

# TOWER

UTS: ALUMNI / ISSUE 7 SUMMER 2012



UNIVERSITY OF  
TECHNOLOGY SYDNEY

## HOPE AND HEROISM

How inspirational UTS Master of Laws graduate Nasima Rahmani is empowering Afghani women through education

### Even flow

The groundbreaking work of UTS's Institute for Sustainable Futures

### School of life

Improving the outlook for disadvantaged students

**THIS ISSUE: ARE YOU READY  
TO CHANGE THE WORLD?**

# TOWER IS UP, UP AND AWAY

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This issue canvasses the theme 'Are you ready to change the world?'

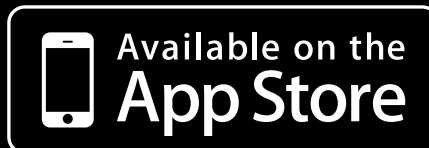
Watch the video of inspirational Afghani advocate – and UTS Master of Laws alumna – Nasima Rahmani, who works tirelessly to provide educational opportunities for females in Afghanistan. Her interview is compelling viewing for all those who want to make a difference in the world.

Also, meet Professor Rosemary Johnston, Director of the Australian Centre for Child and Youth: Culture and Wellbeing to hear how its programs are helping to broaden the horizons of disadvantaged students.

View *TOWER* online at [www.utstower.com.au](http://www.utstower.com.au) If you're based in Australia, you can still opt to receive the print version of *TOWER*. Just log in your details at [www.alumni.uts.edu.au](http://www.alumni.uts.edu.au) to request a printed copy.

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# Get on board

There's a growing feeling of anticipation at UTS right now. A feeling that we are perfectly positioned to meet the major global challenges head on, and to have a positive, lasting impact.

It certainly has a lot to do with our truly collaborative approach - working in innovative ways with multiple partners across all our work, bringing together the brightest teams within UTS with the best external partners across Australia and around the world.

True partnerships can only happen between those with a common purpose. At UTS, we actively seek them out ... and sometimes find them in the most unexpected places. Always, we aim to forge partnerships and alliances with individuals and corporations that can endure and grow.

Working in partnership is at the core of who we are, what we do and how we approach global challenges. These collaborations are intentional, meaningful and highly effective. They are exemplified by our relationship with Cochlear Limited, which is the company's first formal fellowship arrangement with an Australian university. Collaborative research and development between UTS and Cochlear has led to important design modifications to the company's cochlear implants.

It's the reason we're building a strong network of partnerships with alumni, researchers, educators and like-minded universities in China, North America, Asia, India and Europe.

It's why we actively encourage cultural diversity on campus and have introduced BUILD, a program that provides students with international leadership development opportunities and gives them overseas experience; for instance, seeing firsthand how access to microfinance can help break the cycle of poverty in Mumbai, India.

You might say a global focus is inevitable given that many UTS students come from non-English speaking backgrounds, one-third are from overseas, and we have



Photography: Anthony Geernaert

more people studying full-time courses overseas than any other Australian university. In fact, at UTS, this global approach is at the heart of everything we do ...and everything we want to become.

## Global ambition, personal impact

Across the globe we face huge challenges as we test the limits of the planet and our ability to live together with ever-diminishing resources. That's why we focus on a number of key areas, all with a similar aim: to positively impact the world at large.

Whether it's improving the health and wellbeing of humankind; realising the massive potential of advances in robotics and artificial intelligence; tackling the very real impacts of climate change; designing and building smart cities to ensure a certain standard and quality of living for citizens; or using business and educational partnerships to achieve our aims, underpinning everything we do is an unwavering commitment to social justice.

It's just the way we do things around here - collaboratively, thoughtfully, intentionally. Because, like you, we want to leave the world a better place.

Just as every one of us is connected in some way, so too are the big challenges facing us.

In 25 years our alumni have spread around the world, well equipped for the roles they have taken on as global collaborators looking to make a real impact. That's important, because we want to be measured by what we actually achieve, not just what we learn. This is the only way we can solve the significant global challenges we're facing.

The actions we take today will impact on everyone's future. UTS is determined to seek out opportunities, partner and collaborate with stakeholders, and make sure the impact we have is not only positive but truly transformational.

Students, alumni, creatives, businesses, entrepreneurs, international students, researchers, collaborators - they are all part of the UTS community in Australia and around the world. They all contribute to our success. They are vital to our growth.

We have come a long way in almost 25 years, and the next 25 years will see UTS grow into a truly global university. One thing is certain - now is the time to get on board.

*Ross Milbourne*

Professor Ross Milbourne  
Vice-Chancellor

# TOWER

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**P**+61 2 9514 9861 **F**+61 2 9514 9872 **E**alumni@uts.edu.au  
www.alumni.uts.edu.au

## Alumni Relations

Amy Brooks, Manager, Alumni Relations.

## Editorial Advisory Committee

Deputy Vice-Chancellor Professor Bill Purcell, Jane Westbrook, Rosanne Hunt, Jenna Price, Robert Button, Melanie Withnall, Mark Lillis.

## Contributors

Vice-Chancellor Professor Ross Milbourne, Emma Squires-McCarthy, Professor Roy Green, Eva Cox, Terry Clinton, James Stuart, James Griffith, Miranda Middleton, Rehmana Khan, Adrian Sellaro, David Phillips, Peter Switzer, Bina Brown, Cameron Cooper, Rosemary Ann Ogilvie, Anthony Black, Mark Abernethy.

## Advertising enquiries

Contact the UTS Alumni Relations Office on the details listed above.

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Suite 2, Level 1, 36-40 Queen Street, Woollahra, NSW 2025  
**P**+61 2 9327 8622 **F**+61 2 9327 4366 **E**info@switzer.com.au  
www.switzer.com.au

**Group Publisher** Maureen Jordan **Editor** Renee Carl

**Designer** Paloma Drehs **Photography** Nick Cubbin and Anthony Geernaert

**General Manager** Alex Switzer



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# ALUMNI GREEN TO BECOME THE VIBRANT HEART OF UTS

By James Stuart

Alumni Green, the most significant outdoor space on the UTS City Campus, will be transformed into a vibrant, tree-lined city space in the latest design to be unveiled under its City Campus Master Plan.

The proposal by landscape architects ASPECT Studios won the design competition recently held by the University.

Inspired by some of the world's great public spaces, the design creates a central meeting place for the university community, filled with vibrant student-focused spaces. The spaces will range from a grass area lined by sculptural seating to intimate garden 'pods' where students can gather in the shade.

"Alumni Green will become the green heart we have always wanted," says Vice-Chancellor Professor Ross Milbourne. "I love this design because it captures the bustling, cosmopolitan atmosphere unique to UTS. It embodies exactly what we mean when we say 'sticky campus': a place where students want to stay and hang out."

The new-look Alumni Green will have three distinct zones, each with its own character and opportunities. 'The Green' is a large, raised turf platform located opposite Building 2 that can be used for special events like O-Fest, day-to-day student activities or simply a picnic lunch. The landscaped edges of the green will become informal seating areas. 'The Heart', a large paved, open space located at the rear of Building 1, has been modelled after town squares like Federation Square in Melbourne or the Pompidou Centre's forecourt in Paris. It is intended as a ceremonial gathering space for students and visitors alike. Easternmost is 'The Garden', a mini oasis of trees and plants shading a series of connected student 'pods'. Each pod caters to a different activity and contains facilities ranging from power outlets for laptops, BBQ facilities and even ping pong tables.

The revitalised Alumni Green will re-open in 2014. Consultation with students and stakeholders will be one of the project's first tasks. For further information, please visit <http://www.fmu.uts.edu.au/masterplan/projects/AlumniGreen.html>



Alumni Green image courtesy of Dematic.

## FORUM FOCUSES ON FINDING COURAGE FOR PRODUCTIVITY

By James Griffiths

Fear of failure is hampering productivity growth in Australia according to a panel of experts at the latest UTS Engage public forum.

Called Future Services, Industries and Productivity, the event brought together finance, IT, telecommunications and public sector leaders to discuss the productivity decline and how service-based industries need to rethink their strategies as they move into the future.

UTS Communications Law Centre Director Professor Michael Fraser who joined a panel discussion about transformative collaboration and frameworks says a fear of failure, which is hampering the nation's ability to achieve greater productivity, was a key theme in presentations at the forum.

"To be successful, to be productive, and to allow employees to reach the limits of their expertise and training, companies need to have the courage to reward risk taking - to reward failure, to acknowledge that one success out of 10 attempts can really epitomise what innovation is all about," he says.

Speakers at the event included the Hon. Bill Shorten, Minister for Employment, Workplace Relations, Financial Services and Superannuation; Michael Edwards, General Manager of Research and Technology - Australia for the Boeing Company; Dr Ian Opperman from the CSIRO Flagships Program; Katherine McLennan, a partner at Johnson Executive; and Annalie Killian, Director of Innovation, Communication and Social Business at AMP.

Dean of the UTS Business School, Professor Roy Green opened proceedings with a presentation on the need for Australian businesses to instil a talent mindset in their employees. Discussion centred around whether or not sufficient investment is being made into human capital.

A second panel discussion around transformative management looked at the role of leadership within organisations and the link between good management practices and productive work environments.

"Being a good manager is the result of a set of learned skills. Australian businesses must be prepared to invest in much more heavily in management if they want to reap the benefits of increased staff retention, staff satisfaction and overall productivity," says Professor Fraser.

Find out more about the program and speakers for this event at <http://www.research.uts.edu.au/engage/>



Left: The Hon. Bill Shorten and Vice-Chancellor Professor Ross Milbourne. Image by Alexandra Berriman.

# UTS HONOURS 2012 ALUMNI AWARD WINNERS

UTS graduates who have made their mark nationally and internationally in fields including human rights, business, literature and the media were honoured at the 2012 Alumni Awards held in October.

The calibre of this year's winners was exceptionally high and included Amnesty International (London) Pakistan Researcher and journalist, Mustafa Qadri, who was awarded the UTS International Alumni Award 2012 (generously sponsored

by UTS:INSEARCH) for his dedication to human rights awareness; and award-winning novelist, Gillian Mears, who was awarded the UTS Alumni Award for Excellence 2012 - Faculty of Arts and Social Sciences for her outstanding achievements and contribution to Australian literature.

Members of the UTS Luminaries Program, which comprises a select group of exceptional UTS alumni, were present at the Awards ceremony, including Greg

Poche AO, Kim McKay AO, The Hon Justice Tricia Kavanagh, and Warwick Negus.

Also present was Zimbabwe's Co Minister for Reconciliation Healing and Integration and UTS Luminary, Senator Sekai Holland, who was the Alumni Awards Guest of Honour. Holland is an active ambassador for UTS and travelled from Zimbabwe to Sydney especially for the Awards. Holland will receive the 2012 Sydney Peace Prize for her work as a human rights activist.

Images by Fiora Sacco.



## Amy Wilkins

UTS Young Alumni Award 2012. *BA Human Movement Studies (2002)*. Amy Wilkins, co-founder of Active Kidz - a health and fitness TV show for kids - received the award for her commitment to and innovation in improving child health and fitness.



## Abdul Karim Hekmat

UTS Community Alumni Award 2012. *BA Comm-Soc Inquiry (2007); BA (Hons) Communication (2009)*. Abdul Hekmat, refugee advocate and ambassador, received the award for his advocacy and assistance to refugees in Australia through his humanitarian work and his work as an artist.



## Brett Clegg

UTS Alumni Award for Excellence 2012 - UTS Business School. *BBus (1998)*. Brett Clegg, CEO of Financial Review Group, received the award for his outstanding contribution to business media in Australia.



## Christopher Johnson AM

UTS Alumni Award for Excellence 2012 - Faculty of Design, Architecture & Building. *MBAEnv (1993)*. Christopher Johnson AM, CEO of Urban Taskforce Australia, received the award for his achievements in making real and practical changes to the built form, delivering positive impacts for the community.



## Sanjay Sridher

UTS Alumni Award for Excellence 2012 - Faculty of Engineering & Information Technology. *MBA Information Tech Mgt (2006)*. Sanjay Sridher, Executive Director with the Department of Finance and Services, NSW Government, received the award for his significant and innovative programs of change that have helped transform the service sector.



## Nasima Rahmani

UTS Alumni Award for Excellence 2012 - Faculty of Law; The Chancellor's Award for Excellence 2012. *LLM (2007)*. Nasima Rahmani, Director of the Women's Empowerment Centre at the Gawharshad Institute of Higher Education, Kabul, Afghanistan, received the awards for her significant contribution to ensuring the human rights of women and access to education for women in Afghanistan.



## Professor Caroline Homer

UTS Alumni Award for Excellence 2012 - Faculty of Health. *MN (1997); PhD Nursing (2001); GradCertHEd (2002)*. Professor Caroline Homer, Director of the Centre for Midwifery, Child and Family Health in the Faculty of Health at UTS, received the award for her dedication to changing the face of midwifery care in Australia and internationally.



## Dr Jeffrey Crass

UTS Alumni Award for Excellence 2012 - Faculty of Science. *BAppSc Applied Chemistry (1978); MAppSc Chem & Earth Sc (Thesis) (1985); GradDipTechEd (1988); PhD Science (1996)*. Dr Jeffrey Crass, (Foundation) Dean, TAFE NSW Higher Education, received the award for his commitment to furthering science and education.



# A new direction

The blueprint for a smarter Australia starts with manufacturing.

BY PROFESSOR ROY GREEN

Can anything new be said about the future of manufacturing in Australia?

The report *Smarter Manufacturing for a Smarter Australia* submitted in mid-August to Prime Minister Julia Gillard, is a detailed and comprehensive attempt to do so, and to propose practical ways forward for government in collaboration with industry, trade unions and public research organisations.

While there has been considerable discussion of the problems facing manufacturing in an increasingly high cost environment, driven by Australia's terms of trade and high dollar, too little attention has been given to the opportunities to reposition our manufacturing for competitive advantage in global markets and supply chains.

This is the purpose of the report by the non-government members of the Prime Minister's Manufacturing Taskforce. The Taskforce was established last year as job losses began to accelerate in manufacturing and the threat of closure loomed over major production facilities, especially in the automotive industry. It comprises 12 key industry and trade union leaders and three independent experts, and is supported by a secretariat from the Department of Industry, Innovation, Science, Research and Tertiary Education.

The Taskforce took seriously its terms of reference to "establish a shared vision for the future of the manufacturing sector", and drew on examples of competitive high skill, high productivity manufacturing in northern Europe and the US to demonstrate its continuing viability in advanced economies, which have withstood, and in some cases reversed, the trend to offshoring production activities.

The report makes the case for a strong manufacturing sector in Australia in the context of a huge but precarious commodity boom, whose terms of trade effects may soon have run their course, only to refocus policy on the need for a balanced and diversified economy with a renewed emphasis on productivity improvement.

Manufacturing is an essential component of such an economy as it drives technological change and innovation and contributes to our external trade position.

However, the report also recognises that while technology innovation is closely linked to manufacturing success, particularly in high tech industries, non-technological innovation is just as important, if not more so, for low and medium tech industries, that make up the bulk of manufacturing in advanced economies, including Australia.

Non-technological innovation can take a variety of forms. For example, business model innovation deploys existing technologies in new combinations for new markets. Design innovation enables strategic reinvention and creates new customer experiences. And organisational innovation promotes high performance work and management practices. These forms of innovation are not as well understood in Australia as they should be.

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## *The Taskforce advocates the development of globally-oriented innovation hubs*

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### **Key issues at the forefront**

Consequently, while some of the proposals in the report are familiar, others are relatively new to the public policy debate. The Taskforce proposes far-reaching new policy directions in the following five areas.

First, to address the short-term challenges facing Australian manufacturers, and the very real danger of large losses of jobs and capabilities, measures are proposed to boost the public and private investment pipeline, strengthen value capture from large projects in the current pipeline and help businesses, workers and communities manage change.

Second, to reinvigorate economy-wide productivity growth, encourage investment

and reduce the costs of doing business, the Taskforce proposes a targeted stimulus to demand and initiatives in transport, broadband, energy, regulation and taxation.

Third, to address Australia's underlying competitiveness, deeper collaboration is proposed not only to generate, but also to disseminate and apply knowledge. As part of a medium- to longer-term strategy, the Taskforce advocates the development of globally-oriented innovation hubs and precincts that build critical mass around our comparative advantages, as well as a new 'Smarter Australia Network' linking businesses and research organisations.

Fourth, to address the multiple barriers facing small and medium enterprises (SMEs), and to help more SMEs grow into the innovative, global, mid-sized firms Australia lacks, the Taskforce proposes that Enterprise Connect be expanded and that new measures are put in place to address the weak contributions researchers and governments make to SME innovation, to lift the capacity of SMEs to absorb new knowledge, to introduce and embed a greater focus on design and to improve access to finance.

Fifth, to sustain productivity growth into the future with continuous innovation in managerial and workforce skills and practices, a new national conversation and partnership between industry, unions and government around 'Smarter Workplaces' is proposed. This will involve a sustained commitment from the partners to build the innovation culture and capabilities that high performance workplaces demand.

The Taskforce believes that manufacturing has a future in Australia, but only if it is able to innovate and reposition up the global value chain. It is now the turn of government to respond in an industry statement later in the year to the proposed policy measures, which provide a coherent framework for implementing this shared vision. ■

Professor Roy Green is the Dean of the UTS Business School, and chairs the Australian Government's Innovative Regions Centre and CSIRO Manufacturing Sector Advisory Council.





Photography: Nick Cubbin

## The **TOWERING 10**

The sky's the limit for these 10 inspirational UTS alumni leading the way in their chosen field. This issue, you'll meet an English Channel swimmer, a Brooks Range solo expeditioner, the CEO of Research Australia, an internationally regarded medical researcher, plus more.

### 01 *Caroline Homer*

"It taught me to think laterally, to think broadly, to be enquiring about the world, to ask 'why' all the time and to support others," says Professor Caroline Homer when reflecting on her UTS education.

"The best thing about UTS is the people and the capacity of these people to both support you and also to let you fly."

Homer has indeed soared to great heights, as the Director of UTS's Centre for Midwifery, Child and Family Health where she leads research into the development and implementation of innovative models of midwifery care and the development of midwifery practice and education. Homer was also awarded the UTS Alumni Award for Excellence 2012 - Faculty of Health.

Her passion for midwifery grew from a harrowing experience. "I decided to become a midwife in 1989 after I cared for a family whose baby was premature and died a day or so after birth. This was in a gynaecology ward and none of us were midwives. This sparked my interest."

A committed supporter of midwifery education, Homer says one of the important roles of a midwife is to always be teaching students in practice. "I started to be involved in research in the early 1990s when I came back from working in Africa. I have always been interested in why things are the way they are and how things could be better."

The best thing about her role is being with students and taking an active role in their development.

"I love watching their projects develop and walking alongside them as they become researchers," Homer says. "It is like being a midwife - helping others achieve their goals."

And these students may play a future role in providing solutions to the key challenges of midwifery internationally. "Internationally, the greatest challenge is developing enough midwives to make sure women are safe in childbirth and stopping the 300,000 annual maternal deaths, most of which are preventable with good maternity care."

What inspires Homer on a daily basis? "The chance to make a difference - even if it is only to one family or one community. Midwifery and nursing have huge potential to make a difference to people's lives and that is enough inspiration for me."

## 02 John Cantor

By Miranda Middleton, *Bachelor of Arts in Communication (Journalism)/International Studies.*

"I've suffered so much. Why not suffer a little bit more and make it all worthwhile?" This was the mantra that saw John Cantor through his solo expedition across North America's Brooks Range.

The 27-year-old says he felt like giving up almost every day of his 1600-kilometre solo journey between Canada and the Alaskan coast, yet he refused to succumb to the exhaustion, anxiety and pain. "For the first four days of the expedition there was a voice in my head constantly telling me to quit," says Cantor. "I threw up a dozen times during the first night just because I was so freaked out."

Cantor's three prior attempts at the expedition, which is considered one of the toughest in the world, had seen the young adventurer pull out within the first four days. This year, he was adamant he'd succeed. "It was a big evolution realising that freaking out in the Brooks Range is a perfectly natural thing. The first few times it happened I thought, 'Things aren't right; I need to get out of here.'"

Now, having completed the trek, Cantor is the first Australian and the fifth person ever to do so. He even set a speed record for the traverse, completing it in 31-and-a-half days - a far cry from the 60 days he predicted.

"I've always liked pushing the limits and seeking out adventures, but it was more the fact that I felt like I had such a great and easy life that I really needed to challenge myself," he says, explaining his motivation for the expedition.

And Cantor certainly encountered his fair share of challenges. A mere five days into the hike he developed Achilles tendonitis (inflammation of the tendon at the back of the ankle). He was forced to survive on olive oil and protein shakes since he couldn't stop to eat solid food.

"If I stopped, the pain would just get worse so I couldn't really take breaks," says Cantor. "Aside from stopping to purify water, in the average 11- to 14-hour day hiking I wouldn't stop for more than 30 seconds or so."

On the eighth day, Cantor became lost in a valley and had to cross a number of dangerous snow bridges. "I didn't know



Images courtesy of John Cantor.



if I was going to punch through the ice at any minute, and if I had done that I would almost certainly have died." Just a week after he returned to Australia, Cantor discovered a South African trekker had died in the Brooks Range after stepping on loose rocks and falling into a river.

Having lived to tell his extraordinary tale, Cantor is eager to share it. The Master of Media Arts and Production graduate is planning to make a feature-length documentary about the expedition, using footage captured on his Sony NEX-VG20 digital camera. He's also writing a book and hoping to move into motivational speaking with his talk titled: 'Goals you shouldn't be able to achieve'.

"The biggest turning point in my journey was actually when I no longer believed in myself," says Cantor. "That was when I sat down and said to myself, 'OK, I can't traverse the Brooks Range, what do I have to do to be able to cross it?'. I set myself daily goals and instead of seeing the expedition as one great challenge, I broke it down into little battles."

"Everyone has a Brooks Range out there. It's not necessarily a mountain range in Arctic Alaska, but just something they feel they might not be able to do. If I can help them find that I will be really happy."

Reproduced, with permission, from U: magazine.



## 03

### *Elizabeth Foley*

As the CEO of Australia's peak research agency, Research Australia, Elizabeth Foley has her work cut out. After studying business and majoring in marketing at UTS - and winning the University Medal along the way - Foley began her career as a brand manager at Unilever for three years, followed by a 20-year stint as a senior executive in financial services, working for the likes of MLC, Prudential, ING and AXA. Last year Foley became a graduate of the Australian Institute of Company Directors (AICD), and was one of 83 applicants selected from 400 to join the AICD's mentoring program.

In her role at Research Australia, Foley reveals one of the key challenges is its mission to make health and medical research a high priority for the nation. It's an area Foley has been passionate about since losing her husband to leukaemia 15 years ago.

"I clearly identify with the importance of the work as its ability to translate into better health outcomes for Australians. As a bonus I get to interact with a broad range of amazing people from politicians, researchers, business and philanthropists, who are so generous in giving their time and skills to improving the lives of others, while growing Australia."

Foley says the greatest opportunity for Research Australia is to grow philanthropic investment into Australian health and medical research.

"Market research has shown that many Australians believe they should donate more to health and medical research."



## 04

### *Kelly McJannett*

Kelly McJannett has played a crucial part in helping develop and build the profile of the One Laptop per Child (OLPC) program in Australia. The aim of the program, says McJannett, was to create a new education program that provided purpose-built XO laptops to disadvantaged children, which resonated as a much needed solution to 'close the gap' between Indigenous and non-Indigenous Australians.

"While my support for the initiative began as pro-bono, it was not long before I was recruited as the first paid employee of OLPC Australia. I became responsible for building the public face of the non-profit organisation into a nationally recognised and internationally respected organisation. The passion that our team and supporters had for the cause saw the outcomes of the project reach far beyond what anyone could have hoped for in a start-up organisation."

McJannett feels privileged to have played a key part in its growth. "OLPC Australia, the people and communities gave me a profound sense of responsibility in the work that I

"There is significant impetus for Government to favour businesses that deliver a service and a meaningful community outcome simultaneously."

**KELLY MCJANNETT**

was doing. Being able to have a meaningful impact on people's lives and effect federal policy for the benefit of under-served communities was extremely rewarding."

Throughout McJannett's studies at UTS - where she completed a Bachelor of Communications with sub-majors in French and world politics - her intention was to invest her education and energy into projects that were going to make a difference.

"I wanted to help bring about change to issues that affect our collective humanity."

Today, McJannett is Head of Communications and Marketing at Fair Business Australia, which is devoted to the social and economic improvement of disadvantaged communities. One of her key aspirations is to see social procurement become policy at a local and federal level. "There is significant impetus for Government to favour businesses that deliver a service and a meaningful community outcome simultaneously. I think we are going to see business and the social sector working hand-in-hand more than ever in the next 10 years."



Image by Penelope Clay.



**Pictured far left:** Alicia Maynard. **Middle:** Dr Stuart Tangye (at right) with Dr Umaimainthan Palendira. **Above:** Duncan Trevor-Wilson.

## 05

### *Alicia Maynard*

Alicia Maynard's passion for sustainability grew in her early days as a structural engineer, "I pondered how we could make future buildings more flexible and durable, shifting the conversations with clients from the here and now, to understand and accommodate their longer term needs."

In her current role at Baulderstone, Maynard (Bachelor of Civil Engineering, Diploma of Engineering Practice, First Class Honours 2003) is responsible for the strategic direction and consistency of implementation of sustainability policies, systems, procedures and initiatives. "I work with both project and corporate teams to develop and implement these strategies."

As Maynard's career has expanded, her time is spent more at a macro level. "While I am spending less time designing, the thought processes learned through my engineering studies and early design years has well equipped me with a process driven, problem solving and decision making philosophy."

Looking ahead, Maynard has a clear vision as to where she wants to be in the next five years: "An industry leader, instilling a leadership culture of sustainable thinking and practice across projects and embedded into day-to-day business practice."

## 06

### *Dr Stuart Tangye*

In the medical research field, Associate Professor Stuart Tangye is a game changer. Dr Tangye, alongside Dr Umaimainthan Palendira at Sydney's Garvan Institute of Medical Research, discovered that a biological phenomenon known as somatic reversion - when an abnormal gene spontaneously becomes normal again - explains why some patients with a rare genetic disorder live much longer than they should. The Institute says this finding provides hope for future gene therapy treatments.

A keen science student at school, Dr Tangye graduated from UTS with a degree in biomedical science, and decided to pursue a career in research. "I found it really exciting and [it] challenged me. So I stuck with it!"

Having joined Garvan in 2006, in his current role as the Group Leader in Immunology and Inflammation Program, Dr Tangye oversees the running of a lab comprised of postdoctoral research fellows, postgraduate and undergraduate research students and research assistants.

The lab, he says, focuses on studying diseases that affect real people. "So knowing that hopefully our work will someday lead to improvements in the management of patients, and the prognosis of their diseases, is a very rewarding and satisfying feeling."

## 07

### *Duncan Trevor-Wilson*

Duncan Trevor-Wilson has established himself as an internationally regarded industrial designer, who has received multiple design awards and patents for his innovative creations. Today, he is based in Shanghai as GE Healthcare's Global Design Manager for the Asia Pacific - managing four teams across three countries (Japan, China and India). "My days are very long yet very satisfying," he says. "I just returned from India after hiring some great design talent and opening the new design studio."

Trevor-Wilson works on a huge variety of projects across the entire GE Healthcare portfolio. "From handheld ultrasound devices to room filling MRI equipment, all focused on solving customers challenges and improving the user experience."

And he considers himself pretty lucky. "I love the journey to discovery, no two projects are the same. I'm always learning something new, it's always challenging and I've been lucky that many of my designs have gone to market, which is very rewarding."

Shanghai provides an exciting base for opportunities too. "There is a tangible energy when living in a dynamic city like Shanghai, anything is possible." As for the future and what it holds? "Who knows, but that's what makes it interesting."



**Pictured above:** Deepanjali Gupta.  
**Middle:** Philip Stewart.  
**Right:** Wyatt Song.



"I felt like a winner already being able to jump in the water and start the swim, as the amount of work to get to that point was tremendous."

**WYATT SONG**



Image by Daniel Arnaldi.

## 08

### **Deepanjali Gupta**

Deepanjali Gupta, a social entrepreneur on a mission to improve social justice in India, is a name to keep on your radar. The Bachelor of Business graduate (2011) is the Founding Director of Jhatkaa, a people-powered advocacy organisation poised to unite Indian voices through digital technology.

Due to launch next year, the organisation aims to provide timely information on breaking decisions and opportunities for citizens to impact the outcome. "For me, my path in social change has always been trying to figure out the most effective way of creating a better world," Gupta explains.

While the recruitment phase continues prior to Jhatkaa's launch in April 2013, Gupta is busy sharing the vision. "My greatest personal challenge comes from being a young woman who must convince mainly older male funders and stakeholders to respect my vision and leadership," she says.

But Gupta is not easily defeated. "Sometimes these people truly don't want to listen. I feel impudent in standing my ground when the person I'm speaking to disagrees, especially when [they] claim to be the sober voice of experience, but what I hear is the discouraging voice of cynicism - a symptom of the defeatist attitude that I really hope Jhatkaa will help dispel."

## 09

### **Philip Stewart**

Having worked as a police officer for nearly 14 years, including six as a police prosecutor, becoming a criminal defence lawyer was a natural progression for Philip Stewart, in order to continue his interest in criminal law. He completed Law (Hons) at UTS and began work as a solicitor aged 36. "[It] greatly assisted the transition from prosecution to defence work - it opened doors," he says.

After a stint in rural Narrabri, he returned to Sydney to start his own legal practice, where he sees an opportunity for growth and to focus on the matters he enjoys working on. "I love being part of a small business which has grown to be the largest purely criminal defence law firm in NSW."

Despite work-life balance challenges in growing a small business and balancing that with his young family, he says there are many rewarding aspects of his career: "Accreditation, partnership, peer recognition, and some memorable clients and matters, including some that have featured on television (*Australian Story*)."

And he still remains in close contact with the UTS Law Faculty. "I regularly assist with practice pleas, defended hearings, advocacy demonstrations and mentoring practical legal experience students."

## 10

### **Wyatt Song**

What is going through someone's mind when they seriously contemplate swimming the English Channel? For Wyatt Song, the excitement and motivation of swimming the 35-kilometre stretch of water referred to as the 'Everest of Swimming' came from the uncertainty of not knowing whether he would be able to reach this goal.

"Not only battling with strong currents, the swimmer is challenged by sub-16 degree cold water, marine life, busy shipping traffic and unpredictable fast changing weather conditions in the Channel," says Song. "All these elements set the scene of great challenge that draws people around the world to attempt the crossing."

Song reveals he was pushed to the limit, or what he thought was the limit of his ability, and then beyond. "I felt like a winner already being able to jump in the water and start the swim as the amount of work to get to that point was tremendous, so finishing the swim was the icing on the cake, which I [imagined] so many times in my mental preparation."

It has been quite a journey for the UTS Engineering graduate, who now runs a photography business.

"The training I received at UTS definitely built a solid foundation for me to face other challenges later in life."

# HOPE AND HEROISM FROM AN AFGHANI TORCHBEARER

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Born into a nation about to descend into ongoing war and terror, Nasima Rahmani has risen above prejudice and personal risk to help provide the prospect of a better life for women in Afghanistan.

STORY **PETER SWITZER**  
PHOTOGRAPHY **NICK CUBBIN**

The Nasima Rahmani story is as chillingly scary as it is powerfully inspiring. After hearing the story of this heroine of Afghanistan, it unquestionably challenges anyone to ask - do I really have anything to worry about in my day-to-day life?

Her tale also compels one to understand the value of those who can force themselves out of their comfort zone to genuinely help others. This is not just about a strong and giving person; it is about a trailblazer who subjugates her own interests for the sake of others. Is there any better leader?

Rahmani, who obtained a Master of Laws from UTS, recently received the UTS Chancellor's Award for Excellence and was invited to be a member of the UTS Luminaries program, an initiative which recognises a select group of alumni at the University who have a sustained record of outstanding achievement. Asked how she feels about the acknowledgements, Rahmani responds with the graciousness that often comes from the kind of heroes who capture the hearts of a nation, nay the world. "I am not worthy of this award -

there must be better people who are more deserving," she says. Few would agree.

Rahmani is the Director of the Women's Empowerment Centre at the Gawharshad Institute of Higher Education in Kabul, Afghanistan. This is not merely an educational institution showing women how to compete in a man's world - it represents a substantial human rights commitment from Rahmani and her colleagues.

Afghanistan is not just a dangerous place for soldiers and locals in the line of fire. The Taliban insurgents will kill to prevent women accessing education, as highlighted by the recent case of Pakistani schoolgirl, Malala Yousufzai, who was shot in the head while travelling to school on a bus. Her crime? Protesting about being denied her right to education because she is a girl.

In announcing Rahmani's Excellence award, UTS Chancellor Professor Vicki Sara commented: "Nasima is someone who has selflessly devoted herself to bettering the lives of others. Learning about her work and her accomplishments, I've been inspired and





have come to understand that what she does truly makes this world of ours a better, kinder, more dignified place.”

Rahmani’s working life is dedicated to promoting gender equality and education for Afghani women, which sounds like a noble and genteel goal if it were not so dangerous in a country where extremists see educating women as a disease that has to be stamped out.

Asked if she fears for her safety going to work each day, her answer is blunt. “Of course,” she says. “I avoid appearing on TV, though I have allowed a video for an international law development organisation about successful women in the legal sector to encourage other girls and schools to apply for the law faculties and to study law. I am one of five ladies in the video that will be broadcast and shown all over the country and schools. I allowed that because it is [a] women’s education issue. Otherwise, I don’t go on TV programs, to keep a low profile ... I do what I think is appropriate to keep a low profile and to keep myself alive.”

### Overcoming obstacles

So how did Rahmani end up being a celebrated postgraduate student of UTS?

“Growing up in Afghanistan was a difficult experience because I lived through war, conflict and miseries and in between that I had to struggle to work hard to do something to at least achieve what I wanted,” she recalls.

Born in the mid-1970s, Rahmani’s childhood played out in a theatre of conflict after the Soviet invasion of Afghanistan in 1979 sparked a decade-long war, until the Russians eventually withdrew in 1989 after a constant battle with the Mujahideen guerrilla fighters. The temporary ceasefire did little to put Afghans at ease. As Rahmani notes, the guerrillas “later started to fight against everybody”. In turn, they were replaced by the more organised and even more extreme Taliban.

This constant warring and the arrival of new tyrannical governments in the 1970s resulted in Rahmani’s family members fleeing their village before it was burnt to

the ground. She then found herself in Kabul for a short time, but later was sent back to her village for about three years to rejoin her mother, stepmother and grandmother, who had been left there when her other family members fled to Kabul.

The constant changing of address worked against her early education.

“I was in my village for a couple of years, which meant I missed enrolment at school. When I was sent back to Kabul ... it was too late for me at that time and the schools would not accept an older student. When I eventually started my studies in the fourth grade, I was the right age.”

Rahmani’s parents came from humble stock: her father was a casual worker in an unstable country, while her mother was a housewife. Nevertheless, her brothers offered the prospect of advancing the family’s prospects by studying medicine and law.

“My oldest brother who studied law was the support to the family and to me, and maybe they realised that I was capable [too]. So I prepared myself and they helped me



**“I am very happy with the fact that I can provide education facilities for women and that I can give the opportunity for young girls to study – that is the most joyous element of it.”**

## **NASIMA RAHMANI**

to prepare and I passed the exam for three years that I had missed school, and so I started my studies from the fourth grade.”

Despite the happy memories of being able to go to school, Rahmani would have been learning how to do long division while the Mujahideen was relentlessly bombing Kabul in pursuit of the pro-Soviet government. To comprehend the inputs into her young life, contemplate her answer to the question: Did you see many dead people as a young child?

“Oh, of course,” she replies. “Pieces of bodies... I have grown up with all of those things, so it has impacted me psychologically. My life started that way in the conflict, but I did work very well during the school years and in 1991 I enrolled in the law faculty [at Kabul University].”

### **A life less ordinary**

Rahmani was supposed to follow in the footsteps of two of her brothers and become a doctor.

“In Afghanistan, most people prefer women to be teachers or doctors, so my father was also very happy that I would follow my other two brothers,” she says. “So we never ever spoke about that I would like to become a lawyer and study law - there was no question of that and I would never dare talk about it. But in the last years of high school I decided for myself that I would go and select what I wanted to do. My score was a very good one, meaning I could have been accepted for medicine as well, but when my family realised that I had such a high score and that I selected law, my father said there’s no way that you will do it!”

He ordered Rahmani to stay at home and wait for the following year’s entrance exam so she could pursue medicine as a career.

“That was a really difficult time, but one of my uncles worked hard with my father

and he convinced him to let me do law,” Rahmani explains.

She was able to finish her first year of study before the Mujahideen started bombing Kabul, killing 66,000 residents. Then the Taliban arrived. Prior to the years of civil war, Kabul was a relatively westernised city and women had many rights. That was about to change.

Undeterred, and despite the power of the Taliban and an extended period of war with the West, Rahmani stuck at her studies and ultimately graduated from the Faculty of Law and Political Science in Kabul University in December 2003. She later studied a Master of Laws at UTS, which she undertook with the aid of a scholarship through the IDP Peace Scholarship Program, and completed with funding from UTS Law. After completing the final semester of her degree and achieving outstanding results, she returned to Afghanistan to promote gender equality and education for Afghani women.

Rahmani regards the UTS experience as a pivotal moment in her career.

“The education I received in Australia and finishing my law degrees has enabled me to become a lecturer, to work with international institutes, to travel a lot, and these are all very helpful towards achieving what I dream about. Once, maybe 20 years ago I was dreaming to understand English or maybe to see another country, so see, that’s possible now. I wouldn’t have been able to do it without the education.”

What of her aspirations now?  
“Sometimes now I dream [of] getting a prize like a Nobel Prize, getting to that level - so the dreams are much bigger now.”

This epic journey of an inspirational woman who has risked her life to give young women the chance to be educated and to live in a more equal society has been assisted by a number of people who Rahmani continually recognises when she recounts her story.

“My boss, Mazir Bazal, who had a Master of Laws from Washington University in America, encouraged me to apply for the Master of Laws at UTS,” says Rahmani, who says the Australian degree was achieved despite a titanic battle with written English, which she finally conquered to a satisfactory standard.

She is also eternally grateful for the understanding and encouragement that senior people in the Faculty of Law at UTS showed her, especially Jill McKeough, the Dean of Law at the time of her study, Professor Philip Griffith, lecturer Michelle Sanson and others.


### **Making a difference**

That is the past, however. Today, Rahmani works a long day teaching, holding meetings and attending to the issues of her students. Asked about what she does in her leisure time, she looks nonplussed as if to say: “What is that?”

She draws inspiration from Gawharshad Institute founder Dr Sima Samar, a well-known human rights activist who serves as the chairperson of the Afghanistan Independent Human Rights Commission (AIHRC). At the Gawharshad Institute, Rahmani has established the Women’s Empowerment Centre as part of her efforts to help Afghani females. She also wants to set up a women’s college.

Asked what she finds the most satisfying element of working life, she instantly replies: “I am very happy with the fact that I can provide education facilities for women and that I can give the opportunity for young girls to study - that is the most joyous element of it.”

This writer’s time with Nasima Rahmani was a personal privilege. Her story, told with humility, underscores the selfless nature of a great human being.

UTS can be proud of its great work with someone who will leave this world a much better place than she found it. 

## **UTS Luminaries**

In 2011, a select group of exceptional alumni with a sustained record of outstanding achievement were invited to become founding members of UTS Luminaries.

One year on, their ranks have swelled, and more inspiring graduates, like Nasima Rahmani, will join this group as the years go by.

UTS Luminaries have reputations that are widespread and their achievements have earned them national and international prominence. UTS Luminaries have exceptional professional and personal skills, as well as dedication, creativity and leadership credentials within their chosen fields. Through their advice, participation and leadership, they also provide inspiration to current and future students, to recent graduates and to UTS staff.

Please visit [www.alumni.uts.edu.au](http://www.alumni.uts.edu.au) and click on the Luminaries logo at the bottom of the page.

# JUSTICE FOR ALL

Reflections on justice and leadership through service: these are the two key components of the Brennan Justice and Leadership Program, which is equipping proactive UTS law students to contribute to the greater good of society.

STORY **ANTHONY BLACK** PHOTOGRAPHY **NICK CUBBIN**



Left: UTS law student John Kalantar, and Professor Paul Redmond, Sir Gerard Brennan Professorship, Faculty of Law.

Universities, the world over, are filled with clever, dedicated and ambitious people. Students are learning their skills in chosen fields that will lead them to fulfilling and successful lives. Good students are keen and hungry for success. They are focused on achieving their goals. They sacrifice for success and society rightly applauds them. Some of today's students will graduate from universities armed with knowledge and a determination to change the world.

They say you reap what you sow. So law students who participated in the Brennan Justice and Leadership Program at UTS's Faculty of Law say the experience adds

another dimension to their academic lives. They spoke in glowing terms of a program that broadened their horizons in the field of law and justice. They say the voluntary program was interesting, diverse, challenging, time-consuming and rewarding. They were glad they did it.

The Brennan Justice and Leadership Program was introduced in 2011, as a joint initiative involving the UTS Faculty of Law and the UTS Law Students' Society. The program is named for Sir Gerard Brennan AC KBE, former Chief Justice of the High Court of Australia and UTS Chancellor between 1999 and 2005.

Martin Borg, Administrator of the Brennan Justice and Leadership Program, says Sir Gerard's life and career exemplifies the qualities of professional leadership, service and excellence that the program seeks to nurture.

The program involves two separate components: reflections on justice and leadership through service. The first component enables students to engage with the themes of justice and its social contexts through lectures and discussion groups. Leadership through service involves students contributing voluntary service (legal and non-legal) over the

course of their studies. Students must accrue 100 'points' of reflection on notions of justice and complete 200 hours of community service in order to earn the Brennan Justice and Leadership Award.

Among the organisations students have volunteered services to include the UTS Communications Law Centre, Legal Referral Centre, National Children's and Youth Law Centre, Batyr, Balmain for Refugees, Sudanese Australian Integrated Learning Program, ASX 200 General Counsel Report, UTS Student Services: Peer Network and Students Helping Students, 4OK Foundation, Surf Life Saving Australia and Anti-Slavery Australia.

"The Brennan program provides students with a space for discussion on issues of social justice and allows their valuable contribution to the community as volunteers to be recognised," Borg says.

### **An all-encompassing vision**

Changing the world invariably starts with people daring to dream. Then they pursue it - with vision, planning, strategy and execution. But courage is also required to stick with the dream, because, as we all know, not everything goes to plan. But any new initiative starts with taking those first tentative steps. In the case of the UTS Faculty of Law, it wanted to introduce a groundbreaking program that would expose students to another strand of an all-compassing legal education.

As the Faculty's Professor Paul Redmond says: "The Brennan Program is the first comprehensive program to focus explicitly on the promotion of justice as a key part of legal education. Other law schools are seeking to replicate the Brennan initiative and its constituent parts."

Borg adds: "The Brennan program introduces students to people and ideas that help them discover where they wish to make a difference in the world. It equips them with the intellectual and practical skills they need to be able to make a real contribution to society."

Redmond says the program aims to "sensitise" students to the complex relationship between the law and legal system on one hand and the concepts of justice on the other. "This intellectual program complements the lecture room," he says. "The best lawyers are concerned with systemic outcomes as well as those of individual cases. One goal is to expand intellects and imaginations.

"Another is to encourage idealism, by encouraging students to develop their

leadership skills through service to others. This is an important area. The practice of law is tough, but it's sustained by a sense of public purpose and service. Imaginatively understood, this sense of public purpose and service dignifies legal work and gives it meaning and purpose that sustains it across the long haul."

According to Redmond the program encourages leadership, resilience, imagination and initiative as these skills can be used to help others in the community. He says 838 law students are currently registered for the Brennan program, an encouraging number for a program only in its fourth semester.

Successful people are driven by a passion for what they do. And there's no shortage of passion from those involved in the Brennan program, whether it be lecturers, students or administrators.

Joint Program Director Loki Ball, from the UTS Law Students' Society, offers an interesting and fascinating insight into the Brennan program. It's worth noting.

"To create the future we want, our students must develop the skills, intellect and passion to take action and help build a stronger community, a stronger world," Ball says. "The Brennan Program will help law students become successful agents of change.

"Our program encourages students to reflect on the concept of justice. In our busy world, reflection is so important yet rarely, if ever, practised. We don't just expect our graduates to take action, but to also distinguish between acting with good intentions and actually doing a good thing.

"Success for me is when a student can put social justice to practice and work collaboratively with others to address areas of community need. Our short-term goal is to expose students to the social justice needs of their community. Our long-term goal is to develop within them a life-long commitment to solving community problems."

Ball says Sir Gerard's endorsement of the program and attendance at graduation ceremonies are major highlights so far. "Few have acted so tirelessly as him in the pursuit of social justice for all."

### **Student perspective**

Ball's views regarding the Brennan program weren't lost on two law students, John Kalantar and John Douglas, who also offered their insights after successfully completing the program. Kalantar says as a law student, it's relatively easy to become totally consumed by the law and sometimes forget why it exists.

"It's important to understand the rules of law, but more important to know why they matter," he says. "The program reminded me that a lawyer's primary goal is to serve people when they need us most. And, also, I consider it an honour and a privilege for any lawyer to be called on in a person's hour of need. The program broadens your horizons. I learned so much about social justice and consciousness."

Kalantar learnt most problems could be solved through knowledge, experience, dedication and commitment.

"The first step is to be aware of a problem," he says. "Then tackle the issues step-by-step until a problem is solved."


As the Brennan program was voluntary, it also afforded him the opportunity "to give something back" to the UTS Faculty of Law for developing and offering a complementary initiative outside the established curriculum.

"The Brennan program is challenging, but so worthwhile," Kalantar says. "I strongly recommend it."

Douglas says the Brennan program provided exposure to a broad range of social justice issues, at a level not ordinarily covered in a law degree. Social justice issues covered included asylum seekers, prisoners' rights, asbestos claims and modern slavery.

"It provided the opportunity to learn from a diverse range of people who work in specific social justice areas," Douglas says. "It helped me understand a myriad of alternative views in what are normally complex issues. The program encouraged me to apply legal skills picked up in my studies to social justice issues - while continuing to study.

"It instilled good habits of continuing to provide service in the community, through volunteering and becoming engaged with social justice issues."

Students undertaking the program have to make time to attend extra-curricular lectures, discussion groups and volunteer work. While that can be difficult, Douglas concludes: "The experiences have always been worthwhile, adding another dimension to my legal studies - that is a hands-on practical element and firsthand interaction with legal practitioners." 

For more information on the Brennan Justice and Leadership Program, please email [brennanprogram@uts.edu.au](mailto:brennanprogram@uts.edu.au) or visit [www.law.uts.edu.au/brennan/index.html](http://www.law.uts.edu.au/brennan/index.html)

# PAPERBACK WRITER

UTS alumna Anna Funder has gained critical acclaim for her two award-winning books. The former lawyer reveals how her writing trajectory evolved, and the true intimacy of connecting with readers.

STORY CAMERON COOPER

Anna Funder has a perfect strike rate - her two books have each won prestigious literary awards.

For struggling scribes around the world, it must seem that the writing caper comes easily to the celebrated Australian author. She insists, however, that crafting a book is difficult and leaves her feeling somewhat battered at the end of the journey.

"It's not easy," says the Brooklyn-based UTS graduate. "They are big books full of thinking and experience and emotion."

Funder is the 2012 winner of the Miles Franklin Literary Award for her novel *All That I Am*, a gripping story about an elderly woman living in Sydney and her memories of the tyranny of Nazism in pre-war Germany. The honour puts her in the company of previous winners such as Thea Astley, Thomas Keneally, Ruth Park, Peter Carey and Tim Winton.

The book has also won seven other awards and follows on from the success of her first book, *Stasiland*, which in 2004 won the world's most sought after award for non-fiction, the BBC Four Samuel Jackson Prize.

Funder, a former lawyer and documentary maker who turned to full-time writing in the late 1990s, believes it is for others to explain why her books have struck a chord with readers and judges alike, but she offers this appraisal. "What the books have is, I think, a sense of intimacy," she says. "So that the reader is transported into the life of a housewife in East Germany who is trying to get to her baby who has ended up on the wrong side of the Wall; or a louche alcoholic rock star, or a shilly-shallying ex-Stasi man, or an anti-Hitler activist who finds herself washed up in London and can't stop doing what she is doing."

What writers must strive to do, according to Funder, is create a bond of

trust with their readers. This is especially so in an era when news is saturated with every imaginable kind of private fact about politicians and celebrities.

"Real intimacy is different from knowing the Monica Lewinsky story or which bits of Nicki Minaj are plastic. Real intimacy is about trusting somebody's world view and enjoying someone else's headspace and personality. And writing can be the most intimate thing if it works."

Rare in the sense that it focuses on pre-war Germany, *All That I Am* draws from the extraordinary life of Funder's late friend Ruth Blatt, who joined the resistance movement against Adolf Hitler before World War II and spent five years in solitary confinement in a German prison. She later secured passage to Shanghai and then Australia in the late 1940s and spent the next five decades living in Caulfield, Melbourne. It was there that she befriended Funder, then a young student learning German, and gradually revealed the tales of her early life.

What would Ruth, who died in 2001, have made of the book and all its associated literary and media fuss? Funder surmises that she would have loved the fact that someone was telling her story, albeit a partly fictional account.

"And then she would have told me all the things that I got wrong," Funder laughs.

## My brilliant career

First showing an interest in writing as a young child, Funder is the product of what she describes as a "very intellectually argumentative" household as a child in which the key influences were her father, an acclaimed medical researcher who wrote exhaustively in his area, and her mother, "an extremely witty and profound"

woman. Today, she describes her love of writing as a "condition" that helps her process and make sense of the world.

"I don't want to be anything else ... but there are easier things in the world to be."

Funder has no doubt her time at UTS has helped shape her success. She graduated with a Doctorate in Creative Arts this year, producing *All That I Am* as the creative component of her thesis.

"UTS was very important to me in all sorts of ways," Funder says.

For a start, it gave her a physical place to think and write.

"But also the institution was fantastically welcoming. I had a brilliant supervisor in [writing lecturer and Professor] Cathy Cole. And access to the library was fantastic ... Just to be able to think that I can get pretty much any document from any era from anywhere in the world that I want to look at, and I can have either the document or a facsimile copy delivered to me. That was fabulous."

A former human rights lawyer with the Australian Government, Funder admits now that she was "not a natural lawyer".

"I couldn't do it," she reflects. "It was like I was trying to be a left-hander when I am a right-hander. I could intellectually do it and I did, but I couldn't believe in it."

Dissatisfaction with the law led to a career change, with a writer-in-residence role at the University of Potsdam and a stint in Germany before the fall of the Berlin Wall ultimately leading to the publication of *Stasiland*, a compelling and confronting account of the victims of the Stasi surveillance regime in East Germany that immediately won critical acclaim - and 23 reject slips from German publishers.

Funder wears those rejections as a badge of pride.



**“Real intimacy is about trusting somebody’s world view and enjoying someone else’s headspace and personality. And writing can be the most intimate thing if it works.”**


## **ANNA FUNDER**

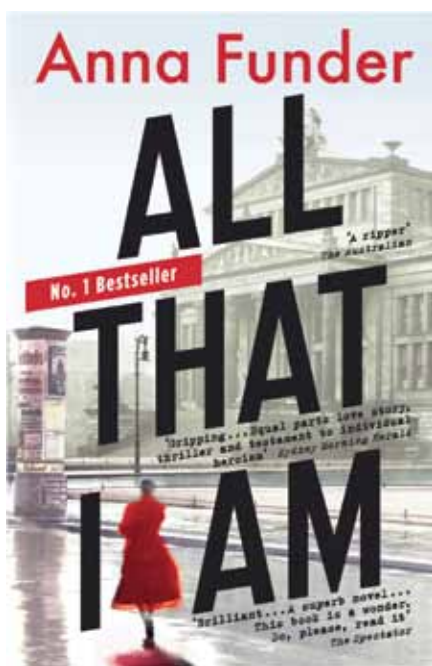
important to me, I will buy it in paper because I have a visual imagination when I read and I know what paragraph is on what side of the page, and I know where it was on a page that I read a particular sentence, and often I know where I was when I read that. I want it in hardback for those reasons and also because I then want to keep it in my house where I can see it on my shelf.”

Living in and loving Brooklyn, Funder’s books and the associated awards have opened doors and opportunities. In the past year she has travelled to India, Greece, Norway, Denmark, Sweden, the United Kingdom and Australia as part of writing and promotional events. In between times she has been enjoying the company of her husband and packing school lunches for her three children.

Now starting to work on her next project, Funder admits she is still drawing breath after a whirlwind of tours and speeches since the release of *All That I Am* a year ago. As that new novel materialises, she is certain that she will engage - and occasionally argue - with her editors and fact-checkers - “They are like your absolute best friend who tells you that you’ve got spinach in your teeth” - over the final wording of the book.

A close relationship with such experienced editors is crucial to the final quality of any book, according to Funder, who is bemused that book editors get such little fanfare compared to their counterparts in the film business.

“The editors of books are completely unseen forces, but massively important. You only notice when they have done a bad job; you never notice when everything is smooth and wonderful. I’ve been very blessed with good editors - not that I haven’t fought with them!” 



“Those rejections were not actually emotional buffets to me at all. They were very interesting signs that I had put my finger in a wound and I felt that I was absolutely right to do that.”

### **On life, loves and the e-book**

As a writer of great talent, Funder not surprisingly is inspired by other books and authors. Leo Tolstoy’s *Anna Karenina* is a particular favourite, and she has recently been reading Edmund De Waal’s *The Hare With Amber Eyes*, Orhan Pamuk’s *Silent House*, the poetry of her British friend Nick Drake and David Foster Wallace’s essay collection *Both Flesh and Not*.

As e-book readers such as the Kindle grow increasingly sophisticated and popular, Funder acknowledges their convenience but still prefers the presence and feel of a hardcopy book.

“I do love the paper book ... If it’s something that I think is going to be really

# HEALTH *Futures*

Find out how key researchers at UTS are playing a crucial role in addressing the challenges posed to humanity by infectious diseases, as well as developing innovative medical devices to improve people's quality of life.

STORY **BINA BROWN** PHOTOGRAPHY **NICK CUBBIN** AND **PAMELA AJUYAH**



**"I thoroughly love medical research. We can change the world around us with exciting new discoveries and at the same time inspire others to take up the challenge."**

**DR NHAM TRAN**, Chancellor's Post Doctoral Research Fellow, School of Medical and Molecular Sciences, UTS

The emergence of drug resistant superbugs, life threatening cancers and limited mobility are just three serious health challenges facing millions of people around the world.

But thanks to the research dedication of teams of scientists, new antibiotics, biomarkers for the early detection of cancers and wheelchairs that navigate using brainwaves, are on their way.

Given the incredible advances medicine has already made to our understanding and treatment of debilitating diseases, as well as improved medical interventions and the advent of stem cell technology, there is little doubt that the quality of human life will continue to be enhanced and prolonged. Billions of people already expect to live longer, and in better health, than ever before.

"These giant leaps forward in human health are driven by the development of antibiotics," says Professor Ian Charles, an internationally recognised expert in the field of infectious diseases, and Director of the ithree institute at UTS.

The 1940s development of the wonder drug penicillin marked a turning point in our battle against bacterial infection, he says.

Since then, the growth in antibiotic use has saved countless lives worldwide, with the wonder drug being taken for almost everything from a persistent cough to the survival of transplant and cancer patients.

The problem is, that following the rules of evolution, bacteria will 'fight' for their continued existence through mutation and natural selection and increasingly they have developed resistance to antibiotics.

"Not only have some bacteria become resistant to a single antibiotic, but strains have emerged, known as 'superbugs', that are resistant to almost all clinically used drugs," says Charles. "A key consequence of our widespread use of antibiotics is the emergence of new strains of bacteria that are increasingly resistant."

The World Health Organization (WHO), The Gates Foundation and The Wellcome Trust all recognise the emergence of these 'superbugs' as one of the most serious threats to human health that we currently face.

## Advancements in research

At the ithree institute (which stands for infection, immunity and innovation) at UTS, the focus is on tackling the threats posed by infectious diseases, from a prevention and treatment perspective. Bringing together an internationally recognised interdisciplinary team, they are addressing key challenges in the understanding and control of infectious diseases in humans and animals.

Bacteria are nothing new. They have been around for billions of years and are everywhere - in the soil, the air, our food and us. "We carry around 10 times more bacterial cells in our bodies than human cells, and many of these are beneficial to us," says Charles. "Without the bacteria that live in our bodies, for example, our health would be compromised. And let's not forget the vital role bacteria plays in making wine, beer and cheese."

Charles knows that finding new ways to inactivate harmful bacteria is an ongoing battle.

"It's not a war that we will ever win, and it's not a war we can afford to lose. Our best strategy right now is to be constantly vigilant and always prepared.

"A world without new antibiotics will undo all the advances we have made in improving human health," he says.

Not discovering new anti-microbial agents would mean the battle was lost and a reversion to the 'pre-antibiotic era' with untold consequences.

The drug-resistant bacteria have been collectively described as the 'ESKAPE' pathogens. (Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumonia, Acinetobacter baumannii, Pseudomonas aeruginosa and Enterobacter species) as they effectively 'escape' the effects of antimicrobial drugs.

One such drug-resistant bacteria, Staphylococcus aureus, also known as 'Golden Staph' or MRSA, illustrates the problem. Named for the characteristic golden colour of its colonies, Golden Staph produces a pigment that helps it evade the immune response of its host, making the microbe even more virulent.

Resistant Golden Staph cannot be killed by one of the modern synthetic penicillins and is now a major source of hospital-acquired infections. Australia may have as many as 150,000 Golden Staph infections a year.

The problem of resistant bacteria is not limited to human health. Bacteria are widespread in nature and a change in the environment and forces such as climate change or the use of antibiotics, may 'push' bacteria to mutate and evolve, impacting all species including domestic and agricultural animals.

If Professor Charles has a particular area of interest it is in research leading to new vaccines and anti-infective drugs, which builds on his previous work on numerous infectious disease programs - including the acellular pertussis vaccine for protection against Whooping Cough.

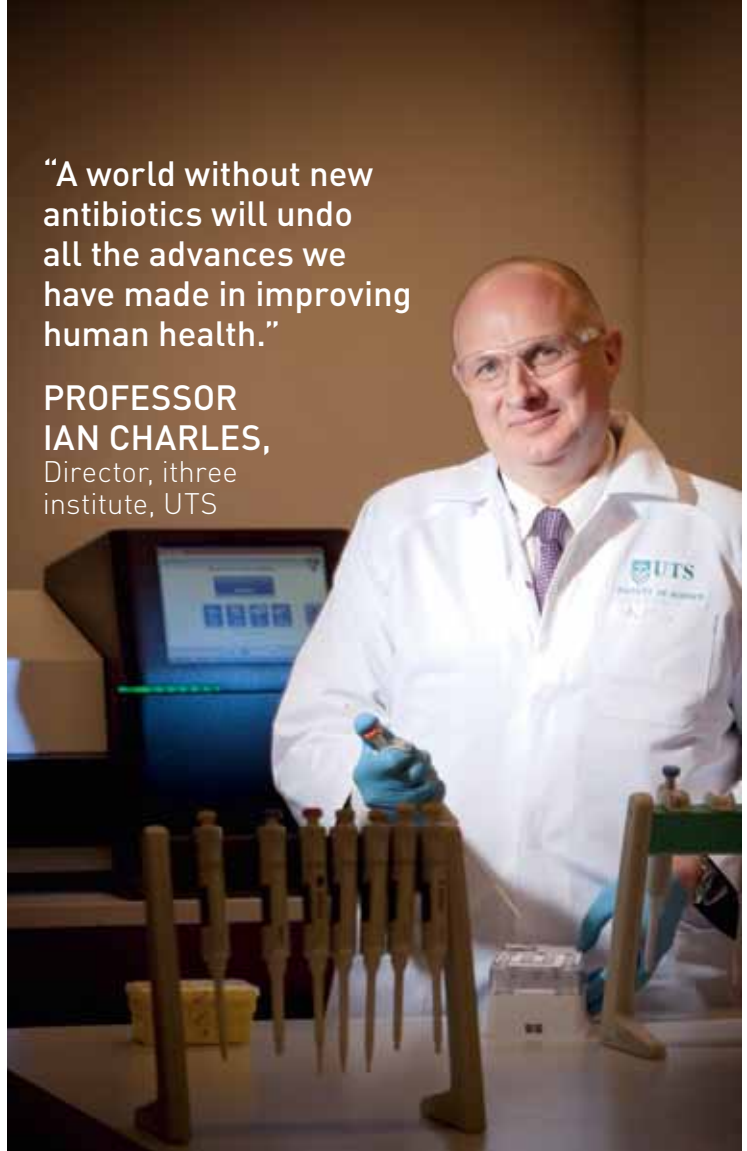
## Cancer detection

The early detection of cancer and treatment of cancer has long been considered key to improved outcomes and survival of many cancer sufferers.

It is an area that Dr Nham Tran, a researcher at the UTS School of Medical and Molecular Sciences and Chancellor's Post Doctoral Research Fellowship holder, hopes to

**"A world without new antibiotics will undo all the advances we have made in improving human health."**

**PROFESSOR IAN CHARLES,**  
Director, ithree institute, UTS



significantly advance through the discovery of biomarkers for the early detection of human cancers, particularly head, neck and prostate cancer.

"It cannot be overstated that the early detection and treatment of cancer can dramatically improve the future outcome for many patients," says Tran.

Head and neck cancers are increasing, with a 50 per cent survival rate, while prostate cancer is the most commonly diagnosed cancer and the second most common cause of cancer death in men.

"We are seeing more young people diagnosed, especially young women, with tonsil and oral cancers. People from lower social economic backgrounds and rural communities have the highest rates of head and neck cancer," says Tran.

The current diagnosis for this malignancy is a biopsy and fine needle aspiration; with both procedures painful and known deterrents for patients to see their doctor.

"Our biggest challenge in head and neck cancer research is the search for effective, non-invasive clinical biomarkers for the early diagnosis of these diseases," says Tran.

If Tran and his team can discover a set of biomarkers to detect cancer in its early stages, these patients can be treated earlier, offering more treatment options and the chance to live a normal life.

The team is looking at unique molecules known as small non-coding MicroRNA or Ribonucleic acid leased by cancer

cells into the blood stream and can be found in the patient's urine and saliva.

The easy and painless collection of these fluids should encourage more people to visit their local doctor for treatment. To drive this work into the clinical environment, Tran is collaborating with Royal Prince Alfred Hospital, the University of Sydney, and the Sloan-Kettering Cancer Center in the US.

Using patient samples, the team has identified a suite of biomarkers in the serum for oral, oropharyngeal, and pharyngeal cancer. They are now testing these markers in a cohort of 350 samples.

"In the case of head and neck cancer, there is a complete absence of any reliable biomarker," says Tran. "Hopefully this work will give doctors the ability to detect the disease early and give patients a better chance of beating the cancer. I am very optimistic that we can find a biomarker within five years."

The search for reliable biomarkers for the early detection of prostate cancer is also underway by Tran in collaboration with the head of the Translational Cancer Research Group at UTS, Dr Rosetta Martiniello-Wilks.

As with head and neck cancer, the presence of MicroRNAs in body fluids may provide important clues to when prostate cancer appears and then progresses to a more aggressive form that spreads to other organs in the body.

"You can imagine, if a man comes to a clinic and presents with early stage prostate cancer he will have a distinct profile for these MicroRNA biomarkers when compared to a man with more advanced prostate disease," says Tran.

For Tran, one of the best parts of doing medical research is passing on his skills and knowledge to the next batch of student researchers.

"I am fortunate to be the principal supervisor for two energetic PhD students and we have a great time in the lab. For all these reasons, I thoroughly love medical research. We can change the world around us with exciting new discoveries and at the same time inspire others to take up the challenge," he says.

## Medical devices

New medical devices are changing the world for millions of people living with spinal injuries, diabetes and a range of other illnesses and disabilities.

From smart wheelchairs and nanoceramics for knee joints, to the early detection of breast cancer and non-invasive monitoring of diabetes, biomedical innovations are improving patients' quality of life and increasing survival rates from serious illnesses.

A new hands-free wheelchair, developed by Professor Hung Nguyen and his team at UTS, is a breakthrough for people with severely limited mobility. The Aviator system directs and controls the wheelchair's navigation by reading the user's brainwaves.

Aviator has been built in the form of two hands-free powered wheelchairs, SAM (semi-autonomous machine) and TIM (thought-controlled intelligent machine). TIM uses stereoscopic and spherical cameras to move autonomously, but also allow users control using thoughts alone.

"We have shown it is possible to control powered wheelchairs using thoughts alone, and have done a limited number of clinical studies which involve both non-disabled users and users with spinal cord injury," explains Nguyen, who has been researching in the areas of biomedical engineering, advanced control and artificial intelligence for more than 20 years.

The current Dean of the Faculty of Engineering and Information Technology, Professor of Electrical Engineering, and Co-Director of the Centre for Health Technologies at UTS, Nguyen says the Aviator technology could potentially enhance the lives of more than 2.5 million people worldwide living with spinal injuries, of which half are quadriplegics.

"Our research involves and touches many groups of people from all walks of life. The challenges of providing useful mobility assistance for people with disabilities are extremely rewarding if achieved. Many people are permanently and severely paralysed or disabled and have to rely on carers full-time," he says. "We have to reach deep into science fiction in order to provide meaningful mobility assistance for people with high levels of disability."

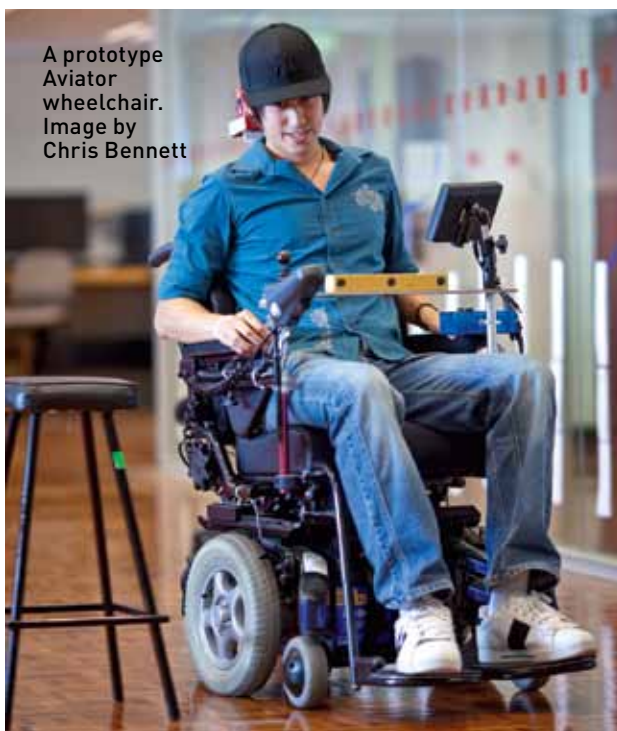
Nguyen and the team at the Centre for Health Technologies have also created HypoMon, a non-invasive medical device that monitors blood glucose levels and detects nocturnal 'hypos' or low blood glucose levels, in patients with diabetes without the need for taking blood.

After winning several awards, including an Australian International Design Award, HypoMon is now marketed in Australia and Europe by AIMedics Pty Ltd, a biomedical device company founded by Nguyen.

Assistive technologies also developed by the Centre for Health Technologies team include the VentrAssist heart pump, microwave ablation of cardiac tissues, nanoceramics for knee and hip joints, and early detection of breast cancer.

Continuing the Centre's track record for innovation, its future priorities include the development of artificial pancreas, reversing diabetes in humans and bioinformatics.

Considered science fiction just years ago, these and other ideas are being realised through the vision of researchers to create next-generation technology and improve the quality of life for millions of people for generations to come. **T**



A prototype Aviator wheelchair. Image by Chris Bennett





# Has feminism stalled?

Australia still has some way to go in addressing and solving gender inequality issues in order to create a fairer society.

BY EVA COX

It is 40 years since I joined the women's movement to become involved formally in an election process about women's roles in the political sphere. The 1972 election that brought in the Whitlam government was the first time that so called 'women's issues' became part of the political agenda. One of the first acts of the new government was to re-open the equal wage case in front of the Arbitration Commission so women would be paid the same as men for the same jobs; another was taking the luxury tax off the Pill.

Have we made progress since then? Definitely yes! The two decades following saw many highly significant changes, but counting gains over the past two decades shows most areas of progress have stalled. Yes, we do have a female Prime Minister, Attorney-General and Governor-General, as well as other scarce but obvious prominent women. We still record many firsts for women but need to note that previous 'ceiling benders' were rarely followed by another, eg. Thatcher, Kirner, Lawrence, Bligh.

We have had a few recent gains, such as a somewhat flawed Parental Leave payment and a slow 10-year process to deliver equal pay for the welfare sector, but the overall hourly wage gap is still around 17 per cent and not improving. Something is seriously wrong. Why have we not seen changes to what roles and skills are to be valued that look at social contributions rather than just financial ones? There is still, or maybe again, no recognition of the in-built masculinised prejudices and social assumptions that still drive gender acceptable behaviours.

Now long full-time work hours are a norm, as market models undermine social values and policies that were expressed through mutuals, government and community organisations. Rather than co-operative societies we have moved to competitive tendering and market user-pay models even in community organisations that take government funding and become servants of the state.

The paradigm shift to neoliberalism started the rot in the feminist revolution in the 1980s. With the new emphasis on self-interested macho competitive individualism

that underpins the idea of markets, women could only achieve more equality with men by acting like standard males and ignoring social connections, care of others and interdependence.

These changes undermined the ideas of the 1970s women's liberation movement, which wanted to change social priorities by asserting the importance to social wellbeing of work in the family and domestic spheres. The later paradigm shifts meant this idea lost out to economics, which cannot measure or include feelings, connections, reciprocity and interdependence, except by commodifying them. Our bold claims for ideological changes tried being more 'reasonable' in the 1980s but lost out by the 1990s to a feminism that was measured via individual successes rather than broader social change.

Radical groups that set up refuges and child care services later became competitively funded and workers were co-opted to be service deliverers, not change agents, and the services even commercialised in the latter case. The role of many active feminists today is increasingly expressed by offering services to disadvantaged women. With some residual interest in body images and continuing concerns about women as victims, the clenched fists of the early women's symbols have become the classic female helping hands.

There are increasing numbers of women who accept status quo of gender differentiation, claiming it is their free (socially structured) choice to do so. They have formal legal equality so see feminism as passé. Others, often younger women, find they can compete in the workplaces and public sphere as long as they avoid child bearing. They see their (often very late) childbearing as their 'choice', because kids don't fit in before they have travelled, built careers and added qualifications. They do not see the workplace gender biases as political problems that could be changed, but personal problems.

They don't see the need to seek changes so workplaces could be restructured to make it normal to combine careers, or even just jobs, with parenting. Many remain

personally feminist but are maybe only mildly political as they see the problems as an individual battle not a collective one.

There is a range of feminist groups offering services but they seem to have ever less time for lobbying or advocacy. Many of the women who have taken up feminist activism seem to be still running our 1970s agenda but diminished to fit the current zeitgeist. We can't ignore the continuing serious gender inequalities underneath the apparent bipartisan political acceptance of equality for women in our access to decision-making power and resources.

Can we revive the movement to real gender equity? There is a clear need to put the social and gender inequities into new feminist agendas for political action so we can create a fairer society. The macho agenda of markets is failing financially and socially, so societies are becoming more unequal. This slide into bad social policies and failing economic ones means that feminists - male and female - need to both make sure we don't lose what we have and recognise the inequities that still need attention. **T**

**Eva Cox is the Professorial Fellow, Jumbunna Indigenous House of Learning, UTS.**

## We want to hear from you!

Do you want to help change the world through feminism? Then we'd love you to share your ideas for what you think would make the good (feminist) society. I've set up a website for people to send us their ideas. Discuss the issue, say around the dinner table, and send us a report on what comes up. As alumni of UTS you are part of an organisation that has a long history of encouraging gender equity and contributes to the good society, so please help shape a fairer future. Contribute your thoughts at [www.thedinnerparty.net.au](http://www.thedinnerparty.net.au)  
Email: [eva.cox@uts.edu.au](mailto:eva.cox@uts.edu.au)

# School of life

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UTS's Australian Centre for Child and Youth: Culture and Wellbeing is helping to provide disadvantaged students with a new perspective, expanding their vision of what they can achieve. Mark Abernethy speaks to the Centre's Director Professor Rosemary Johnston about the key programs, the support behind them and their impact on students.

PHOTOGRAPHY **ANTHONY GEERNAERT**



There are many school student programs in Australia and they often tread a line between political window-dressing and bureaucratic imperative. But when you delve into the suite of programs developed and run by the UTS Australian Centre for Child and Youth: Culture and Wellbeing (ACCY), you find a practical and personalised approach to helping young people widen the horizons of their thinking and expand options for their futures.

The force behind the Centre, Professor Rosemary Johnston, brings as much a personal concern for real life impact as she does a drive for academic research. The mother of five and one-time English and History teacher says her experience has shown that too many young people are made vulnerable by circumstances - demographic, cultural, geographic, social - which negatively affect attitudes to school.

"Some children have only a narrow vision of what they can achieve and some even have from too young an age an innate sense of failure," says Johnston, Founding Director of ACCY. "We show them that attending school and continuing with education at university or TAFE opens up possibilities and new freedoms in making choices."

The current suite of programs has grown from a Federally-funded project, *New Ways of Doing School*, where the team worked with remote Indigenous communities originally to explore ways of improving school attendance.

"We quickly discovered that school disengagement is not simply an educational problem," says Johnston. "In remote regions at least, it relates to health issues such as Otitis Media (inflammation of the middle ear), housing, parenting practices, employment opportunities, political decisions, relationships with services, and other social challenges.

"The programs that evolved from *New Ways* take a cross-disciplinary and cross-sectoral approach and have a strong community focus. A cell project, *Literate Australia*, looks at new ways of thinking about literacy for children from Indigenous and other cultural heritages."

### Support from business

The *How Big Are Your Dreams?* project is a partnership with Gilbert+Tobin Law (which initiated and generously fund the project), Tranby Aboriginal College, and UTS, and is designed for year 9 and 10 Indigenous students. It particularly focuses on positive celebrations of Indigenous identity. It has now evolved from one year into two, has

grown to reach beyond Greater Sydney to the South Coast, and is supported by the Department of Education, Employment and Workplace Relations (DEEWR) and UTS.

The first year concentrates on exposure to new experiences - such as a Sydney Harbour tour of Aboriginal heritage sites on the Tribal Warrior - while the second year supports students as they develop a project of their own choice, promoting awareness of skills, confidence and perseverance.

"Students can feel they can't change," says Johnston. "But if you give them the chance to start a new story about who they are and what they can do, it opens up a whole new vision, a whole new world of ideas."

Johnston emphasises the role that the business community plays in these projects. *Sky High! Lifting Up Aussie Kids*, which targets years 7 and 8 children, has been made possible by generous donations from IMC Financial Markets and Assets Management, which is headquartered in Amsterdam.

### Providing new opportunities

*Sky High!* is an innovative Australian adaptation of a program IMC run in the Netherlands. It targets children who are disadvantaged but again who are identified as having the potential to finish secondary school and continue their education. It has the support of the Department of Education and Communities and connects teachers and students in experiences including behind-the-scenes visits to the Opera House, the zoo, CSIRO and Monkey Baa Theatre.

"Some of the young people in *Sky High!* may be really disengaged," says Johnston, "while others want to achieve but are struggling against circumstances. We can have bullies and bullied in the same group."

She says the *Sky High!* team are focused on emancipating student's minds from often deeply imposed limitations on ambitions and achievement.

"We took *Sky High!* to the Opera House to let them see a range of different occupations. The Opera House made it possible for the heads of catering and security to talk with the students about their own journeys through school and into the positions they now hold. We also showed them the gamut of jobs that make the Opera House work - not only performers but lighting, sound, front-of-house, marketing, costume making and so on."

The latest addition to the suite is *Sharing Creative Cultures*, for years 5 and 6 in primary schools with high multicultural populations. The team works

**"We show them that attending school and continuing with education at university or TAFE opens up possibilities and new freedoms in making choices."**

**ROSEMARY JOHNSTON,**  
Director, Australian Centre for Child and Youth: Culture and Wellbeing, UTS

with children to gather cultural stories, identify similarities of plot, character and/or theme, and develop scripts for creative productions. The project addresses curriculum outcomes, but most importantly, seeks to highlight living cultural meeting points.

All these projects are made possible by external funding. And they are all growing - *Sky High!* has already developed into *Sky High! Metro* and *Sky High! Regional*, thanks to UTS and DEEWR.

"Giving begets giving," Johnston says. "People are encouraged when they see what can be done."

She stresses that it is both corporate sponsorship and her committed teams that make these projects work so well.

And do they work? Johnston says there is an anecdotal and measurable success in terms of improved attendance, social conduct and participation in school life. However, the current initiatives are also being tracked into a longer study exploring disengagement and why programs such as these - at a pivotal stage in student lives - can positively influence their trajectory.

"Schools are doing great work, but something special happens when students experiencing difficulty are lifted out of their everyday into a different place. We had an Archibald finalist draw portraits with the *Sky High!* children for one event - nothing really that wouldn't have happened at school. But he was an artist - a practitioner - and this was a whole day, created for them, in a non-school setting. The accompanying teachers told us the children sketched all the way home on the train.

"We're all working together. Schools and teachers need more resources. Education - and making continuing education attractive and achievable - has to be a mutual community enterprise." ■

# Carpe DIEM

Founded in 1969, The Open University in the UK has changed the face of higher education, as the world's pre-eminent institution for distance learning. Its Vice-Chancellor Martin Bean, a UTS Luminary who holds a Bachelor's degree in Adult Education from UTS, reveals how the University is continuing to break down barriers.

## CONTRIBUTORS

**DIANA SIMMONDS AND RENEE CARL**  
PHOTOGRAPHY **ANDREW PINI**



**TOWER:** For readers who may not be familiar with The Open University, how would you describe its educational offering in your own words?

**Martin Bean:** Our founding mission is to be open to people, places, methods and ideas. The Open University is about breaking down barriers to learning. The UK's *Sunday Times University Guide 2011* called us the "granddaddy" of widening participation.

Opening access to higher education is the heart of our mission. We have no formal entry requirements for most of our study programs and we are opening access to people from backgrounds where participation in higher education has traditionally been low.

We can be more inclusive because we are innovative. Our flexible part-time learning system and our innovative learning technology enables students to study when and where suits them.

*How important is the ability to connect students who may be anywhere in the world*

*in an 'open' classroom - in other words, is the classroom today truly becoming global?* Today everyone in the world who has the use of a mobile phone is potentially a member of a global classroom.

Web-based technology enables people to study where, when and how they want. This fits with the expectations and lives of students today.

An important part of this is access to informal learning using free open educational resources. Many people engage with The Open University informally before they take up formal study.

OpenLearn, our free learning resources website, has almost 8000 hours taken from undergraduate and postgraduate courses. It has had 21 million visits since its launch in 2006.

The number of downloads of The Open University material from iTunes U has passed 50 million, and more than 90 per cent of visitors to our iTunes U site come from outside the UK. Our dedicated channel on YouTube is the largest UK university channel.

Our partnership with the BBC enables many people to start or continue their education journey, and BBC programming extends worldwide. Viewers of the recent The Open University/BBC series *Frozen Planet* (which was screened in Australia on the Nine Network) went on to access free learning material and some signed up for our short *Frozen Planet* course.

*What attracted you to taking on the role of Vice-Chancellor at The Open University?* The potential is enormously exciting. The Open University is a truly unique organisation that has harnessed the power of technology and transformed the way people access high quality educational opportunities. Since 1971, The Open University has taught more than 1.7 million students. Our mission and approach are more relevant today than ever, given the needs of society for skilled workers, and the potential offered by technology.

Very close to my heart is our commitment to widening participation in

education. We have a particular focus on disabled students, students who are socio-economically disadvantaged (and ethnic minorities within this group), and carers. Our open access policy and our flexible part-time model make us particularly well placed to support these groups.

But we also have in place targeted support systems for particular groups, such as our new Access to Success program to provide a route into undergraduate studies for students on low incomes and with low levels of confidence.

*To what extent are open universities revolutionising the education sector, via the ability to overcome geographical barriers and connect students who may not have had an opportunity to gain a qualification otherwise?*

There is a growing gap between an increasingly knowledge-driven world economy and the numbers of people with the skills to succeed in it.

Traditional universities cannot offer the dramatic increase in scale needed to cater for all these people. Open universities, making use of all kinds of media platforms to reach their students, are the key to widening access to higher education in both the developed economies and the developing world.

This is particularly true in the developing world, where the scope is enormous. We are leaders of a consortium called TESSA (Teacher Education in Sub-Saharan Africa), which is extending access to university-led primary school teacher education in a number of African countries, using internet-based open educational resources.

To date more than 430,000 teachers have benefited from TESSA resources and lessons. Last year in collaboration with African partners, non-government organisations and funding organisations we launched Health Education and Training (HEAT), which uses a similar model to train health workers based mainly in rural areas.

*What does a typical day involve?*

Having the privilege of being the Vice-Chancellor of what many describe as a national treasure and certainly an iconic brand, leads to an incredible diversity of day. One minute I could be engaged with broad public policy in the UK, next minute chatting to students. From thinking deeply around technology and how it can be used to drive access, to poring over the financial health of the institution and what we can

do to position ourselves in the changing higher education environment.

*What is the greatest challenge for The Open University?*

The Open University is widely known for its teaching but what many people overlook is that we do world-class research as well. In the UK's most recent Research Assessment Exercise in 2008, we were ranked in the top third of UK higher education institutions. More than half our research was assessed as internationally excellent, with 14 per cent as world leading. This research feeds into our teaching and our learning resources. We need to do more to make people aware of our amazing research and how it drives our fantastic teaching.

*And the greatest opportunity?*

As the world of higher education continues to grow at an exponential rate, the traditional bricks and mortar model cannot keep pace with the social need for quality provision. The Open University model is a natural solution to capacity building and providing a high quality learning experience at scale. I like to think of it as moving from bricks and mortar to clicks and mortar.

*What is the greatest attraction for students participating in Open University courses?*

Our flexibility combined with our quality. We offer a study experience that maximises students' chance of success in achieving their study goals, while at the same time maintaining high academic standards.

The Open University's students can fit their study around work, home and social life. More than 70 per cent of our students are employed. And we offer excellent value. Our tuition fees for 2012/13 are among the lowest in England.

*What trends are you seeing in terms of student geographic data? Is there a particular country leading the charge?*

We have seen a universal trend towards mass higher education. The rapidly growing demand for a highly skilled workforce in post-industrial economies, has led to a massive growth in the provision of university level education.

There were 150 million students globally in 2007 - a 50 per cent increase over 2000 and a five-fold increase over 1970. The percentage of the age cohort enrolled in tertiary education grew from 19 per cent in 2000 to 26 per cent in 2007.

As you might expect, the most dramatic gains have been in upper income countries

- the US, Western Europe and Japan, followed by the developed countries of East Asia and Latin America. China and India are coming up fast. But in low-income countries, tertiary-level participation has improved only marginally, from five per cent in 2000 to seven per cent in 2007. Sub-Saharan Africa has the lowest participation rate in the world - just five per cent. And, in many countries, expansion has not solved persistent social inequalities. It seems to me that open and distance-learning universities can play a role here.

Through initiatives linked to open educational resources, we can make some of our teaching materials available to partner institutions overseas - to help build capacity within their countries.

*The Open University recently came third for student satisfaction in the UK - to what do you attribute this high level of satisfaction?*

All of the above, plus our focus on providing an outstanding student experience. For more than 40 years we've been at the forefront of open and distance learning and during that time we've developed outstanding learning resources combined with robust and responsive support systems and our dedicated Associate Lecturer community, whose encouragement and guidance are so vital to the experience of every single student of The Open University.

*What is the most rewarding thing about working at The Open University?*

It is remarkable for me to wake up every day knowing that I work at an institution where we are helping people realise their potential and change their lives for the better, both in the UK and around the world. That is the best gift in a job that anyone can ask for.

*What is the key thing you would like to have achieved when looking back on your tenure at The Open University?*

That The Open University continues its mission to be open to people, places, methods and ideas. That it still provides the highest quality student experience in the UK, intensely focussing on helping students achieve their goals and learning outcomes. That The Open University is renowned for its appropriate use of innovative technologies and teaching, challenging the higher education sector as a whole to innovate and better serve the ever-changing needs of their students. 



# EVEN FLOW

Find out how UTS's Institute for Sustainable Futures is helping shape a blueprint for a more sustainable future, tackling key scientific challenges such as water management and phosphorus efficiency.

STORY **ANTHONY BLACK**  
PHOTOGRAPHY **ANTHONY GEERNAERT**

In this world, it may be strongly argued that there's no bigger challenge than effectively managing a population's water supply. The demands on water are tremendous - from industry to agriculture to recreation, let alone what actually comes out of our taps for drinking, showering and cleaning.

Access to water involves competing interests. Access to water, or the lack of it, stirs passionate debate and hostility. Managing a city or region's water supply is a complex issue and ongoing one. Amid growing populations, increasing demand for water puts immense pressure on the entire system from the time it falls out of the sky.

In 2002, the New South Wales Government established the Hawkesbury-Nepean River Management Forum and an independent expert panel on environmental flows. Professor Stuart White, Director of the Institute for Sustainable Futures at UTS, was invited on the panel to provide input on water demand and socio-economic issues. Part of the panel's work investigated the costs and benefits of various methods in reducing demand for water from the Hawkesbury-Nepean river system. The research examined improving water efficiency and irrigation to the region and increasing the levels of water reuse.

White says that during past droughts and dry spells, about 90 per cent of Sydney's water had been taken from Hawkesbury-Nepean system. It was well known this was having an adverse impact on the healthy ecological functioning of the river, on socio-

economic values, including recreation, on habitat and on breeding grounds for prawns and other species. The level of extraction was contributing to weed growth and blue green algae.

There had been previous attempts to reduce pollutants flowing into the river. However, it was also recognised there was a need not only to reduce water extraction, but to consider giving water back to the river through environmental flow releases.

"The problem was the river's health was threatened by the amount of water taken and also from pollution, such as storm water," White says. "Slowly, but surely, you have to chip away at reducing the impacts of run off and human-induced activity in terms of discharge to the river.

"Our primary focus was on the environmental flows themselves - on the release of water from the dam."

So the Hawkesbury-Nepean River Management Forum was formed, which White says was a widely representative stakeholder group. It included representatives from the water industry, government, catchment management groups, recreational users and environmental organisations. This broad stakeholder group was supported by an independent expert panel on environmental flows - a multi-disciplinary group that included ecologists, engineers, zoologists and aquatic specialists.

The forum's executive summary, *Water and Sydney's Future*, submitted to the New South Wales Government, points out

that waters of the Hawkesbury-Nepean, Shoalhaven and Woronora rivers "support the health and wellbeing of the people who live and work in metropolitan Sydney, the Blue Mountains, the Illawarra and the Shoalhaven regions, about 70 per cent of the population of New South Wales".

It continues: "The waters of the Hawkesbury-Nepean River, for example, help generate 70 per cent of the goods and services produced in NSW," the summary says. Released in 2004, the summary highlights the health of the rivers had been in decline in many areas.

"The factors that have led to this situation are many but, in common with other Australian rivers, a major cause has been the reduction of flow in rivers due to water impoundment in dams and weirs and the increasing demands of urban water supplies and irrigation."

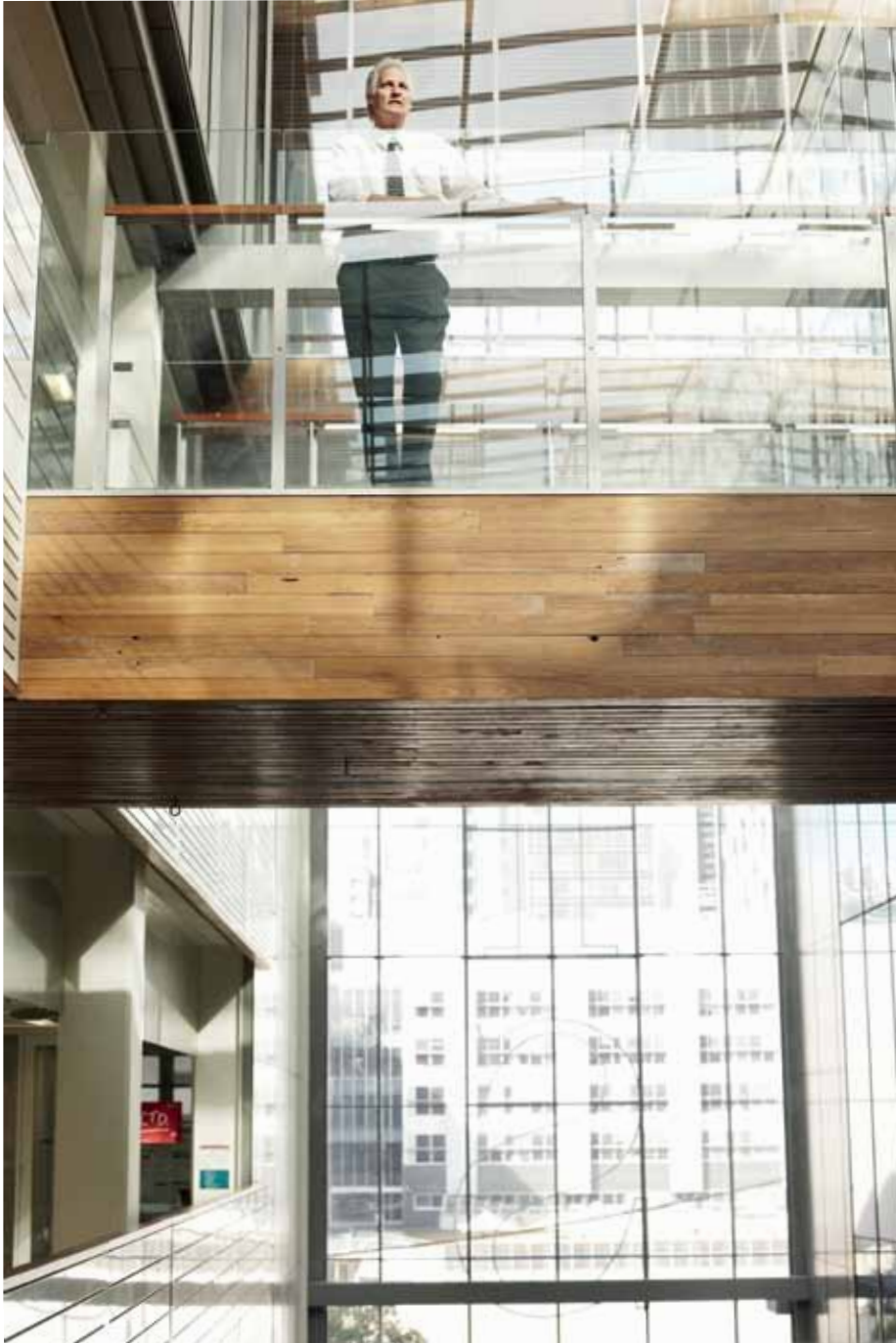
## **Finding solutions**

What's clear is that major challenges require experts from numerous fields to work together to find a totally integrated solution - as opposed to a semi-solution that may satisfy vested interests.

And the forum and independent panel were committed to changing the world. They were ready to tackle an immense problem involving a huge city with a population of more than four million. They knew the stakes were high. Their recommendations would be examined word-by-word. Rarely, if ever, do the faint-hearted change the world. Usually, it

**“We were engaged in a very significant environmental problem – the human-induced impact on the environment. We came up with conclusions and a plan, which provides solutions.”**

**PROFESSOR STUART WHITE**, Director of the Institute for Sustainable Futures (pictured)



takes people with knowledge, experience, courage, vision and then some.

There is no doubt that White was proud to be working with an expert team in tackling the challenges. He reflects during the interview: “It was a very large project involving a multi-disciplinary team. It was a significant undertaking. There had been only one previous study like ours – the Snowy River. This was the biggest exercise since the Snowy River one.

“We were engaged in a very significant environmental problem – the human-induced impact on the environment. We came up with conclusions and a plan, which provides solutions. The work that was done provided very strong foundations, a blueprint if you like, for the future. The solutions are way forward (ahead of their time), based on the science. It’s not every day do you get to do that sort of thing.”

And here, White, the panel and the forum’s vision is evident as the focus is on the river’s end users.

“The objective is to ensure the health of the river and the needs its users,” he says. “It’s reconciling the two. The needs of its users include, just as much the person who wants to swim in the river or boat, to the ecological functioning of the river, to the consumer who wants to turn on the tap and have enough water available. So all those different trade-offs and competing interests need to be satisfied.”

White says the New South Wales Government essentially adopted the recommendations put to it by the forum. While drought caused a delay in implementing flow releases from the Warrangamba Dam, they are now in the planning process for the future.

“But the Nepean releases were undertaken,” White says. “The result is both a healthier river system, and firm foundations for an understanding of what is needed for the long term viability of the river.”

He adds: “We still have a long way to go and there’s still a lot of work to be done.”

### **Boosting efficiency**

The successful outcomes from the study, says White, include establishing flow releases from the Nepean River System, which has led to improving health; establishing a plan for releasing water and designing an environmental flow regime for the Hawkesbury system. This environmental flow regime includes an environmental and socio-economic monitoring program; and plans for the release of water from the Warrangamba Dam.



“Sydney has been a world leader in implementing water efficiency and reuse measures in order to meet previously established targets for water demand reduction. The outcome of the research is it’s necessary to provide environmental flows to the river – to release water from the major Sydney dams to improve river health, as well as reducing the pollution flowing into the river from storm water and sewage effluent.

“The forum found that the cheapest and most lasting method of providing environmental flows was through water management and improving water efficiency, as well as increasing effluent reuse and improving the efficiency of irrigated agriculture.”

As part of White’s appointment, the Institute for Sustainable futures at UTS made a significant contribution to the development of public policy for managing Sydney’s bulk water supply in the larger context of river management within the Hawkesbury-Nepean catchments.

“The specific research projects included ‘Providing Water for the Future’, a whole catchment analysis to manage bulk water supply and demand in the catchment, with the aim of improving and sustaining river health while sustaining a growing population and river-reliant communities,” White says.

“Also, designing a program to monitor the social, economic and cultural impacts of introducing environmental flows in the Hawkesbury-Nepean; estimating current demand of water use for all agricultural purposes in the catchment; and the potential for irrigator water efficiency and the institutional arrangements required to change current practices.

“This work involved identifying potential impacts to river stakeholders, in consultation with those who are likely to be affected, and included ongoing requirements for community participation.

“The Institute contributed its knowledge of integrated resource planning, demand management, water efficiency and targets to an expert panel that met over two years to provide advice – on appropriate environmental flows for the Hawkesbury-Nepean – to the Hawkesbury-Nepean River Management Forum.”

### **The role of phosphorus**

The Institute for Sustainable Futures at UTS also contributes its bank of knowledge to tackling numerous scientific challenges. And phosphorus is another. The Institute is a co-founder of the Global Phosphorus Research Initiative (GPRI) established in

2008 with research counterparts at the Department of Water and Environmental Studies at Linköping University in Sweden. The GPRI also includes members from the Stockholm Environment Institute, the University of British Columbia in Canada and Wageningen University in The Netherlands. Its major objective is to facilitate quality interdisciplinary research on global phosphorus security for future food production.

A GPRI paper says phosphorus is an essential nutrient for all plants and animals: “We get our phosphorus through the food we eat, which has been fertilised by mineral or organic phosphorus fertilisers. But where the phosphorus in our food comes from, and how sustainable it is in the long term, is often not the topic of debate or significant investigation.” The GPRI says modern agricultural systems are dependent on continuous inputs of phosphorus fertilisers processed from phosphate rock.

“Yet phosphate rock, like oil, is a non-renewable resource that takes 10-to-15 million years to cycle naturally. While all farmers need access to phosphorus, just five countries control around 90 per cent of the world’s remaining phosphate rock reserves, including China, the US and Morocco. The phosphorus situation has many similarities with oil, yet unlike oil, there is no substitute for phosphorus in food production. Phosphorus cannot be manufactured, though fortunately it can be recovered and reused over and over again.”

In addressing the phosphorus issue, White says the world is vulnerable to the availability of high quality phosphate rock resources. “We are using up the high quality phosphate rock,” he says.

### **Changing behaviours and habits**

So could the world run out of phosphorus?

“That’s not going to happen,” White says.

“What will happen is it will get more and

more expensive to produce, because we will have lower and lower concentration resources. A significant issue is it’s mostly mined in Morocco, therefore security of supply is dependent and vulnerable to that region of the world. And there are significant food security issues if the price of phosphorus goes up. It went up 800 per cent in 2008.”

White says more than 80 per cent of phosphorus is lost between the mine and the fork on the dinner table. It’s also lost in processing and agriculture when, “not paying sufficient attention”, too much is applied to the plant.

“Phosphorus, badly applied or over-applied in agriculture, creates another environmental problem when it runs off into the rivers,” he says. “Then once it’s produced into food, there’s a significant proportion of food wasted, particularly in developed countries. All the way down the chain we have wastage. So we need to reduce wastage and improve efficiency of use.

“We need to look at our diets. The world moving towards western diets [more meat and dairy animal products] is placing a significant strain on phosphorus. That’s one of the key factors increasing usage. And that’s because you need so much more phosphorus for animal production than you do for plant production. And you have to grow plants to provide food for animals.

“We also need to recover and recycle phosphorus in manures and human excreta. These are the strategies we need to pay attention. We have projects at the Institute examining the recycling of human excreta. We are working on solutions and costing them.”

So, all-in-all, in examining the environmental impact human beings have on renewable and non-renewable resources, how do we make them sustainable for the long term? White answers: “The world has to learn to live within its means.” **T**

## **Eureka Prize awarded to UTS pair**

Professor Stuart White and Dr Dana Cordell of the UTS Institute for Sustainable Futures were awarded the 2012 NSW Office of Environment and Heritage Eureka Prize for Environmental Research, for their groundbreaking research on managing global phosphorus supplies and developing global and regional scenarios for sustainable production and consumption of this non-renewable resource.

“It was the work of Dr Cordell and Professor White that awakened the world to the problems of peak phosphorus,” says Frank Howarth, Director of the Australian Museum. “It’s an issue of paramount environmental importance as phosphorus is an irreplaceable element without which humans could not exist. Dr Cordell and Professor White are its champions.”



# WORLD AT *her feet*

Most young designers could only dream of work experience at Alexander McQueen or a role at Narciso Rodriguez – but for Talia Shuvalov, that dream is a reality. Meet the ambitious New York-based UTS graduate who's taking the fashion world by storm.

STORY MARK ABERNETHY

If you want to change the world, you should start with a load of passion in what you're doing, says UTS graduate Talia Shuvalov. But as the Sydneysider starts her career in the fashion world's capital of New York, she knows that leaving her mark on the world also takes a lot of hard work and perseverance.

"I've just moved into my new apartment in Soho, two blocks from Ruby's Café," says the 25-year-old Bondi native. "But I don't get to spend much time here – I'm too busy."

Busy is an understatement. Having attended Reddam House school in Sydney, and determined not to follow in the footsteps of her knitwear designer mother – Sandra Steiner – Shuvalov's avoidance of her mother's profession disappeared when it came to selecting a university and a degree.

"I loved design, loved clothes and wanted to work in an industry where I could express my creativity. Like many young people, I want to have an impact on the world and my creativity is how I can express that."

Enrolling into the UTS Bachelor of Design in Fashion and Textiles course, Shuvalov realised early that she'd made a lucky choice.

"The course was right for me because the emphasis was on breeding careers, rather than breeding labels," she says. "So it was about making us hone skills and become confident with what we wanted to express rather than being too commercially minded."

Shuvalov says with the well-equipped Faculty of Design, Architecture and Building, she found herself drawn to her mother's expertise of knitwear.

"In the second year we had a knitwear teacher come in – Alana Clifton-Cunningham – and she really got me

interested in not just selecting fabric, but designing and making it myself. I started spending a lot of time on the equipment, finding what was possible."

What was possible was eventually a four-month holiday work experience placement in 2009 with Alexander McQueen. She spent these months in London, working on photographs of hats for an upcoming show from the fashion doyen, and helping with several knitwear 'looks', three of which ended up on the catwalk for a McQueen show.

"That was an eye-opener," she says. "To see how hard they all work in the fashion world, when there's a show coming up, was amazing. People were exhausted but they'd still be working, trying to make everything perfect."

## Great expectations

Shuvalov graduated from UTS with first class honours, which gave her the bonus of having her collection exhibited at the Powerhouse Museum that year, a collection that gave a glimpse of her developing signature style.

"When I look back on that show, I can see that I'm leaning to graphic, modern fashion – textile-based knitwear: clean, minimal, architecture. I wasn't doing cardies and sweaters. It was high fashion."

Many students would have rested on the first class honours and the Powerhouse exhibit, but Shuvalov had already set her sights on the world. At the time, Parsons The New School for Design in New York was initiating a new fashion design course called the Master of Fine Arts (MFA) in Fashion Design and Society, which would be overseen by Donna Karan. The Donna



Karan MFA was a conscious effort to develop a course as focused on creativity as on industry-induction, and Shuvalov was offered a place in the two-year course.

"It happened very quickly," says Shuvalov, who was one of 18 young designers from around the world selected for the Donna Karan course. "I was accepted by Parsons in July 2010 and I moved to New York in August."

During those two years, she was given the chance to learn under some extraordinary people, most notably Donna Karan herself and Calvin Klein. As she was exposed to people from other countries and the high level teachers, she realised the UTS degree had been a very good grounding for her career.

"That degree gave us the confidence to express ourselves the way we wanted to, while also giving us a good grounding in technique and even things like anthropology. It's a fantastic foundation."

### Relishing opportunities

As her time at Parsons drew to a close, two career-making events happened for the girl from Bondi: she managed to have nine 'looks' in the MFA catwalk event that closed the New York fashion show at the Milk building in September; and she was offered a job as the knitwear designer at Narciso Rodriguez.

Her days are now spent at the fashion house at Irving Place, selecting swatches and buttons and developing the looks that will be in the next Narciso Rodriguez show: the 'pre-fall' show in December followed by the fall show in February.

And because this is New York and a major fashion house, Shuvalov is designing for the world.

"A lot of time, effort and thought goes into a look," she says. "And when retailers pick it up and people start wearing it in the street, the world is changed."

Shuvalov says the environment is perfect for someone who loves fashion: she works in a small group with fast, constructive feedback from Rodriguez and his senior team. Even the hours are not so bad, although Shuvalov does warn others who want to try it that seven-day weeks are normal in the New York fashion world when a show is imminent.

"I was working quite solidly before I got the job with Narciso, so it hasn't come as much of a shock," she says. "But if you're waiting for five o'clock so you can go home, then New York fashion may not be for you. I'm lucky that I love it." ■



Designs by Talia Shuvalov.  
Images self-supplied

Pictured:  
Talia Shuvalov.



# AN INCONVENIENT TRUTH

For many Australians, the concept of human trafficking or forced labour is an alien issue – one that is confined to other, less-developed countries. Yet such abuses do occur in Australia, and UTS's Anti-Slavery Australia is doing more than just raise awareness of the key issues.

STORY **CAMERON COOPER**  
PHOTOGRAPHY **NICK CUBBIN**

Australia is part of an Asia-Pacific region that is one of the black spots of a larger international trafficking problem.

Associate Professor Jennifer Burn, Director of Anti-Slavery Australia, based at UTS, says the scale of human trafficking in Australia is unclear, although Australian Federal Police have run 325 investigations since 2004. "Trafficking and slavery is still invisible really - it's not really on most people's radar," she says.

Burn notes the Asia-Pacific region is clearly an area in which considerable trafficking activity occurs. While most people associate the issue with the commercial sexual exploitation, it exists in many other forms.

"Most of the media coverage has been about women in the sex industry," Burn says. "But trafficking covers many different kinds of abuse, including forced slavery in a whole range of industries. It involves men and women, boys and girls in exploitative conditions that are so grave that it is, in fact, criminal exploitation."

## Global scourge

The latest International Labour Organization (ILO) figures indicate that 20.9 million people are victims of forced labour globally, with

about 90 per cent of the victims exploited in the private economy.

Forced sexual exploitation accounts for about 4.5 million of the total, while abuses within economic activities such as agriculture, construction, domestic work or manufacturing represents about 14.2 million, or 68 per cent of cases. The remainder falls under the category of state-imposed forced labour.

While such numbers are disturbing, Burn believes many cases of human trafficking and abuse are not identified simply because people lack understanding of the issue or are not aware of the signs of potential cases of exploitation.

As the only specialist legal and policy centre in Australia focused on slavery, trafficking and extreme labour exploitation, Anti-Slavery Australia is at the forefront of efforts to increase awareness of the problem and contribute to solutions. Set up in 2003, the centre is based within the Faculty of Law at UTS and focuses on strategies to alert communities to the insidious nature of trafficking.

It works with labour and community groups to promote awareness, rights and remedies, including Red Cross Australia, Australian Catholic Religious Against

Trafficking in Humans (ACRATH) and World Vision Australia, as well as business groups such as Clayton Utz, Mallesons Stephen Jaques, Foxtel and Lexis Nexis.

Anti-Slavery Australia also oversees a pro bono lawyers' network to represent and assist people who have experienced trafficking or slavery in Australia.

## Student action

UTS students and researchers play an integral role in delivering Anti-Slavery Australia programs. The trafficking issue is personal for Miguel Cruz, a law student of Filipino heritage who is doing Practical Legal Training (PLT) with the centre. Within the Asia-Pacific region, Filipinos are one of the racial groups that suffer high levels of abuse.

"I'm from a Filipino background and one of the most fulfilling aspects of this placement for me is that I'm able to help people from my background - people from The Philippines who have been trafficked," he says. "So it's very important for me."

Cruz became involved in the centre after studying in a refugee law class. His work chiefly involves case work related to the sex trade or labour trafficking.

After graduation, Cruz hopes to stay involved in the anti-slavery fight and make a difference to people's lives.

"I think migration is a big issue and it's an area I hope to be practising in."

Another UTS law graduate Arani Ahmed serves as a legal researcher at Anti-Slavery Australia, also as part of her PLT requirements. She contributes to journal articles on trafficking and slavery, and helps research submissions for government inquiries. "Seeing things develop on a policy level is really interesting," she says.

Ahmed engages in specific work associated with forced marriages.

"I think that's a big issue, especially for young women to have awareness-raising about forced marriage ... to identify when it could be happening and who to notify in that situation." While the work is often confronting, Ahmed appreciates the opportunity to play a role in improving the lives of vulnerable people.

"Personally, I've always been interested in human rights in general and specifically gender-based human rights," she says. "It's wonderful to do a law degree and then actually use it for something that's beneficial to so many people."

### **Educational imperative**

The ILO report identifies Asia as a particular trouble spot for human trafficking and slavery. It reveals that the Asia-Pacific region accounts for 11.7 million, or 56 per cent, of the global total of cases. The second-highest number occurs in Africa (3.7 million, or 18 per cent), followed by Latin America and the Caribbean (1.8 million, or nine per cent).

The statistics, and Asia's status as a source country for some trafficking into Australia, underlines the importance of Anti-Slavery Australia's work. The centre plays a key role in raising awareness about the gravity of human trafficking and slavery through a range of mediums such as websites, events and social media.

For example, information and videos on the centre's website help educate the broader public about the problem, while community service announcements such as the story of an enslaved cook - which screened about 9000 times through the Val Morgan cinema advertising network across Australia late last year - are an important part of the educational program.

"So there is a gradual increase in awareness, but there are gaps," says Burn, who notes that people under the age of 23 and those in the over-60 demographic are least aware of the issue.

Burn and her team have also established the Anti-Slavery Australia Freedom Awards, which recognise individuals and organisations that contribute to stopping slavery, people trafficking and forced labour. Given the dark nature of slavery, Burn says the event is an important way for people to celebrate actions that relieve suffering.

"There's a lot of joy around that recognition of initiatives."

### **Ongoing campaign**

While the plight of abused people is a great cause for concern, there are some



**Left: Arani Ahmed, UTS law graduate with Associate Professor Jennifer Burn, Director of Anti-Slavery Australia.**

rays of light. New laws criminalising forced marriage, forced labour and organ trafficking have been introduced into the Australian Parliament by Attorney-General Nicola Roxon.

Colloquially known as the Slavery Bill, it is designed to address all forms of slavery, servitude and forced labour. The legislation also seeks to punish people who help to enslave or traffic people, as well as those who keep slaves. The Bill has been passed in the House of Representatives and is awaiting final approval in the Senate.

Burn is confident that such legislation can help strike another blow against human trafficking and slavery.

"There has been a gap in the law where the slavery and trafficking offences as

found in the current law haven't always picked up the nature of the exploitation that we're seeing in Australia. So the introduction of the forced labour offences is particularly welcome." **T**

UTS is grateful to those who have made a donation in support of Anti-Slavery Australia, including the Neilson Foundation which has given generously to raise awareness of slavery and to eradicate all forms of slavery in Australia. For more information on how you can support Anti-Slavery Australia, please contact Rachel Tomlins on (02) 9514 9825 or [development@uts.edu.au](mailto:development@uts.edu.au)

# *Bridging* **THE GAP**

Intelligent, ambitious and with a strong will to succeed, UTS engineering student and the Vice-Chancellor's Indigenous scholarship recipient Sergio Rojas is a name to watch out for in the future.

STORY **ROSEMARY ANN OGILVIE** PHOTOGRAPHY **NICK CUBBIN**



UTS Bachelor of Civil and Environmental Engineering student, Sergio Rojas, has planned his future with the same level of precision his profession demands.

"One day I'll be an executive in a publicly-listed company," he states unequivocally. But not just any company: it must have a strong ethos of sustainability, playing a key role in lightening the industry's carbon footprint, something Rojas believes can be achieved through the right leadership, good judgement and ethical actions.

He'll be a leader who never stops learning, and always speaks his mind. "We need to stand up for what we believe is right. Once I have the power to make change, my biggest duty is not to abuse it," Rojas says.

While Rojas, a Gurang Gurang man hailing from Bundaberg, is not aware of any Murri (Indigenous Australians of Queensland) who currently holds such a position, this doesn't deter him in the least.

"I'll do it not only for myself and my family, but also for my people. I need to set an example for parents and their children that it's never too late to change."

In the meantime, he plans to proceed with his Masters of Engineering, followed by his PhD at UTS.

"Twenty years after that, I'll be teaching engineering to a classroom of Indigenous students, comprised equally of men and women, for I hope to see equality across all races, genders and socio-economic backgrounds."

### **Pure beauty**

Rojas, who grew up in the small Hunter Valley town of Bulga, just outside of Singleton, recalls that even as a young child, he knew he wanted to study at UTS.

"I remember driving along Parramatta Road with my father on the way to the northern suburbs to help him build fences, passing this big brown building and knowing it was where I would be. People joke about how ugly it is, but I never saw it that way: to me it was pure beauty and a ticket to do something great with my life."

Being awarded the Vice-Chancellor's (VC) Indigenous Undergraduate Tuition Fee Scholarship enabled Rojas to fulfil this long-held desire. Money was always scarce in his close-knit family, although only when he was older did he realise just how poor they were.

"My mum gave us everything and went without to do so," he says with obvious pride. "I always went to private schools, always had a new uniform, and never went hungry.

She did an exemplary job keeping my sister, brother and myself from finding out."

It was his mother who applied on Rojas' behalf to UTS's Jumbunna Indigenous House of Learning's educational access scheme for a full tuition scholarship after she learned of it while studying for her law and sociology degree at the University of Western Sydney.

"If she hadn't done this, I'd probably still be working as a labourer," says Rojas. "Financially, university had been out of the question - not because my mother couldn't pay for it because she always found a way, but because I had already taken so much from her. I witnessed the hard work and the various jobs she did just to keep going with her studies and to provide us with food and shelter. She had no money outside of the pension, and my father had his own responsibilities."

Rojas says the scholarship was the best thing to happen in his life, and also in the lives of his entire family, as it has allowed him to set an example for other family members to follow.

"It enabled me to be independent from my mum and give her a rest for the first time in her life."

### **Embracing life**

Six years on, Rojas is nearing the end of his undergraduate studies and expects to graduate in 2013. He is currently employed by Leighton Contractors, working on the Hills M2 Upgrade project as a member of the environment and structures teams. Previous work experience was obtained with Rio Tinto and Energy Resources Australia.

He remains heavily involved in sport. Playing rugby league, soccer, netball, volleyball and basketball has given him the opportunity to travel all over Australia.

"I've been to the Indigenous University Games in Perth and Newcastle; the Eastern University Games at Bathurst; and the Australian University Games in Perth, Adelaide and the Gold Coast. I also played rugby league for the UTS Jets and again when they changed to the UTS Tigers."

Rojas has also represented UTS in community work for Jumbunna, and spoken with philanthropists interested in donating money to UTS for scholarships.

"I even met with UTS boards to discuss how to improve the number of Indigenous engineering students, and was a part of the visit from the Minister of Education."

Rojas and his fiancée Emma are set to welcome the arrival of their second child,

## **Providing opportunities**

For more information on supporting UTS students, see [www.uts.edu.au/bc/support.html](http://www.uts.edu.au/bc/support.html) or to make a donation to UTS, please contact

Jane Westbrook, Director of External Relations ([jane.westbrook@uts.edu.au](mailto:jane.westbrook@uts.edu.au)). To learn more about Jumbunna Indigenous House of Learning, visit [www.jumbunna.uts.edu.au/students/index.html](http://www.jumbunna.uts.edu.au/students/index.html)

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due in November, a younger brother or sister to one-year-old Sienna. "Everything I do is for them," he says.

### **Diversity, culture and egalitarian attitude**

In Rojas' opinion, the best thing about studying at UTS is the diversity, culture, and egalitarian attitude.

"Throughout my time here, I've witnessed the continual growth of UTS. True to their motto 'Think - Change - Do', when they see an issue they fix it," he says. Rojas values this scholarship - a Willy Wonka golden ticket out of poverty, as he describes it - far too highly to ever take it for granted.

"We live in a society where we're measured by our accomplishments," he says. "Potential employers see this scholarship as a safe bet: if a vice-chancellor was prepared to take a chance on you, then they will too."

He adds that the scholarship has brought out the best in him.

"It's amazing how much a little support can do for a person, and when you have support, your opportunities are endless."

Rojas urges other Indigenous students who are thinking about applying for the VC scholarship not to waste it.

"Remember, it's a tool to help you get there: you have to provide the hard work, determination and perseverance. To become great, you will go through the worst of times, but as long as you hang in there until the very end and complete your degree, it's all worth it."

As a final word, he stresses that no matter what anyone says, no matter how mean or demeaning people are, or how much they put you down, always believe in yourself.

"Because if you don't, how can you expect any one else to?" **T**

# SMARTER CITIES





**Left:** Associate Professor Heather MacDonald, Head of School, Built Environment, School of the Built Environment, and Associate Professor Dr Garry Glazebrook, Research Director at the Institute for Sustainable Futures.

How can governments adopt a framework to boost housing affordability and long-term sustainability in our cities? Anthony Black speaks with two UTS experts for their take on getting the public policy balance and the strategy right.

PHOTOGRAPHY **NICK CUBBIN**

Thinking outside the square is a path to problem solving. It's certainly not the only problem-solving method, but it's shown to be effective when dealing with challenging issues amid finite resources. Throwing unlimited sums of money at problems can lead to solutions. But in the real world, budget expenditure, whether private sector or government, is allocated according to priorities.

The issue of developing smart cities for the future requires a multi-pronged approach from an array of intuitive minds who are ready to change the world. Changing the world takes courage - big reforms, by their very nature, will generally attract close scrutiny and be open to harsh and fast criticism.

Deviating from the status quo is never easy. But people who are prepared to contribute to a debate, no matter how hostile, can shine light on difficult issues that lead to integrated solutions. And planning needs to be long-term.

Housing affordability is never far from the headlines as it's an emotive issue encompassing what most consider a basic human right. Housing affordability improves and deteriorates depending on a myriad of factors. Tougher economic times can reduce housing affordability if unemployment rises and the job market dries up. High mortgage interest rates, soaring rents and cost of living increases significantly contribute to housing stress.

Housing affordability varies depending on where a person lives. Affordability statistics often vary in each Australian state and quarter by quarter.

But what is generally accepted is that housing affordability in Australia has significantly deteriorated since the 1950s.

### **Housing affordability a key issue**

Associate Professor Dr Garry Glazebrook, Research Director at UTS's Institute for Sustainable Futures, says that between the 1950s and the late 1980s, state government land authorities had released much more land for development than in the past two decades (1990-2012). Local councils between the 1950s and late 1980s had mostly met hefty infrastructure costs, but can't afford to today.

Glazebrook says infrastructure costs today are largely met by private property developers prepared to take on calculated risk on projects they believe will generate the

best returns. Two incomes are usually needed to buy property in Australia's capital cities today.

Governments of all persuasions haven't done nearly enough to address the housing affordability problem, according to Glazebrook. Interestingly, he says, it can boil down to a philosophical stance. Liberal governments have tended to, or still do, view property development as the domain of the private sector. Labor governments acknowledge they should do more, and intend to do more, as affordability mostly affects low-income households - the very people more closely identified with Labor ideals.

But property development is a complex, expensive and lengthy process, and any government can become quickly distracted by what it considers more pressing issues.

Mindful of the sub-prime crisis in the US that sowed the seeds of the global financial crisis, policy makers are only too aware of the detrimental effects that can flow from rapidly increasing the housing supply. While Glazebrook strongly argues in favour of improving housing affordability, he acknowledges people's individual wealth - often tied to rising property prices - is something governments can't and won't ignore. Glazebrook says median house prices in the US have fallen by about 30 per cent, mostly as a response to over-supply, since the GFC. In contrast, he says, median house prices in Australia have fallen by a modest five-to-10 per cent in the past four years.

### **Then and now**

A common approach by past governments when addressing housing affordability was to introduce incentive schemes, mostly for first homebuyers. But as Glazebrook and Dr Heather MacDonald, also of UTS, point out, government grants are generally aimed at stimulating a subdued property market rather than addressing housing affordability.

MacDonald, an Associate Professor and Head of the School of Built Environment, says broadening inclusionary zoning across Australia would improve housing affordability. Inclusionary zoning involves making a percentage of new housing developments, either for buying or renting, available below market prices. Inclusionary

## “To change the world, we must design and implement better public policy.”

**ASSOCIATE PROFESSOR HEATHER MACDONALD,**  
Head of School, Built Environment, School of the Built Environment

zoning should be targeted at low-to-middle income families, but sub-market housing prices and rents should be established in advance. A general objective of improving housing affordability is to avoid or relieve housing stress.

For inclusionary zoning to be successful, it requires lateral thinking, and MacDonald raises another valid and important point. She says housing affordability deteriorates when access to infrastructure, such as public transport, improves.

“It’s a real dilemma,” MacDonald says, adding the positive and negative effects of inclusionary zoning need to be closely examined, adding policy makers have been – and perhaps still are – reluctant to deal with the issues. Housing becomes more expensive with access to good infrastructure. But there’s a positive side to accessible infrastructure pushing up housing prices.

MacDonald says governments generate more stamp duty and other taxes from housing turnover, which then could be reinvested in improving infrastructure where it’s needed elsewhere in the state.

In tackling the inclusionary zoning issue, MacDonald poses a question that should be carefully considered by decision makers. “Should inclusionary zoning be put in place well before building the infrastructure?” Such a move would improve housing affordability.

### **The real cost to society**

A standard affordability measure means no more than 30 per cent of disposable income is spent on housing – whether it be buying or renting. Housing stress levels are said to rise beyond 30 per cent.

MacDonald says education suffers when a primary school student’s family is living under housing stress – and moving address constantly – because they can’t meet mortgage payments or the rent.

“If a child changes schools three times in four years, there’s a noticeable decline in subject scores,” she says. “It’s unsettling for a child to be moving from school-to-school. They child falls behind and finds it difficult to catch up. The societal costs are massive, because a poor education can have an adverse impact on career prospects and potentially adds to the welfare bill.

“To change the world, we must design and implement better public policy.”

It’s a point loudly echoed by Glazebrook. Essential to smart cities is an effective, coherent and reliable public transport system. It is and will be vital to a city’s functioning and future growth, as crude oil becomes increasingly harder to find. Glazebrook says the world has reached peak oil in the past five years and reducing supplies will push up petrol prices. He highlights that

according to an International Monetary Fund working paper, a barrel of crude oil is projected to increase to \$US180 by 2021, if not earlier. Increasing concerns about global warming, associated with burning fossil fuels, should encourage decision makers to focus more on finding public transport solutions.

“Smart cities of the future will become less car dependent,” he says, adding there is a visible switch already underway with more car sharing, more cycling and walking and noticeable growth in electric car sales, albeit from a low base. “We need to decarbonise our energy systems and place a greater emphasis on renewable energy.”

### **Tackling the transport issue**

Glazebrook says affordable housing and transport, either public or private, are inextricably linked. People living close to central business districts of capital cities tend to rely far less on cars than those living between 30 and 60 kilometres away. Critically, Glazebrook makes a focal point for consideration: “Affordable housing should be measured as a total of how much is spent on both housing and transport. Housing is more affordable in outer suburbs, but transport costs, particularly for those driving cars, are higher. Housing is more expensive in inner city suburbs, but car transport costs are generally lower.”

Lifestyle choices are playing a bigger part in housing than ever before. A growing number of younger people are choosing to rent inner city apartments close to amenities, such as cafes, hotels and public transport, rather than repaying a mortgage on a home in the outer suburbs. Yet many young families, particularly those on relatively low incomes, have little or no choice but to buy or rent in suburbs dictated by their household budgets. Their budgets actually determine an “affordable housing” area to live.

There in lies the conundrum to affordable housing. Our cities are changing and so are our attitudes to housing. Technology is changing the way we work. But everyone needs a roof over their head and a need to travel in and around cities.

Glazebrook says public transport issues have to be addressed in cities with growing populations, and Brisbane, Sydney and Melbourne require major new railway lines through the “heart of their cities”.

“More public transport capacity is needed across inner city suburbs to meet growing passenger demand,” he says. “While more ‘coverage’ [railway lines] has to be extended to the outer suburbs. Like most things, providing affordable housing and improving public transport systems is a balancing act. It’s a matter of getting the balance right. And that takes vision, extensive planning and an ability to execute the strategy.” 

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*"When I retired in 1990 I learnt a friend's father was involved in setting up scholarships through the Aboriginal Educational Council. I joined the council and I also joined what was then the Roberta Sykes Black Women's Action in Education Foundation. I began to donate to that scholarship scheme because Roberta herself had received a scholarship to go to Harvard to do a PhD in English, and the first person they were involved in supporting to go to Harvard was Larissa Behrendt – now a Professor of Law at UTS and Chair of Indigenous Research. That's how I became involved with scholarships at UTS, and later I established the Monika Law Scholarship at UTS. I've so enjoyed helping female Indigenous students meet their academic goals that I've decided to leave my estate to UTS, to ensure that many more generations of Indigenous students will receive the Monika Law Scholarship."*

– Monika Law, donor to UTS (pictured)

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