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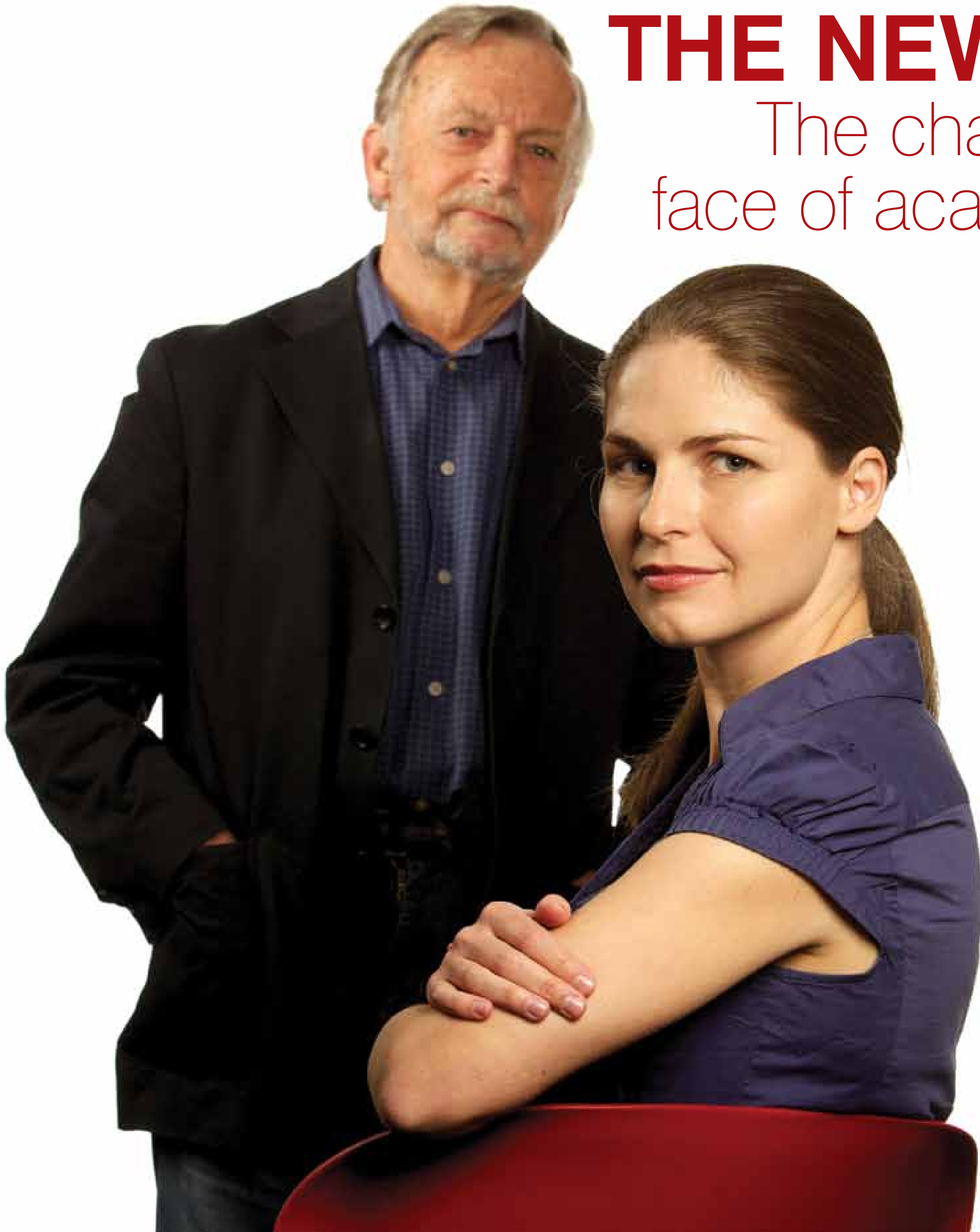

THE NEW CV
The changing face of academia

PLUS

Unwanted inheritance
Cancer's hold over family

Three kids and you're out
Hitting a career speed bump

Financial fix
Cleaning up after the GFC

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9385 1583 or uniken@unsw.edu.au
Editor: Susi Hamilton
Deputy Editor: Fran Strachan
Editorial advisory committee: Kathy Bail, Judy Brookman, Denise Knight, Mary O'Malley
Contributors: Bob Beale, Dani Cooper, Nicky Lancaster, Julian Lorkin, Steve Offner, Ben Power, Peter Trute
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"OBJECTIVELY SPEAKING ..."
How this object inspires me.

David Paterson, UNSW@ADFA

A family affair

A shirt, a gift from her adoptive "sister", reminds this anthropologist of her connections to Indonesia.

Minako Sakai, who is based at UNSW@ADFA, has been travelling to Indonesia for decades for her research, most recently into Islamic social movements. While she is now looking at microfinancing in that country, she originally went to the highlands of South Sumatra for her PhD fieldwork on Islamic and customary ritual practices.

For two years in the mid-1990s, she shared a room with Ayuk Has, the eldest daughter of a Muslim family. The traditional shirt was a gift from Has after she married."She was the eldest of around 11 or 12 siblings," says Dr Sakai, who is based in the School of Humanities and Social Sciences at ADFA. "She looked after the younger children and so she missed out on getting married when she was younger."

While Sakai was living with the family, Has eloped to Jakarta to become the second wife of her long-term boyfriend. Eventually, it was left to Sakai to break the news to Has' father.

"He wasn't upset," she says. "In Islam, men are allowed to have up to four wives under certain conditions. This really is a love story. They are still married. Polygamy looks odd to the outside, but I have an understanding of why that was the best decision in this case.

"Ayuk Has was over 40 when she got married and it would have been hard for her to find a bachelor as there is the expectation that the wife produces children. She was worried that a younger man might leave her if she did not have a child," she explains. "He proposed to her initially but she declined as she had many siblings to look after, for two decades afterwards their friendship continued."

Sakai stays in touch with the family and still makes regular trips to the country.

Since 2006, she's been researching Islamic social movements including the philanthropic organisation, The Wallet of the Poor Foundation.

"In the wake of September 11 and the Bali bombings, Islam often gets tainted as negative," she observes. "But a lot of Muslims are doing really good things and still want to use these religious ideas in everyday life. I am writing a book of Islamic social movements, based on faith and social justice in Indonesia."

The Wallet for the Poor Foundation supports a number of causes including disaster relief, free health care, scholarships for young people from disadvantaged families, and Islamic microfinancing.

While it may have some similarities to the Grameen Bank, which also provides small loans to the poor, there are some differences.

"All the contracts are based on Muslim law," says Sakai and most of the microfinancing in Indonesia benefits women's businesses.

"This is against the prevailing belief that Muslim women are set aside over men."

This year, Sakai spoke about inter-religious dialogue at the World Economic Forum on East Asia, where she argued for more religious-based organisations to be involved in providing humanitarian relief after crises.

By Susi Hamilton

To nominate for "Objectively speaking ..." please email uniken@unsw.edu.au

Legal champion TURNS MENTOR

After almost two decades as Australia's most outspoken DPP, Nicholas Cowdery is leaving the critics behind for a fresh look at the law. By Louise Williams.

As Director of Public Prosecutions for the past 16 years, Cowdery daily confronted the web of conflicting interests within the criminal justice system while under the constant scrutiny of the media.

"Whatever you do as a prosecutor you are going to make someone unhappy: the victims who are outraged and unsatisfied; the accused who are indignant and professing their innocence; the police who are frustrated; [and] the judges who are unhappy with the way the case is being run," he says.

Added to that explosive mix was also the radio stations' "shock jocks", fond of pontificating on "law and order", and never reluctant to throw a verbal punch Cowdery's way.

On campus at UNSW, the Faculty of Law's new Visiting Professorial Fellow is looking decidedly relaxed about his long list of post-retirement briefs – one of which is to bring the "practical perspective" of his extraordinary career to the teaching and research of law, through guest lectures, student mentoring and research collaboration as part of the University's Criminal Justice Research Network.

One of his first collaborative efforts will be a review of the state's drug laws with the NSW Bar Association, with the assistance of law school interns.

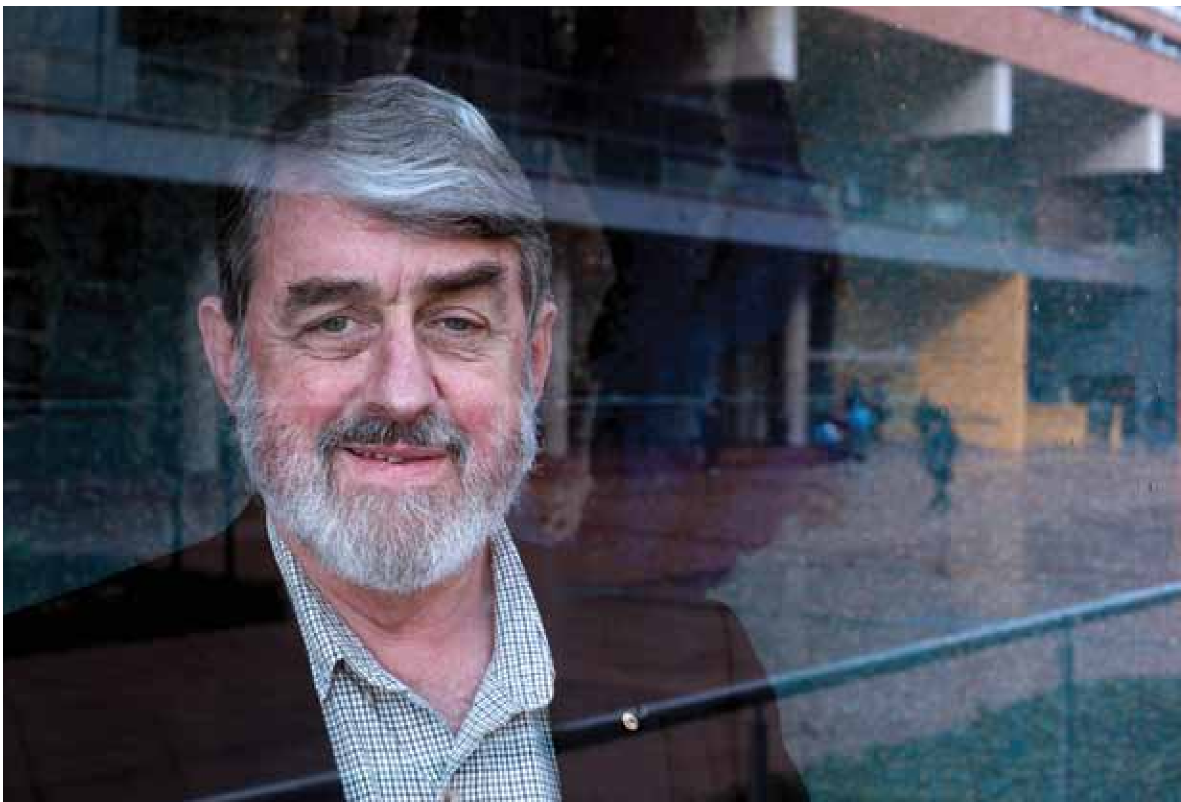
It is a dramatic change of pace. The work of the DPP is an endless parade of the most serious and horrifying of crimes. Cowdery AM QC presided over some of the state's most controversial cases including those of Ivan Milat, Gordon Wood and more recently, Kelli Lane.

"It is a position that exposes you to the full range of man's inhumanity to man," he says.

You cope "by being professional" and understanding what the criminal justice system can, and cannot, achieve, and that everyone is playing their role, even the "shock jocks".

The criminal justice system, "cannot restore a victim to where they were before the crime occurred" or "wave a magic wand and convert an offender into a worthy citizen".

That said, there is clearly much room for empathy and compassion within Cowdery's visions for legal reform.



Grant Turner, Mediakoo

Not only has he championed the rights of victims of crime, he firmly believes crime is a "social problem" which cannot be addressed by locking more people up for longer. Instead it should be tackled, first, where it begins; within the homes of disadvantaged, neglected or abused children, and then through meaningful efforts at rehabilitation at every step.

The way Cowdery tells it, he fell into law almost by default.

"I was interested in English, history and acting, so a careers advisor told me I should be a barrister – I gave it about five minutes thought," he says. But, he did discover a real passion for criminal law at university.

These days, he doubts he would even get into any of Sydney's highly competitive law degrees. "Today's law students are scarily bright; not only would I not get into law, I probably couldn't even qualify for my own first job today," he says, laughing.

However, given the increasingly high ATAR cut-offs for law, Cowdery thinks there could be a case for alternative entry streams to ensure the profession doesn't miss out on bright young people who fall below the cut-off mark.

Among Cowdery's various new roles, four are with universities, and he will continue his international work on criminal law, as well as conduct inquiries and lead research projects.

But, one recent assignment presented a particular challenge; a review for the *Sydney Morning Herald* of the ABC TV drama, *Crownies,* set in the office of the DPP.

The verdict: there wasn't nearly as much glamour, sex or drugs at the DPP on his watch.

Tough fight ... 27-year-old Liam Paterson with Professor Dedee Murrell

HOPE FOR BUTTERFLY KIDS

A breakthrough in the treatment of epidermolysis bullosa – a potentially fatal genetic condition that leaves a child's skin so fragile even a mother's cuddle can be damaging – has given hope to 1,000 Australians with the disease. The Butterfly Kids – so-called because their skin is as fragile as a butterfly's wings – need their painful blisters drained, bathed and bandaged every day. Now researchers led by UNSW Conjoint Professor **Dedee Murrell** and **Dr Hellen Yan** are pioneering an exciting new therapy. A trial has shown multiple injections of either donor skin cells or a placebo solution into wounds can help even the most chronic ulcers heal. "We'd never seen anything like it. I hesitate to use the word 'miracle', but at the time that's how it felt to us," Murrell told ABC TV's *7.30*. The best news: the cheap placebo saline injections were just as effective as the $10,000 cell-based therapy. UNSW has set up a fund to help support Murrell's ongoing research. Anyone wishing to donate, visit the Giving to UNSW website – follow the links to the Butterfly Children Fund.

FRESH START FOR COFA The Federal Minister for the Arts **Simon Crean** marked the start of construction on the $58 million Gateway@COFA project, largely funded by the Commonwealth. The Minister was joined by NSW Premier Barry O'Farrell and leading members of the arts and design communities for the launch, including Gene and Brian Sherman, who donated $2 million to the main galleries. The guests were welcomed by UNSW Chancellor David Gonski. The project is due for completion in late 2012.

INVENTOR OF THE YEAR

Engineering's Professor **Liangchi Zhang** has been named Inventor of the Year by UNSW's commercialisation arm, NSi. Zhang has developed a cutting tip for the rock and coal mining industry, which dramatically improves wear resistance compared with existing designs, and reduces cutting force, energy consumption and dust generation. Meanwhile, NSi has a new CEO, Dr **Kevin Cullen**, former Director of Research and Enterprise at the University of Glasgow. Cullen joined UNSW in May.

EARLY LEARNING

Professor **Deborah Brennan**, from the Social Policy Research Centre, will conduct a review into how efficiently $220 million in state and federal government funding is being spent on early childhood education in NSW. The review's recommendations will be presented to the NSW government by the end of the year.

FINE FELLOWS

UNSW has two new Australian Laureate Fellows – Professors **Mike Keane** and **Ian Petersen**. They were among a stellar line-up of 17 researchers to receive the country's most prestigious fellowships. Professor Keane of the ASB and ARC Centre of Excellence in Population Ageing Research, will use his fellowship to develop policies in areas such as health insurance, aged care and superannuation. Professor Petersen, an ARC Federation Fellow at UNSW@ADFA, will investigate theories for control of complex quantum systems, enhancing Australia's prominent position in quantum technology.

EUREKA HIGH

A **record number** of UNSW researchers are vying for the 2011 Eureka Prizes, the "Oscars" of Australian science. Showcasing the breadth of our research excellence, the 11 finalists come from four faculties and three affiliated research institutes. Winners are announced on September 6, see the Eureka website for details.

→ AROUND THE TRAPS

UNSW solar cell researchers have created **world record** efficiencies with new low-cost technology. • Virtual reality technology developed at **iCinema** has been sold to China for $1 million to boost worker safety in that country's mining industry. • The President of Nanyang Technological University in Singapore, **Bertil Andersson**, has been awarded an honorary doctorate by UNSW for his research in photosynthesis and leadership in science. Professor Andersson has also been instrumental in establishing collaborations with UNSW, such as the Advanced Environmental Biotechnology Centre, based at NTU. • The Chancellor and Vice-Chancellor hosted a dinner to honour the winners of the 2010 Alumni Awards: Professor **Glenn Murcutt** AO (arts); **Nicholas Moore** (business); UNSW Conjoint Associate Professor **Charlie Teo** AM (science); and Judge **Andrew Haesler** SC (community). • A record number of Indigenous high school students – 165 – graduated from the **Nura Gili Winter School**, supported by founding partner UBS. • FBE graduate Chris Fox took second place in the national **James Dyson Awards** for his self-inflating life jacket.

→ WATCH THIS SPACE

A group of the world's leading experts in **corporate governance and financial regulation** meet for an ARC-funded roundtable, *In Who Or What Do We Trust? Towards a New Theory of Corporate Governance*, hosted by UNSW's Centre for Law, Markets and Regulation – September 15–16. • Deans of **five Palestinian Law Schools** visit from September 19–29, funded by the Council on Arab-Australian Relations. • Three globally renowned experts in ageing, including **Baroness Susan Greenfield**, explore the consequences of living longer – public lecture hosted by UNSW Medicine, October 17.

FINANCIAL FIX

A new international centre led by UNSW will gather the financial and regulatory expertise to help weather any looming global financial storm, writes Julian Lorkin.

With talk of a double-dip recession on the cards, the world is raking over the danger signs that heralded the beginning of the Global Financial Crisis (GFC). Preventing another round of economic carnage, however, is a trickier proposition.

Heading that effort will be Australia's new Centre for International Finance and Regulation, led by UNSW's Australian School of Business and Faculty of Law.

Funded to the tune of $41.5 million, the Centre is a consortium of leading universities, financial institutions, and research and development organisations. A key role will be to assist government, regulators and industry to meet emerging challenges and opportunities in the field of global finance, and will link and support international policy makers, regulators, industry and academia to anticipate and contain future financial disruptions.

"The rigour of the world's financial regulatory systems ... is critical to the health of the global economy," says UNSW Vice-Chancellor Professor Fred Hilmer. "A major goal will be to help prevent a repeat of the GFC, which to a great extent was caused by a lack of financial regulatory integrity."

The Centre will be located in Sydney's CBD, close to banks and the stock market, creating a focus for industry stakeholders. It will enhance Australia's reputation as an international leader in financial innovation and "contribute to the further development of Australia as a regional financial services hub", Hilmer says.

Interim director is John Trowbridge, a former executive member of the Australian Prudential Regulation Authority. The expertise of three Nobel Laureates will be at hand through active collaborations with two of the world's leading finance research centres, UCLA's Fink Center and New York University's Salomon Center and Volatility Institute.

The Federal Government has committed $12.1 million over four years towards establishment costs, with the NSW Government providing $6 million. A further $6 million has come from corporate sources and universities. The Centre will also receive $17.5 million of in-kind support from partner institutions including NYU, and further funding is expected.

One of the missions will be to examine Australia's "best practice" regulations, comparing them to rules around the world, and carrying out simulations to see how they hold up in times of stress.

A major challenge will be to get the balance right between fostering innovation and providing a safety net, ASB Dean Professor Alec Cameron says.

"We've got all the regulators, the players within the financial sector, and academics giving insight and playing a key role in terms of developing and implementing policy," Cameron says.

"Essentially we have to provide protection for the economy without putting in place so much financial regulation that we stifle innovation and economic growth. It's a tricky balance."

SMALL THINGS INSPIRE BIG IDEAS

A new nanomedicine centre at UNSW, the first of its kind in Australia, will research treatments for difficult-to-treat diseases including aggressive childhood cancer and lung cancer.

The Australian Centre for Nanomedicine (ACN), launched by Australia's Chief Scientist, Professor Ian Chubb, brings together medical and clinical researchers with specialists in nanotechnology, engineering and chemistry.

"Nanomedicine will enable better delivery of drugs and vital therapies to individuals who would not prosper without that treatment," Chubb says. The ACN, in partnership with the Children's Cancer Institute Australia (CCIA) and UNSW's Lowy Cancer Research Centre, is targeting neuroblastoma among its initial projects. Neuroblastoma is the most common tumour in children under five and has a survival rate of only 40 to 50 per cent.

The ACN is also developing treatments for lung cancer and chronic liver disease, and investigating new pain management drugs derived from marine life among its initial projects.

Nanomedicine uses the changed properties of materials at the nanometre scale – measured in millionths of a millimetre – to develop revolutionary drug delivery, gene therapy, cell regeneration and disease diagnosis methods not possible in conventional medicine.

Deputy-Vice Chancellor (Research) Professor Les Field says the case for a centre was compelling.

"I could see that the interdisciplinary communications between engineers, polymer scientists, chemists and medicos was a spark that was going to go somewhere," he said at the opening.

The ACN is led by Professor Tom Davis, from the Faculty of Engineering; Professor Maria Kavallaris (Medicine); and Professor Justin Gooding (Science). Researchers from all three faculties, the CCIA and the UNSW Centre for Advanced Macromolecular Design are also part of the new Centre.

By Peter Trute

istockphoto

Smells like TEAM SPIRIT

Selecting a business partner based on friendship is risky. While team chemistry is important, it's not essential for success, writes Ben Power.

The dramatisation of Facebook's launch phase, *The Social Network*, highlights the importance of going into business with the right partner. The film documents the estrangement of co-founders, Mark Zuckerberg and Eduardo Saverin who began as best friends. Saverin, Facebook's original CFO and business manager, was eventually forced from the company.

It has long been assumed that "team chemistry" in entrepreneurial start-ups is critical to success. But the story told in *The Social Network* illustrates how the issue of team chemistry is far more complex: the relationship between Zuckerberg and Saverin foundered under the strains of launching a new company.

Creating team chemistry through an intellectual connection has significant implications for start-ups. It puts friendship well below finding people with a strong commitment to the company. "Team chemistry is important but it's something that comes as a result of discussion, a bit of success and a bit of smarts; it doesn't need to come when you're first starting a company," says Peter Davison, a venture capitalist whose successes include a seed-stage investment in PayPal.

Davison, who is completing a PhD in entrepreneurship at UNSW, recently took part in an Australian School of Business (ASB) debate on whether entrepreneurial team chemistry is critical to success.

Friends turned enemies ... a scene from *The Social Network*

Debate host Martin Bliemel, director of the Centre for Innovation and Entrepreneurship at ASB, says at its essence team chemistry is simply everybody getting along. "Often, chemistry on a personal or social level rather than professional diversity can help smooth things along, which you might not get as quickly otherwise," Bliemel argues.

Mike Casey, who also joined the debate, is co-founder of Australian-based graduate employment site, GradConnection. "Team chemistry is incredibly important," Casey says. "There are benefits in being in a team that's functioning, can spread the workload, and has a large diversity of skill sets."

GradConnection's three founders met on the Westpac Banking Corporation's graduate program. "We weren't close mates at the time – we were co-workers – but we decided to form GradConnection." Being part of a team rather than a one-man band has been important to success, says Casey. "I like three [founders], because with three democracy usually prevails," he insists.

Davison argues that GradConnection's success grew out of an intellectual decision by Casey, Dan Purchas and David Jenkins to have team chemistry. "It was based on mutual respect for each other's capabilities, rather than 'this guy's a great mate'," Davison says, "… they self organised (and adopted) a more mature approach to goal setting that causes the chemistry to work."

In reality, many entrepreneurs choose their business partners on the emotional chemistry of friendship. But a risk for friends who go into business is in thinking alike, says Davison. "You may not have the complete skill set you need. You might all be good at sales, but no one wants to take care of the finances."

Another problem for friends is the absence of serious "what if" discussions. Bliemel likens serious discussions between friends starting a business to pre-nuptial agreements. "You love this person, you want to marry, but then present them with a pre-nup. Most people say, 'that's not love'."

Ultimately, "it's cleaner not to have mates", Davison concludes.

He says the issue of team chemistry is also about priorities. The first goal of a start-up is to get yourself to the next step – to survive and to make those first few sales – before you think about success. "After that you definitely need an understanding of each other," he says.

In the early days of GradConnection, the founders were "incredibly, incredibly poor" but remained highly motivated, Casey recalls. "We were in a brutal financial position really. The two other guys I was with were fully on the same wavelength in terms of that. And we went through very difficult times. But it got easier over time."

GradConnection's co-founders socialised but had a more important bond. "We all hung out together. But we also had a shared vision and shared goal. We all wanted to do it and for that reason the chemistry was pretty spot on."

For this story and others like it, go to Knowledge@ASB: http://knowledge.asb.unsw.edu.au/

Columbia Pictures

UNWANTED INHERITANCE

A research breakthrough by Robyn Ward and her team at the Lowy Cancer Research Centre sheds new light on how some cancers are passed down through families. Nicky Lancaster reports.

As a medical oncologist, Professor Robyn Ward devotes her time to people who have advanced cancer. Most of her patients are beyond the stage when their disease can be cured, but Professor Ward never gives up hope.

As Clinical Associate Dean, Prince of Wales Clinical School, Professor Ward is determined that her research will make a difference by identifying genetic cancer "markers" at a much earlier point in the history of the cancer.

"When a 32-year-old man comes to see me with bowel cancer, instead of saying 'oh that was bad luck', we now have the research to demonstrate why he has developed bowel cancer," she says. "We can also answer the age old question – 'what does this mean for my family?'"

Professor Ward heads a team of 75 researchers at the Lowy Cancer Research Centre. Through their research, Ward and her team have identified genes that act as an attractant for a detrimental chemical compound known as the methyl group which exists in our DNA. This is one branch of the area of research known as epigenetics.

"Epigenetics is another way that the DNA is regulated; it sits on top of your DNA, like another code – an epigenetic code," she explains.

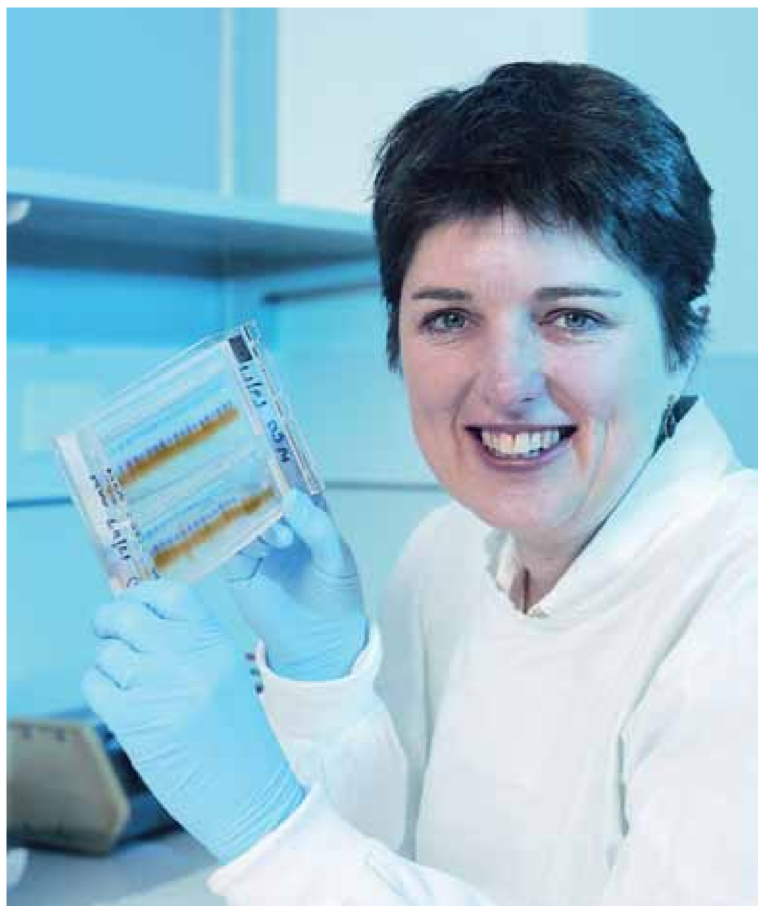
Ward and a team led by Dr Megan Hitchins, recently published a paper in the prestigious journal *Cancer Cell*, outlining how some genes act as magnets for these chemical tags, which can be passed down through generations.

"When these genes happen to be cancer prevention genes, the chemical tagging causes them to be switched off and as a consequence cancer develops," she says.

Success in identifying these markers in cancer patients has caused a revision of clinical practice across the world. Medical oncologists are now better able to undertake targeted screenings of family members, and identify the types of cancer that families are at risk of suffering.

The research team is exploring the use of certain drugs that are able to reverse the effect these chemical compounds have on the DNA in people with established cancer. It is Ward's hope that in the future this will lead to a more targeted approach for treatment of various cancers.

"I hope that chemotherapy and other sledgehammer type approaches to treat people will be a thing of the past," she says. "Sadly, that's not yet a reality, and chemotherapy is still the mainstay of cancer treatment. And while chemotherapy can be effective in some people, we hope to create more targeted approaches based on the type of research we are now doing."



Maria Basaglia

"When a 32-year-old man comes to see me with bowel cancer, we now have the research to demonstrate why he has developed it."

She is confident that more effective treatments for cancer will evolve in time, partly due to the collaborative approach of teams like hers at the Lowy Cancer Research Centre.

The Lowy Cancer Research Centre houses cross-disciplinary teams that work across laboratory science, clinical practice and health policy. It is one of the largest dedicated cancer research centres in the Southern Hemisphere and the first in Australia to bring adult and childhood cancer research under one roof.

"We had no idea what an impact this new building would have on our research," she says. "Just having a facility for everyone to work together as a collective makes a massive difference. We have chemists sitting next to molecular biologists, sitting next to doctors; people working on brain cancer next to those working on bowel cancer; everyone exchanging ideas and discoveries."

"It has taken many committed individuals to make this facility a reality through their generous philanthropic support … and just look at the results!

"The hope of a lot of researchers and doctors is to be able to recognise people at risk, and prevent cancer before it occurs, or find it at an early stage when it is easy to treat." Ward hesitates, "I guess the hope is in the future people won't need doctors like me anymore."

Death enters a new domain

How do we stop our digital ghosts haunting the web forever, asks Steve Offner.

Lance Page, truthout.org

“Getting a message, even indirectly, from a person no longer alive can be distressing.”

The status update at the top of my Facebook ‘Wall’ tells me my friend Ian has changed his profile picture.

Normally a profile update would attract little more than passing interest. Except in this case my friend has been dead for more than a year.

“Getting a message, even indirectly, from a person no longer alive can be distressing,” says David Vaile, director of UNSW’s Cyberspace Law and Policy Centre.

What happens to our online identities after we die is something most people don’t contemplate. “Like cyber security in general, we don’t even think about these things when we project into our future lives, so projecting beyond our lifetime is probably a step too far,” Vaile says.

With few policies in place, and with our digital presence rapidly evolving (Facebook estimates its active users worldwide at 715 million, up 300 million in three years), experts say it’s time we all put some thought into our after-death digital plans.

“The idea of having a digital will or having an after-death plan for your online identity seems almost trivial,” says Curtin University internet studies lecturer Dr Tama Leaver, who’s about to embark on research into the phenomenon. “But what happens to these representations once we stop being there to drive them is becoming increasingly important, both from the banal question of what happens when there are more dead people on Facebook than living ones, to what mechanisms are in place for capturing personal digital correspondence that may be of valuable historical record.”

US-based technology consultant and blogger, Corvida Raven, believes we have reached a technological tipping point. A recent Pew Research Center study found 93 per cent of American teens use the internet, with 73 per cent logging in to social media sites. “As more digital natives are born, it is an issue that is going to have to be addressed, if not for me then for my kids,” she says.

Our growing online presence raises issues of privacy, security and finances, but in the end “it all comes down to one thing: what can we do to make this easier for ourselves and also protect our assets and ourselves in the future”, Raven asks.

A top-down approach to regulating content simply won't work in the new convergent media reality, say UNSW media researchers Professor Catharine Lumby and Associate Professor Kate Crawford, who recently presented their report, "The Adaptive Moment", to the Federal Government's Convergence Review. A more practical approach, they say, is to harness users as "full digital citizens" to lead change.

But in the absence of any over-arching framework, figuring out how to take control is no easy matter. "The companies that keep our data on remote servers have inconsistent, confusing or nonexistent policies for what happens when a customer passes away," says *Popular Science* contributing editor, Rena Marie Pacella.

A central issue is privacy. We might be happy to allow family members access to our online address book after we die, but would we want them to trawl through every message and post we've made? Not to mention those online dating profiles.

According to Vaile, what happens digitally after death largely comes down to the individual contracts, or terms of service, we sign when we open these accounts. Facebook states it will close down profiles, if a request comes from next of kin, but the company won't hand over log-on information that could expose private messages. Twitter and Yahoo! similarly refuse third-party access to private accounts, but will close them down if they are shown a public obituary.

By contrast, Microsoft's Hotmail and Google's Gmail will grant next of kin full access to email accounts, but only after they produce a death certificate and proof of power of attorney.

In 2009, Facebook took a further step, introducing a "memorial status" for dead users. This recognised the growing desire for friends and family to use profiles as sites for remembrance and commemoration. Under the status, profiles are 'locked' to prevent new friends from joining and to ensure any new information stays off news feeds and status updates. But uncertainty remains about who is authorised to make the memorial request, and what happens when pages are frozen without the family's consent.

Another issue is ownership. UNSW succession law expert, Professor Prue Vines, believes the law does not view digital identities differently from personal identities. "It would be regarded as part of the property of the person. So it would be part of your estate, and after death you could just pass that identity on to someone else."

Anything you'd written on Facebook, how you expressed it, would be your copyright, and that could be inheritable, she adds, with a qualification: "That all could be altered by the contractual relationship you signed up to."

Even for email, a communication necessity, the law remains unclear, according to Hannah Yee Fen writing in UNSW's inaugural issue of the *Property Law Review*. There is little doubt traditional paper mail would be considered personal property and able to pass through the laws of wills, but are emails property?

"The only clear conclusion ... is there is no certainty or consistency as to their status," Fen, a visiting professor at Singapore's National University, says.

Fen says, as with social networking, much depends on the wording of the terms of service, but like social networkers this leaves the email user in a state of ambiguity, "since all these contracts can be unilaterally changed by the service provider at any time".

The hassle and the legal complexity mean it pays to plan ahead. But how?

Options include naming a digital 'executor' – someone trusted to take control of your online information – in your regular will, says *Popular Science's* Pacella. "But don't list passwords there; wills become public documents after death and available to would-be thieves."

If you want your digital identities preserved and accessible to others, another option could be the numerous estate planners springing up on the web. Legacy Locker, Deathswitch and the Sweden-based My WebWill all specialise in protecting online assets and will store valuable digital details, including passwords (for a fee). When you don't respond to a series of email prompts, the services presume you are dead and grant online access to your nominated friends and loved ones. However, security experts warn that storing sensitive information like passwords together in one place creates "honey-pots" that are irresistible to criminal hackers.

Ensuring your digital existence dies with you is more straightforward. Services like Entrustet's Account Incinerator will erase all nominated digital files, once reliably notified of your death, while The Netherlands-based suicidemachine.org can be programmed to sweep social networking sites to remove all your data. The service is also becoming popular for those still living who are jaded with their social networks, but has drawn the ire of Facebook, which routinely attempts to block access.

While none of the existing solutions are ideal, experts like Vaile say with a bit of forethought it is possible to control how we manage our eternal digital life and prevent our ghosts haunting the web forever. The precautionary principle, he says, is still the most instructive – don't put anything over the internet you wouldn't want your mother to see. But for those less cautious, more options are likely to emerge over time.

"Research has already started, we're having the conversations," says blogger Raven. "Just like everything digital, it's only going to get louder, and grow and evolve from here."

AFTER-DEATH WISHES

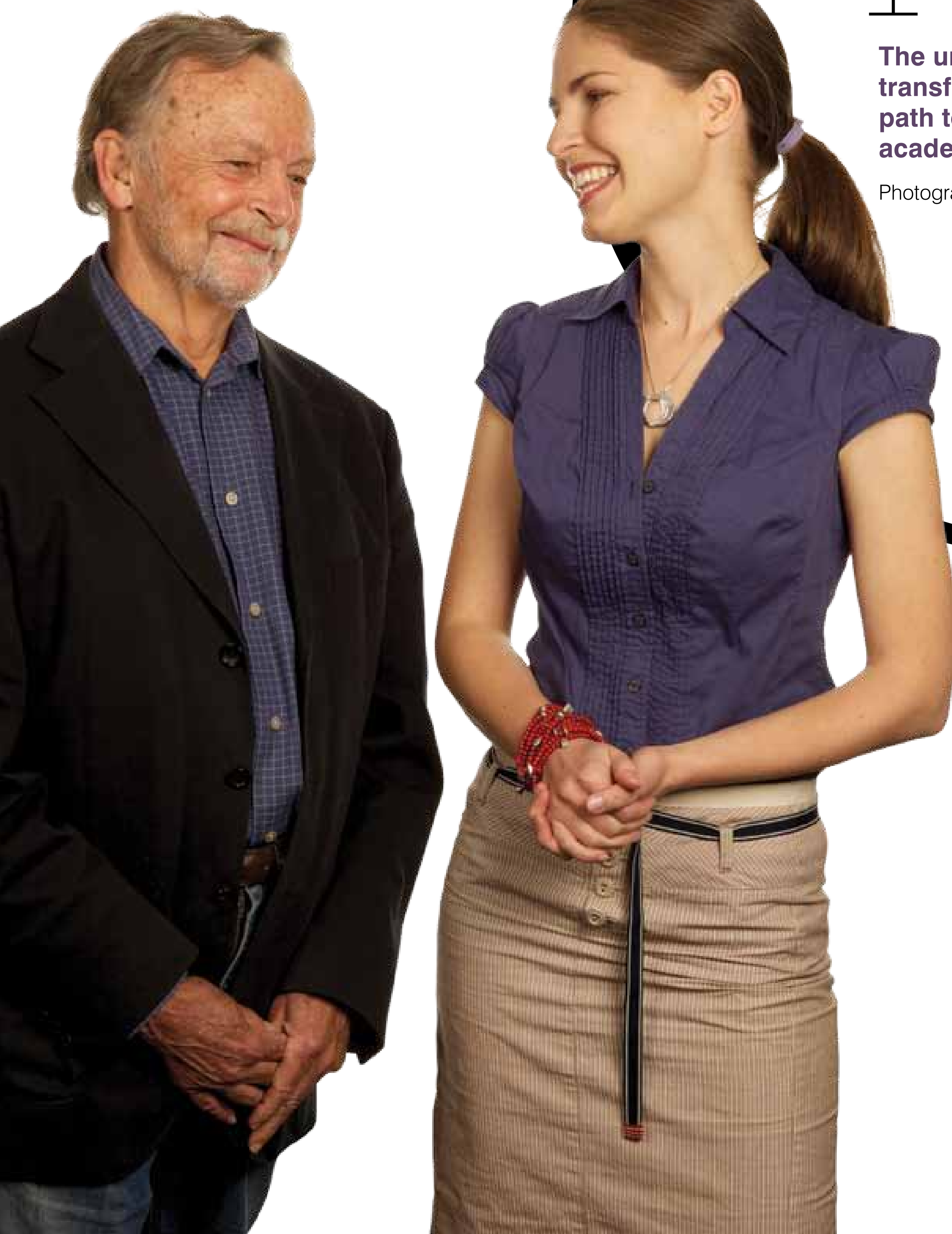
- Take control by reading and understanding your digital terms of service agreements.
- Name a trusted digital executor, alongside the regular executor for your will.
- Employ an Estate Planner to preserve online cyber details like passwords (but beware of creating digital "honey-pots" for hackers).
- Erase web files and kill off cyber identities when you die by enlisting services such as suicidemachine.org.
- Avoid embarrassment later by using the precautionary principle now. Whatever you upload could well be as eternal as the web itself.

This advice is of a general nature only.

THE NEW C

The university landscape is being transformed globally and with it the path to career success for the modern academic. Dani Cooper reports.

Photography: Peter Morris



Changing face of academia ... Emeritus Professor Ralph Hall with Dr Claire Wakefield

Claire Wakefield is at the top of her game. Just 34, she already has an impressive publication record, a raft of accolades and with her cross-disciplinary research is a model of the modern academic. Yet with a stellar career in her sights Wakefield's dream run may come to an end.

In the career equation of time equals success Wakefield, from UNSW's Faculty of Medicine, has decided she is not able to work superhuman hours every week of the year. She's actively trying to pull back to around 40 hours, except in "really essential times like grant writing season".

It is a decision based on the needs of a young family, and with surveys showing Australian academics work the longest hours of their peers globally and

V

are among the least satisfied, Wakefield concedes maintaining her trajectory will be difficult.

"I am not going to work 100 hours a week. I think I can achieve a lot but I'm not sure it's enough to be in the top of my cohort for the rest of my life."

Wakefield is not alone in hitting a turning point in her career path. The academy internationally is coming to grips with a changing landscape brought about by globalisation, the feminisation of the workforce, an explosion in student demand and a changing funding and regulatory environment. Add to the mix casualisation and a greying workforce and it's clear that the path to academic success is entering unfamiliar territory.

Australia's longest-serving professor Ralph Hall has seen first-hand the changes in academia across his 42-year career and has no doubt it is a harder slog today. He launched his career without a PhD – "unthinkable now" – in 1969, when academia was still a man's world and there was a wealth of opportunities.

"Into the late '70s there was mass expansion of higher education and not enough academics to fill the jobs," recalls Hall, a former Associate Dean of the Faculty of Arts and Social Sciences (FASS), recently appointed an Emeritus Professor. "I moved four times in the space of six years and really you couldn't do that now and the key thing was that every job was appointed with tenure."

But along with the challenges come new opportunities – the modern academic's CV is being dramatically transformed. At opposite ends of their careers, both Wakefield and Hall acknowledge that, as in most careers today, there is a tradeoff: less security and higher workloads, but as Wakefield puts it "fantastic intellectual freedom and a challenging job".

THE HAPPINESS INDEX

But how happy are our academics? *The Changing Academic Profession* (CAP) report, released in 2009 by researchers from the University of Melbourne, points to a growing disillusionment over the past two decades. Australia's academics, it found, were among the least satisfied in the world.

Study co-author Dr Ian Dobson lays much of the blame on the increased use of casual labour to help reduce pressure on staff–student ratios. Casuals increased from 12.6 per cent of total teaching staff in 1989 to 22.2 per cent in 2007, meaning full-time staff carry more of the administrative burden.

Despite the unease about casuals, Dobson, now based at the University of Helsinki in Finland, believes not too much should be read into the finding that our academics are among the unhappiest. He suggests part of the reason is an Australian tendency "to tell it like it is" and the fact that Australia has a better higher education data set than most countries.

Simon Baker, writer for the UK's *The Times Higher Education*, concurs and from his desk in London, where he also covers the sector here, suggests the tables are about to turn.

"Up till now academics in [the UK] have had good terms and conditions and universities have been well funded, but we are now staring down a barrel and they can see money being taken away and are pessimistic about the future," Baker says.

"Australia is certainly looking better into the future."

> "I am not going to work 100 hours a week. I think I can achieve a lot but I'm not sure it's enough to be in the top of my cohort for the rest of my life."
> Dr Claire Wakefield

THE AGE FACTOR

Another overriding concern to policy makers across the world, including in Australia, is the ageing academic workforce, with research showing a disproportionate number of academics aged over 50.

In 2009 the CAP report predicted 24 per cent of senior academics would retire by 2014 with another 23 per cent to follow by 2019. Theoretically this means 5,000 of our most senior academics could leave the system and require replacement. Add to this the trend highlighted in *The Real Academic Revolution*, a follow-up to CAP, that nearly half of all people obtaining PhDs prefer to work outside universities.

But even here there is room for optimism.

The Australian School of Business's Nigel Stapledon is adamant there will be no apocalyptic dearth of academics.

"There has been a significant expansion in the number of PhD students worldwide," he says. "That means we won't have any problems recruiting people. Instead we have an unprecedented amount of choice."

Like Stapledon, Sarah Maddison from FASS is relaxed about the transition. Within her faculty, she says, the age profile is trending younger and across UNSW there is a healthy body of mid-career academics ready to step up, with 42 per cent aged between 40 and 55.

It's also true that the preference of many PhD graduates for employment outside academia is not a zero sum game. There is a growing trend for researchers to move between industry and academia – Stapledon himself, a former chief economist for Westpac, is a case in point – and some will make the transition more than once. This not only strengthens research capacity on both sides but helps to build valuable partnerships.

> "Scientists in Australia told me I would never get NHMRC grants and they were right. They said my questions were too big."
>
> Professor Vanessa Hayes

TO TEACH – OR NOT

"Teaching and research need to be balanced," says Associate Professor Gangadhara Prusty, from the School of Mechanical and Manufacturing Engineering.

The winner of national and UNSW teaching awards, Prusty is a regular feature on student lists of best teachers and has a student-initiated Facebook page known as the Gangadhara Prusty Appreciation Society.

At the same time, he has maintained his research profile. "From the institutional point of view, teaching needs to be valued as highly as research, so that academics can drive innovation in both areas. We can then bring in emerging concepts from research into our teaching," he says.

Australia is not alone in trying to get this balance right. In the United Kingdom, notes *The Times'* Simon Baker, to rein in debt, the government has slashed spending on teaching. At the same time research funding has been maintained.

Even for those whose first love is research, there is awareness that teaching experience is necessary to increase chances of promotion. But for Claire Wakefield it is a "line-ball call".

"Teaching adds time to your workload, but doesn't increase your competitiveness for research grants. In the end that's what it's all about."

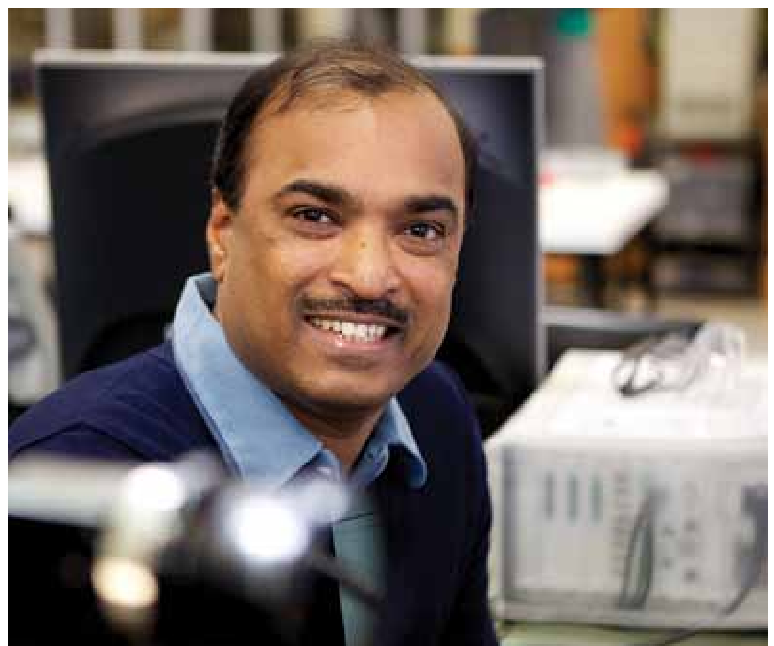
Maddison from the School of Social Sciences and International Studies believes she is in "academic nirvana". Recently awarded an Australian Research Council Future Fellowship, she is free from what many researchers regard as the shackles of teaching and administration for four years. The associate professor attributes her success to a "combination of luck, strategy and hard work".

However, she is aware that for every "lucky" break there is an undertow. Her research into early-career and mid-career academics shows there is an ongoing battle to secure funds and stretch budgets. This invariably pits research against teaching.

REWRITING THE RULES

The growing number of women in academia has thrown up particularly difficult issues. Taking time out to have children cruels publication rates, a fact that has been recognised by universities and funding bodies. Women have benefited from improvements in maternity leave, equity programs and changes to funding grant applications to take into account family interruptions to careers.

With twin boys, aged six, and a three-year-old daughter,



Striking a balance between research and teaching ... Sarah Maddison and Gangadhara Prusty

Claire Wakefield acknowledges the benefits of these pro-family policies – and admits she is "super lucky" to have a husband who is happy to be a stay-at-home dad. Yet the reality remains for women that family and a research career are a balancing act few successfully manage. "And you can't forever give women who have children special treatment," Wakefield says.

Attitudes towards gender in Australia were a surprise to globe-trotting researcher Vanessa Hayes, until recently a star researcher at UNSW and the Children's Cancer Institute Australia and now working in the US. When she accepted the prestigious overseas post she was surprised to be queried by colleagues about the impact of the move on her children.

"It's still okay for a guy to move for promotion but not a woman," she says. "If I'd been a man, that comment would never have been made."

BRAIN GAIN

One of the most positive and renewing forces in higher education is globalisation. Kauffman Foundation researcher Ben Wildavsky, author of *The Great Brain Race*, says it offers "brain circulation": as academics from emerging nations, such as India and China, look for positions in the West, our academics also seek out greener pastures overseas.

Wildavsky dismisses fears that a "brain gain" in developing nations will undermine our competitive edge. Interchanges are good for both sides, he says, boosting collaboration and, crucially, funding opportunities.

International student mobility is a major factor in the globalisation of the academic workforce. At least half of the more than 500 students currently enrolled in the School of Photovoltaics and Renewable Energy "are the best and brightest from around the world, particularly the Asian region," says Scientia Professor Stuart Wenham, himself a world–leading solar energy researcher who has benefited from stints overseas.

"Overall it has worked out very well for us … we now have very strong links to some overseas institutions where our students are now professors and wanting to work with us for the benefit of both institutions. There is also much more funding available now for international collaborations," he says.

Such global collaboration can be the making of academics, according to South African-born Vanessa Hayes. With a career that now spans four continents (she completed her PhD in The Netherlands), she still calls Australia home, but was lured away from Sydney last year to join the J. Craig Venter Institute.

> "Academia is meant to be a pure pursuit of knowledge, but it's not. It is very cutthroat."
>
> Alex Jordan

Research shows a majority of young academics never envisage a life in academia, let alone plan a structured path that might include international postings. Hayes admits her move was unplanned, yet when she started looking for the next job in her field saw that the US "was where things are happening. I felt I would have to wait too many years if I stayed [in Australia] – plus I went from a doctor straight to professor in one plane ride and you can't argue about that."

The move was as much for the sake of her research as for her career promotion. Hayes says she was never able to "break" the National Health and Medical Research Council system. Despite her research making it to the cover of the prestigious journal *Nature* and being internationally lauded for her work sequencing the African genome, she was always funded from outside the major grant institutions. "Scientists in Australia told me I would never get NHMRC grants and they were right. They said my questions were too big."

WHERE NEXT?

With so many pressures transforming the sector, it's a brave person who would predict exactly where academia is headed. But one thing seems certain – the days of the CV that charts a straight line from doctorate to tenured position are numbered. If the sector is to regenerate its workforce, and retain the best and the brightest, then according to the authors of *The Real Academic Revolution*, the challenge is to "provide a career structure that meets the reality and expectations of an increasingly diversifying workforce."

The next generation of academics may already be learning that there is a smarter way to play the game. For all those mid- and early-career academics ground down by bureaucracy and contemplating what next, new PhD graduates are more likely to be asking, "Where next?"

Alex Jordan is a 30-year-old already pushing himself on to the global marketplace. He will miss his graduation ceremony at UNSW to chase international collaborations and a position in an overseas lab. Using money he secured from his stand-out performance in a three-minute thesis competition, the evolutionary biologist is visiting Japan, Switzerland, Germany, Finland, and the UK, ending with a three-month field trip to Africa's Lake Tanganyika.

Jordan acknowledges the job market is tight, but is confident of securing a position. "I had a combination of great luck and great guidance, so I think I have a fair handle on what is required to be a successful academic – work your ass off and publish," he says. "Academia is meant to be a pure pursuit of knowledge, but it's not. It is very cutthroat – you need to continually perform and continually publish and always be networking and winning prizes and grants."

Having been courted by the private sector, he admits the stability of industry is appealing "because I've been in tertiary education for 10 years and am still not guaranteed a job".

"It would be nice to cash in on that investment, but that was never the idea," he says. "The idea was to wake up one morning beside a lake in the middle of a jungle." And in just a short time, that is exactly where he will be.

with staff writers

ADVICE FOR YOUNG PLAYERS

In the pressure cooker world of academia, taking time off might be viewed as a risky move. But going on a holiday could in fact help you get ahead, according to Sarah Maddison.

Maddison, who has mentored young academics through the bumps in their careers, says it is important to have a holiday booked and paid for "so you get away and take a break".

"The best ideas about research and writing came after I found myself sitting on trains in strange parts of the world and I hopped off with a fully formed book in my mind," she says. The holiday is a "free-flowing space to give your creativity rein".

US-based Vanessa Hayes advises young academics and researchers not to be afraid to ask the big questions. She cites her decision to sequence the genome of the first Africans. "I took a huge challenge in my work and I knew it. Either I was going to fail and bury myself or if I succeeded I would change my life." The latter proved true, with her work resulting in an overseas job offer.

Maddison says aspiring academics need to be selfish and strategic.

"Universities will take every minute you are prepared to give them," she says. "What will give you career progression is research output – you have to be selfish and quarantine time for research."

She says the funding cycle also means academics should plan in three- to five-year time blocks.

"You need to ask yourself: what do I want to have published and where do I want to be and how do I make that happen? Am I building the right relationships? What next grant do I have to write; and with a view to promotion what do I need to be ready when the opportunity comes?"

LOST *in Translation*

Academics and policy makers need to find a common language, argues Professor Peter Shergold.

Before returning to academic life at UNSW in 2008, I was Secretary of the Department of the Prime Minister and Cabinet. My successor is Terry Moran. He has recently stirred the possum by suggesting the research of universities contributes little to the creation of public policy. Inaccessible, indigestible, irrelevant and obscure, its value is too often "lost in translation".

Having sat for 40 years on both sides of the cultural divide, half at UNSW and half in the Australian Public Service, I think Moran has a point. Indeed in times past I expounded similar views. Why, I asked, did publicly funded academic research contribute inadequately to evidence-based policy?

Let me be clear. Not all academics who work on issues of public policy should be expected to engage directly in the political process. I support those who argue their research speaks for itself and that it is for others to access its utilitarian value.

Yet many academics would like to contribute their findings to political decision-making. A number become prominent media commentators, using their expertise to inform public debate. Others seek to present their research in a form and medium which is accessible to policy makers. Some accept consultancy projects from governments. I went further and became a public servant. That's when I found the making of policy, with all its necessary compromises and serendipitous opportunities was for me more fun than simply writing about it.

Increasingly academic centres operate as public policy think-tanks. UNSW is at the forefront. As a public servant I often read publications of the Social Policy Research Centre. Today I follow the work of the Climate Change Research Centre and the Centre of Excellence in Population Ageing Research. Certainly I would not have accepted the opportunity to establish a Centre for Social Impact if I had not believed it could directly influence public policy.

It should be simple. Universities are doing the research. Governments – and their public services – want the evidence. Yet it proves frustratingly difficult to get those worlds to meet at an intersection of knowledge that can influence the making of public policy.

Part of that failure reflects the uneasy relationship between public servants and academics. As a public servant I often found myself disappointed at the highly qualified answers I would receive when I asked academics, possessing a wealth of intellectual firepower, what *exactly* they would prescribe to change public policy. Conversely, many academics are understandably wary of being co-opted by the process of engagement with government, and nervous research will be misrepresented. I have seen first-hand how public servants can cherry-pick research to strengthen a predetermined policy decision.

Workplace cultures are different. Academics can appear individualistic, unworldly and uneasy with the clumsy compromises of political life. Professional sceptics, they are highly trained to find weaknesses and loopholes in any proposal. They, and their ideas, can be difficult to organise: "herding cats" is a favoured characterisation.

Public servants, for their part, can seem unnecessarily intrusive, risk-averse and secretive. The points at which research influences the iterative process of policy formation is often hidden behind closed doors.

However, it's important to remember that workplace cultures reflect the institutional structures in which they form. Within the Westminster tradition, public services have generally synthesised and "anonymised" academic research in presenting "frank and fearless" confidential advice to the ministers they serve.

Conversely the "ivory tower" has been built on the incentive structures of universities. Scholarly careers are pursued through publications in peer-reviewed journals. The contributions academics make to public policy and community engagement are far less recognised. That reflects, in large measure, how government funding for university research is allocated.

The result is unfortunate. Australian university researchers, from all disciplines, have things to say of profound importance to the nation's policy settings. It would be a tragedy if it was left to others to broker their knowledge on their behalf.

Susan Trent, Gasbag Studios

(l-r) Catherine Brogan and Anna Zhu.

Grant Turner, Mediakoo

THREE KIDS and you're *out*

For many women in the workforce, the crucial question is not whether to have children but rather how many, write Anna Zhu and Catherine Brogan.

As young women aspiring to academic careers we used to think there was just one big personal question for the future; whether or not to have kids.

Now our own research suggests there is another decision to be made if we want to become mothers.

Using a statistical sample of some 13,000 Australian women, we uncovered a clear correlation between larger families and lower workforce participation. Specifically, women who have three or more children are more likely than mothers of two to suffer career disadvantage – they are 10 percentage points less likely to be employed.

And, while stresses are at their most intense when children are young, mothers of three never seem to catch up; the workplace gap persists even when their children are older.

The simple explanation might be that women with larger families are more interested in home life, but our study shows this is not a defining factor. Rather if you take two women of a similar age and with similar aspirations and career plans – the same career disadvantage emerges when you add a third (or more) baby to the mix. This means the extra baby is a "causal" factor; it is a decisive factor in a mother's future at work.

We found women tended to have a third child if their first two were the same gender. Other families of three came about when a second pregnancy resulted in twins. The Australian Bureau of Statistics figures show 34 per cent of births in 2009 were second children and 23 per cent were third or subsequent births. And although our study showed a 10-percentage point gap, other research published by the Melbourne Institute found a 20-percentage point workforce gap for mothers of a third or more children born after same-gender siblings.

We believe the findings are important, because while there are plenty of estimates outlining the monetary cost of raising children, it's more difficult to anticipate the loss of future salary or self-esteem or interest in life for women who would have otherwise stayed in the labour force.

These findings should raise some questions about policy direction. Over the past decade Australia's fertility rate has been climbing steadily from a low of 1.73 to close to 2.00; the point at which the population is replacing itself.

This means Australia is defying declining trends in other Western nations and East Asia. But, we've had some policy levers push us along this path: in 2004, then Treasurer Peter Costello famously urged us to have "one each, and one for the country"; the Baby Bonus was introduced, and now a national paid parental leave scheme.

For women who do decide to have three or more children this workplace disadvantage needn't be an inevitable "cost". Workplaces and work skills are changing rapidly, so it might be that the chance to retrain or refresh their skills could help these mothers bridge the career gap.

Perhaps it is also time to revisit the traditional Australian workplace culture of continuous full-time workers. It might be that more flexible paternity leave programs or part-time work for fathers would be the best way of assisting mothers in maintaining their links to work.

Of course, every individual is different, and so every woman will have unique aspirations. But, when it comes to deciding how many kids to have, it's good to know what you are getting yourself into.

Anna Zhu and Catherine Brogan are PhD candidates in economics at UNSW. Zhu, also a research associate at the Social Policy Research Centre, presented a paper 'The impact of fertility on labour force participation for Australian women' at the Australian Social Policy Conference held recently at UNSW.

Fearing Fear

There may be a genetic reason why some people recover emotionally from traumatic events and others do not. Bob Beale reports.

When she first sought help at the UNSW Traumatic Stress Clinic, it was clear that Helen Fraser* was in a bad way. A survivor of the appalling 2009 Black Saturday bushfires in Victoria, she could not shake from her mind the awful memories of the event.

She and her family had been lucky to escape: they ran for their lives as the wall of flame bore down and destroyed their house. Some neighbours were killed. In all, 173 people lost their lives on that day, hundreds more were injured and more than 2,000 homes were razed.

Those terrible events left Helen so fearful and distressed that she could not bear to rebuild her former life: "She was so petrified by the whole thing that she even had to leave Victoria," recalls Scientia Professor Richard Bryant, who is director of the clinic, which is co-located on the Randwick campus of UNSW and at Westmead Hospital.

In the initial weeks after such a major stressful event – be it a natural disaster, a serious assault or a bad traffic accident – it's common for people to experience anxiety, distressing memories, disturbed sleep, nightmares and restlessness.

"We also know, however, most mental health problems typically reduce over time," says Bryant. "As people learn that the threat has passed, they typically get over the initial distress. Several months after a disaster, most people are able to psychologically adapt and recover."

Helen, however, was one of the significant minority – between

Lance Page/truthout.org; Adapted: dannyfowler, Patrick Hoesly

> "There were times in the therapy room where she'd get very, very anxious and just want to run out."

10 per cent and 20 per cent – who have persistent problems. With her husband and children she had moved to Sydney to be in an urban environment away from the bush, hoping that would make her life easier. It didn't.

"When we saw her a year later she still had lots of generalised fear about being harmed again," says Bryant. "She was troubled by nightmares every night; she wouldn't cook because the idea of being near a stove and something catching fire was too threatening for her; she was afraid to leave the house and whenever she heard sirens – which were not uncommon in her area – it would increase her fear markedly."

As a veteran of working with survivors of many disasters – including the Asian tsunami and the Bali terror bombings – it was no surprise to Bryant and his team that Helen's assessment confirmed she was suffering from post-traumatic stress disorder (PTSD). It can be a debilitating condition, affecting health, work, relationships and everyday functioning. It usually involves reliving a trauma through intrusive memories, nightmares and periods of emotional distress – and it can persist for years. A recent national mental health survey found that 4 per cent of Australians had experienced PTSD in the previous year.

What did surprise the team, however, was that Helen had elsewhere already undergone the treatment of choice for this problem – cognitive behaviour therapy (CBT) – and that the therapy had been given correctly and well but had failed. CBT works better than any other therapy and helps about two-thirds of PTSD sufferers to resume a relatively normal life.

Helen was enrolled in the clinic's own CBT program – a standard 12-week course. "It essentially works on the principle that if we revisit the things that are scaring us, in a safe therapeutic way, and we stay with those memories or situations that remind us of those terrible things then we can learn that they are no longer dangerous," says Bryant. In effect, the fearful response is gradually extinguished – a process known as extinction learning.

During her treatment, Helen revisited the day of the fires and re-engaged with things that reminded her of the trauma, such as cooking and other sources of heat. She also had cognitive therapy, aimed at correcting her extreme catastrophic appraisals about what had happened to her and the likelihood of her life being threatened again.

Yet at the end of the course she only felt a little better than she had at the beginning: "She was highly motivated and trying to do the right thing. But when we tried to engage her on what was reminding her so much of the fires, she simply couldn't cope with that anxiety. There were times in the therapy room where she'd get very, very anxious and just want to run out."

Six months later, when the team made a routine follow-up with Helen, her condition had deteriorated and she subsequently dropped out of contact.

For Bryant, such experiences have been a source of frustration not only for the sake of people like Helen but also for the scientific puzzle they pose.

Alternative drug treatments are available that can relieve the symptoms of anxiety but, unlike CBT, they do not extinguish the source of the anxiety itself: "If you come off the drugs, the symptoms can return. But once you've successfully finished the CBT, typically, you're fixed."

Tackling the puzzle of why CBT has a failure rate of about 30 per cent has led Bryant's team into groundbreaking research, looking at whether biological differences between individuals might account for their different responses.

In a landmark paper last year in the journal *Biological Psychiatry* Bryant, and other researchers from Westmead Hospital and the UNSW Schools of Psychology and Psychiatry, went beyond monitoring brain activity and analysing body chemistry to show there is a fundamental genetic basis for how people respond to CBT.

They looked at the serotonin transporter gene, which comes in both a long and a short form. Other studies have shown that people with the short form of the gene are more likely to suffer clinical depression after an adverse life experience. Bryant's team found that those same people were the ones for whom CBT was unsuccessful. Indeed it was the first study to show a genetic predictor of the likely outcome of psychological treatment of any anxiety disorder.

While a full understanding of this phenomenon is some way off, it seems that having the short form of the gene makes extinction learning far more difficult. Most of us soon realise after a car accident, for example, that we need not fear having an accident every time we drive. But for people with the short serotonin transporter gene they never reach that more realistic perspective.

The findings raise important questions about whether people who carry these genetic variants should be given CBT at all, especially since the therapy itself can end up being yet another distressing experience.

But they also open up new possibilities for effective treatment. Bryant's team, for example, is now examining whether the main focus for such people could be cognitive therapy alone, or perhaps a longer period of preparatory work before commencing CBT.

"We vary in our capacity to tolerate distress," notes Bryant. So perhaps an alternative treatment option could be to boost their tolerance of high emotional states by better understanding that such states are transient.

Whatever the eventual research outcome, it seems increasingly likely that someone like Helen Fraser may soon have a more personalised treatment option, starting with a simple genetic test.

*Not her real name

For more on the clinic, go to the website www.traumaticstressclinic.com.au

IRAN'S DRUG ADDICTION

A different world … Kate Dolan outside one of the treatment clinics for women with drug addiction; a sign-in sheet for methadone dosages inside a special ward at Qesel-Hesar prison (Ramin Talaie, Corbis); a woman receiving support at the clinic.

When drug researcher Kate Dolan visited a women's prison in Iran eight years ago, she had no idea it would change her life and those of many local women.

My journey with female drug users in Iran evolved out of workshops I ran in the Islamic nation in 2003 for prison doctors working with male and female prisoners. At the time Iran had suffered two large-scale HIV outbreaks among its prison population and was keen to address the issue. After the workshops, my colleagues and I travelled around the country visiting prisons, ten in total. On our last day we visited the women's area at the notorious Evin prison, at the foot of the Alborz Mountains. This visit would have a lasting effect on me. For the next four years, two Iranian doctors and I worked to establish drug treatments for women in Iranian prisons and in the community once released. However after the prison director we had worked with resigned we focused on establishing a community clinic, which opened its doors in 2007.

Funded with help from the Drosos Foundation, we worked on the ground with the non-government organisation, Persepolis, an HIV/AIDS service based in Iran. More than 100 women came to our clinic in its first year and for 80 per cent of these women it was their first contact with drug treatment.

Our clinic employed a coordinator, a doctor, two nurses, a social worker, a midwife, a clinical psychologist, a lawyer and an administrator. There were also three researchers and an accountant. We provided methadone, needles and syringes, condoms, HIV and hepatitis C testing, legal aid, motivational interviewing, and sexual and primary health care. The clinic had a safe room where women could remove their hijab. Clients were encouraged to bring their children to the women's clinic where they could receive powdered milk and baby clothes and there was financial help to send children to school.

In a country where you can be hanged for an extra-marital affair, the staff had a steep learning curve as evidenced by the difficulty in getting clients to take condoms.

> "I have turned my life around. I have married and have a young child … and best of all I have given up drugs. And I couldn't have done it on my own."
>
> Former addict

To overcome the fear they felt, the condoms were placed on the front counter where clients could help themselves. We went from distributing about 20 or 30 condoms a month to more than 800 condoms a month. The women also started to take syringes although they still denied injecting.

The research at the clinic was comprehensive and provided the first picture of women in Iran who use drugs and confirmed the need for women-only services. There are now five drug treatment clinics for women in Tehran.

But the clinic has been about much more than collecting data for research. It has equally been about the personal stories of the clients and the staff revealed through focus groups and individual interviews. Perhaps the most moving story was that of Fatima, who claimed she was saved by the service.

"I was homeless for years. I took syringes out of bins and off the street and used them without a second thought. I am lucky I didn't get AIDS. Then someone told me about this place. I couldn't believe a place like this would exist for someone like me.

"I have turned my life around. I have married and have a young child. My husband doesn't use drugs. Our home is very small but it's ours, and best of all I have given up drugs. And I couldn't have done it on my own."

I suspect she is right.

Many of my typical Western views about Iranian society have been changed by meeting its people, reading about its culture and, of course, the work in the clinic. My initial motivation was to carry out research and to build capacity among Iranian researchers and clinicians, but instead I now find working with the staff and clients has become part of my life.

Professor Kate Dolan, head of the Program of International Research and Training (PIRT), is based at the National Drug and Alcohol Research Centre.

Grant Turner, Mediakoo

Sydney's past is more than just ball-and-chains, bubonic plague and brothels. Grace Karskens talks to Fran Strachan about the buried truths of early settlement.

There's a rat in Grace Karskens' office. It perches on the back of a chair, observing the room with all the interest a soft toy can muster – plastic eyes glazed and pointy teeth bared in a ridiculous display of stuffed menace.

"It's a joke! It came from the Vasa Museum in Stockholm – my students all know I have a thing about rats," Karskens says, laughing.

The rat serves as a constant reminder to Karskens, Fellow of the Australian Academy for the Humanities and a leading authority on colonial Australia, of the importance of separating historical fact from fiction, a lesson she learned while researching Sydney's earliest waterside community, The Rocks, an area historically associated with rats and plague.

When bubonic plague broke out in Sydney in 1900, infecting 303 people and killing 103, eyes turned accusingly to The Rocks as the source of contagion. The government at the time played on the public's fear of infection to confirm long-held perceptions that the area was a diseased slum, populated by criminals and lowlife, prostitutes and drunken sailors, stigmatising the working-class residents and demolishing many of their homes.

In Karskens' two comprehensive accounts *Inside the Rocks: The Archaeology of a Neighbourhood* and *The Rocks: Life in Early Sydney*, the historian uncovers the truth.

"When I read the Plague Register myself, I discovered that only five people died of the plague at The Rocks … five! The rest were in other parts of Sydney," says Karskens. "It was a real wake-up call to me as a historian that you can't rely on popular beliefs and stories, or even the received wisdom in existing histories. So often these stories have a political agenda – they are used to marginalise people, in this case, the poor working class."

Originally an archaeologist, Karskens approaches her research like a dig, brushing back layers of history to reveal buried truths.

"I call what I do, 'deep history' because it is multi-disciplinary. I research history through detailed sources like court records, coroner's inquests, but also through archaeology, art and art history, literature, geology, soil science, vegetation studies and so on. Then I have the texture and the detail of a period and I can build up a deep narrative," she says.

This attention to detail won Karskens the Prime Minister's Literary Award for non-fiction for her book, *The Colony: A History of Early Sydney*, last year.

The intimate account of the early days of Sydney took Karskens 10 years to research and write. "I felt like I had been trying to write it all my life. I have always been fascinated with Sydney, and how its landscapes came about."

A fascinating revelation is how Sydney's first settlers survived and the adjustments Indigenous Australians made to the changed conditions in the first 30 years. Contrary to popular belief, the colony was never really starving and the early settlers admired and relished the local environment.

"Aboriginal people didn't disappear when the Europeans arrived. In fact they became part of early Sydney and contributed to urban life," Karskens says. "It was a place of energetic and rambunctious risk-taking, shaped by the pre-industrial culture of the convicts and ex-convicts. Aboriginal people and their laws and customs were accepted as part of this early town.

"Dispossession and a terrible war happened too, on the Cumberland Plain, but there's also constant evidence of real friendship between white settlers and Indigenous Australians in those early days."

Karskens' current project is an environmental history, "Penrith Lakes and the Lost World of Castlereagh" supported by an ARC Discovery Grant. She'll use a three-month travelling fellowship to Munich's world-renowned Rachel Carson Centre for Environment and Society to help complete the project.

"History is a dialogue between the past and the present. What I write is not the final word, of course, the conversation will go on."

The photo detective

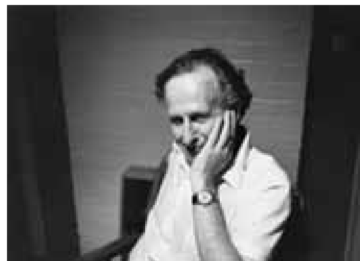
Photography became an art form with the help of Australian picture editor Norman Hall. Decades on, Lisa Coleman traces her great-uncle's legacy. Peter Trute reports.

As a child growing up in 1960s Perth, Lisa Coleman (pictured above) would watch Wimbledon on TV hoping to catch a glimpse of her great-uncle in the tennis club press box. Norman Hall, born in Narrogin, Western Australia, in 1910, was the picture editor of *The Times* of London and could sometimes be seen courtside. The young Lisa knew little about him other than that he was on TV and that, on occasional visits to Australia, he would arrive in a heavy overcoat and photograph the family with their pet kangaroo.

It was 30 years later, following a chance encounter with a Czech photographer, that Coleman, by then a photographer herself, discovered that her uncle was an important figure in the world of press photography and a contemporary of some of the greatest, among them Henri Cartier-Bresson and George Rodger, two of the founders of the Magnum photo agency.

Today, Coleman is a lecturer in the Faculty of Built Environment, running a cross-disciplinary photomedia course which teaches using the camera as a visual research tool. She is also creating a history of her uncle's little-known contribution to photography's use in modern newspapers, books and galleries.

Hall learned about the newspaper business on his family-owned *Narrogin Observer* in WA. After serving as a pilot in World War II, he left Australia for London, where he edited *Photography* magazine and yearbook, and the *British Journal of Photography*,



"Norman Hall brought us international work at a time when British photography was pictorial and fluffy kittens."

before becoming picture editor of *The Times* in 1962. During his tenure he changed the use of photographs in the paper, introducing photo essays and large display images, and commissioning and mentoring talented newcomers.

"Norman Hall was a pioneer. There are many books and documentaries celebrating the photographer but few that honour the picture editor's contribution to the history of photography," Coleman says.

Coleman's quest to find out about Hall began accidentally in the mid-90s, when she went to Stills Gallery in inner-Sydney Paddington, hoping to meet noted Czech photographer Markéta Luskacová, who was staging an exhibition.

Coleman had studied architecture and planning at UNSW, then worked at ANU's Urban Research Unit. She later became active in housing and social issues, working with the Tenants' Union and Shelter NSW. Her interest in photography was sparked by the realisation that images – essential in documenting current affairs – were also powerful in presenting research findings.

At the gallery, Coleman was asked if she might drive Luskacová to the University of Western Sydney, some 50km away, where she was to give a lecture.

During the drive, conversation ranged over Luskacová's work in Europe. When talk turned to London, Coleman mentioned her great-uncle who had worked on *The Times*. The response was startling.

"Luskacová said: 'I was told to go and see him [Hall] by Peter Turner at *Creative Camera* magazine. When I asked who he was, Peter told me he was the Pope of British photography.' "

So began a detective mission. In 2005, after winning the UNSW Vice-Chancellor's Award for Teaching Excellence, Coleman secured a Churchill Fellowship to do research in the UK, followed by grants to travel to Europe. In 2010 she went to the US and then back to WA.

Through visiting dozens of photo archives and museums and interviewing some of the most influential photographers of the 1950s, '60s and '70s, she built a picture of her great-uncle's work in nurturing talent and helping to change photography from disposable medium to collectable art form.

Phillip Jones Griffiths, who produced some of the most important photojournalism of the Vietnam War, told Coleman: "Norman Hall changed the course of photographic history in Britain. Through the *Photography* magazine and yearbook he brought to us international photography, the likes of William Klein, Paul Strand, Henri Cartier-Bresson, at a time when British photography was pictorial and fluffy kittens."

Coleman is now working on a book and documentary about Hall's work.

"When I try to condense what he did it's hard because it's so huge, but this is a story about a remarkable career that must be told," she says.

Grant Turner, Mediakoo. Inset: Jean-Philippe Charbonnier

NEW SPIN ON ART education

In an era of blockbuster exhibitions, can art museums maintain integrity while educating audiences, asks Susi Hamilton.

Fancy-dress parties, 24-hour openings, fashion displays and celebrity speakers are all part of the changing face of the art museum. Clearly, capturing and maintaining the attentions of new audiences is a major preoccupation.

"The experience of the audience is increasingly seen as vitally important to all the art museum's operations from curatorial and education programs right through to marketing," says COFA academic Gary Sangster, pictured with Dr Gay McDonald at the Art Gallery NSW.

While it's no surprise that remaining afloat financially is a driving factor, there are other pressing issues that are being addressed by art museum professionals.

"How, for instance, do art museum professionals work to maintain the quality of a cultural experience in the face of increasing demands to market their programs to a wide variety of different constituents?" asks Sangster, who has curated more than 100 exhibitions in Australia, New Zealand, Europe and the US.

It's just this sort of question a newly created interdisciplinary research group at COFA – in.site – will help to answer.

The group – founded by Sangster, McDonald, Dr Jay Johnston and Kim Snepvangers – will look at developing innovative and collaborative programming that curators, educators and artists can use to engage audiences with contemporary art.

"Deeper individual and community engagements with art are often elusive now, as mass marketing and event-driven spectacles hold sway in the rush to brand and globalise cultural experience," says Sangster.

Through their own curatorial work and academic studies, both Sangster and McDonald became increasingly interested in how different audiences engage with contemporary art.

"Traditionally, curators have been singularly responsible for developing a curatorial thesis or story and articulating it through the selection of works," says McDonald. "It was also presumed that all visitors would glean that one narrative or story with lesser or greater ability, depending on their prior knowledge and experience."

In the past, says McDonald, education departments within art galleries and museums were on the periphery of the art museum's operations.

"Today, the educational or interpretative functions of an art museum are perceived as central to the art museum's work. We are also seeing a blurring of those orthodox boundaries between curatorial and education practice," she says.

Such changes are symptomatic of the art museum's efforts to capture and maintain increasingly large audiences by offering unique, enriching and often entertaining experiences. That means the audience is being involved in exhibitions in new ways, from a rapid uptake in the past decade of audio tours to more interactive facilities, such as the web and more recently, iPods, as used by the Museum of Old and New Art (MONA) in Hobart for self-guided explorations of the works.

"Audience satisfaction is very important," says McDonald, who works in the School of Art History and Art Education. "Is it a lovely visceral experience or is there something else going on?"

While she says there has been little research to date on the quality of the viewer's experience when they go to an art exhibition, this is now changing.

"Previously it was thought that if the numbers [of viewers] were good, then there wasn't any need to assess the quality. That's changed, I think."

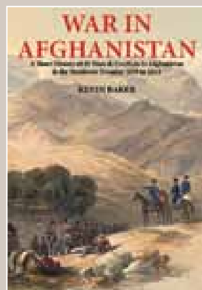
"To engage the audience has a powerful impact. Educators are key to that process," adds Sangster. "While it's natural that museums have looked to curatorial functions in the past, to preserve and interpret the collection and archive, there is a decisive shift. If you don't have contemporary engagement, you won't have a valuable archive, one that represents that history and knowledge."

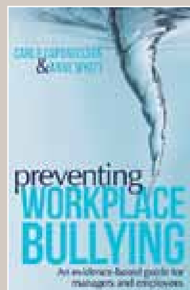
in.site is being launched this month at the international symposium Reprogramming the Art Museum: Curatorial and Education Strategies for the 21st Century.

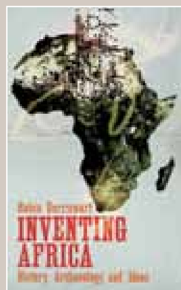
For more information go to www.insite-symposium.unsw.edu.au.

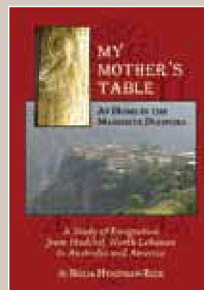
siebterjulizweitausendundnull, 2000 by Ugo Rondinone. John Kaldor Family Collection, Art Gallery NSW © Ugo Rondinone, courtesy Galerie Eva Presenhuber, Zurich. Photo: Peter Morris

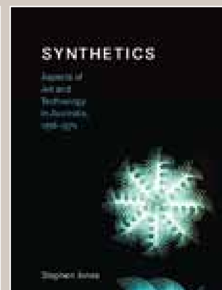
RECENT **BOOKS** BY UNSW STAFF

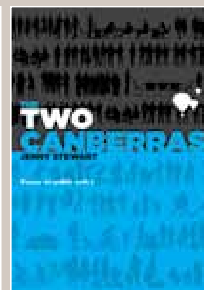












War in Afghanistan **by Kevin Baker, School of Business, UNSW@ADFA**

War in Afghanistan draws heavily on resources such as unit histories and presents a background briefing to the conflicts in and around Afghanistan. There have been few books that put the conflicts into the broadest historical perspective and even fewer that include accounts of the numerous wars and conflicts on the Northwest Frontier and Pakistan. This book includes information on all the region's wars, not just those involving British armies.
Rosenberg Publishing

Preventing Workplace Bullying **by Carlo Caponecchia, School of Aviation (with Anne Wyatt)**

In this practical guide, Carlo Caponecchia and Anne Wyatt explain how to identify workplace bullying and apply best practice to prevent and manage it. They outline what constitutes bullying at work, demystify some of the controversial issues, and discuss the various factors that influence workplace bullying. The responsibilities of management and the legal implications in different countries are outlined, and supported with best practice guides for policies, complaints procedures and risk management systems.
Allen and Unwin

Book Life – The Life and Times of David Scott Mitchell **by Eileen Chanin, doctoral student at COFA**

Mystery exists about David Scott Mitchell, founding donor of Sydney's Mitchell Library. He is discussed as Australia's uncontested foremost philanthropist responsible for Australia's "greatest cultural legacy" and also described as "some sort of Jay Gatsby and citizen Kane" who "could scarcely be labelled a philanthropist". This mystery is the focus of the book which gives details overlooked by the broad pictures that have been presented before. The book fits within the history of collections, looks at Australian philanthropic history, and considers the importance of historic records.
Australian Scholarly Publishing

Inventing Africa – History, Archaeology and Ideas **by Robin Derricourt, School of History and Philosophy**

Inventing Africa is a critical account of narratives that selectively interpret, and misinterpret, the continent's deep past. Writers have created alluring accounts of lost cities, vast prehistoric migrations and golden ages, and debates continue on the African origins of humankind, the contributions of ancient Egypt and Africa's importance to global history. Images of "Africa" overly simplify a complex and diverse continent. *Inventing Africa* defends the continent against some of the misleading grand narratives and will spark new debates in the fields of history and archaeology.
Pluto Press

My Mother's Table – At Home in the Maronite Diaspora, A Study of Immigration from Hadchit, North Lebanon to Australia and America **– by Nelia Hyndman-Rizk, School of Business, UNSW@ADFA**

My Mother's Table explores the idea of home created by a group of immigrants from northern Lebanon and their descendants in Australia and America. It shows how their strategies of home-building depend upon the capacity to imagine themselves as being united by kinship, a shared village of origins and as part of the broader communal Maronite identity. Patrilineage, village and sect are now deployed as a strategy of community construction in diaspora. Meanwhile, multicultural crisis and anti-Lebanese racism limit their claims to national belonging in Australia and America. Thus, the place where the immigrant can be completely at home is metaphorically at their 'mother's table'.
Cambridge Scholars Publishing

Synthetics – Aspects of Art and Technology in Australia, 1956–1975 **by Stephen Jones, School of Media Arts, COFA**

Synthetics examines how artists in Australia used new technologies in their art, from the early days of digital computing in the 1950s to a landmark exhibition in 1975. The evolution of computing technologies and video displays is explored, as is the collaboration between artists and technologists, and their mutual inspiration. The constraints of these new technologies and the inevitable evolution of new imaging is charted through the development of computer graphics and video art in the 1960s and '70s. While funding for the art form dwindled, the influence of the early electronic artists laid the foundation for today's burgeoning culture of new media art in Australia.
MIT Press

The Two Canberras – Essays on Public Policy **by Jenny Stewart, School of Business, UNSW@ADFA**

Public policy is all around us – it is, after all, what government is supposed to be about. However, it is often difficult to sort out the spin from the substance, the values from the rhetoric. The core policy dilemmas of our time – from population growth to innovation – are tackled in these clearly written essays, from a perspective that is both personal and analytical. *The Two Canberras* reflects the delights and dilemmas of living in a special Australian city.
Ginninderra Press

Suggestions for new books to include in the next issue should be sent to uniken@unsw.edu.au

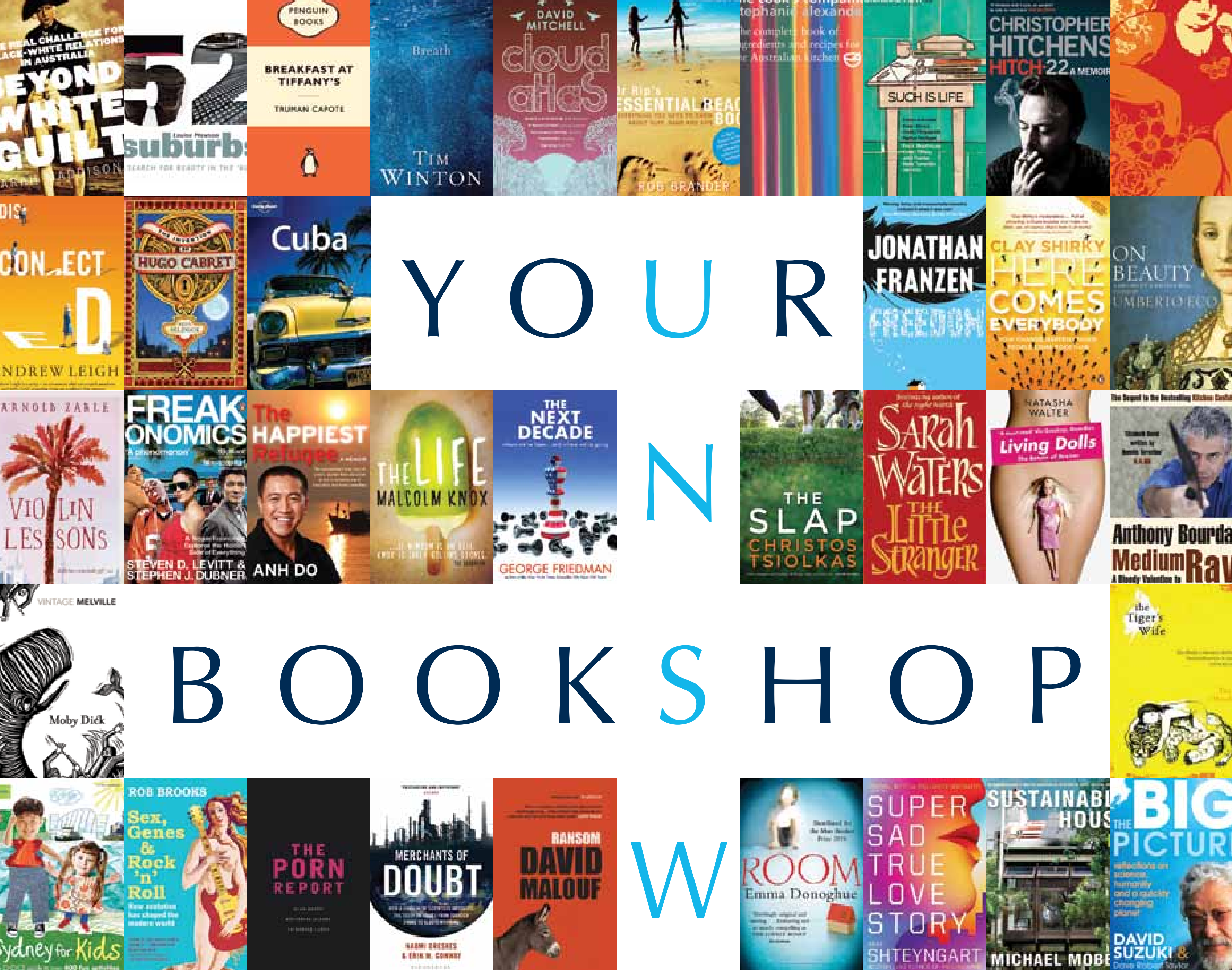
ICEBREAKER

Photo: Emma Johnston

As the weather warms and the ice breaks, researchers will soon be able to head to Antarctica to continue studying effects of sea ice on marine ecosytems. Antarctica is widely considered the last pristine wilderness, but the impact of human activities is being felt and sea ice conditions are forecast to change with global warming, which may have severe consequences on plants and animals living beneath. UNSW scientists conduct ecological research using custom made "dry suits" and scuba equipment in their work in an Antarctic subtidal research program run by Associate Professor Emma Johnston and Dr Graeme Clark in the Evolution and Ecology Research Centre and the School of Biological, Earth and Environmental Sciences.

This photo was taken heading south on board the *Vasiliy Golovnin*.

Please email photographs for possible inclusion in future issues to uniken@unsw.edu.au. Subject matter must relate to UNSW research.



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