The Sun supplies more energy to Earth in one hour than we need in an entire year. So it’s little wonder solar power has become such an important area for research across the globe.

To help further this clean energy exploration, The University of Queensland has built Australia’s largest flat-panel photovoltaic system and Professor Paul Meredith is putting it to good use. Together with a number of key scientists, their studies are at the forefront of renewable energy research.

Already, new plastic semiconductors have been developed to produce ultra-thin, lightweight and inexpensive solar cells. This type of research is not only improving the viability of solar power, it’s also bringing humankind closer to a new era of clean energy.

These advances are made possible through the combination of our world-class facilities and leading researchers. Imagine the difference having access to all of this could make to you.

YOUR UQ. YOUR ADVANTAGE.
MESSAGE FROM THE VICE-CHANCELLOR

A NEW LEADER

Our next Vice-Chancellor, Professor Peter Høj (pictured), is an accomplished leader with excellent credentials as a teacher, supervisor and researcher, and a proven record of working with and for industry and government.

As a former CEO of the Australian Research Council, Peter has insights into UQ’s research, and into our partnerships with businesses and NGOs.

He is also a champion of improvements to the student experience, equitable access to higher education, and global connections – as shown by his guidance of the University of South Australia, where he has been Vice-Chancellor since 2007.

He will enhance UQ’s portfolio of assets with his experience and networks gained from roles that include leadership of the Australian Wine Research Institute, membership of the CSIRO board (a continuing position), and membership of the Australian Prime Minister’s Science, Engineering and Innovation Council.

When Peter takes the reins at UQ on October 8, we can expect him to work energetically and collaboratively to advance UQ’s “already excellent global reputation for learning, research and outreach activities across a full spectrum of academic disciplines”.

Peter says he is inspired by “people who have strong values and drive, who work persistently to achieve their ambition and who are not easily flung off course by a setback”.

In that case, he will find a wealth of inspiration at UQ.

Moreover, he will be leading an institution that has recently grown more resilient, learning from the chain of events that triggered the departures in 2011 of my predecessor, Professor Paul Greenfield, and his senior deputy, Professor Michael Keniger.

The case that started the chain – an irregular student admission in early 2011 – prompted wide-ranging reviews and reforms designed to prevent its repetition, anywhere at UQ.

Checks and balances, auditing, investigation, and accountability for decision-making have all improved – and will continue to be tightened.

The areas of improvement include: student admissions; handling of misconduct complaints; preventing conflicts of interest; leadership education and awareness for UQ leaders; communication of university policy changes; training for UQ decision-makers; and assurance, investigation and risk management.

As UQ is a public institution with tens of thousands of students and staff, and global networks of alumni and partners, it is perhaps not surprising that the incident of 2011 drew the scrutiny of Queensland’s Crime and Misconduct Commission (CMC) and the new federal Tertiary Education Quality and Standards Agency (TEQSA).

TEQSA has signalled its satisfaction with UQ’s responses, and we continue to co-operate with the CMC as UQ News goes to print.

The response of UQ’s staff, students, alumni and partners has shown that our community is judicious and loyal, and that you will be a source of inspiration, advice and strength for Peter Høj and UQ’s future leadership.

Professor Debbie Terry
What are you hoping to achieve this year?

Lead the TC Beirne School of Law to further enhance its research and teaching, as well as its engagement with the legal profession, government, commerce and the community. In particular, we must improve our student/staff ratio and increase our legal skills training. I am also keen to establish a world-class resources and energy law centre – given the importance of the mining sector to Queensland and the nation.

What skills and attributes do you need in order to pursue a successful career in the law today? What initiatives are in place to help develop those qualities in UQ law graduates?

Good and fair judgment is the key. This requires high-level analytical and communication skills, integrity, organisational ability, and a capacity to relate to people at all levels. The Law School provides training in many of these skills through the UQ Pro Bono Centre, various mooting competitions and research activities. I am keen for us to expand this training across our programs.

What drew you to a career in the law and are you still passionate about it?

I hate injustice and intolerance, and that feeling has only intensified over the years.

Recent commentary suggests Australian law courses need to be more international in nature. Do you see this as a priority?

I agree that the study of law requires a consideration of international comparisons and developments. Most courses include these comparisons but I agree more can be done to encourage our law students to broaden their intellectual horizons, for example toward civil law comparisons.

The new law learning space was opened recently. How will this space enhance students’ learning experience?

I firmly believe that the quality of the space we work within contributes to our productivity and creativity. While the study of law requires intensive concentration and individual thought, it also benefits from group discussion, which generates new insights and ideas. This new student learning space will hopefully complement the traditional role of a law library in that way and also add a critical social dimension to our legal laboratory.

What do you enjoy doing outside of work?

Relaxing at Burleigh Heads!
Dr Ann Stewart, Director of the UQ Equity Office, initiated the idea of Diversity Week and said the aim was to provide one week in the year when the University community would be encouraged to reflect upon the implications of the increasingly diverse staff and student body.

“At the first presentation of the UQ Vice Chancellor’s Equity and Diversity Awards, the then Vice-Chancellor Professor Hay announced that an amount of $15,000 would be provided in order to support two awards for staff or students of UQ, who had made an outstanding contribution in equity and diversity within the University or the wider community,” she said.

“This placed the Vice Chancellor’s Equity and Diversity Awards among the most valuable and prestigious that the University offered.”

Dr Stewart said Diversity Week had evolved significantly over the past 10 years.

“Over the years, it has been fabulous to see the effect of activities and events that staff and students have organised for UQ Diversity Week. Many of these have had considerable impact on perceptions, and practice,” she said.

“These activities have become increasingly more sophisticated, and truly begin to challenge people to think about what this thing called ‘diversity’ really means, in our everyday lives, as well as in our professional lives.

“We also went from having a guest speaker at the Vice Chancellor’s Equity and Diversity Awards presentation event, to having a panel of eminent speakers, with a format that encourages provocative debate.

“The Vice-Chancellor also now presents a Diversity Award for an outstanding alumnus in addition to those for current staff and students.”
A researcher has travelled 12,000km to be part of a project aimed at identifying diabetes during the early stages of pregnancy.

Carlos Salomon, from the Pontificia Universidad Catolica de Chile, is undertaking a one-year internship at the UQ Centre for Clinical Research (UQCCR), while completing the final year of his PhD.

Mr Salomon is working with Professor Greg Rice and Professor Murray Mitchell on their gestational diabetes research project. GDM is a condition whereby women display high blood glucose levels during pregnancy.

“GDM is an escalating problem throughout the world, with an estimated 10–16 percent of all pregnancies complicated by GDM,” Mr Salomon said.

Babies born to mothers with GDM are at increased risk of problems such as low blood sugar, growth abnormalities and jaundice.

Babies are usually large for their gestational age, which can lead to complications during delivery.

By the time GDM is diagnosed, the opportunity to reverse adverse perinatal outcome is limited.

Research conducted at UQCCR involves comparing cells from placenta of women who have gestational diabetes to those who do not.

Mr Nguyen, who now works as a researcher for The Institute of Oceanography in Nha Trang, Vietnam, said he chose to study at UQ because of its incredible strength in teaching and learning.

“UQ is like a world village where I met and made acquaintances and friends with other scholars from different nations with different cultures,” he said.

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Past awardee Lakey Wangdi travelled from Bhutan to study agriculture in Australia.

“The UQ agricultural programs conform directly and significantly to the requirements of agriculture professionals working in developing nations like Bhutan,” Mr Wangdi said.
A CHANGE-MAKER WHO GOES FISHING IN A BIGGER POND

Since childhood, I’ve loved science: its enquiry and its importance to the world. I first saw the Great Barrier Reef when I was eight. It was a seminal experience. By the age of 19, I had no desire other than to become a marine researcher and pursue challenging questions about the ocean.

During the 1980s, I was one of several scientists who noticed coral bleaching while working on the Great Barrier Reef. It was connected to warming seas and occurring over a large area. We started to put a picture together that coral reefs were being directly affected by something at a global scale.

We know today that global phenomenon is climate change.

Everyting is connected: you can’t expect to solve a problem in respect to coral reefs unless you look at how people are using the oceans and beyond that, a multitude of factors from food security and energy use. At the Global Change Institute (GCI), our multi-disciplinary research agenda covers renewable energy, food security, land use and a series of other sectors that are outside my field, but which are extremely important in terms of finding a solution.

Yet, crossing research boundaries can be a challenge in itself. Most of the eminent UQ scientists at the GCI find themselves outside of their comfort zones. But what we’ve learnt is that while outside of our comfort zone, there’s a huge power in bringing people together.

It’s exhilarating – you can have an impact on changing the world and it isn’t determined by what your particular interests are. By mixing things up, we think we will discover better solutions.

Finding solutions is one thing. Convincing people there is a threat to life and the planet – the impacts of which may be decades away – is another. It’s tricky. It has been a struggle to get the message across since climate change was identified as a challenge to humanity.

This means we have to be even more determined as purveyors of science as to what the true facts are. It’s about getting the facts right on the impacts of climate change. It’s about getting the facts right about energy use in the future. It’s about getting it right on land use. The role of the GCI’s research fellow in climate communications, John Cook, the founder of Skeptical Science, is to ensure accurate, robust, scientific facts about climate change are available.

Science communication is essential. Conducting research without the support of a communication strategy is akin to doing business without advertising. Scientific solutions to global challenges can have no impact without “buy-in” from the public and policymakers.

One of our most exciting science communication efforts is linked with the Catlin Seaview Survey, which aims to document the health of the world’s coral reefs at unprecedented depths.

Google – the ultimate gateway to information – will send thousands of 360-degree panorama shots captured by a custom-designed camera, enabling the public to be part of this underwater journey.

Using the allure of the ocean to our advantage, we hope to be able to close the gap that exists between scientific knowledge and public awareness of a challenge that threatens life on the planet.

Climate change poses the biggest threat to the world’s coral reefs, including Queensland’s own Great Barrier Reef.
Spiders may provide welcome relief for pain sufferers.

Tarantulas and funnel web spiders stir feelings of fear and dread in many people, but those who suffer the debilitating effects of chronic pain may soon be welcoming them into their lives.

University of Queensland PhD student Julie Klint said the unique nature of spider venom allowed researchers to target the source of chronic pain with greater accuracy than conventional medicines.

Ms Klint, who studies under the guidance of Professor Glenn King at UQ’s Institute for Molecular Bioscience, said their approach was innovative.

“We isolate peptides (molecules formed from amino acids) from spiders and then study their effects on specific pain targets, which in our case, are sodium channels,” Ms Klint said.

“Sodium channels are part of our pain pathway that, like a gate, opens up and allows ions to pass through. That is what generates a pain signal in the body.

“If we can block the gate, then we can block the pain signal, and that is what we are aiming to do with the peptides from the spider venom.”

The inspiration for the team’s research came from studies of a family in Pakistan who traveled the country performing dangerous tricks due to their inability to feel any pain.

“They were successful artists – they could walk on hot coals, they were jumping off buildings and stabbing themselves with knives, but they could not feel pain at all,” Ms Klint said.

“Researchers found just one mutation within their nervous systems, and it stopped that one sodium channel from functioning. The family was otherwise healthy, and this was the rationale behind what we are doing.”

As with most research, there are important issues to overcome before a breakthrough can be achieved.

“Out of the nine sodium channels spread throughout our bodies, we are trying to hit just one of them,” Ms Klint said.

“It is important the others remain unaffected. For example, one of the other sodium channels is in our heart, and if we block it, then we block our heart function, and that is obviously not a side-effect we want.”

Ms Klint, from Copenhagen in Denmark, said the research team’s aim was not to block all pain as pain could be an indicator that something was physically wrong.
Playing X-box is not normally considered work – unless you’re a laser scientist.

Using virtual computer technology, a team of researchers has developed a way of remotely twisting and turning tiny objects under the microscope.

“It’s only relatively recently that scientists could do anything more than just look at what was crawling around below the microscope,” said Dr Daryl Preece (pictured below), researcher at the UQ School of Mathematics and Physics.

The recent advent of “holographic optical tweezers” – which use a computer-controlled hologram to split up and control light beams – has allowed researchers to create “optical traps” of these beams, giving them an unprecedented ability to lift and turn objects hundreds of times smaller than the thickness of a human hair.

“At UQ, we have taken this a step further and have been looking at ways to turn complicated computer algorithms into something more than just a series of numbers,” Dr Preece said.

“Taking a page out of the computer gaming culture, we have created a system based around the popular Microsoft Kinect games technology.”

The Microsoft Kinect game controller is a motion-sensing input device for the X-box 360 video games console that responds to body movements and allows players to kick and jump without holding any external control equipment.

Integrating this entertainment technology into its laser research, the team created a system that uses a special infrared sensor to track the position of a user’s hands.

“The user is able to move the trapped particles, for instance, microscopic silica beads, cells and even bacteria, by moving their hands to the desired position,” Dr Preece said.

“It also means that multiple users will be able to interact with objects under the microscope at the same time.”

An interesting spin-off from this research, with an artistic twist, is that users will be able to remotely draw and paint pictures onto the microscope slide using light beams to etch or ablate ink, making it possible to create artwork at micrometre length scales.

“We anticipate that the microscopes of the future will not just be static groups of lenses but fully 3D virtual environments in which scientists can move around and interact with living cells or whatever else they happen to be studying,” Dr Preece said.

University of Melbourne student Lucy Shaw (pictured) worked with the team earlier this year as part of a summer research project.

“I think interactive games like this, with a real application and purpose, have the potential to spark the interest of young students in the study of physics,” Ms Shaw said.
The UQ Library Cyberschool program aims to bridge the gap between secondary school and university. Services available to schools include tours of the UQ Library, training sessions at UQ or at schools, discounted access to academic databases and professional development opportunities for school staff, in the form of update sessions and seminars.

Local year 11 and 12 students are also eligible to become borrowing members of the UQ Library. Acting University Librarian Mary Lyons said the program was an example of higher education, secondary schools and industry working together to benefit students. "The secondary schools and the publishers who participate in and support the UQL Cyberschool program are essential to its success," she said.

"UQL Cyberschool staff engage with teachers and school library staff, as well as with database publishers, to facilitate access for school students to scholarly information and to share information with the community." The number of secondary schools in the Cyberschool community has grown from an initial three schools in 1999 to more than 400. Sunshine Coast Grammar School teacher Bec Southey recently brought her English extension students to UQ Library, to help with their preparation for an upcoming assignment. "The library tour and research training session they attended provided a valuable glimpse into university life," Ms Southey said.

The program aims to facilitate access to quality information for secondary school communities, and to help students develop research and critical thinking skills that will help them succeed at school and beyond. The program also supports teachers and teacher-librarians through training, advice, information sharing and professional development opportunities.

Updates and seminars are well attended and are also available for viewing online. Recent seminars have covered how libraries utilise new media to connect, collaborate, engage and learn, the ebook landscape, reading and writing in a digital environment, and how libraries are integrating new formats.

In 2009, the Library was awarded a Library Board of Queensland Award for the program, in acknowledgement of the sustained impact UQL Cyberschool has had since 1999.

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The University of Queensland Library has developed a website to deliver personalised content to students and staff. My Library enables users to access information related to their teaching, learning and research through a customised display comprising a number of panels that can be rearranged, closed or hidden, according to personal preference. The Director of Library Resources and Technology Service, Chris Taylor, said the Library set its sights on developing a customised and personalised site, where users could find relevant library information quickly and conveniently.

"We began with a site for undergraduate and coursework postgraduate students and now we are developing a site for researchers," he said. One of the benefits for students is that it makes it easier for them to access information that is relevant to the courses they are taking. When students login to the site, they see reading lists and past exam papers for courses in which they are enrolled, resources that will help them with research in their areas of study, and links to library services such as Ask the Library.

Students can also see opening hours, assess the computer availability at their preferred branch library and save links to their favourite resources and websites. The Library invited input from users during the development and pilot phases, with the site rolled out last year. Early in second semester, the Library embarked on a series of usability tests of the site with students. "Usability testing provided us with an opportunity to see how students interacted with the site, so we could identify any areas that might limit efficiency," Mr Taylor said.

"We also wanted to gauge general satisfaction with the site." A variety of testing methods were used to allow for the capture of both qualitative and quantitative data. "The majority of participants classified themselves as novice users of the site and many were most impressed with the provision of customised content on the site, such as My Course Resources and My Activities." The results of the testing have informed further development of the site and design improvements.
Fostering enthusiasm for science is the goal of the UQ Demo Troupe, which recently wrapped up a whirlwind tour of regional Queensland.

Dr Andrew Stephenson, Science Communicator with the School of Mathematics and Physics, coordinates the troupe’s activities.

Established 10 years ago, the troupe includes students from different disciplines – such as biology, law, and IT – who share a passion for science.

The team performs entertaining live science demonstrations, to help students’ understanding of abstract concepts.

It aims to promote The University of Queensland – and specifically the Physics Department – to primary and high school aged-students, and to the general community.

“"I think that we definitely help promote science and increase the likelihood of students pursuing it further, whether it be in senior school or university level," Dr Stephenson said.

The latest trip included stops in Cunnamulla, St George, Goondiwindi, and concluded at the SCOTS PGC College, Warwick.

"The great thing about going to schools in the outback and very remote places is that we get to show kids something that they’ve never seen before," Dr Stephenson said.

Demonstrations are visually exciting, and cover a range of concepts, such as air pressure, electromagnetism and fire.

Ben Manifold, Acting Principal at the SCOTS PGC College, said the visit had been a success.

"There’s no doubt that students love practical activities and the feedback I’ve had from our students is that they’ve really enjoyed the interactive nature of the presentation," he said.

"In an era where science is not perhaps seen as the cool subject, I think it’s really important that students are seeing the practical aspects and the exciting side of science."
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A WARM WELCOME

A taste of the Aussie lifestyle has prompted Javier Perez to apply for postgraduate study at UQ.

Mr Perez, who studies at Federico Santa Maria University, was one of 14 Chilean engineering students to complete a customised, eight-week English language, research-training and commercialisation program during February–March.

“It was spectacular, the people were very kind, the weather was perfect, and the University was awesome,” Mr Perez said.

The students were partnered with research mentors to learn more about a range of UQ engineering research projects, and to undertake a mini-research project of their own.

“My research program was done with Professor Peter Knights from the School of Mechanical and Mining Engineering,” Mr Perez said.

“I worked in the mining area, looking for optimisation opportunities for the maintenance planning process, utilising new technologies, in this case tablets, such as iPads.”

Mr Perez and his fellow participants also toured the inner workings of four of the University’s research facilities and undertook a series of workshops to learn how UQ has successfully commercialised its research activities to deliver benefits to industry and communities around the world.

Before heading home, students presented their mini-research projects to their peers.

The program also included a series of intensive English communications classes and practical research skills workshops, to equip the students with skills needed for their UQ program and a possible future research career.

“Currently I am preparing my documents to apply for a Master of Philosophy in Mining Engineering at The University of Queensland,” Mr Perez said.

“I am waiting for the results of the scholarships I am applying for, and if everything works OK, then I will be back in UQ next year for the Masters degree with the same mentor.”

The program was a joint endeavour between ICTE-UQ and UQ’s Graduate School, Faculty of Engineering, Architecture and Information Technology, Business School, and research commercialisation entity UniQuest Pty Ltd.

Teaching children about the complex issue of language disorders can be done in a simple yet powerful way, as UQ PhD student Shiree Heath has discovered.

A recent winner of the Society for Neuroscience’s Brain Awareness Video Contest, Ms Heath’s entry about a post-stroke patient is told through a child who wonders why his grandfather can no longer read him bedtime stories.

Ms Heath studies aphasia – a condition which can render patients with an inability to speak, read or write normally.

Without the luxury of a big budget, Ms Heath, who studies within UQ’s School of Health and Rehabilitation Sciences, said she kept her production simple, but the message clear.

“It is about people who have difficulty retrieving words, and producing words, following a stroke,” she said.

“It uses a poem to educate people, particularly children, as to what a stroke is and why those who have one can have problems communicating.

“I created it using PowerPoint transitions for the visuals as I couldn’t get any video footage of someone with aphasia. I had to rely on audio, and in the end it worked well.”

While the video, called The Treasure Hunt, was pitched at children aged between eight and 12 years old, it had a profound effect on many older viewers as well.

“I didn’t realise how much general appeal it would have. I have had a lot of grandparents emailing me saying that they read stories to their grandkids all the time and the video really had an effect on them,” Ms Heath said.

“Some of them said it even made them cry. I am not happy about that, but it is wonderful to think it has had such an impact.”

Winning the award has also opened Ms Heath’s eyes to additional career opportunities.

“I always wanted to stay in research, and have been working towards getting a post-doc position somewhere, working in a similar area, and staying in neuroimaging,” she said.
For archaeologist Dr Jessica Thompson, fieldwork experiences demarcate her life. "I sort of keep tally of the passing years by remembering where I was and what I was doing in the field at a given time," she said. "It is a normal part of my year to be away for two or three months at a time in places like Spain, Croatia, the United States, Tanzania, South Africa, Ethiopia, or Malawi." As a child, Dr Thompson (pictured) fantasised about becoming an archaeologist, but it was her first experience in the field that cemented her career path. The year was 1998, and the trip to a Middle Woodland-period burial mound in Kampsville, Illinois, formed part of her anthropology degree at the University of New Mexico. "The experience was amazing; I felt like I learned so much more from being a part of a real excavation than I ever had in class," she said.

Since then, Dr Thompson has been actively involved in fieldwork, while also completing a Master of Philosophy at the University of Cambridge and a PhD at Arizona State University. "The real fascination this job has for me is the way stories about the past are pieced together from small fragments of material things," she said.

Passion for the field

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“You use science to document them, logic to interpret them, forensics to reconstruct a coherent story from them, and possibly a bit of creativity to put it all together.”

Now a Postdoctoral Research Fellow in the School of Social Science, Dr Thompson is sharing her passion with UQ students.

In July, she will be leading a group of students on a two-week fieldtrip to Africa, where they will participate in the Malawi Earlier-Middle Stone Age Project, investigating the evolution of human behaviour. Dr Thompson said the students would benefit personally from the experience of applying their knowledge to an overseas dig.

“They will take home valuable skills about survey, excavation, and community liaison that will be more broadly applicable,” she said.

“Archaeology is booming in Australia at the moment, because any disturbance – for example, mining or development – requires heritage impact assessments to be done.

“There is a growing number of graduates in archaeology, but it is the ones who have done well in their degrees and gotten field experience who will be the first to be hired.”

Twenty-five students will participate in the field school.

Just a short while ago, if someone asked me: “What do you know about the Mekong Delta?” I would have looked at them with a somewhat blank face while I buzzed through thoughts and pictures in my head for something other than conical hats, scenes of war and DDT-soaked foliage.

The opportunity to participate in an out-of-the-ordinary trip to a developing, war-ravaged country, where I could extend my studies in mangrove ecology, climate change and sustainable development, as well as experience another culture’s history, temples, cooking and cuisine, had me super excited.

My first impression of Vietnam was really quite different to what I had imagined. If anyone has ever been to Vietnam or a developing Asian metropolis similar to Ho Chi Minh City, they would identify with the unbelievable feeling of relief which came from making it through the beeps, squeaks and screeches of my first terrifying taxi ride into town.

One of the most striking things which hit me straight away was just how developed the cities are: both Ho Chi Minh and the smaller city of Can Tho, where we spent most of our time, were a lot more “westernised” than I had imagined.

One of the most striking things which hit me straight away was just how developed the cities are: both Ho Chi Minh and the smaller city of Can Tho, where we spent most of our time, were a lot more “westernised” than I had imagined.

The colourful morning markets and street stalls of fruit and veg were complemented by a myriad of sweet, sour and spicy evenings of seafood hot-pots and 50c cold beers. Although this sounds like the recipe for an amazing holiday, it was certainly not free from a good dose of hard work.

Days were filled with lectures, cultural exchanges and field trips. Spending almost two weeks attending Can Tho University every day, we were lucky enough to delve further into the yin and yang fortunes and challenges of life in the Mekong Delta. In the processes we gained some insights and understanding of different approaches to environmental management, sustainability and urban development in developing countries.

One of the most valuable lessons I brought home with me was an appreciation of the complexities, challenges and trade-offs between improvements in people’s quality of life through economic development and the ways in which the benefits of such endeavours come at a cost to the natural environment and equality. It was an incredibly wonderful, enriching and unique experience.

“...the Mekong Delta offered a mishmash of contrasting sights, tastes, sounds and smells...”
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INTERNING WITH THE UNITED NATIONS ENABLED CATHERINE CARTER TO SHOWCASE HER NEW SKILLS

At the age of 27, Catherine Carter was a lieutenant in charge of a military platoon, a milestone indicative of the success of her career in the defence force.

In 2009, she enrolled in a Master of International Studies, and recently completed an internship with the Somalia desk at the UN Security Council in New York.

Ms Carter contributed to Security Council Resolution 2036, which was adopted unanimously in February.

“It’s all about getting an increase in troops from 12,000 to 17,000, combining forces from Burundi, Uganda and now Kenya,” she said.

It was an exciting time to undertake an internship: the team was preparing for a conference in London attended by UN Secretary General Ban Ki-moon, British Prime Minister David Cameron, US Secretary of State Hillary Clinton and British Foreign Minister William Hague, along with Somalia leaders.

Discussions were also being held about whether the UN should reopen its office in Mogadishu, Somalia, which was closed 17 years ago.

For Ms Carter, gaining a postgraduate qualification was not about facilitating a career change; rather she wanted to enhance her 20 years’ experience as a defence force intelligence officer in the Australian Army.

“A masters (degree) is such a precious thing that you need to find the right time to get the most out of what you are studying,” she said.

“It is so accessible – classes are in the evening and my tuition fees are made manageable through a Commonwealth HECS place.”

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Now working with the Adaptive Warfare Branch on Lessons Learned, Ms Carter has been deployed throughout the Asia-Pacific region, including East Timor, Bougainville, Fiji and the Solomon Islands.

“Undertaking this masters has allowed me to find a theoretical vocabulary to help explain the nation-building activities which I had been doing over the past 10 years,” she said.

Ms Carter thanked the enthusiastic and motivated academic staff, who brought the course content to life through scenario-based activities.

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If the incarceration rate of Indigenous Australians is to decline, culturally appropriate prison rehabilitation programs must be introduced. "Many Indigenous Australians are still experiencing the intergenerational trauma, loss and grief from the impact of colonisation, including past government policies," says Dr Noritta Morseu-Diop, who recently received a Churchill Fellowship to investigate Indigenous-specific healing processes. "For those who are incarcerated, this condition is exacerbated."

Dr Morseu-Diop was the first Torres Strait Islander to receive a PhD from UQ and is now a lecturer in the School of Social Work and Human Services. Her research focuses on the use of culture-as-rehabilitation to address the over-representation of Aboriginal and Torres Strait Islander people within the criminal justice system.

"The major rehabilitation programs offered in Australian prisons are currently based around the crime-producing risk factors in the person’s environment, and rightly so," she said. "However, the findings of my PhD research highlighted that the majority of these programs were designed through a western lens and based on western concepts, often around the framework of retribution and punishment. "The programs that are needed when dealing with Indigenous people are those programs that bring cultural and spiritual healing, targeting body, mind, heart, soul and spirit holistically."

Churchill Fellowships are awarded through the Winston Churchill Memorial Trust and provide Australians with an opportunity to conduct research overseas. Dr Morseu-Diop will be using her Fellowship to travel to North America, where she will visit the Stan Daniels Healing Centre, an Indigenous-run correctional facility in Edmonton, Alberta. While in Canada, she will also visit the Nechi Institute, an organisation that provides Indigenous training for addiction counsellors and runs community healing programs, and the William Head Correctional Service in Vancouver Island, British Columbia. In the US, Dr Morseu-Diop will meet with Native American healers, storytellers, social workers and community workers in Seattle, San Francisco, San Jose, St Louis and New York.

"The knowledge acquired will be used to inform and assist in the development and delivery of our own Indigenous-specific healing programs that will be culturally conducive and appropriate for Aboriginal and Torres Strait Islander people," she said. "In a world where there is a lot of pain, suffering and trauma, the message of hope and healing is indeed beneficial for all dispirited and incarcerated Australians."

"THE PROGRAMS THAT ARE NEEDED ARE THOSE PROGRAMS THAT BRING CULTURAL AND SPIRITUAL HEALING, TARGETING BODY, MIND, HEART, SOUL AND SPIRIT HOLISTICALLY."
Deian Ping can consider herself an Oliver! expert. In 1994, she played Nancy — the leading female role — and is directing an upcoming Queensland Musical Theatre production, opening on June 6 at the Schonell.

"Performing in a show means that you know it intimately," Ms Ping said. "As a director, though, it’s important not to impose what you might have done on to the performers.

“One has to have a vision — a God’s eye view of the performance — but each individual has to be able to bring what only they can to the role.”

The show will be somewhat of a reunion: Jim Holdsworth, who played Bill Sykes opposite Ms Ping in 1994, is again stepping into the shoes of the notorious baddie. Hayley Maybury — a 19-year-old UQ Bachelor of Arts student — plays the tragic Nancy.

Ms Maybury’s debut performance in a musical was as Ado Annie in Brisbane Junior Theatre’s production of Oklahoma (2011). For her portrayal of Millie Dillmount in Thoroughly Modern Millie, she was awarded Best Actress in a Musical at the Brisbane Junior Theatre’s annual awards night.

“She has more experience than one might expect of someone her age," Ms Ping said. "Her voice is beautiful, and also a very powerful instrument.”

Ms Ping’s passion for musical theatre can be traced back to the age of 10, when her father bought her a Gilbert and Sullivan record collection. Eisteddfods and talent quests were a big part of her life growing up. She was an original member of Queensland Musical Theatre, joining in 1984. She auditioned for its first show – My Fair Lady – and was cast as Eliza Dolittle, the leading role.

Over almost 30 years, she has held various posts, including performer, secretary, vice-president, costume designer and production director.

As current artistic director, she decides which plays are the best fit for the company. "Unlike many modern shows, in Oliver! every song was a hit," she said. “It's not just about the singing, though; it's a wonderful theatrical experience and the story is a great Dickens classic.

"I think there will also be an opportunity to think about how people lived and make comparisons.

"Although many of the horrendous aspects of Victorian London have gone, it's not a perfect world and we should always be working towards making it better.”

In directing a show, Ms Ping draws upon her experience as a primary-school music teacher, and also her studies in history and literature: she completed a Bachelor of Arts at UQ in 1978.

“That training does inform how I go about dissecting a text and bringing it to life,” she said. Oliver! runs from June 6–June 11 at the Schonell Theatre.

Tickets can be purchased at www.queenslandmusicaltheatre.com or from Ticketek
FIVE MINUTES WITH THE KONDOOT KINGS

THE MARRying OF SOCIAL MEDIA AND MULTIMEDIA HAS PROVED FRUITFUL FOR UQ GRADUATES NATHAN HOAD AND MARK CRACKNELL

MARK CRACKNELL

How did the two of you meet? Was it at The University of Queensland?

We met through Nathan’s younger brother, Ben Hoad. We attended nearby colleges and got along well.

In January, you were chasing $3.2 million of investment led by US investors. Did you ever dream your idea would become this big?

We always dreamed big, but there’s a large difference between a dream and making it reality. We’ve had amazing interest from both Australian investors and US investors and have just opened up our Prospectus to raise $10 million.

Can you explain what makes Kondoot unique compared to other social media platforms?

Kondoot’s combined social and video platforms give the intimate feel of connecting to people directly while also being able to reach out to the wider Internet community, and make new friends along the way.

What are your suggestions for other young innovators?

Get involved! Get out there and put your ideas into place, do something about them and be active in the community. There’s nothing worse than a great idea that goes to waste because an opportunity is not taken.

NATHAN HOAD

How did the idea for Kondoot come about?

We are big fans of the likes of YouTube, Skype, Facebook, but found that maintaining profiles in each of them meant duplicating details multiple times. We figured that we couldn’t be the only ones frustrated by that so we built a prototype of the site to see if it was worth pursuing further. The feedback from the early beta was great so we continued building and grew a small team around the project to help us out. The rest is history.

Can you explain what makes Kondoot unique compared to other social media platforms?

Right from the get go, Kondoot has been all about live video and constructing a social network around that concept. Other platforms are more about sharing content after the fact so what Kondoot introduces is an ability to share what you are doing right now with the world or just your friends. Instead of posting some text up somewhere saying “buying some awesome new shoes” you could share a live video of yourself picking out shoes and get some feedback from your friends.

What are your plans for the rest of 2012?

We have a massive list of things we want to do with the site but how we usually decide what to do next is to watch what our users like most. That way you are guaranteed to be making the product better each time.

What are your suggestions for other young innovators?

Always be doing something and always plan to throw away the first few drafts of anything – it doesn’t matter if you fail a few times as long as you learn from each misstep. As Thomas Edison said: “I have not failed 700 times, I have not failed once. I have succeeded in proving that those 700 ways will not work. When I have eliminated the ways that will not work, I will find the way that will work.”

Kondoot is currently offering free studio recording space to UQ students at their Fortitude Valley office. Contact media@kondoot.com
INGREDIENTS
1 x 12” pizza base
1 cup shredded mozzarella
1 cup of rocket, washed with stems removed
Lamb shoulder
1 boned lamb shoulder
6 garlic cloves
2 brown onions, peeled
1 bunch of thyme
2 large carrots
Salt and pepper
BBQ Passata
1 tin of passata or diced tomato
3 tbs BBQ sauce
2 tbs Worcestershire sauce
2 tbs HP sauce
2 tsp castor sugar
1 bunch of shallots

Lamb
Preheat oven to 135C.
Roughly chop the onion, garlic, carrot and thyme and place in the bottom of a baking tray. Take the lamb out of its netting and cut into thirds. Place it on the vegetable base and season with salt and pepper. Place a piece of baking paper over the lamb, then wrap tightly with aluminium foil and cook for five hours. Allow to cool, then rip strips of meat from the lamb shoulder.

Passata
In a medium-sized saucepan, add the tomatoes, barbecue, HP and Worcestershire sauces. Bring to the boil then turn down to a low, gentle heat. Add the sugar and reduce the sauce until it is thick and rich.

Assembling the pizza
Place the pizza base on a baking tray or pizza stone. Add a dollop of passata and spread to the edges. Add the pulled lamb, some finely-sliced shallot and shredded mozzarella. Cook for 12-15 minutes, or until the edges are golden and the cheese is bubbling. Add rocket, olive oil and a teaspoon of labne to each slice.

from Saint Lucy head chef Nick Peters

Ripped lamb pizza with cumin-spiced labne

Labne
500g of natural yoghurt
1 tsp (heaped) of table salt
1 tsp of cumin seed ground in mortar and pestle
Zest of half a lemon
METHOD
Labne
Labne should be prepared a day in advance. Mix together the yoghurt, salt, cumin and lemon in a large bowl. Once mixed, line a sieve with a chux or muslin cloth and pour in the yoghurt. Place in the fridge for 24 hours. The salt will draw the whey from the yoghurt, leaving an infused curd – labne

Walkway Café
The Walkway Café at UQ Gatton is a great spot to drop in for coffee and cake, or a casual lunch, with the menu featuring a range of sandwiches and burgers.
Open: Mon–Fri 8am–3pm
Location: Building 8125, UQ Gatton
Contact: 07 5460 1496

Three Limes
For staff and students at the Ipswich campus, Three Limes offers a quick bite to eat, a relaxing lunch or afternoon drinks. Catering is also available.
Open: Mon–Fri 7am–3pm
Location: UQ Ipswich
Contact: 07 3381 1051

Saint Lucy
Saint Lucy is an Italian-style café/restaurant with rustic décor and relaxed service. Expect lighter twists on old favourites and Italian classics with fresh ingredients.
Open: Mon–Sat 6.30am–9.00pm; Sun 8.30am–5pm. Location: Blair Drive (next to the tennis courts), UQ St Lucia
Contact: 07 6635 5980
www.saintlucy.com.au

Wordsmiths
The “Writers Café” has reopened. Diners can admire Phyl Hinwood’s sandstone sculptures while enjoying coffee, breakfast, or a light lunch.
Open: Mon–Sat 7am–5pm; Sun 7am–3pm
Location: Campbell Road, UQ St Lucia
Contact: 07 3365 2001

Burger Urge
The UQ venue is the third in the chain of burger bars. The gourmet burgers and bold fit-out are proving a hit with students and staff.
Open: Mon-Sun 11am–8pm. Location: Building 94, UQ St Lucia
Contact: 07 3870 2258
www.burgerurge.com.au

Campus lifestyle
UQ has become a foodie haven of late. A selection of campus dining options are highlighted here.
The typical notion of sport is one of popular games like rugby, basketball, netball, rowing, swimming or soccer.

But it is the lesser known activities UQ Sport offers that allow students, staff and alumni to play in their own way.

The UQ Sport and Fitness Centre – or the gym as many would know it – is where many of UQ Sport’s niche programs are run.

The UQ Sport and Fitness Centre has undergone a transformation over recent months.

The ground level has been fully refurbished, with new equipment and a fresh coat of paint giving the space an open, positive and welcoming feel.

UQ Sport’s Operations Manager Paul Clayton said with the imminent approach of exams, it was important for students and staff to get out and exercise.

“It is widely known that exercise can help you study by getting your mind away from the books as well as easing stress through the release of endorphins,” Mr Clayton said.

“Some of us like to swim or hit the gym, others like group-fitness, some people just prefer to take a more holistic approach with something like yoga.

“Regardless of how we play, it is important to be active.

“The diversity and scope of UQ Sport is one of the widest of its kind in Australia, allowing the power of choice to go back into the hands of students, staff and alumni.”

There are group fitness classes to suit a range of interests and fitness goals.

Cardio, strength and toning classes include the popular Les Mills suite, such as BODYPUMP and BODYATTACK.

People who love to dance can enrol in Zumba – a Latin-inspired, easy-to-follow class, which exhilarates the senses and works all the major muscle groups in a high-energy cardio blast.

Holistic health classes are a great way to unwind and release stress. Options include BODYBALANCE, Vinyasa yoga, gentle yoga, and pilates.

The diversity of programs was not the only up-side to UQ Sport, Mr Clayton said.

“The affordability and the immediate access to the venues is a massive plus according to the feedback we have received from UQ Sport members,” he said.

“The UQ Sport Gold membership package includes full access to the gym, all group fitness classes, the pool, and off-peak tennis and athletics.

“Considering it costs less than $2 a day, it is really great value for the amount of choice available.”
Rhodes Scholarship
for study at the University of Oxford

Closing date – 3 September 2012

Applications are invited from women and men aged between 18 and 25 for the Queensland Rhodes Scholarship for 2013.

Information seminars are scheduled at various Queensland Universities in late July/early August. Details of dates and venues will be available on the website from June:

www.uq.edu.au/rhodesscholarship

Information about the Scholarship and access to the on-line application system must be obtained from

Ms Linda Bird, Honorary Secretary, Queensland Rhodes Scholarship Selection Committee, email

QldRhodesScholarship@uq.edu.au

www.uq.edu.au/rhodesscholarship
“So many contemporary artists are making works that touch on this topic, but you need only go into a bookshop or watch TV to be aware that the relationship between animals and humans is an important topic right now,” Ms Helmrich said.

Research into the relationship between animals and humans crosses disciplines, and includes the environmental, psychological, ethical, philosophical, scientific and cultural parameters of the relationship.

Petrina Hicks’s photograph of a strangely hairless cat sets the viewer eye-to-eye with an intelligent being, and raises philosophical questions not only of how they see us, but of how we should treat them.

Mini Graff’s wry Got Beef posters, reminiscent of Meat and Livestock Australia’s promotional material, deliver disturbing facts about Australia’s live export trade; while an immersive video installation by Sonia Leber and David Chesworth showcases in cinematic and acoustic detail the herding behaviour of cattle and sheep, and exchanges with their human carers and working dogs.

A large-scale haunting image of a primate in a space suite by Laith McGregor suggests such science-fiction films as 2001: A Space Odyssey and Planet of the Apes, and more chillingly of the various animals that were launched into space in the early days of space travel.

Surreal combinations in hyper-real paintings spark our curiosity – a leopard skin slung over the back of a handsome thoroughbred; a girl riding side-saddle on a tortoise; and a Lady Amherst’s pheasant attached to a satellite, in works by Michael Zavros, Lisa Adams and Sam Leach respectively.

A number of works in the exhibition continue traditions whereby animals are depicted in symbolic or totemic form, are endowed with human qualities, or stand in for the self, including works by Torres Strait Islander artists Dennis Nona and Alick Tipoti.

“Some works are playful, some provocative, and some refuse to be easily categorised, those artists preferring to pose a conundrum for the viewer,” Ms Helmrich said.

The exhibition continues until July 22, and the UQ Art Museum is open daily from 10am–4pm.

 clockwise from left:
 Eulogy 2011 by Patricia Piccinini. Reproduced courtesy of the artist and Tolarno Galleries, Melbourne
 Thoroughbred/Panthera pardus 2010 by Michael Zavros. Reproduced courtesy of the artist and Philip Bacon Galleries, Brisbane
 Lady Amherst and Satellite 2009 by Sam Leach. Reproduced courtesy of the artist and Sullivan + Strumpf Fine Art, Sydney

www.artmuseum.uq.edu.au
I was a speech pathologist in the late 1990s when I first met Melissa (name changed), who was diagnosed with Parkinson's disease. Nothing out of the ordinary there I suppose.

Compared to other neurological conditions, Parkinson's disease has the second highest prevalence, exceeded only by dementia, so it was natural to have a fair proportion of my clinical caseload comprising patients with the disease.

What did shock me was that Melissa was only 43. I remember her saying: “It’s the sort of nasty surprise you can do without!” What an understatement.

Melissa is one of more than 12,000 Australians of working age (15-64) who are living with Parkinson’s disease.

But of course, Parkinson’s disease affects people of all ages. Presently, 64,000 Australian suffer from the disease and that number is set to rise by 80 percent over the next 20 years.

Advances in medical and information technology are offering unprecedented opportunities for researchers and clinicians to understand what goes awry in the brains of people with Parkinson’s disease and how to alleviate the symptoms.

I am privileged to be part of a specialist multidisciplinary team of researchers and clinicians based at St Andrew’s War Memorial Hospital and The University of Queensland’s Centre for Clinical Research, which is harnessing the potential of next generation medical technologies to help patients and their families.

My colleagues at St Andrew’s are neurologist Professor Peter Silburn and neurosurgeon Dr Terry Coyne. Over 20 years, they have performed a record-number of Deep Brain Stimulation (DBS) procedures – more than 800 – on patients suffering from conditions like Parkinson’s, Tourette’s Syndrome, dystonia (twisting disease), essential tremor and pain syndromes.

DBS involves surgically implanting a device deep within the brain, to deliver electrical pulses to targeted areas of the brain.

It allows neurologists and neurosurgeons to electrically stimulate a specific part of the brain to calm and often stop the movement disorders associated with Parkinson’s and Tourette’s.

When Melissa was considering DBS, she described being awake during the operation as “a little daunting”. But post surgery her words were: “They then turned on the electrodes on the operating table. The feeling was like a wave breaking on the beach. My whole body just relaxed and it felt wonderful”.

DBS is just one roadside stop in Melissa’s long journey with Parkinson’s disease.

As Director of the newly established Asia-Pacific Centre for Neuromodulation, my vision is to ensure that APCN will be dedicated not only to patient care, but to education and research.

Investing in DBS and neuromodulation research has the potential to help many patients today, with the promise of greater understanding of the cause of disease likely to help our children and grandchildren.