SOCIAL JUSTICE WARRIORS
Eva Cox and Dexter Dunphy inspire a new generation of activists

SUFFERING IN SILENCE
Why female genital mutilation must end now

FIGHTING CANCER HEAD-ON
The new research uncovering how head and neck cancers develop
What are your current challenges?
My most interesting and inspiring, but also challenging, project is to roll out the updated UTS Innovation and Creative Intelligence strategy. This overarching and cross-university strategy highlights UTS’s strengths in innovation, entrepreneurship and creativity, and pushing UTS outcomes to the next level. As the Vice-Chancellor says – we want to own this space!

What has been the most enjoyable part of implementing the UTS Innovation and Creative Intelligence strategy?
The high point to date has been the huge success of the Bachelor of Creative Intelligence and Innovation (BCII). Seeing what the students are doing in this course is really inspiring and when they graduate they will significantly strengthen the UTS reputation. The next stage of initiatives is to design extra-curricula offerings, elective subjects and potentially majors and sub-majors that will allow students wider access to various elements of the innovative learning package delivered in the BCII.

This year we are also starting the Hatchery, which is a pre-incubator program for students who want to learn the skills to work in the start-up space or even go into their own start-up. Already some alumni from venture capital firms have heard of the program and are asking how they can be involved. We are also developing a wider set of research activities, such as the innovation and design thinking leadership provided by the Design Innovation Research Centre. There has been significant buy-in from industry and government to the work here helping organisations reposition themselves for the modern creative world. A wide range of the senior executive and UTS staff are involved in these projects and a number of other initiatives under the strategy, such as the development of a digital and creative precinct which Patrick Woods is leading.

What does ‘engage’ mean to you?
To me, ‘engage’ is one critical element of what UTS is all about and a key distinctive feature of it as a university. Being engaged is about listening to our collaborators and trying to find strong common ground and win-win outcomes for both parties. UTS listens – to understand others’ needs and how we might assist – and UTS speaks – to outline what it knows and how it might work with others. I continually get feedback from industry that this isn’t the general experience of theirs with universities and they really value how UTS proactively engages with genuine listening skills and seeking mutually beneficial outcomes.

What’s the most interesting thing you can see out of your office window?
The new ‘piazza’ element of Alumni Green – what a great and inspiring space to look at every day. It really represents the ‘urban but liveable’ campus that is UTS and it’s great to watch students and staff enjoying the space, particularly the Ping Pong tables!

If you had a warning label, what would yours say?
Keep Provost Happy – best experienced when not in sour mood!
FEATURES

Fighting cancer head-on
The new research helping scientists better understand head and neck cancers – the sixth most common worldwide – and pave the way for therapies that could improve diagnosis and treatment

Suffering in silence
Female genital mutilation is not only illegal, but a violation of human rights too. Angela Dawson explains why it must end and how we can all contribute to its abolition

Social justice warriors
Join in the celebrations for Diversity Week and find out how two UTS academics are inspiring a new generation of activists to stand up for social change

REGULARS

ASK THE EXEC: PETER BOOTH
NEWS: RE-INVENTING RESEARCH
AROUND U: THE NEW BRIGHT LIGHTS ON BROADWAY
STAFF PROFILE: PLAYING IT SAFE
ALUMNI PROFILE: IN THE PICTURE
TWO OF U: LUCKY IN LOVE
STUDENT PROFILE: ROLLING IN THE DEEP
U: READ IT: UTS IN PRINT
FEATURED EVENT: MY TRIP TO MARS
WHAT’S ON: AUGUST
ART & U: UTS ART COLLECTION

NEXT ISSUE
The next issue will be released on Friday 28 August 2015.
All U: articles are available to read online via newsroom.uts.edu.au
Send your story ideas, opinions and events to u@uts.edu.au
“You don’t have to be a brilliant student to be creative and innovative; all students and all people can do that. It’s a matter of creating an environment to facilitate opening up your mind and your heart and allowing yourself to let go; to make mistakes and take risks.”

Associate Head of Strategic Development in the School of Life Sciences Michael Wallach has been the driving force behind the Biomedical Innovation and Entrepreneurship Program since it started in 2008. The unique program, between UTS and the Technion – Israel Institute of Technology, established a course in bio-innovation for masters and PhD students at both universities. Its aim: to teach students how to be creative and innovative in medical research.

Wallach says, “We thought, ‘Why don’t we bring our students and staff together for a joint international program, to encourage global collaboration in teaching, learning and research?’”

Since its inception, the program has attracted some of the world’s most renowned universities including the Stanford School of Medicine in the US (who signed up in 2013) and most recently, the National Taiwan University and Academia Sinica, both from Taiwan, who signed on in June.

Each year, the program is hosted by a different country. This month, it will be held at Academia Sinica in Taipei, Taiwan and will be attended by five research students from each participating university along with 10 from the host institution. Here, students will work in small teams to come up with creative and innovative ideas for medical products.

Wallach says the students have free range to choose any project in the field of bio-innovation, as long as they meet certain conditions. “The first and foremost condition is they must be passionate and excited by their chosen project, because if you are not passionate and excited, you won’t succeed.

“Secondly, the ideas have to be innovative, creative, novel and potentially patentable. Thirdly, they have to be based on real, sound science. Ultimately, the innovation has to have a market and an end user that can benefit from the proposed project.”

Each student team is assigned a mentor, with relevant expertise, who assists in developing their idea. Students also collaborate with multi-disciplinary experts from marketing, finance and industrial design to open their minds to a more holistic way of thinking about science and product development. At the end of the program, they pitch their projects to a panel of experts.

Thanks to funding from a private donor, two prior research projects have been taken from the idea to proof-of-concept phase. They are a non-invasive diagnostic test for celiac disease which can be readily taken by children, and a novel bacterial-resistant catheter that would alleviate the need for contact replacement in patients. The test for celiac disease is now also a current UTS PhD project.

Wallach says much of the program’s success is thanks to those UTS colleagues who have helped develop and run the course – Program Manager Mukti Bawa, UTS: Design Innovation Research Centre Researcher Vasilije Kokotovich, School of Business Senior Lecturer Melissa Edwards and Professor David Michayluk, Science Senior Lecturer Brian Oliver and Associate Professor Loraine Holley and Innovation and Commercial Development Manager Brenton Hamdorf.

Wallach says, “It’s a great opportunity to be able to shape a research culture that is more innovative and creative.

“I think the more universities and countries that do this the more students will enter the workplace with an entrepreneurial spirit and medical research will benefit. That’s the bottom line for all of this; we want to see patients benefit.”

Rachael Brown
UTS International
Photographer: Hannah Jenkins

Comment on this article at
UTS:NEWSROOM
newsroom.uts.edu.au/news/2015/08/re-inventing-research
It’s often dubbed the ugliest building in Sydney, but looks can be deceiving. The UTS Tower is in the middle of a major makeover with more than $50 million invested over the past four years. The latest addition is three-and-a-half-metre tall sky signage adorning the top of the building.

The new ‘UTS’ signage uses energy-efficient LEDs to light up the iconic Tower by night, and matches that on buildings 6, 11 and the new UTS Haberfield Rowing Club.

While the most recent change appears cosmetic, Manager, Projects at UTS’s Facilities Management Operations Stewart Corner says the upgrades really begin at the Tower’s core. “The new illuminated signage almost acts as a symbol of the major investment UTS has made, and continues to make, in the Tower as part of the City Campus Master Plan. The Master Plan is about investing in our existing buildings as well as new facilities.”

The recent Tower Core Upgrade is just one example of this. It involved the installation of six new lifts and other facilities, and was the building’s first major upgrade since it opened in 1979. “The lifts are a type used in many new, large city buildings and include what’s called a ‘destination control’ system, which involves keying in the floor you wish to go to before you enter the lift lobby,” explains Corner.

“The electronic system links together people who need to go to similar floors, so energy is not wasted by sending lifts up and down for one person. The lifts also incorporate energy recovery devices, and a recent audit demonstrated the new system results in energy savings of more than 50 per cent when compared to the old lifts.”

The upgrades continue when you step out of the lifts. Brick partitions that used to divide the floors into smaller compartments have been torn down, allowing for more functional and efficient workspace layouts. Enclosed spaces, such as meeting rooms, quiet rooms and breakout areas are located near the core, and open plan workstations towards the windows, allowing all occupants to access natural light. The old, low ceilings are also being removed to expose the original building structure and create space.

“The spaces have been designed to aid interaction, creativity and productivity,” explains Corner. “Many floors have already been refurbished and we’re continually upgrading others as we work to consolidate all administrative and support units within the Tower.

“The Tower itself is a strong architectural statement and a good example of 1970s Brutalism. Yes, there’s lots of concrete, but by offsetting this with other warmer finishes and by opening up the spaces and creating greater transparency, the Tower can indeed be a nice place to work.”

The Tower’s presence on Broadway may be changing, but it’s not alone. Next door, building 2 is getting ready for a major reconstruction from 2016 as part of the UTS Central project. This will involve the relocation of the library and the creation of a student services hub, learning commons and research space.

Delivery Manager at UTS’s Program Management Office Brian Moore says the way building 2 relates to the rest of the campus will be crucial.

“What we’re proposing for building 2 will redefine the Broadway campus, create additional connections within the campus and further enhance both learning spaces and the urban quality of the precinct,” he says.

“It’s a very exciting project that will have a hugely positive impact and we can’t wait to share more with the UTS community.”

Natalie Clancy
Bachelor of Arts in Communication (Journalism)/Bachelor of Creative Intelligence and Innovation
Photographer (Tower): Cindy Araujo
Sky image: Thinkstock

Comment on this article at UTS:NEWSROOM newsroom.uts.edu.au/news/2015/08/the-new-bright-lights-on-broadway
Head and neck cancers are the sixth most common malignancies worldwide. Yet few are diagnosed before stage 3 or 4, when the cancer has already spread to the lymph nodes or beyond. New research is helping scientists better understand these cancers and pave the way for therapies that could improve diagnosis and treatment.

Pain, swelling, a hoarse voice, bad breath; these are some of the common, yet often unknown, symptoms of head and neck cancers. Like many cancers though, symptoms depend on the area affected and when it comes to head and neck cancers that could be the mouth, lips, salivary glands, tongue, tonsils, middle ear, larynx, pharynx, sinus, or any other tissue in the head and neck region.

“We’re focusing on this cancer because it has a really bad prognosis and on top of that it tends to be detected at the later stages,” explains PhD student Pamela Ajuyah.

Ajuyah is part of the ncRNA Cancer group, run by Nham Tran in UTS’s Centre for Health Technologies, which investigates head and neck cancers. For the last three-and-a-half years, Ajuyah’s research has focused on small strands of ribonucleic acid (microRNAs) that are continuously created from the human genome.

“MicroRNA are the ultimate gene inhibitors,” explains Ajuyah. “And cancer cells can take advantage of this situation. Cancer cells can hijack these microRNAs by suppressing their expression, which prevents their normal function. On the other hand, cancer cells can also increase the expression of specific microRNAs to promote cancer development. When this regulatory system is corrupted, cancers cells may acquire the ability to migrate and metastasis can occur.”

“Think of it like a traffic light,” says Tran. “The microRNAs are the colours in the traffic light and the cars represent the genes they control. So when the microRNA traffic light becomes red and the traffic stops, this is akin to gene suppression. Conversely, when it turns to green, traffic is allowed to continue and we have gene expression. These regulatory events, which occur daily in a cell, may lead to increased migration.”

And, adds Ajuyah, “When cancer cells have the ability to migrate, they can spread to different parts of the body. This metastasis is the main reason why people succumb to cancer.”

The Tran laboratory has identified two microRNAs, known as miR-21 and miR-499, which they believe can promote migration in head and neck cancer cells. Ajuyah’s research has focused on investigating how they do this. Her work has also uncovered the involvement of a tumour suppressor gene known as PDCD4. “These two microRNAs target this gene so it can no longer suppress tumours,” she explains. The result is cancer cell migration and metastasis.

For her research, Ajuyah has been comparing normal cells with those from stage 1 to stage 4 cancer patients. She then injects a synthetic version of the microRNAs (a mimic) into the samples. “And, over a period of 24 hours, we were able to show that if you added these microRNAs they would promote migration two-fold and give the cells a more metastatic potential.”

“The next step,” she says, “is to see if we can inhibit this migration, because that would give us a potential therapeutic. Can you reverse it? Can you stop these cells from metastasising?” Ajuyah plans to spend the last six months of her PhD testing her theory with inhibitors (chemically synthesised ribonucleic acid which stops or slows down the function of microRNAs).
The idea is these inhibitors will bind to and soak up the microRNA and by doing that it stops the microRNA’s normal function. This approach may stop the cells from acquiring a metastatic potential.

Currently, there are no routine screening tests for head and neck cancers, which can be caused by alcohol, tobacco and in some cases, the same subtypes of human papilloma virus that lead to cervical cancer. Ajuyah hopes her research will pave the way for a better understanding of the molecular pathways involved in the development of these cancers.

“These microRNAs are present in the body; everyone has them. In a healthy body they have a certain pattern, they have certain levels, and when things go wrong their levels change. If we can understand the fundamental role of these microRNAs and devise a method to regulate expression we could transform cancer treatment,” explains Ajuyah.

However, she cautions, such applications are many years away. “The next part is actually the most difficult. How do you get the microRNA to go to where it needs to go, safely and stably?”

“Delivery is the main barrier in trying to treat human diseases with microRNAs,” adds Tran. “One microRNA doesn’t just regulate one target, it can regulate thousands of targets, which might have a normal function. So you can imagine, for example, if you give me a microRNA to treat my head and neck cancer it might suppress other genes. It may treat my head and neck cancer, but it might then cause other diseases we haven’t even considered.” But it is a start. “The awareness for this kind of cancer is so little that people are almost not even aware that it exists,” explains Ajuyah. It’s a phenomenon the young scientist has seen first-hand.

Ajuyah’s research is partially funded by the Translational Cancer Research Network (TCRN) – a Sydney-based cancer research community that works to translate cancer research into improvements in patient care. As part of their agreement, Ajuyah has met with two head and neck cancer patients.

“They were very interested in what we had to do,” she says. “They wanted to know could this have made their lives easier? Could it potentially make other people’s lives better?”

“For the second lady in particular, getting cancer was quite a surprise because she lived a healthy lifestyle; she wasn’t a big drinker, she didn’t smoke tobacco.

“The first time she got it, she didn’t realise what it was. She went to the dentist several times and he was like, ‘Don’t worry about it’. But it got worse and eventually she ended up having to go to hospital. At that point she had stage 1 head and neck cancer and they managed to successfully remove it. But it ended up coming back two more times.”

Ajuyah says the physical repercussions can be devastating. “Head and neck cancers just eat you up. It affects your teeth, your face – anything that’s involved in eating and talking. Patients need a lot of nutritional support because their mouth can be ruined. One of the ladies I met, when she talks she can only move her tongue so much. It’s a really serious cancer and we need to do something about it.”

This research is funded by: Translational Cancer Research Network and UTS.

Fiona Livy
Marketing and Communication Unit
Photographer (P Ajuyah): Joanne Saad
Cell image supplied by: Pamela Ajuyah

“OVER A PERIOD OF 24 HOURS, WE WERE ABLE TO SHOW THAT IF YOU ADDED THESE microRNAs THEY WOULD PROMOTE MIGRATION TWO-FOLD AND GIVE THE CELLS A MORE METASTATIC POTENTIAL.”

Comment on this article at
UTS:NEWSROOM
newsroom.uts.edu.au/news/2015/08/fighting-cancer-head-on
Female genital mutilation (FGM): the United Nations considers it a violation of human rights; the Australian Government, a criminal offence. Though it has been outlawed in many countries, the 2000-year-old practice continues, with devastating outcomes for women and girls. Angela Dawson explains why FGM must end and how we can all contribute to its abolition.

Female genital mutilation (FGM) is an ancient cultural practice performed on infants and young girls. It involves the removal of the external female genitalia or other injury to the genitalia without the woman's or child's consent. Often the ‘surgery’ takes place in unhygienic conditions and without pain relief.

Girls who experience FGM are at risk of dying from blood loss or infection. Girls who survive can experience a lifetime of infections, chronic pain, mental health issues and, later, difficulties giving birth which can also affect the health of their baby.

We don’t know how many women and girls have experienced FGM in Australia. But a UTS study with the University of Sydney and NSW Health, the first of its kind in Australia, found three per cent of women who gave birth at one metropolitan hospital in Australia between 2006 and 2012 had FGM.

These figures are set to increase, as some of the fastest growing migrant groups are from countries where there is a medium to high prevalence of FGM. In fact, the latest Australian census reveals more than 300,000 migrants were born in countries in the Middle East, and North- and Sub-Saharan Africa where FGM is identified and data is collected. However, there are approximately half a million Australians who were born in other countries like Thailand, Indonesia, Malaysia, India and Pakistan where FGM is practised, but no data exists.

UTS research has revealed many midwives lack confidence and experience caring for women with FGM. Participants in our qualitative study acknowledged a fear of caring for women because of cultural misunderstandings and language difficulties, both of which affected their ability to develop rapport with the women and their families.

That said, midwives expressed their commitment to quality care and expressed a need to improve their skills in associated clinical procedures, like episiotomies – surgical incisions which quickly enlarge the opening of the vaginal wall to allow the baby to pass through – and enhance their knowledge about FGM. Our recently published systematic reviews of midwives’ and doctors’ education, and FGM-related practice, paint a similar picture around the world.

Undoubtedly, there is a significant need for health professional education. UTS has been engaged in developing continuing professional e-learning modules for midwives, obstetricians and gynecologists that are soon to go live on the Royal College of Australian and New Zealand College of Obstetricians and Gynecologists (RANZCOG) website.

The four modules provide an overview of FGM, the short- and long-term complications of the procedure, how to care for women with FGM during pregnancy, labour and after birth and how health professionals can become advocates for change.

We've also contributed to the development of clinical practice guidelines and job aides...
produced by NSW Kids and Families within the NSW Department of Health. These guidelines aim to provide NSW public health professionals with sensitive and culturally appropriate evidence-based care for women and their families affected by FGM.

Although FGM is illegal and constitutes child abuse, it is practiced on girls in Australia and has been reported in the media. Two cases involving young girls are currently before NSW courts. One involves a retired nurse, the other implicates parents who took their daughter overseas to have FGM.

When it comes to stopping this mutilation and changing social norms, research suggests legal approaches have a limited effect. Rather a comprehensive, community-level preventative approach is needed. In Australia, we need to identify these approaches in collaboration with communities, and ensure they are adequately resourced and rigorously evaluated.

Investing in prevention is not only a more cost-effective way of dealing with FGM, it also prevents psychological distress and the risk of death and disability for women, their babies and female children.

Indeed, the cost of government efforts will be offset by savings from preventing complications during birth (including obstructed labour due to a narrow vagina and perineum, which can also deprive the baby of oxygen and lead to brain damage or death), the reduced need for expensive hospital procedures (like caesarean sections, vacuum extractions and fewer babies being placed in neonatal intensive care), as well as mental health counselling. The long-term effects of prevention can also save money otherwise spent on expensive policing and the (often-times traumatic) prosecution of family members.

Changing deeply entrenched social norms around FGM won’t be easy. It must come from, and be embraced by, communities, including men who can be key advocates for its abandonment and allies to women. Men-only programs involving mentors could help to improve men’s understanding of not only women’s and children’s health but their own health too.

Health professionals, particularly community-based midwives delivering postnatal care and child and family health nurses working within home visiting programs, can also play a critical role delivering health education to women and their families to prevent FGM. Multi-professional partnerships between health professionals, teachers, social workers and other community workers can help to support families to celebrate practices that promote health and wellbeing as well as work together to change harmful practices.

We know from work in Norway, Israel and the UK that change is possible. In Australia, thanks to our work in community health education and promotion, UTS is set to be at the forefront of behavioral change.

The result, we hope, will see an end to the unnecessary suffering of women and girls and the violation of their human rights.

Angela Dawson
Lecturer
Faculty of Health
Photographer (A Dawson): Fiona Livy
Female in shadow image: Thinkstock

Comment on this article at
UTS: NEWSROOM
“Being an activist means being concerned about the future and the consequences of what we do in the present.”

“My father would often ask, “What have you done to change the world today?”’, recalls Adjunct Professor in the Jumbunna Indigenous House of Learning Eva Cox. “It would embarrass me grossly as an adolescent, but I realised it’s not a bad motto. He certainly imbued in me the fact that I had a responsibility to fix things if I didn’t like them.”

It’s an attitude that has remained with the well-known feminist, campaigner and social commentator Cox, who grew up as a refugee in England during World War II, says she knew from a very early age that she didn’t ‘belong’. “My parents were Jewish and we had to leave Vienna, and so I was very much aware there was something screwy with the world. I was curious about why and what had happened. That stimulated me into the idea that if you don’t like something you should try to change it.”

Cox, together with Emeritus Professor in the School of Management, and long-time sustainability researcher, Dexter Dunphy, will be addressing the role of activism and social and corporate responsibility at a free, public lunchtime talk – Social Justice Warriors – during Diversity Week.

Dunphy’s main research is focused on the meaning of sustainability and what is required of business, government and individuals to respond to global environmental problems. It’s a field where understanding and attitudes have been slow to change.

“People are less likely to join political parties or community groups. There’s a lack of optimism about the possibilities of social change and therefore they’re seeking more short-term results,” Cox says. “Social media reinforces that – it gives people the illusion they’re doing something by signing an online petition, which is just laziness because it doesn’t actually change things.”

In an effort to open our eyes, this year’s Diversity Week celebrations are also set to include a campus accessibility challenge – The Great Race – to be held on Friday 21 August, where staff and students will be asked to use wheelchairs and simulation glasses (which simulate vision impairment) to navigate around UTS.

Prior to that, on Monday 17 August, a conversation about resilience, featuring two UTS students who arrived as refugees, will take place in the student amphitheatre (building 1, level 6, room 13). On Tuesday 18 August, UTS’s Pasifika Society will be screening Kumu Hina in the Dr Chau Chak Wing Auditorium (building 8, level 2, room 5).

And, on Thursday 20 August the Jumbunna Indigenous House of Learning Research Unit will premiere their films Djon Mundine – In the Spirit of Bungaree; Fred Maynard – Aboriginal Patriot; Under Skin, In Blood; and Who’s Afraid of Jason Wing in the new Green Theatre (building 7, level 2, room 25).

For Dunphy, “Being an activist means being concerned about the future and the consequences of what we do in the present.”
The environmentalist was born into a family of strong conservationists who have had a profound influence on the development of NSW’s national park system, the community’s understanding of Australia’s unique national heritage and on corporate sustainability practice.

He says, “Without doubt, global warming is our most urgent environmental issue. It threatens the future of civilisation and the plants and animals we depend on, which themselves have a right to life.”

“We are the innocent victims of our greed. We must act now to phase out fossil fuels and move urgently to an alternate energy base for the economy.”

While Dunphy and Cox have had a major impact on Australian society through their work, both agree there is more work to be done.

Says Dunphy, “The reality of the environmental crisis we’re now experiencing and face in the future exceeds imagination. I don’t believe the issue is one of hope or hopelessness; that’s irrelevant. The important issue is to be aware of our intimate dependence on nature and to care for our earthly home and our fellow creatures. It’s not primarily an issue of emotion but of ethics.”

Cox concurs, “One of the things I’ve been trying to do is talk about a good society to live in, about the common good, rather than about the economy,” explains Cox. “I think we have a problem in that the whole economic debate has killed the social debate because it transfers everything into equations. That idea that utopia is possible died out somewhere in the 1980s and we now have a much more material-oriented, short-term individualistic culture.

“I think, however, there’s another generation coming along now which may start reversing it. A lot of them are disillusioned with the current political system, but I do find that when I go out and talk about creating a good society there’s a real sense people want one. They just don’t know how to get there.”

She adds, “Diversity is a very good thing because it challenges us, but it also needs the respect of other people’s views and disagreement.”

**Diversity Week: Social Justice @ UTS will be held from Monday 17 to Friday 21 August. For the full line up of events, visit [diversityweek.uts.edu.au](http://diversityweek.uts.edu.au)**

Katia Sanfilippo
Equity and Diversity Unit
Photographer (D Dunphy): Roger Dunphy
Photographer (E Cox): Jess Husband
Word cloud created by: Meegan Desmond at tagxedo.com
Keeping pet snakes and being a safety specialist may seem like an odd mix, but not to Kamel Elmargi.

Elmargi has been the Senior Health and Safety Specialist in the Faculty of Science for 10 months. “It’s a role that overlooks and provides advice on health and safety in order to minimise risk in operations, teaching, research and fieldwork,” he says.

In his own time, Elmargi has an avid interest in reptile husbandry. He currently owns 30 snakes, lizards and turtles.

“You’re constantly tweaking their environment based on their body behaviour and creating optimal conditions and temperature cycling. For example, giving them no food and cooling over winter to stimulate breeding,” explains Elmargi.

“It can be stressful and it does take time and patience, but the rewards are worth it when you see the first snout poking through the egg shells.”

Elmargi says there are many correlations between his profession and hobby including patience, passion, time management and risk management.

“Managing risk is a requirement and top priority to ensure the safety of the handler and the reptiles. Where elimination of risk is not possible then you need to make it as safe as you can by applying a hierarchy of safety controls, like isolation, engineering, training and personal protective equipment.”

Elmargi’s interest in reptiles began during his childhood in Jordan where he would collect tortoises from local fields. Elmargi and his family immigrated to Australia in 1987 when he was eight years old.

By the age of 20, the science student had grown fond of snakes. “I started keeping reptiles back in 1999. That was when I acquired my first snake, a Diamond Python, from my TAFE teacher. One snake led to another; then the obsession took hold and I began to acquire more species and different varieties and morphs.”

Professionally, Elmargi has spent the last 12 years working as a laboratory technician and health, safety and environment coordinator for an environmental laboratory, and managed work health and safety for a defence contractor. Last year, he applied for the position at UTS.

“I saw the position advertised for the health and safety specialist at UTS and felt it was too good to be true. I read over the position description and selection criteria and my qualifications and experience ticked all the boxes including providing advice on workplace health and safety legislation through to risk assessment processes and hazard prevention.

“I felt positive from there on that this is my dream job because it moulded two of my career passions; science and safety.”

Elmargi says the biggest reward is helping create a safe workplace at UTS. “The priority for the Faculty of Science is to ensure staff, students and others who turn up here to work, learn or visit are not placed at risk. The expectation is that they come here, stay safe and return to their families and loved ones the same way.”

Back at home, Elmargi has made sure his family is safe too by downsizing his reptile collection from 49 to 30 and eliminating venomous snakes. The change has also enabled him to achieve better work-life balance.

“With a young family of three kids under 10, and other pets, I had to prioritise while still maintaining my hobby and passion,” he says.

Sofie Wainwright  
Bachelor of Arts in Communication (Journalism)  
Photographer: Joanne Saad  
[Diamonty is a four-year-old Diamond Python named by Elmargi’s seven-year-old daughter Chantel Yasmine]
Photo sharing networks like Facebook and Instagram have transformed the role images play in our lives. UTS alumna and PhD candidate Tara McLennan is investigating how we mediate time through our smart phone snaps and how far we’ve come in more than two centuries of photography.

“The idea of wanting to connect to others through images goes back to the 1870s,” says McLennan. “There are sci-fi comics of an imaginary invention called the telephonoscope which is like a crystal disc that sits above the hearth in your living room and gives you live visual access to your loved ones across the globe.”

Those comics weren’t far off in their predictions, considering we now share roughly 350 million photos daily with friends and strangers online – something that has fascinated McLennan since Facebook and Instagram became so essential to socialising.

McLennan’s PhD is non-traditional, which means her work focuses on capturing a ‘snapshot’ of the cultural moment. Supervisors Katrina Schlunke, Malcolm Angelucci and Tara Forrest in the School of Communication have encouraged methodologies like auto-ethnography and media archiving.

“The amount of data out there is beyond comprehension – traditional methods of research won’t cover that amount of information,” she says. A more accurate and honest way of researching something like this is by examining personal experiences rather than trying to pin down an entire phenomenon. McLennan admits to, “looking over people’s shoulders when they are looking at their phones just to see if they’re looking at photographs.

“I’m also always watching to see what people photograph in public spaces, to find the cross-sections between our physical environment and how that then becomes something more fluid in virtual space.”

While the amount of data out there is unfathomable to a single person, it also provides the perfect point of departure for McLennan to explore how we process the passage of time in the age of information.

“What do we actually do with all our photographs? We might sometimes look back but for the most part we just leave them in cyberspace or on a hard drive.

“Back in the day if you were very wealthy and lucky you had one portrait of yourself,” she says, “and now many children will probably have a Facebook account, starting with their ultrasound and continuing with countless photographic records of their daily activities.”

She’s noticed people becoming more anxious about how they use their time and how they record their activities to share online.

“Time on Instagram is a very contradictory idea,” she explains. “It’s different from analogue photography in the sense that you used to take a picture and think ‘I’m going to keep that as a memento to look back on’. Instagram is not for a future audience like that, it’s for a ‘now’ audience. People feel a sense of urgency when taking a photo so they can say ‘Here I am, it’s happening now’, and it’s done with a present audience in mind.

“Then that moment is dispersed across the globe and someone else may be browsing and liking the photo as a way to kill time on the bus.”

McLennan’s research is uncovering a dichotomy between the transience of online photography and the permanence of a personal image library at your fingertips. She says this can create some anxiety about how much people are recording and keeping in the time they have.

Now in the third year of her PhD, McLennan says, “it feels like climbing a really big mountain and I can’t quite see the top.” With such a nebulous topic of research, there’s still a lot to explore and the amount of data won’t diminish any time soon.

“But it’s a lot of fun,” she says. “I’d love to be an academic and I find that learning environment the most exciting for me.”

Hannah Jenkins
Marketing and Communication Unit
Photographer: Joanne Saad

Comment on this article at
UTS:NEWSROOM
Associate Professor Valerie Gay and Senior Lecturer Peter Leijdekkers have worked together in the Faculty of Engineering and Information Technology for 11 years. But the pair first met 25 years ago while developing the international standards for mobile telecommunication in Europe. Since then they’ve become partners in research and in life.

P: We met when we were representing our countries for telecommunication standards. I was representing France and he was representing Holland. At that time everything was pretty much decided by each country and we were developing standards to make sure everyone could work together; which is still something that’s used today.

V: We were working on the same documents bit more on similar aspects. Then after that but towards the end we started working on different parts of the standards, didn’t really know each other and we were working on different parts of the standards, but towards the end we started working a bit more on similar aspects. Then after that we were working on the same documents and everything!

V: When we were working on the same documents we were working on different parts of the standards, but towards the end we started working on different parts of the standards, but towards the end we started working a bit more on similar aspects. Then after that we were working on the same documents and everything!

P: It’s how it started.

V: We were part of these very intense meetings that would go on for weeks, with people coming from all over the world to discuss the standardisation. In the evenings, everyone would get meals and drinks together which is sort of how we met. Then we were invited to one of these meetings in Australia so we thought, “Why don’t we spend some time together and travel a bit?”

P: They were meetings that would go on for weeks, with people coming from all over the world to discuss the standardisation. In the evenings, everyone would get meals and drinks together which is sort of how we met. Then we were invited to one of these meetings in Australia so we thought, “Why don’t we spend some time together and travel a bit?”

V: We spent a year-and-a-half in Sydney, but then Peter got homesick. So we went back to the Netherlands for two years, before coming back here again.

P: We had never been to Australia and I’d never been to Australia so we both expressed the fact that we’d like to go and that’s how it started.

V: When we were here, we drove down to Melbourne and there were parts of the Pacific Highway that were still non-surfaced road. We had no concept of distance in Australia – it’s just something you have to experience – so we thought it would be easy to drive. We had a rental car and I remember we thought, “Ah! We don’t want to hit a kangaroo!”

P: As soon as we got on the plane back to the Netherlands I knew I was making a mistake. Val said, “Now that you’ve made this decision we’ll go back for a minimum of two years just to be sure.” So we did. Two years and one day later we came back.

V: I actually enjoyed it in a way because I could connect a bit more with Holland and get a bit of Dutch culture. And I think doing that made us stronger because once we came back to Australia we were confident that was where we wanted to be.

P: I had the opportunity to do a sabbatical here at UTS in 1998, I thought it would be a good adventure. I quit my job and said, “Let’s try it!” And that was actually also the first time we lived together, after seven years!

V: Then when Val had the opportunity to do a sabbatical here at UTS in 1998, I thought it would be a good adventure. I quit my job and said, “Let’s try it!” And that was actually also the first time we lived together, after seven years!

P: We spent a year-and-a-half in Sydney, but then Peter got homesick. So we went back to the Netherlands for two years, before coming back here again.

V: There are a lot of things we agree on, like the way of teaching and things like that. I believe technology is there to help, and if you can find an application to demonstrate this technology it will be more effective. I like the idea of being in a university of technology because I like my research to be applied.

P: Research-wise we’re in a win-win situation. I am very industry focused and hands-on and try to make a commercial application of something and Val has more of the research side to it so it works well.

V: Even before we were together, we were writing papers together in Europe.

P: We also work in cooperation with other universities and present papers overseas which gives us more opportunities to visit our families in France and Holland, too!

Hannah Jenkins
Marketing and Communication Unit
Photographer: Joanne Saad
IN LOVE

Peter Leijdekkers and Valerie Gay
When PhD candidate Gwenael Cadiou first played underwater rugby (UWR) he knew he’d found the sport of his dreams. Encouraged to try the “anti-gravity” contact sport by fellow UTS Science student Kasper Brodersen, Cadiou joined the only Sydney club (UNSW Underwater Rugby Club) in March 2014. By September he was playing in Australia’s first national competition.

Cadiou’s subsequent selection in the Australian UWR Team last April means he has a unique, if somewhat quirky, claim to fame: a French-born marine biologist in the first Australian team to compete at an UWR World Championship.

“UWR combines freediving, tactical teamwork, and personal technical skills like ball passing and tackling in a 3D environment. In fact, it’s really more than a sport in many ways, for me it is a lifestyle that brings a community of water-lovers together in a friendly and fun spirit.”

UWR originated in Germany in the 1960s as a way to keep divers fit during winter. Fifty years later, it’s now forging a following in Australia. The fast-paced, contact sport is played by two, six-a-side teams in a five-metre-deep pool. Each player wears a mask, snorkel and fins, and holds their breath to tackle underwater. The round saltwater-filled ball can be passed a few metres in any direction before it starts to sink. Players score goals in a small basket located at the bottom of each end of the pool.

Cadiou’s lifelong love of water has certainly shaped his life. But growing up in central France, away from the sea, what fuelled his passion for the life aquatic?

“It’s true, I grew up in inland France but we always spent our holidays on the coast. I am also part of the ‘Captain Cousteau generation’. He, SCUBA pioneer and explorer Jacques Cousteau, was very big in France, very influential.

“I started scuba diving at seven, progressed to spear fishing and free diving and that really was one of my big motivations to come to Australia in 2008.”

After completing a master’s in marine science in France, Cadiou worked as an environmental consultant and underwater surveyor for 10 years before connecting with the freediving community in Sydney. His network quickly extended to UTS Professor of Marine Biology David Booth who was looking for volunteers who could dive to help with a weedy seadragon population study. It was Booth who suggested Cadiou apply for a PhD scholarship as an international student.

And Cadiou did. Booth became his supervisor and the project, using acoustic telemetry to track fish movements, has resulted in a productive collaboration with the NSW Department of Primary Industries. It also gained Cadiou the first Thyne Reid Doctoral Fellowship from the Sydney Institute of Marine Science (SIMS).

“Without Dave and UTS I wouldn’t have been awarded the scholarship or the SIMS Fellowship. The SIMS funding was really very helpful because I didn’t have any money at the beginning of the project to buy the acoustic tags I needed to conduct my research.

“Without encouragement from my fellow UTS research student community I wouldn’t have discovered the joy of UWR at the right time in my life. Having recently turned 39, I also think I’ve reached a level of maturity where I can accept the demands of the sport and still have fun.”

This research is funded by: SIMS/Thyne Reid Doctoral Fellowship, Paddy Pallin/National Parks and Wildlife Foundations, UTS International Postgraduate Research Scholarship

Marea Martlew
Faculty of Science
Photographer (UWR game): Bree Tranter
Photographer (G Cadiou): Joanne Saad

Comment on this article at
UTS:NEWSROOM
Robin Barker’s short story collection Close to Home focuses on the intimacies of work, family and friendship. The stories span 60 years, tracking the changing norms, delights and brutalities of intimacy throughout the second half of the 20th century. A number of stories explore the physical and emotional connections established through work, especially the work of nurses. In ‘Baby Royal: 1995’, an early childhood nurse observes the deterioration of a baby cared for by parents who have special needs, helpless to intervene in their increasingly erratic care. Other stories focus on the intimacies of friendship and family. ‘The Other Grandmother: 1911–2004’, provides a granddaughter’s increasing understanding of her two grandmothers, one ‘fat’ and one ‘thin’. The narrator is captivated by the story of the ‘thin’ grandmother, who gave birth to a daughter as a young unmarried woman, and treated this daughter with sadistic cruelty throughout her life. Some stories examine intimacy on the fringes of normative society. In ‘Mother’s Day: 1991’, a nurse and her partner, the ‘other mother’, fight for access and custody over their son. It isn’t clear how critical we are meant to be of the narrator’s problematic interpretation of her parental ‘rights’, (based on her status as the biological mother, and the fact she paid for IVF). All in all, Close to Home is a poignant reading of the ambivalence and difficulty of intimacy in its many guises and historical contexts.

Honní van Rijswijk
Faculty of Law

The potato famine of the 1840s and the boom and bust of the Celtic Tiger are two defining moments in Irish history. John Connell combines both of these in The Ghost Estate which tells the contemporary story of Gerard McQuaid, an ordinary young man trying to make his mark in the world just as another economic disaster is about to strike his country. McQuaid is an electrician who has been given his first big job at Birchview Manor, a new housing development on the site of a rundown stately home. This job represents McQuaid’s chance to make his fortune so he can buy his own land, build his own house and marry his childhood sweetheart. However, his life begins to unravel as the money financing the development starts to run out, echoing events across Ireland. Connell uses McQuaid’s decline to take the reader back in time to tell the story of Lord Henry Lefoye, the estate’s owner in the 1800s, who also faced his own demons as the potato famine hit Ireland. The novel moves deftly between recent history and the 1800s to tell the two stories. The author has a real ear for dialogue and paints an evocative and compelling picture of rural Ireland, both past and present. However, both McQuaid and Lefoye are rather charmless characters and it is difficult to find much sympathy for them or their situations.

Amy Ripley
Postgraduate Certificate in Journalism

John Connell is a Sydney-based writer who was born and raised in Ireland. The author and Walkley Award-winning journalist undertook a Bachelor of Arts in Communication (Journalism) at UTS in 2007 and 2008.

If you or someone you love has struggled with an eating disorder, then this book is for you. Thomas Grainger’s practical guide, You Are Not Your Eating Disorder seamlessly blends science with personal anecdotes and experience. It covers the basics of eating disorders – definitions, causes and warning signs – before launching into the tough questions that sufferers want answered. Grainger discusses the benefits of recovery, treatment options, what it’s like to be in hospital, as well as providing sound dietary and exercise advice. There’s also an entire section devoted to carers and family members who are supporting a loved one in their recovery. Here, Grainger’s mother writes beautifully about her experience of living with and coping with her son’s psychological illness. And we recommend this section for any family member or friend seeking to support a loved one. If you’d like more insight into the experiences of sufferers, check out the collection of moving stories at the back – these were supplied by men and women from all walks of life. The beauty of You Are Not Your Eating Disorder is that you can read it from beginning to end or skip between chapters, and when reading, it feels like Grainger is sitting right there beside you. Grainger’s book is a worthy contribution to the self-help literature on eating disorders.

Tanya Vavilova & Fiona Robertson
Student Services Unit

Thomas Grainger is a UTS media arts and production/ international studies student who has overcome years of anorexia and orthorexia nervosa. You Are Not Your Eating Disorder, available as an e-book or paperback, is Grainger’s first book.

During August, the Co-op Bookshop on Broadway is offering Co-op members a 20 per cent discount on Close to Home and The Ghost Estate reviewed in this issue. Mention U: magazine when you purchase any of these books in store.
“Adventure, discovery, homemade”, these are the three simple words installation artist Adam Norton uses to describe his upcoming exhibition at UTS.

“My Trip to Mars is a parallel of the explorer and the artist because art, in its own way, is like exploration. Humans are an exploratory species, and I think sometimes this gets forgotten.”

Norton says, “My Trip to Mars is a culmination of 10 years’ worth of work – pieces from the last 10 years that show what it would be like to be on Mars.”

Until 28 August, staff, students and the general public are invited to the UTS Gallery to imagine themselves as explorers on the Martian planet. “The university was the natural choice for this exhibition because its appreciation for technology, science and design reflect the profound concepts within this work,” explains Norton.

Those concepts include the relationship between art and science and how society can push boundaries to explore new frontiers.

Norton says, “It is no good producing art just for other artists. Anybody who has imaginative ideas about the practical benefits of design and technology would benefit from the exhibition. No matter what field you are working in, it is pointless without imagination.”

In fact, one of Norton’s primary works, which combines art and science, is a visual documentation of his Mars Gravity Simulator. In order to build the groundbreaking technology, the artist studied NASA’s research on the gravity of the moon, then reproduced the findings using ropes and levels of incline to simulate the expected gravity of Mars.

He says, “I hope it makes people think of questions in regard to the expansion of the human race.”

Other featured works include Norton’s Mars Relic – a tattered NASA flag covered in what is meant to appear to be red dust from Mars. Similarly, Space Yurt – a human home made for transportation to Mars – combines futuristic architecture with a traditional Nomadic-style yurt. The installations aim to imagine our society’s “future history” by showcasing what could be some of the first pieces of humanity (and marks of civilisation and ownership) on Mars.

According to Norton, the exhibition is like a “giant kids diorama” with a museum-like atmosphere. “Each piece informs another and putting them all together rounds off all of that work and brings it to a conclusion.”

Norton, who grew up fascinated with space exploration and technology, says he has a sense of nostalgia for both. His favourite quote, which has inspired him over the years, comes from Russian theorist Konstantin Tsiolkovsky: “Earth is the cradle of mankind, but mankind cannot stay in the cradle forever.”

And My Trip to Mars may well be our way to explore what comes next.

My Trip to Mars is on display in the UTS Gallery, building 6, level 4, until 28 August. For more information visit art.uts.edu.au

Lexy Akillas
Bachelor of Arts in Communication [Journalism]
Photographs supplied by: Adam Norton

Comment on this article at UTS:NEWSROOM
My Trip to Mars transforms the UTS Gallery into a fanciful replica of the Martian surface populated by artist Adam Norton’s speculative artefacts. 

UTS Gallery, 28 July–28 August
Building 6, level 4
email: utsgallery@uts.edu.au

David Malin, *The Corona Australis reflection nebula, 2008*, ink jet print, UTS Art Collection

David Malin is a distinguished astronomical photographer based in Sydney. He has worked at the Australian Astronomical Observatory (formerly the Anglo-Australian Observatory) since 1975. Malin, originally trained as a chemist, honed his techniques in optical and electron microscopy prior to turning his attention to the far reaches of space.

In 2000, he received the prestigious Lennart Nilsson Award in acknowledgement of his innovative enhancement procedure – known as Malinization – which was a significant advance in astronomical photography. His new techniques enhance very faint features and allow documentation of previously unobserved celestial objects with unprecedented clarity and in striking ‘true’ colour.

This photograph was included in the exhibition Beyond Visibility at the UTS Gallery in 2009 and was subsequently acquired for the UTS Art Collection. Malin made the image – which shows the Corona Australis, a constellation in the far southern sky – from photographic plates that were taken on the UK Schmidt telescope at the Australian Astronomical Observatory. The nebulous haze is the result of starlight reflecting on tiny grains of dust that appear as molecular ‘clouds’.

Without doubt, Malin’s photographs are remarkable not only for their technical skill, grandeur and great beauty, but in the fact they capture light that has travelled thousands of years from its source.

For more news and highlights from the UTS Art Collection, visit [art.uts.edu.au](http://art.uts.edu.au)

Janet Ollevou
UTS Art
From 26 May to 26 June, Colour on the Concrete brought together major works from the UTS Art Collection and a rare first edition copy of Josef Albers’ *Interaction of Color*. The exhibition also included a guided, on-campus interactive art walk. Participants were invited to share their favourite colours on campus using #utscolour. Here are a few of the stand-out images.

Photographers: 1 – Benjamin Dowler; 2 – Georgina Hibberd; 3 – Alex Lu; 4 – Hannah Jenkins; 5 – Victoria Cave; 6 – Jenny Climas-Dockhorn; 7 – Mark Christopher; 8 – Karolina Novak; 9 – Amirul Asyraf bin Abd Majid

UTS has done its bit for the environment by using environmentally friendly paper and ink to produce U:

UTS CRICOS Provider Code: 00099F
ISSN No: 1833-4113