gynaecology, National Maternity Hospital and Merrion Fertility Clinic; Dr Clodagh Kearney, Lecturer and Senior Clinician in Large Animal Surgery, UCD School of Veterinary Medicine and Dr Conor McAloon, Assistant Professor and Clinician in Bovine Health Management, UCD School of Veterinary Medicine.

The 4 UCD awardees in the Mid-Career Stimulus and Diversification Scheme are Associate Professor Orina Belton, UCD School of Biomolecular & Biomedical Science and UCD Conway Institute, Associate Professor Amanda McCann, UCD School of Medicine and UCD Conway Institute, Professor Emma Teeling, UCD School of Biology & Environmental Science and UCD Conway Institute and Associate Professor Margaret McGee, UCD School of Biomolecular & Biomedical Science and UCD Conway Institute.

The fund has been established with funding from the SFI – HRB – Wellcome Trust Biomedical Research Partnership in addition to matched funding from UCD.

Two UCD researchers and CEO of UCD spin-out firm honoured for Horizon 2020 leadership

Two UCD researchers and the CEO of a UCD spin-out company have received Horizon 2020 outstanding achievement awards that recognise them as champions of European Union research.

Professor Suzanne Kingston, Professor Fiona Doohan and Mr Des O'Leary are among 16 individuals who have received awards for their projects that exhibited leadership in their programme areas.

Professor Suzanne Kingston, UCD Sutherland School of Law, was honoured in the ERC Starting Grant category. Her project entitled, 'The Influence of New Environmental

Governance Rules on Environmental Compliance' focuses on legal architectures. The project achieved the highest ranking for an Irish applicant for this grant type.

Professor Fiona Doohan, UCD School of Biology and Environmental Science, was one of two Irish researchers to receive an award in the "Recognising the Career Development of our Next Generation Researchers" category.

More specifically, she was honoured for leadership of her Marie Skłodowska-Curie Innovative Training Networks in the area of Training in Innovative and Integrated Control of Cereal Diseases. Professor Doohan's project was ranked first in her respective call.

Mr Des O'Leary, CEO of UCD spin-out company Oncomark Ltd, was honoured in the SME instrument category for leadership of the OncoMasTR project that is developing a new prognostic test for early stage breast cancer. OncoMasTR was the highest scoring Irish project in the Horizon 2020 SME instrument.

"I congratulate the UCD recipients of these very important awards, and hope that their success will inspire further success in Horizon 2020 across the University," said Professor Orla Feely, UCD Vice-President for Research, Innovation and Impact.

ERC Consolidator Grant Success



Professor Roland Erne, UCD School of Business

Professor Roland Erne, UCD School of Business, has been awarded a European Research Council Consolidator Grant. The grant, valued at €2 million, is one of only two nationally awarded ERC grants in this round of the competition.

Professor Erne's project is entitled 'Labour Politics and the EU's New Economic Governance Regime (European Unions)'. In the context of the tensions that an increasingly authoritarian strain in EU governance brings, this project aims to map the EU's new governance regime and the shifts in labour politics; open up novel analytical approaches to capture the underlying transnational social

processes at work; analyse the responses of European labour movements; and develop a new scientific paradigm capable of accounting for the interplay between EU governance, labour politics and EU democracy.



Working towards the personalisation of cancer treatment



Of the three main subtypes of breast cancer, it is known that a diagnosis of triple negative breast cancer (TNBC) is the least desirable in terms of how aggressive the cancer is, the limited effective treatment options, and high relapse rates after treatment. Unfortunately, TNBC accounts for one in six diagnoses of breast cancer globally and occurs more frequently in younger women. More than 250 people are diagnosed with triple negative breast cancer in Ireland every year and treatment is currently limited to chemotherapy.

Professor William Gallagher's research is aiming to change this. As Professor of Cancer Biology in the UCD School of Biomolecular and Biomedical Science and Director of the Irish Cancer Society Collaborative Cancer Research Centre, BREAST-PREDICT, Professor Gallagher and his team work on developing personalisation of cancer treatments for triple negative breast cancer amongst others.

In collaboration with EU-funded research consortium RATHER, Gallagher and his colleagues (including breast cancer researchers from all across Ireland) have found evidence that a particular protein known as CDK7 is a driver for triple negative breast cancer and is therefore a candidate therapeutic target in its treatment. Their research on this driver was recently published in the American Association for Cancer Research journal *Cancer Research*.

Professor Gallagher explains why this research is much needed: "If you take one cancer in particular, like breast cancer, we know that it is a mixture of different sub-diseases. We can commonly classify breast cancer into three or four groups. One that people may be familiar with is ER (Estrogen Receptor) positive. About 60 to 70 percent of women with breast cancer would be classified in this group and it is treated with endocrine or hormone therapy. This is a well-known and fairly effective treatment."

"The other group, which accounts for about 15 percent of breast cancers, is HER2 (human epidermal growth factor) positive. Traditionally, this was seen as quite an aggressive group of cancers and those diagnosed would have had a poor outcome. However, the HER2 protein was one of the first main cancer drug targets, with a very specific drug known as Herceptin being

developed. This drug has dramatically turned around the survival rate of women with this form of cancer such that HER2 positive has gone from being the worst kind of breast cancer someone can be diagnosed with to one with a much more favourable outcome," he explains.

This leaves a third group - triple negative breast cancer (TNBC) - and unfortunately it cannot be treated via endocrine therapy, Herceptin or other HER2 targeted drugs because it does not contain the ER or HER2 proteins, hence the description of being triple negative. The UCD researcher explains that the only other option is to give patients traditional chemotherapy, which has familiar side effects such as hair loss and nausea, and in some cases, can lead to secondary cancer.

"Unfortunately, chemotherapy is a very generic and not very targeted treatment but it has been the only option for TNBC. But we know that fundamentally cancer is a genetic disease and so what we are trying to do within this particular aggressive sub-group is find specific alterations or biological differences that we can drug".

Professor Gallagher and his fellow researchers looked at a particular collection of proteins known as kinases. There are about 500 known kinases in the human genome and many are already drug targets.

"We looked at all 500 kinases in the context of a large dataset on triple negative breast cancer and found a link between tumours with a high level of expression of the kinase known as CDK7 and a poorer prognosis for that patient," explains the UCD academic.

"That suggested to us that CDK7 could be a driver i.e. something that controls the disease. It is quite a fundamental protein that controls very key processes in how cells function and we believe CDK7 allows TNBC cells to grow in an uncontrolled manner. If we can use a drug to stop CDK7 from functioning, we can actually stop the cells growing and potentially kill the cancer cells."

Professor Gallagher and his collaborators showed in the *Cancer Research* paper that not only did CDK7 play an important role in TNBC but it could also be inhibited in a lab setting.

"We assessed a novel drug compound called THZ1 from the Dana-Farber Cancer Research Institute in Boston, since licenced to a company called Syros Pharmaceuticals. This drug knocks out the function of CDK7 so we used it to show in experimental models that it can stop certain breast cancer cells from growing," says the Professor of Cancer Biology.

"Here in UCD, we take cells from human breast tumours and grow them in a lab. We treat them with this compound, which stops them from growing and they can actually die. It specifically seems to work in this triple negative form," he explains.

This research is exciting and holds promise for those diagnosed with triple negative breast cancer but Professor Gallagher explains that several phases of clinical trials need to take place before a drug can be used as part of a cancer treatment plan. He also notes that there is no panacea to treat cancer across the board: "There is no one 'wonder drug' in cancer," he says, adding that only a proportion of a population will respond to a particular cancer treatment.

"Our main interest is finding the small percentage of patients on which a specific drug works extremely well because we believe it is important to tailor treatment options for the particular disease a person has."

Professor William Gallagher was in conversation with Marie Boran, a freelance science and technology writer



Pictured at the first day of UCD Innovation Summer Camp were: Richard Bruton TD, Minister of Education and Skills (third from the left) with students who took part in the summer camp

Minister Bruton visits UCD Innovation Summer Camp

The Minister for Education and Skills, Richard Bruton TD, visited the first day of UCD Innovation Summer Camp, which ran from 26-30 June. The initiative, which saw 100 senior cycle second level school students developing their flair for innovation, was funded by the Department of Education and Skills through the Higher Education Authority. The Minister's objective is to introduce second level students to entrepreneurship, creativity, design skills and innovation. 40% of the camp's participants were from DEIS Schools.

The aim of the camp was to help participants develop creative confidence, entrepreneurial thinking and leadership skills. During the week students practiced skills such as design thinking, pitching new ideas and rapid prototyping. They had the opportunity to use emerging technologies such as 3D printing and virtual reality. They also learned from guest speakers.

Speaking after the event, Minister Bruton said "I was delighted to visit UCD Innovation Summer Camp and witness the students as they tackle their first innovation challenges. It's vital that we support and encourage entrepreneurship, creativity and innovation in our second level students and I've no doubt

that the skills acquired by the students this week will be of huge benefit to them in the future."

Professor Suzi Jarvis, the Founding Director of UCD Innovation Academy noted "We are delighted to be included in this new initiative. The world of work that these students will graduate into is changing at an accelerating rate. This represents a real challenge for our education system to keep pace. At UCD Innovation Academy we believe that by developing an entrepreneurial mindset in learners and educators alike, we can support the next generation to adapt and live well in the world."



Pictured at the launch of the National Farmed Animal Health Strategy at UCD were (l-r): Dr Martin Blake, Chief Veterinary Officer and Mr Aidan O'Driscoll, Secretary General, both Department of Agriculture, Food and the Marine; Professor Michael Doherty, Dean & Head of School, UCD School of Veterinary Medicine; Mr Michael Creed TD, Minister for Agriculture, Food and the Marine; and Professor Andrew Deeks, UCD President

National Farmed Animal Health Strategy launched at UCD

On 11 July the Minister for Agriculture, Food & the Marine, Mr Michael Creed TD, launched the National Farmed Animal Health Strategy at UCD. Professor Michael Doherty, Dean and Head of UCD School of Veterinary Medicine, and Professor Andrew Deeks, UCD President, welcomed the Minister's decision to launch the strategy at UCD.

President Deeks highlighted the fact that UCD has the only schools of Veterinary Medicine and Agriculture and Food Science on the island of Ireland, with both having deserved global reputations in education and research. The Centre for Veterinary Epidemiology and Risk Analysis (CVERA) within UCD School of Veterinary Medicine was noted as an invaluable national resource; headed by Professor Simon More, science-informed policy decision-making is central to its mission. Addressing 'major challenges in animal and human health' is an important component of UCD's strategic research plan and wholly aligned to the strategic objectives of the National Farmed Animal Health Strategy. President Deeks re-affirmed UCD's commitment as a stakeholder to its successful implementation.

In his remarks, Minister Creed outlined that this significant initiative is Ireland's first strategy on the critical issue of animal health. The strategy sets out a comprehensive set of actions for all stakeholders in the agri-food industry to work in partnership to achieve animal health in Ireland. The Minister thanked all stakeholders who provided submissions in the consultation stage of the strategy. He concluded that the health and surveillance strategies detailed will play a vital part in the ongoing efforts to enhance Ireland's reputation for high standards of animal health and to continue to expand Ireland's markets abroad; this is a key consideration as Ireland prepares for Brexit and its potential trade implications.

UCD Professor first Irish person to receive Fraunhofer Thaler Award

During his recent visit to Ireland, the President of the Fraunhofer-Gesellschaft, Germany, Professor Reimund Neugebauer presented the Fraunhofer Thaler Award to Professor Gerry Byrne, UCD School of Mechanical and Materials Engineering, in recognition of his "outstanding leadership and significant achievements in the field of applied research".

In presenting the award, the President referred to the excellence of the long term contribution of Professor Byrne through activities such as his Presidency of the International Academy for Production Engineering (CIRP). He also noted the recent work of Professor Byrne in support of the development of Fraunhofer in the UK and Ireland. Professor Byrne is the first Irish person to receive the Fraunhofer Thaler Award.



Pictured (l-r) were: Professor Reimund Neugebauer, President of the Fraunhofer-Gesellschaft, presenting the Fraunhofer Thaler Award to Professor Gerry Byrne, UCD School of Mechanical and Materials Engineering

Professor Byrne, former College Principal and Dean of Engineering at UCD, is a Senior Advisor to the President of the Fraunhofer-Gesellschaft. He is a Past-President of the Institution of Engineers of Ireland, Past-President of the Irish Academy of Engineering, Past-President of the International Academy for Production Engineering (CIRP), a Fellow of the Royal Academy of Engineering (UK), a Fellow of the Society of Manufacturing Engineers (USA) and a Fellow of the German National Academy for Science and Engineering (acatech).

The Fraunhofer-Gesellschaft is the leading research and technology organisation for applied research in Europe.



Improving your marathon with the wisdom of the dataset



Professor Pádraig Cunningham



Professor Barry Smyth

UCD and Insight researchers Professor Pádraig Cunningham and Professor Barry Smyth have developed a data science approach to achieving a personal best in a marathon.

“How do you know someone has run a marathon?” asks Professor Barry Smyth, a computer scientist and keen runner himself. “Just wait, they will tell you soon enough.”

It's true, marathon runners can often display an enthusiastic zeal about their sport and they are justifiably proud of their hard-earned race times. In the run up to the Dublin Marathon this October, athletes pore over training plans, tracking their mileage and tailoring their fitness to that all important deadline and finish line.

But what if they could get a helping hand from data science? Professor Smyth and Professor Cunningham, UCD School of Computer Science, recently developed a method to plumb datasets of archived marathon race times and use software to work out ways to realistically improve an individual runner's personal best time.

In June the two professors scooped the Best Paper award at the 25th International Conference on Case-Based Reasoning in Trondheim, Norway, and what particularly impressed the judges was the novelty of applying data analysis methods to marathon data.

The case of the better marathon time

To carry out the study the UCD researchers, who are both Founding Directors at the Science Foundation Ireland-funded Insight Centre for Data Analytics, analysed publicly available race times from previous London Marathon races.

Their approach, a type of machine learning called case-based reasoning, allowed them to learn from the experience of individual runners who improved their times over subsequent races.

“The idea behind case-based reasoning is to re-use experiences in order to have better outcomes for new challenges,” explains Professor Cunningham, who is Professor of Knowledge and Data Engineering at UCD. “It is a problem-solving idea, so if I have a problem that is similar to a

problem that somebody else has encountered in the past, I get to re-use their solution.”

The ‘problem’ in this case is the desire to improve your race time and achieve a new personal best. And the previous problems (so-so race times) and solutions (better race times) lie

within more than 200,000 races recorded over six years of the London Marathon.

Within those datasets lie patterns where an individual has run a so-so race and then gone on to achieve faster times in one or more subsequent races. By analysing the baseline and improvements, the new algorithm can help you optimise your own race time over that course.

Optimal guidance

The idea for the study came when Professors Cunningham, a keen cyclist, and Professor Smyth, a marathon runner, were out for a walk. They had both worked in the area of case-based reasoning for more than two decades and they got to discussing how they could apply the technique to optimise athletic performance.

“About 18 months ago I started analysing marathon data,” says Professor Smyth, who holds the Digital Chair of Computer Science at UCD. “I started downloading the results datasets of marathons, digging around in the data and writing blog posts and magazine articles for the running community. Then myself and Pádraig (Cunningham) started talking about whether you could work out how to improve your personal best time on the basis of other runners who have already done that.”

But setting that personal best goal isn't just a case of plucking a number out of the air, notes Professor Smyth. “If I pick something too hard I am likely to blow up during the race, so you want that sweet spot where you can achieve it,” he says. “You also want some guidance on the optimal way to run the race, the target split times over 5k segments.”

Baseline to better

The UCD researchers developed a method to mine the London data for baseline and improved races, allowing an individual runner to ‘twin’ their

baseline race with a group of individuals who had run similar initial races and then get pointers on how to improve towards a realistic personal best.

“It is different from the programmes that predict your marathon time based on your 10k or half-marathon times,” explains Professor Smyth. “This is much more personalised and it takes the topology of the race into account, giving you optimal splits along the way.”

The approach is a ‘big data’ version of going and talking to runners who have had similar races to your first one and asking them about your experience, notes Professor Cunningham. Rather than you seeking out your ‘twin’ runner who has gone on to better times, the software does the heavy lifting through the dataset to find those patterns, then it delivers the optimised times.

This ability to optimise based on past patterns plugs into a larger trend in data science, he adds. “At the moment, we can use data to predict future events but the next generation of systems will go beyond just predicting outcomes and focus on optimising outcomes - what is the best outcome we can have and how can we get there?”

Optimising the future

Looking to how the work from this case-based reasoning paper could further develop, Professor Smyth describes how marathon apps could deploy it on their sites. “Rather than having a one-size-fits-all prediction tool, you could enter your running times and get an optimal race, a set of targets.”

A further iteration of the technology could track you as you run the race and alter the optimal split times depending on how the race is going, he adds. “A guide to how to run the race on the day is one thing, but what happens in the middle of the race when it hasn't gone so well - you might have another bit of AI (artificial intelligence) which is adjusting your goals.”

The approach could dig even deeper if applied to training data in running and cycling. “A piece of artificial intelligence could tweak your training programme, even picking up on early signs of overtraining and helping you to avoid injury,” says Professor Smyth.

Professors Pádraig Cunningham and Barry Smyth were in conversation with Dr Claire O'Connell, science writer and contributor to The Irish Times and Silicon Republic



Pictured (l-r) were: Associate Professor Amanda Gibney, UCD School of Civil Engineering; Professor David Nicol, Emeritus Professor, University of Strathclyde; Associate Professor Geraldine O'Neill, UCD Teaching & Learning; Professor Mark Rogers, UCD Registrar and Deputy President; Associate Professor Rosario Hernández, UCD School of Languages, Cultures and Linguistics; Ms Aine Galvin, Director, UCD Teaching & Learning; Professor Kay Sambell, Edinburgh Napier University; Associate Professor Carmel Hensey, UCD School of Biomolecular and Biomedical Science; Associate Professor Marie Clarke, Dean of Undergraduate Studies and Dean of Arts; and Professor Ellis Hennessy, UCD School of Psychology

UCD Teaching & Learning Symposium

Over one hundred UCD faculty and staff attended the “Linking Assessment, Feedback and Learning” Symposium held by UCD Teaching and Learning on 10 May in the Talbot Hotel, Stillorgan.

Large group teaching and heavy workloads are often cited as key challenges for academic staff in providing timely feedback to students on their work. A key theme that emerged from the symposium was the need to re-think how academics approach feedback in higher education. One of the keynote speakers, Emeritus Professor David Nicol, University of Strathclyde,

advocated the move away from the traditional idea that feedback must always come directly from the teacher. He highlighted the need to place students at the centre of the process of generating feedback on their own work. By supporting students to develop evaluative judgement and internalise academic standards through a process of peer review, Professor Nicol argued that academic staff

can empower students to monitor their own progress and become self-regulated learners.

UCD students were invited to talk about their experiences of assessment on a panel chaired by Associate Professor Marie Clarke, Dean of Undergraduate Studies and Dean of Arts. Students spoke openly about their experiences, including the challenges of understanding expectations and standards around assessment, the importance of early feedback, and the value of formative assessment.

UCD College of Engineering and Architecture appoints Dr Edmond Harty as Adjunct Full Professor

Dr Edmond Harty, CEO of Dairymaster, has been appointed Adjunct Full Professor at UCD School of Biosystems and Food Engineering, UCD College of Engineering and Architecture.

Dr Harty's appointment will provide students in UCD School of Biosystems and Food Engineering with an unrivalled opportunity to learn from a global innovator.

Welcoming the appointment of Dr Harty to the position of Adjunct Full Professor, Professor Colm O'Donnell, Head of UCD School of Biosystems and Food Engineering said:

“UCD has prioritised research on manufacturing and agri-food research. The appointment of Dr Harty who has an excellent international track record in engineering and innovation will further strengthen UCD's expertise in engineering design, innovation and

entrepreneurship. Dr Harty will make a valuable contribution to our School's research and teaching programmes including UCD's new undergraduate programme in Agricultural Systems Technology.”

Speaking on his appointment, Dr Harty said: “It is an honour for me to join UCD School of Biosystems and Food Engineering as Adjunct Full Professor. As a UCD postgraduate engineering student some 15 years ago, I was inspired by the culture of research and innovation on campus. It is a real privilege for me to join the engineering research staff to make my contribution to the education of the next generation of world innovators in the area of dairy technology and beyond. My work as CEO at Dairymaster has given me a global perspective on technologies, markets and the future of the dairy sector that I hope to share with students over the coming years.”

Royal Society-SFI University Research Fellowship awardee

Dr Niels Warburton, UCD School of Mathematics and Statistics has received a Royal Society-SFI University Research Fellowship Award 2017. The awards were presented on 4 July by Tánaiste and Minister for Jobs, Enterprise and Innovation, Frances Fitzgerald TD, and Minister of State for Training, Skills, Innovation, Research and Development, John Halligan TD.

The scheme, which is funded by Science Foundation Ireland, is aimed at outstanding early career researchers, providing them with an opportunity to build an independent research career and become future leaders in their fields. It is recognition of Dr Warburton's talent and creativity, and clearly demonstrates his ability to compete alongside the best in the world. He will continue his research into ‘Accurate waveforms for extreme and intermediate-mass-ratio inspirals’.



Tsunami deposits reveal a variable history in the Indian Ocean



Associate Professor Andrew Parnell, UCD School of Mathematics and Statistics, has played a key role in determining the timing and variability

of tsunamis in the Indian Ocean over thousands of years.

26 December, 2004 is a date etched in global history. Humans around the world read, listened to and watched reports of a devastating earthquake in the Indian Ocean that sent tsunamis hurtling to the shores of countries in the region.

Reports grew ever more horrific as the human cost became apparent, and it is estimated that quarter of a million people lost their lives as a result of that rapid but devastating natural disaster.

Now a new study involving UCD researcher Associate Professor Andrew Parnell has cast new light on the timing of previous tsunamis in Sumatra, close to the epicentre of the 2004 event, and the variability of the pattern is a warning to remain prepared.

Look to the past

One of the vexing issues that earthquakes and tsunamis pose is the impossibility of predicting their timing, severity and impact, notes Associate Professor Parnell, Lecturer in Statistics, UCD School of Mathematics and Statistics.

“One thing we can do though, is look back at how often these events have taken place in the past and roughly how often they occur,” he says.

Fortuitously, an unusually well preserved telescope back into the past of tsunamis in the Indian Ocean region cropped up when two of the study’s researchers, archaeologist Patrick Daly and sedimentologist Ben Horton at Nanyang Technological University in Singapore, had a conversation.

“Patrick was aware of a coastal cave in Sumatra, he told Ben about it and Ben went to look at it,” explains Associate Professor Parnell. “When Ben and his colleagues dug a trench in that coastal cave, they could see where layers of sand had been deposited by tsunamis in the past. This was a once-in-a-lifetime find, a well preserved record of past tsunamis, and that set the whole study off.”

When the researchers analysed the layers revealed in the cave at the northwest coast of the Aceh Province, they were able to gauge the severity of individual tsunamis from the thickness of the sand layers they left behind. “You see a sand layer for every single tsunami, and the thicker the sand layer the nastier the tsunami,” explains Associate Professor Parnell. “Then in between those sand layers you find bat droppings that have accumulated over time.”

Carbon dates build picture

The cave’s interior had protected the sediments from the forces of erosion, but the picture still wasn’t entirely clear: the severe 2004 tsunami had disturbed recent layers of sediment, and more generally some detective work was needed to precisely date tsunamis stretching back thousands of years. This was why Associate

Professor Parnell, an expert in the analysis of radiocarbon dating, got the call.

“When the team picked about in the layers of sediment they were able to find sources of carbon, like bat droppings and shells, that you can use for radiocarbon dating to find out when the sediment was laid down,” he explains.

“I have been doing the maths for radiocarbon dating for 10-15 years and Ben was one of my PhD supervisors. Whenever he has a complicated radiocarbon data to model, he usually gets me involved. In this case my job was to build up a big statistical model based on all of the radiocarbon dates they determined, some of which would directly date a tsunami, some would be either side of the tsunami, and the output was the estimated age of each tsunami.”

A variable history

The record that the researchers built up and published in *Nature Communications* stretches back to 7,400 years ago.

While the ‘top’ layers representing the most recent 2,900 years were muddled by the 2004 event, the analysis showed that in the period between 7,400 and 2,900 years ago, the region has seen at least 11 tsunamis, with a long dormant segment within that time-frame.

“The problem is that there is a hugely variable recurrence rate between the tsunamis,” explains Associate Professor Parnell. “For a while you see events that happen reasonably regularly - over the first 2,500 years you have six tsunamis. Next there is a big gap of more than 2,000 years where there is no evidence for tsunamis, then there is a mad century about 3,400 years ago where there were four relatively small tsunamis. It’s hugely variable and quite depressingly unpredictable how often or how severe these events are.”

While another long dormant period would of course be welcome, the variability of the past tsunami record alerts us to the need to be prepared, he notes. “You can’t predict when earthquakes and tsunamis will occur, and it is a concern that in the past there have been four in a century, so just because we have seen a big tsunami in this century it doesn’t mean we can relax and think we won’t have another one for a while. Hopefully it is the case that we won’t, but because we have seen a pattern of several tsunamis happening quickly over short periods we need a prepared mindset.”

Associate Professor Andrew Parnell was in conversation with Dr Claire O’Connell, science writer and contributor to The Irish Times and Silicon Republic



Pictured are the UCD 2017/2018 Fulbright Awardees (Lorcán Burns is absent from photograph)

12 of 38 Fulbright Awards go to UCD students, scholars and professionals

In June, Minister for Foreign Affairs and Trade, Charlie Flanagan TD announced 38 new Fulbright Irish Awardees for 2017-2018. Twelve of these awards went to students, scholars and professionals from UCD.

Jointly funded by the Irish and US governments under the Ireland-United States Commission for Educational Exchange, the Fulbright Awards provide Irish and US students, scholars and professionals with the opportunity to study, lecture and research at leading universities and institutions in the US and Ireland respectively. They were first established in 1957.

The UCD recipients of Irish Fulbright Awards 2017-2018 are:

- **Dr Charlotte Blease**, a philosopher of medicine and Research Fellow at Dublin Institute for Advanced Studies and UCD.
- **Mr Lorcán Burns** is currently completing a PGCE at St Mary's University College Belfast. He has a BA in Irish from University of Ulster, and an MA in Scríobh agus Cumarsáid na Gaeilge from UCD.
- **Dr Tom Curran**, a lecturer in the UCD School of Biosystems and Food Engineering and Director of the UCD MSc in Environmental Technology.
- **Mr Matthew Flood** is a PhD candidate at the Insight Centre for Data Analytics at UCD and UCD School of Electrical & Electronic

Engineering. He also holds an ME in Biomedical Engineering from UCD.

- **Dr Aggeliki Georgiopolou** is an assistant professor and lecturer in Sedimentology at UCD School of Earth Sciences.
- **Dr David Lillis** is an assistant professor at UCD School of Computer Science.
- **Mr Jamie Mc Garrigle** completed a BA in Modern Irish and Music at UCD and was awarded a scholarship to the UCD graduate studies programme in Irish Writing and Communications.
- **Ms Ciara Ní É** completed an MA in Irish at UCD where she was also a tutor.
- **Ms Giollaíosa Ní Mhaonaigh** graduated from UCD with a BA in Modern Irish and History.
- **Ms Katherine Nolan** completed a Bachelor of Business and Law at UCD
- **Mr Tomás Ó Ceallaigh** is currently completing a masters in Nua-Ghaeilge at UCD.
- **Dr Elizabeth Shotton** is Director of Research, Innovation and Impact, UCD School of Architecture, Planning and Environmental Policy.



Pictured: Professor Emma Teeling, UCD School of Biology and Environmental Science with her husband Professor Peter Gallagher, Trinity College Dublin, when they were both awarded the Chevalier (Knight) of the Ordre des Palmes Académiques

UCD Professor invested as Chevalier des Palmes Académiques

Professor Emma Teeling, UCD School of Biology and Environmental Science, was invested as a Chevalier des Palmes Académiques/Knight of the Order of Academic Palms, in recognition of her contribution to scientific research. This is one of the highest civilian honours bestowed on academics and educators by the French state.

Professor Teeling holds a European Research Council (ERC) Starting Investigator Award for her work focusing on ageing in mammals, using bats as a model species. Much of her field-work is based in Brittany, France. She is a member of the Royal Irish Academy, the board of the Irish Research Council and the Governing Authority of UCD.

Nicknamed the "purple", the Order of Academic Palms are the oldest non-military decorations awarded to civilians in France. Napoleon I created the palmes académiques as an honorary title to recognise members of the university in 1808. Since 1955, it has three grades: commandeur (commander), officier (officer) and chevalier (knight).

UCD School of Agriculture and Food Science now patron of Agri Aware

UCD School of Agriculture and Food Science has become a patron of Agri Aware, the Irish independent agri-food educational body.

UCD is the only university in Ireland with a dedicated School of Agriculture and Food Science.

The addition of UCD to Agri Aware's seventy-plus patron base reflects the importance of education in growing a thriving agri-food industry.

Commenting on the patronage, Professor Alex Evans, Dean, UCD School of Agriculture and Health Science said, "Over the last 20 years Agri Aware have made an enormous contribution educating society about the importance of agriculture and food. The UCD School of Agriculture and Food Science, as the first destination of choice for students in Ireland interested in developing their careers in agri-food, are excited about strengthening our connections with Agri Aware to identify and

deliver new opportunities to improve awareness about the evolving impact of agricultural science, food and nutrition in the complex world which we all live."

Commenting on this new partnership between Agri Aware and UCD, Agri Aware's Executive Director, Deirdre O'Shea said, "I am delighted to welcome UCD School of Agriculture and Food Science as a new patron to Agri Aware. As a graduate of UCD, I am very excited about this collaboration which I believe will further strengthen our commitment to educate consumers about the importance of farming and the agri-food sector. UCD offers among the best opportunities for anyone looking to pursue a career in the agriculture, food or nutrition field."

FT ranks UCD Smurfit School MSc in Finance 36th in the world

UCD Michael Smurfit Graduate Business School has had its full-time MSc in Finance programme ranked 36th in the world and 31st in Europe in the prestigious Financial Times Top 60 Global Masters in Finance rankings, published in June.

UCD Smurfit School is once again the only Irish business school to feature in the ranking, reinforcing its standing as Ireland's leading centre of excellence in the delivery of world-class postgraduate business education.

The FT Masters in Finance ranking is the latest in a series of rankings placing UCD Michael Smurfit Graduate Business School's programmes in the Top 50 globally. Most recently, UCD Smurfit Executive Development was ranked 48th in the world and 26th in

Europe for its Open Enrolment programmes, in the 2017 Financial Times Executive Education Rankings. Last September UCD Smurfit School's MSc in International Management was ranked 22nd in the world in the Financial Times Masters in Management (MiM) ranking.

Welcoming the latest Financial Times ranking Professor Ciarán Ó hÓgartaigh, College Principal and Dean, UCD College of Business said: "Our continued success in being ranked in the prestigious Financial Times MSc in Finance

global ranking shows our commitment to maintaining and increasing standards of excellence in the delivery of this programme at UCD Smurfit School. Our ongoing partnerships with leading firms in the financial services sector ensure that we are constantly innovating and tailoring the MSc in Finance to deliver a cutting-edge educational qualification with a global reputation, relevant and responsive to the needs of the sector."

UCD Professor appointed Chair of the Irish Manuscripts Commission

Professor John McCafferty, UCD School of History and Director of the Micheal O'Leirigh Institute was recently appointed as Chair of the Irish Manuscripts Commission (IMC).

The IMC was founded in 1928 to promote public awareness of primary source materials and their importance for the history, heritage and culture of Ireland. The IMC serves in particular the cultural, heritage and academic

communities and is committed to supporting the Government's strategic objectives for national revival.

Kate Manning, UCD Principal Archivist was also appointed a member of the Irish Manuscripts Commission.

These appointments were made by Heather Humphreys, TD, Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs.



Professor Judith Harford, UCD School of Education

UCD Professor awarded Flaherty Visiting Professorship

Professor Judith Harford, UCD School of Education, was awarded the Ireland Canada University Foundation Flaherty Visiting Professorship for 2017-18.

The purpose of the Flaherty Visiting Professorship is to support individuals who are leaders in their academic field and whose work may contribute to greater collaboration between both cultures across a myriad of shared cultural understanding.

Only two such Fellowships are awarded annually across all disciplines. Professor Harford's research will shine a gendered spotlight for the first time on the Irish diaspora's social, political and cultural metamorphosis through the Canadian education system. Specifically, it will focus on first generation Irish Canadian females' experience of education; the cultural and social values this system promoted; how these values dovetailed and conflicted with core values from the home country and how Irish Canadian females used the system to advance their social mobility.

Based at the University of Toronto, Professor Harford will work with Mark McGowan, Professor and Senior Academic Advisor to the Dean, International, Social Historian of the Irish Diaspora, and Coordinator, Celtic Studies.



Pictured at the UCD Festival from the UCD London Alumni Chapter were (l-r): Daniel Campion, Conor Deering and David O'Reilly

UCD Festival 2017

UCD welcomed staff, students, alumni and the local community to celebrate the second annual UCD Festival 2017 on 10 June. The day was an opportunity for all to enjoy a programme of over 60 free events that encouraged attendees to discover and explore UCD and experience what the campus has to offer.

Scientists, researchers, engineers, innovators, lecturers, trainers and staff from across campus kept the masses busy with interactive exhibits, experiments, inspiration zones and games for much of the day in the Science and Innovation Zone, while colleagues in the Mind and Body Zone offered an alternative for those seeking a more relaxing experience.

The UCD Festival Dance Crew and Community Choir gave stellar performances to

a very engaged crowd. The Discovery Zone at the Centre for Experimental Archaeology was a big hit, as was the Poetry & Music sessions at the James Joyce Library where students, staff and well known poets celebrated the spoken word.

The Lego Inspiration Zone hosted hundreds of families as they explored the magic of innovation, while 'Entrepreneurs with a Social Conscience' was a hot topic in UCD O'Reilly Hall with staff and alumni contributing to the panel. The Family Fun Zone in the student quad was a hive of activity throughout the day with performances, discussions, a petting zoo and sporting activities.

A record number of staff, supporters, alumni, students and volunteers helped deliver the Festival in 2017 which contributed to the success of the day.

DOES SOCIAL DIVERSITY IMPEDE SOUND ECONOMIC MANAGEMENT?



Higher rates of corruption, nepotism, delayed reforms and other maladies in some societies have existed in poor countries with diverse cultures that were historically split up by colonial powers. At least that was the presumption from previous academic work about poor nations with high levels of social and cultural diversity.

Associate Professor Krishna Vadlamannati, UCD School of Politics and International Relations has studied the work of social scientists and economists who argue that diversity is the most important cause of economic slowdown or development in some countries, especially developing ones.

His recently published paper “Does social diversity impede sound economic management? An empirical analysis, 1980 – 2012”, written in collaboration with Professor Indra de Soysa, Norwegian University of Science and Technology, deflates the established theories around the impact of diversity on sound economies.

Furthermore, it questions established thought that history for some countries, particularly ones born through colonisation in Asia and Africa, sets their destiny where in fact other factors such as diversity in languages and cultures can have a strong or positive influence on a nation’s future.

The research, using several ways to measure diversity, estimated the effects of diversity on economic growth and economic freedom, which is often seen as measures of whether economic governance is good. It looked at factors from 115 countries during the years 1980-2012.

The complex method of assessing economic growth and economic freedom involved examining policies and how these existed alongside cultural and ethnic diversity in countries.

These policies included expenditure and tax reforms; property rights and legal reforms; trade reforms; reforms related to access to sound money; labour, business and credit reforms.

Associate Professor Vadlamannati explained the significance of his recent paper: “We argue and find some empirical evidence that countries which are ethnically and culturally diverse societies actually perform better in managing the economy, so perhaps there is stronger economic growth. In other words, highly ethnically and culturally diverse societies even have better economic governance than a society that is largely dominated by one culture.”

Previous research pointed to impediments to growth and sound economic management

stemming from clashes of varying interest groups, tribes or peoples, particularly in African nations.

The Assistant Professor continues “A classic example is sub-Saharan Africa where they pointed to conflicts over distribution of power, resources among different tribes and ethnic groups. Previous economists have tried to say it is social diversity which has resulted in economic mismanagement.”

“If that is true, how can you explain a highly diverse society like Botswana, which is a great success story in sub-Saharan Africa and Ghana in recent years? And you look at South Asia and you have India doing really well, Sri Lanka and also to countries in Latin America, like Chile.

So if these socially diverse nations are successful and do manage economies well, why is that?

Associate Professor Vadlamannati responds: “It has got to do with the political institutions. Perhaps Botswana is more democratic than Burundi? Ultimately what really matters are reforms which push economic growth.”

Those reforms were often delayed, he said, as has been evident in his own native India.

“Different groups have different interests and preferences,” added the UCD academic.

Political institutions with strong checks and balances in those countries often succeeded as opposed to arbitrary powers of one group.

“Democracy helps, it gives a platform for different interest groups, ethnically diverse groups to bring their interests and grievances to the table and discuss. In the long run, diversity enables social cooperation between various groups and helps overcome collective actions,” he says.

The paper first looked at the impact of cultural diversity on economic growth using the rate of growth of per capita income or a person’s average income in countries. This backed previous research about the negative impact of social diversity for countries.

But the research’s second aspect was more important and assessed if the impact of diversity on growth, was conditional on something else in those same countries.

This involved matching and assessing cultural, ethnic diversity and linguistic diversity with measures of economic freedom, as earlier described.

A resulting conclusion was that diversity actually benefits society in the long run which is conditional upon economic freedom, he explained:

“Diversity actually acts as a checks and balances against counteracting any single group amassing too much power at the expense of institutions, political and economic ones.”

It also counters any one ethnic group dominating at the expense of minorities, he said.

The research, explained Associate Professor Vadlamannati, feeds into the debate around the influx of refugees into Europe and fears around migrants in recent years.

“Our findings go to the root of this question of multi-culturalism or diversity being bad for society.”

Benefits in the long term outweighed short term problems from diversity, said the UCD academic, including addressing demographic or ageing concerns for EU economies.

“So accepting refugees or immigrants will be positive for economic growth in the medium to long term but will have certain (fiscal) costs in the short term.”

Lastly, this research has helped debunk some previous research that poor countries with colonial pasts are destined for failure. An example of this is the differences between Madagascar and Mauritius, according to Associate Professor Vadlamannati, both of which were ruled by Britain.

“What we are saying is that history does matter, but only to a certain extent. Other factors are really important. Diversity is actually good, as what we show in our research is that growth-promoting institutions are far more likely in heterogeneous countries.”

Associate Professor Krishna Vadlamannati was in conversation with Juno McEnroe, political reporter with the Irish Examiner

Books



Quality Time at St Chinian

Professor Patrick Masterson, former UCD President

Liberties Press

In 'Quality Time at St Chinian', former UCD President Professor Patrick Masterson turns his hand to the writing of fiction for the first time, producing a work which, while entertaining, also raises some of the tensions and challenges universities have faced over the last 40 years or so.

The action takes place at a fictional young university in the south-west of France, a region where Professor Masterson spends much of his time these days. The strongest school in the University of St Chinian is the School of Viticulture, Oenology and Agriculture. For those of you (like me) who are not familiar with the intricacies of the wine industry, viticulture is the cultivation of grapes, especially for use in making wine, while oenology is the science of wine-making, both of which are activities I understand have occupied a significant amount of Professor Masterson's time in recent years.

I am very happy to say that the University of St Chinian bears no resemblance whatsoever to UCD, so presumably Professor Masterson found the inspiration for its structure and behaviours at other universities he has visited. Some of the goings-on may be acceptable in France, but would not be in keeping with modern conflict of interest policies applying at Irish universities! Nevertheless, I suspect some of the characters in the book have been inspired by people he worked with over the years, and I am sure those familiar with the College, particularly during Professor Masterson's time, will have much fun trying to identify his sources of inspiration.

The plot is cleverly constructed around the visit of a Quality Review team to the University of St Chinian. As many readers would be aware, quality reviews are an integral part of modern university life.

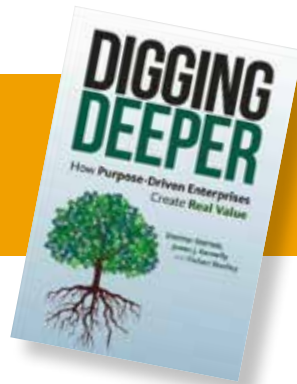
Circumstances are indeed exceptional at St Chinian, as the French Minister for Universities and Research, Jacques Adamant, has decided to conduct a 'value for money' pilot study of a number of universities involving an external appraisal of the

quality of the university's performance. In the view of the Minister, St Chinian's already has a 'comparatively generous budget' and he is keen to re-allocate limited state funds 'in a manner which rewards qualitative excellence and discourages indifferent performance'. Consequently the president is given no option but to invite in a Quality Appraisal Committee from the (also fictional) Confederation of European Universities to undertake the desired review.

The book follows the adventures of the members of the Quality Appraisal Committee as they explore the various schools of the university, where they are confronted with students, faculty and staff keen to demonstrate just how hard-working they are and what an extraordinary university St Chinian is.

All in all Professor Masterson has produced an amusing and engaging tale of the idiosyncrasies of academia, which I think will be most appreciated by those who have experienced these first hand. It is written very much tongue-in-cheek, but also manages to address some serious issues currently being faced by universities around the world.

Reviewed by Professor Andrew Deeks, UCD President



Digging Deeper - How Purpose-Driven Enterprises Create Real Value

Dr Dietmar Sternad, University of Carinthia;
Dr James J Kennelly, Skidmore College; and
Dr Finbarr Bradley, UCD Michael Smurfit Graduate Business School

Greenleaf

Evidence of renewed interest in the purpose of business is everywhere. A shift is taking place whereby consumers demand greater transparency from the organisations they buy goods and services from every day. Often, owners and analysts view businesses as short-term profit maximisation machines, perceiving value purely in terms of profit, without considering the impact on society and environment.

The individual chapters examine how to define 'real' value, build lasting business relationships from local roots, recognise the limits imposed by circumstances, harness innovation and understanding the impact of great individual leaders.

The writers scanned hundreds of companies globally and carefully selected some inspiring stories from entrepreneurs and leaders for whom making meaning is as important as making money. There are proven examples of organisations that are highly profitable and have a positive impact on others.

The authors take us with them on their virtual journey to understand the slow but sure transformation of organisations to create a better life for themselves, communities, society and the environment.

Differing forms of capitalism already exist and have proven to work – can we envision a variety of capitalism that puts an emphasis on the wider definition of value, not purely that of shareholder value? The authors of this book believe we can.



The Authoritarian Public Sphere: Legitimation and Autocratic Power in North Korea, Burma, and China

Assistant Professor Alexander Dukalskis, UCD School of Politics and International Relations

Routledge

The author takes us on an intricate journey through comparative Asian politics, focussing on the recent histories of China, Burma and North Korea – comparing the authoritarian systems in each country and their development and impact on society.

Why do citizens of a country comply with an authoritarian regime? Is it the authoritarian's Utopian vision for the future, the promise of staving off a perceived or real external threat, safety from economic peril or perhaps capitalising on the quasi mystical qualities of a figurehead? We read about how such quiescence is justified by the authoritarian; alternative influences are blocked, messaging is controlled, education is manipulated and ultimately citizens are influenced in how they think and talk about politics.

The author bases his findings on extensive semi-structured interviews with people who lived inside each of the regimes, alongside primary and secondary literature reviews. The book examines the authoritarian public sphere and discusses how relatively autonomous spaces in North Korean second economy market, Burmese independent journalism networks, and Chinese cyberspace are accepted and integrated, despite diverging from the norm. The book concludes with an essay on the resourcefulness of citizens, how, while complying with the authoritarian regime's systems, they often manipulate the impact of market forces, constraints on journalism and technology to suit their own ends.



Pictured (l-r); Professor Andrew Deeks, UCD President with His Excellency Mr Hu Chunhua, Chinese Secretary of the Guangdong Province

Chinese delegation visit to UCD

In June, Professor Andrew Deeks, UCD President welcomed His Excellency Mr Hu Chunhua, member of the Political Bureau of the Communist Party of China Central Committee and the Secretary of the Guangdong Province, as part of an official four-day delegation to Ireland. This delegation was the largest official delegation received by Ireland from China.

While at UCD, Mr Hu witnessed the co-signing of a Letter of Intent by President Deeks and the President of South China Agricultural University (SCAU), Professor Chen Xiaoyang. The intention of the two groups is to further explore strategic relationships between the two universities. This will involve discussion around the future development of joint UCD-SCAU academic programmes in areas such as agri-food science, plant biology, life science, horticulture and agricultural economics.

UCD and South China Agricultural University already offer a joint undergraduate 2+2 program in bioscience approved by the Chinese Ministry of Education.

South China Agricultural University (SCAU) was founded in 1909. It has over 42,000 students (38,000 undergraduate and 4,000 graduates) and is located in the Guangdong Province in the south-east of China. This is the largest of all provinces and municipalities in China in terms of GDP and exports value.

While in Ireland, His Excellency Mr Hu met with the then Taoiseach Enda Kenny and attended a business roundtable meeting with over 120 Guangdong and Irish entrepreneurs.

According to Xinhua (News Agency), "Hu said Guangdong hopes to deepen friendly and cooperative relations with Ireland, and enhance pragmatic cooperation in a wide range of fields, including science and technology, education and agriculture."

The co-signing of the Letter of Intent by UCD and SCAU was also witnessed by Richard Bruton TD, Minister for Education and Skills.

Historic UCD representation at the UN Oceans Conference

The high-level United Nations conference to support the implementation of sustainable development goal 14 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development' was convened at United Nations Headquarters in New York from 5 to 9 June.

Professor Patrick Paul Walsh, UCD School of Politics and International Relations (SPIRe), led a UCD delegation in attendance at the conference. He was accompanied by Dr Richard Collins, Vice-Principal for Internationalisation, UCD College of Social Sciences and Law; SPIRe PhD candidate Mohammed AIRizeiqi; and the auditor of the recently formed UCD Politics and International Relations Society, Sarah E Said.

The UN Sustainable Project was designed to be implemented by Member States and UN Major Stockholder Groups: hence UCD spoke as a member of the UN Major Group for Science and Technology and the UN Sustainable Development Solutions Network (SDSN).

Professor Walsh, on behalf of UCD, addressed the plenary session in the General Assembly Hall. He outlined the emergency of governing the 'global commons' and how negative global trends can be remedied through appropriate technologies and policies. He underlined the key role of universities in "delivering SDG science, education, finance, data, and partnerships. Universities in the SDSN network are working hard to re-orientate their education, research, and policy outreach towards the SDG agenda. The work of the SDSN notes the important interplay of the economic, social, and governance pillars with the environmental pillar, on which the sustainability of the ocean depends".

It was the first time that any university has made an official statement at a plenary session of an official UN meeting in the General Assembly.

NASA's Robert Lightfoot visits UCD

Robert M. Lightfoot Jr, acting administrator of NASA, visited UCD in June to meet with MSc and PhD students in UCD School of Physics.

The UCD students are part of the team that developed Ireland's first satellite (EIRSAT-1). The lead scientist on the project is UCD Professor Lorraine Hanlon an expert in astrophysics.

EIRSAT-1 will be delivered to the International Space Station and launched into orbit in 2019 - after it passes the requirements of the European Space Agency (ESA). It will be managed and controlled from a ground station in UCD School of Physics during its 12-month orbit above the Earth.

In conversation with the group of UCD space science students, Lightfoot, a mechanical engineer by training, described the emotion of space exploration.

"You can't underestimate the emotion of space," he said. "We talk about being technical and engineers but the emotion of space is really a big pull."

Lightfoot joined NASA in 1989 as a test engineer and program manager for the space shuttle main engine technology test bed program and the Russian RD-180 engine testing program for the Atlas launch vehicle program.

From 2005–2007, he was manager of the Space Shuttle Propulsion Office where he was responsible for overseeing the manufacture, assembly and operation of the primary shuttle propulsion elements: the main engines, external tank, solid rocket boosters and reusable solid rocket motors. In 2009, he was appointed director of NASA's Marshall Space Flight Center in Huntsville, Alabama. In this role, he headed one of NASA's largest field installations which plays a critical role in NASA's space operations, exploration and science missions.

In 2012, he became associate administrator for NASA, the agency's highest-ranking civil servant, before becoming the acting administrator of NASA in 2017.

National Folklore Collection Launches New Podcast Series

Blúiríní Béaloidis / Folklore Fragments, a new monthly bilingual podcast from the National Folklore Collection launched in May, promising to showcase the breadth and depth of this unique archive, part of UCD Library's Cultural Heritage Collections.

Acknowledged as one of the largest archives of oral and ethnological tradition in Europe and North America, the National Folklore Collection is of outstanding world value and significance. It represents the documented collective memory of the Irish people, and embodies a significant proportion of Ireland's cultural heritage.

Blúiríní Béaloidis / Folklore Fragments was born of a desire to increase access to, and raise awareness of, this valuable collection. It also aims to dispel some common misconceptions about the folklore discipline and to highlight its continuing relevance in contemporary society, both urban and rural.

I ngach eagrán bíonn Jonny Dillon agus Claire Ní Dhubhcháin, baill foirne an chnuasaigh agus láithreoirí na sraithe, ag cíoradh cúrsaí béaloidis agus eitneolaíochta, go háirithe ábhair neamhchoitianta nach mbeifí ag súil leo. Ag cur le saibhreas na cainte bíonn tírdhreach na hEorpa i gceist i gconaí agus traidisiúin na h-Éireann a lonnú go smíor sa mhór phictiúr idirnáisiúnta.

Bheifí ag súil go mbeadh ábhar spéise sa tsraith neamhfhoirmiúil, spráil, spéisúil seo do scoláirí béaloidis, chomh maith le baill den phobal a bhfuil suim acu i gcúrsaí oidhreacht na tíre. Go dtí seo tá súil caite sa chlár ar bhéaloideas na Gealaí, Ádh Tí agus na traidisiúin a bhaineann le Lá Bealtaine.

All episodes are available on Soundcloud and iTunes, as well as through the National Folklore Collection's website and social media channels.

Soundcloud: soundcloud.com/folklore_podcast iTunes: search by Folklore Fragments



Pictured (l-r) were: Professor Diane Reay, Cambridge University; Professor Andrew Deeks, UCD President; Professor Mark Rogers, UCD Registrar and Deputy President; Professor Grace Mulcahy, UCD School of Veterinary Medicine; and Dr Anna Kelly, Director, UCD Access and Lifelong Learning

UCD Access Symposium

UCD Access Symposium took place in June to highlight access and participation across the University. This seminar, organised by UCD Access and Lifelong Learning in collaboration with UCD Widening Participation Committee, is part of a series of events to mark the University's achievements in realising its strategic ambition to become "a pre-eminent diverse and inclusive scholarly community of students, faculty and staff".

In his opening address, Professor Andrew Deeks, UCD President, reminded delegates that Cardinal John Henry Newman founded the university in 1854 to provide access to higher education for the Catholic population, and as such, "we like to think that providing access to education is in UCD's DNA". He added that UCD is making significant progress towards the realisation of our ambitions and announced that 29% of our undergraduate student population is drawn from targeted under-represented groups.

The symposium also welcomed the distinguished academic, Diane Reay, Professor of Education at Cambridge University, whose

address was entitled Degrees of Inequality: Widening Access and Participation in Higher Education. Professor Reay shared her knowledge, expertise and thinking on education and social justice and highlighted some of the lessons learnt.

Twenty speakers from across the University contributed examples of good practice to the Inclusive Practice in UCD Showcase. Dr Gavin Jennings, RTÉ, conducted a public interview with a selection of UCD access graduates. These graduates spoke of their journey to UCD, the challenges they faced, and shared their insights and thoughts on the opportunities that higher education bestows.

Connecting Early Medieval European Collections

Connecting Early Medieval European Collections (CEMEC), which launched in April, is an EU-funded digital collaborative project between eight European museum collections, seven universities and six technical partners that aims to examine the connectivity between Early Medieval objects and the objects' regions of origin with the aid of innovative digital technologies. This Digital Culture EA-EU Creative Cultures project includes input from Ireland, through a collaboration between UCD School of Art History and Cultural Policy, the National Museum of Ireland, Waterford Museum of Treasures, Noho and the Discovery Programme.

From 19-21 April, UCD School of Art History and Cultural Policy together with the National Museum of Ireland and Noho, the Irish technical partner, hosted a transnational conference,



Pictured at the launch of the digital timeline for the exhibition were (l-r): Raghall Ó Floinn, Director, National Museum of Ireland; Professor Kathleen James-Chakraborty, UCD School of Art History and Cultural Policy; Professor Wim Hupperetz, Director, Allard Pierson Museum, Amsterdam; and Dr Lynda Mulvin, UCD School of Art History and Cultural Policy

which brought the CEMEC project members and the digital research community together.

Together with input from twelve other European museums and universities, a virtual exhibition, entitled 'Europe at the Crossroads 300-1200 AD', will be launched in Amsterdam in September and will come to Ireland in 2018.

This transnational exhibition will explore diversity and connectivity in Early Medieval Europe, between different regional cultures in Europe and around the Mediterranean, from Ireland to Egypt and from Spain to Hungary and Greece.

ConsultUCD launched within UCD

ConsultUCD, UCD's new managed consultancy service has been launched.

UCD is committed to engaging in an increasingly broad range of activities that will allow stakeholders, such as industry, public sector and not-for-profit organisations, to benefit fully from the wealth of technology, research, innovation and expertise that the University generates.

As part of this broader agenda, ConsultUCD is designed to deliver economic and societal benefit in Ireland and internationally by enabling the University's knowledge and expertise to be more widely and easily accessible to these stakeholders.

Speaking at the launch event, Professor Orla Feely, UCD Vice-President for Research, Innovation and Impact, said, "The practice of academic consultancy is currently under-developed in Ireland, compared to some other countries, and the Irish government has recognised its potential importance and benefits. The University was recently successful in securing part funding, through a Knowledge



Pictured (l-r) were: Professor Orla Feely, UCD Vice-President for Research, Innovation and Impact; Dr Hugh Hunt, University of Cambridge; and Elizabeth Hunt, Head of Consultancy Services, UCD

Transfer Ireland initiative, to establish a managed consultancy service at UCD, and we aim to excel in the delivery of this service within UCD and to our external clients."

Dr Hugh Hunt, a Reader in Engineering Mechanics and Vibration in the University of Cambridge, who has over 25 years of consultancy experience, was the guest speaker at the event.

'The Finest Men Alive' UCD Archives' online exhibition

UCD Archives' online exhibition and printed catalogue 'The Finest Men Alive': Documents of Imprisonment and Protest, 1916-17 was launched by Professor Michael Laffan, UCD Emeritus Professor of History, on 29 June in Richmond Barracks, where some of the letters included in the exhibition were written.

Research for the exhibition was undertaken by historian Dr Brian Hanley and the exhibition was developed by Kate Manning, UCD Principal Archivist. It was funded by an Irish Research Council 'New Foundations' grant. The exhibition marks the 100th anniversary of Lloyd George's general amnesty of June 1917 which saw the release of the remaining Irish prisoners in British jails following the 1916 Rising.

All the documents in the exhibition and catalogue come from UCD Archives' outstanding and unparalleled collections of archives concerning the Irish revolutionary period.



Pictured left to right were: Professor Michael Laffan, UCD Emeritus Professor of History; Kate Manning, UCD Archives; and Dr John Howard, UCD Library

They include letters, prison notebooks, secret despatches, diaries and propaganda material. The documents cover all aspects of imprisonment, protest, the effect of

imprisonment on social and family life and the release and homecoming of prisoners.

The exhibition is online at: bit.ly/finestmenalive

UCD MSc in Sports Management ranked 30th in the world

SportBusiness International Postgraduate Course Rankings 2017 has ranked the UCD MSc in Sports Management 30th in the world. The masters scored well in terms of the number of graduates who secured employment in the sector after they had completed the course. Some 89 percent of graduates gained full-time employment, became self-employed in the sector or registered for a sports-related PhD within six months of graduating.

The course was also ranked 13th in the world when it comes to salary, with graduates earning \$60,277 on average. The MSc in Sports Management is taught at UCD School of Public Health, Physiotherapy and Sports Science.

Well known figures, including former Irish rugby international and Leinster player, Bernard Jackman, and RTE sports presenter, Evanne Ni Chuilinn, have completed the master's course in recent years.

"We have developed an innovative module on the management of high-performance sport which provides students with an in-depth understanding of the key components of high-performance sport from the boardroom all the way down to the pitch. This module has been very well received by students," said Dr James Matthews, academic director of the MSc in Sports Management at UCD.

Now in their sixth year, the SportBusiness International Postgraduate Course Rankings attract entries from postgraduate sports management courses around the world. Only postgraduate courses that fully involve the teaching of the business and administration of sport, and have been running for at least three years, are considered.

Each year, course leaders and alumni take part in surveys, which provide the information the magazine uses to score the courses.

SportBusiness International is an industry specific magazine that delivers sports news and analysis primarily to businesses whose commercial success depends on their ability to understand the sector.



Pictured (l-r) were: Christy Lynch, CEO KARE; Dr Mary-Ann O'Donovan, Assistant Professor, Trinity College Dublin; Alison Ryan, UCD Centre for Disability Studies; Professor Colin Scott, College Principal, UCD College of Social Science and Law and Vice-President For Equality, Diversity And Inclusion; Dr Grainne Collins, Senior Research Officer, National Disability Authority; Dr Christine Linehan, Associate Professor and Director, UCD Centre for Disability Studies; Laurence Bond, Director Irish Human Rights and Equality Commission; and Dr PJ Boyle, HSE Baleskin Refugee Reception Centre

Disability and Ethnic Minority Seminar

The UCD Centre for Disability Studies celebrated its 21st birthday in July with a full day seminar on Disability and Ethnic Minority. Throughout the day self-advocates, researchers, practitioners, policy advisors and service

providers heard from a wide variety of speakers including representatives from the HSE, the ESRI, Pavee Point, Cairde and New Communities Partnership. Contributors and delegates discussed emerging issues for individuals with

disabilities from ethnic minorities, noting the lack of research, policy and practice guidance in this area. The day concluded with wide support for a follow-up meeting to progress the agenda.

20th anniversary of BBS for mature students

This year UCD College of Business celebrates 20 years of providing quality and flexible higher education opportunities to mature students. Developed in 1997, the programme was built on well-established links between UCD College of Business, IBEC and the ICTU, and more than 500 graduates have come through it since then.

The part-time programme is split into two components – a two-year Diploma in Business Studies (DBS) followed by the two-year Bachelor of Business Studies (BBS), and has been designed to be flexible to allow participants to study part time while continuing to work full time.

Students attend weekend lectures, Fridays and Saturdays, on campus, just six times a year, with the rest of the study and course work being done remotely. This flexibility is critically important, according to Dr Orna O'Brien, director of the Centre for Distance Learning at UCD College of Business.

"It's designed for mature students who are over 23 years of age who didn't have the opportunity to get a degree before," she says. "Because it is built around three weekends in a semester, students are able to organise their work schedules around it. Many of our students have wanted to do a business degree for a long time and the BBS programme offers them the flexibility to do it."

It has also proved popular with students both within Ireland and abroad. "About half of the students come from Dublin and another 40 to 45 per cent come from the rest of the country.



Pictured at the BBS 20th anniversary celebrations were (l-r): Professor Brian Fynes, Associate Dean International, UCD Quinn School of Business; Dr Orna O'Brien, Director, Centre for Distance Learning, UCD Quinn School of Business; Mary Mitchell O'Connor TD, Minister of State for Higher Education; and Professor Ciarán Ó hÓgartaigh, College Principal and Dean, UCD College of Business

The remaining students come from overseas, including the UK, Europe and the US who fly in to do it. We have one student from Florida who has built her work schedule around it. In many cases it tends to be Irish people living abroad who are thinking of returning home who do the

course. It really speaks to the idea of UCD being a global university that you can get funding for the programme from an employer in Florida, Moscow or Tel Aviv."

UCD graduate takes silver at European Rowing Championships

UCD graduate Paul O'Donovan and his brother Gary won the silver medal at the European Rowing Championships in the lightweight men's double sculls final, which was held in the Racice, Czech Republic at the end of May.

UCD Ad Astra Elite Athlete and Physiotherapy graduate Paul, and his brother Gary, made history last year when they became the first ever Irish rowers to win a medal at the Olympics, taking silver in the lightweight men's double sculls final.

The brothers had a slow start to the European Championships final in the Czech Republic and were lying in fourth place with 500m left.

However the rowers from Skibbereen produced one of their trademark spurts of pace



Pictured: UCD Ad Astra Athlete and Physiotherapy graduate Paul O'Donovan (right) with his brother Gary after they won a silver medal in the lightweight men's double sculls at the European Rowing Championships. Picture credit: Sportsfile

in the final stretch finishing second after a photo finish, ahead of Poland and Italy who finished in third and fourth places.

Paul and Gary won gold in the same race at the European Championship final last year.

But this year they were again beaten to first place by the same French team of Pierre Houin and Jeremie Azou who won gold in the Olympic lightweight double sculls final in Rio.



Pictured (l-r): UCD student Arthur Lanigan O'Keefe; Walid Sayed, coach; and Natalya Coyle celebrate after they retained their title and claimed a gold medal for Ireland in the mixed relay at the Modern Pentathlon World Cup Final in Lithuania. Image: Twitter/@Pent_Ireland

World Cup Gold for UCD Ad Astra Modern Pentathlete

UCD student Arthur Lanigan O'Keefe and Natalya Coyle won gold and retained their title in the mixed relay at the Modern Pentathlon World Cup Final, which was held in Lithuania at the end of June.

The Irish pair, the defending champions in the event having won last year in the USA, began the final Laser-Run event in the lead, having built up a 23-second advantage.

Coyle ran the first two laps of 800m, each of which included firing at five targets, and maintained Ireland's advantage over the chasing pack, led by France, Egypt and Russia.

UCD Ad Astra athlete and two-time Olympian Lanigan-O'Keefe took over for a further two laps, and although he saw Frenchman Valentin Prades cut his lead to seven seconds entering the final lap, the Irishman had clearly held something in reserve and raced clear of his rival on the final lap.

"I'd say that was the hardest relay we've ever done, a stacked field from top to bottom. We were going into it thinking, this one could be tough, and it was, but we are delighted to beat that field today," Lanigan-O'Keefe said.

"Everything is going really well, we have a new coach, Walid [Sayed], it's just really exciting times and we're looking forward to the future."

Both Arthur Lanigan O'Keefe and Natalya Coyle had top-ten finishes in individual events at the Olympic Games in Rio last year. UCD Sport and Exercise Management BSc student Lanigan O'Keefe finished eighth and Coyle finished seventh.



Pictured: Ciara Griffin scores a try during Ireland's win over Australia at UCD Bowl

UCD hosted Women's Rugby World Cup 2017

UCD was proud to host the pool stages of the 2017 Women's Rugby World Cup. The event took place on campus between 5-17 August, with 12 teams competing. Approximately 700 athletes, staff and volunteers moved onto campus for the 2-week period. Two stadiums, a fan zone and numerous activities were set up, which brought the campus to life during the tournament for the 5,500 fans who attended each match day. Due to the high level of demand for match tickets, the capacities at the UCD Bowl and Billings Park at UCD were extended to 3,500 and 2,000 respectively.

18 pool stage matches took place on August 9, 13 and 17 with Ireland playing in UCD Bowl each evening. Other pool stage matches were held in UCD Billings Park. After UCD, the teams moved north to Queen's University Belfast and Kingspan Stadium where the semi-finals and finals were held. All games

in UCD sold out well in advance of the tournament.

World Rugby awarded the hosting rights for the tournament to the Irish Rugby Football Union (IRFU). It was the eighth Women's Rugby World Cup and the first time Ireland has hosted the competition.

3 National golds for UCD Ad Astra students

Three UCD Ad Astra Elite Athletes won gold medals to become national champions at the 2017 Irish Life Health National Senior Track and Field Championships in July.

Physiotherapy student Ciara Mageean defeated a field of 10 to win the women's 800m final in a time of 2:04.06. Mageean is from County Down and represented Ireland at the 2016 Rio Olympics. She is the Irish record holder in the indoor 1,500m and mile.

Donegal native Mark English won a testy men's 800m final in a time of 1:50.89. The medicine student is the indoor 800m and outdoor 600m national record holder. English was a semi-finalist in the 800m at the 2016 Rio Olympics.

His UCD Athletics Club teammate Karl Griffin ran the course in 1:52.44 to take bronze. Griffin, also from Donegal, studies science and was a finalist in the 4x100m relay at the U23 European Championships which took place in July.

23-year-old Sarah Lavin won the women's 100m hurdles final in a time of 13.62. The physiotherapy student from Limerick cruised to victory over the six-woman field to register a time of 13.62.

UCD Agricultural Science students raise €50,000 for charity

UCD Agricultural Science Society (AgSoc) have raised a record €50,000 for two chosen charities - Cystic Fibrosis Ireland and Embrace FARM. This significant sum was raised following a number of successful fundraising activities during the 2016/17 academic year.

Speaking at the recent presentation ceremony of funds to the two charities, AgSoc Auditor, Stage 4 BAgSc Animal and Crop Production student Seán Holian said, "I never thought our fundraising activities would go so well and that we would raise such a large sum of money for both Cystic Fibrosis Ireland and

Embrace FARM. AgSoc continues to grow each year and it is very pleasing that the great work of AgSoc will once again contribute significantly to those in need."

"AgSoc is run solely by UCD Agricultural Science students and all funds raised annually are donated to worthy charities nominated by UCD School of Agriculture and Food Science students. Initiatives such as raffling a Charolais heifer, a Charity Boxing Night, Ag Week and UCD Agriculture, Food Science and Human Nutrition Careers Day contributed significantly to total funds raised during 2016/17, while also serving as enjoyable social events", explained the AgSoc Auditor.

UCD student wins national science journalism award

UCD master's student Irene Fogarty has won the inaugural Mary Mulvihill Memorial Award for science journalism. Her prize-winning article examines how researchers in developed nations often overlook the knowledge and expertise of indigenous women in mitigating the effects of climate change.

Ms Fogarty, a MSc student in World Heritage Conservation, UCD School of Archaeology, received a €2,000 prize for the award at a ceremony in the National Library of Ireland.

Her winning article is entitled "Indigenous Women and Science Knowledge – The First Voice and Climate Change". In the piece, Fogarty writes about how one academic paper, entitled "Should we turn the tent, Inuit women and climate change", describes the importance of Inuit women's knowledge and observations in making sense of climate change in the Arctic.

In contrast to western scientific knowledge, Inuit knowledge does not "dichotomise" nature and the self as separate objects but instead it "emerges from participation with nature".

Fogarty also points out how indigenous women's work in their communities involves tasks such as biodiversity management and maintaining water management systems. She stresses that their knowledge and ecological resource management methods have been developed over millennia.

However, she writes that indigenous people's, especially women's, knowledge and experiences are often overlooked by science researchers in developed nations.

In conclusion, Fogarty says that "taking a lead from indigenous women, science knowledge honed from our natural world cannot just remain a body of insights, but should be embedded in how one actually lives".

On winning this inaugural award Ms Fogarty explained how her Master's course at UCD gave her the knowledge and tools enabling her to enter this competition:

"The World Heritage Conservation programme presents a great opportunity for participants to learn from both scientific and humanities-led perspectives. A key focal point of the course is indigenous peoples and local communities' roles in natural & cultural conservation and management. This is an area of huge interest to me: in particular, the issue of indigenous women's representation. I hoped an essay based on their science knowledge in the context of climate change would highlight an area of knowledge often overlooked in science journalism and offer a unique angle for the competition. It's an honour to have won and I'm very grateful that the World Heritage Conservation programme gave me the knowledge and tools to be able to enter."

Fogarty said she would donate half of the prize money to the UN Fund for Gender Equality.

The award commemorates the work and legacy of journalist and author Mary Mulvihill (1959-2015). The competition was established by Ms Mulvihill's friends and family to honour her lifelong contribution to science journalism and heritage.

She was a passionate advocate of STEM promotion and a chronicler of women's often overlooked historical role in this area.



Pictured receiving his early-stage career award from the Royal Academy of Engineering is UCD PhD candidate Frank O'Leary

UCD PhD candidate wins Royal Academy of Engineering early-stage career award

UCD PhD candidate Frank O'Leary is one of five young engineers in the UK and Ireland who have received early-stage career awards of £3,000 from the Royal Academy of Engineering.

have received early-stage career awards of £3,000 from the Royal Academy of Engineering.

The Civil Engineering PhD candidate's research focuses on analysing the behaviour of retaining walls in clay. Mr. O'Leary works in the UK with engineering firm Arup as a geotechnical engineer. He is currently working on the design and construction of a basement beneath a hotel in London.

He and his colleagues found a way to excavate a five-storey basement beneath the building while ensuring that it remained fully operational.

"Frank is an exceptionally capable and driven engineer who has excelled in all of the varied and challenging roles he has undertaken at Arup," said Tim Chapman, Infrastructure London Leader, Arup.

Frank shares his research and field expertise with the engineering community by giving presentations to industry bodies, publishing peer-reviewed papers and being a peer reviewer for the Institution of Civil Engineers.

Together with the University of Cambridge, he has won funding from the Engineering and Physical Science Research Council for a PhD studentship and will be the industrial supervisor of the research.

The Royal Academy of Engineering was founded in 1976 and is the UK's national academy of engineering.

Eight UCD students awarded JET placements

On 1 July, H.E. Japanese Ambassador to Ireland Mrs Mari Miyoshi held a ceremony for all Japan Exchange and Teaching (JET) awardees. Also in attendance was Former Japanese Minister of Education, Ms Atsuko Toyama.

UCD has been the largest contributor to the Japanese government year-long placements on the JET (Japan Exchange and Teaching) programme since its foundation 30 years ago. The most recent UCD awardees

attended Japanese language modules at the UCD Applied Language Centre to prepare for these placements.

This year, eight students from diverse disciplinary backgrounds have been selected. They are: Niall Adams (Law), Donal Burns (Zoology), Patrick Conlon (Law), Dylan Jordan (Agricultural Science), Daragh Joyce (Economics/Sociology), Charles Marchant (Chemistry, Auditor of the Japanese Society, 2015-2017), Tasha Mooney (Arts/English), and Adam Phelan (Music, Leader of the Experience Japan Taiko Team).