LASTING LEGACIES
Gifts that keep on giving

TRUE TO FORM
Interior architecture 20 years on

BRAIN TRAINING
Drivers with disabilities
Cite (sɑɪt). To put forward thought-provoking arguments; to offer insightful discussion and new perspectives on topics of social, political, economic or environmental relevance; to report on new thinking.

Sight (sɑɪt). A feature or object in a particular place considered especially worth seeing. To frame or scrutinise community, research and business initiatives; to present points of view on current issues.

Site (sɑɪt). The location of a building or an organisation, esp. as to its environment. To place or position in a physical and social context.

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Norman Aisbett has worked in newspaper journalism for more than 40 years. He won the Graham Perkin Award (Australian Journalist of the Year) in 1981 for his reports about the rescue of Vietnamese boat people.

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Kitty Drok is a freelance science writer and technical editor, with a previous career as a research chemist in the resources sector.

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New era of giving
Philanthropy: is Australia on the cusp of something big?
The nation’s changing economic and social landscape has
given corporate philanthropy new life and turned wealthy
businesspeople into leaders in generosity.

Could henna help catch criminals?
Used in ritual skin painting and hair dyes, the staining properties of the henna
plant open up new opportunities in fingerprint detection.

Getting more from our ore
Rock-hungry bugs have the potential
to unleash more value from
low-grade minerals.

Passion play
For a lot of people, giving objects and
paintings is far more interesting than
just writing a cheque.

Gaining confidence
What will WA’s economy be like in 6 to 12
months? Curtin Business School and the
Chamber of Commerce and Industry team
up to provide the first and only WA-based
assessment of consumer sentiment.

From the inside out
Interior Architecture clocks up two
decades at Curtin.

Mobile detective
University-based innovators produce
breakthrough technology. Curtin’s Virtual
Observer goes on the road.

Reaching out
Universities exist to service the
community. Doing what we do – only
better – is what it’s all about, says
Vice-Chancellor Jeanette Hacket.

Getting on board
After flying clear across the country
to attend class, Indigenous students
are determined to prove they used their
time well.

Perils of perfectionism
People who are clinical perfectionists
have one thing in common – fear.

Driving and the brain
Neuroscientists have long understood
that the brain can rewire itself. Young
people with autism stand to benefit from
new research.

Island of tears
Professor Linda Briskman laments
that we need a better way to care for
boat people.

VC’s view

News brief

Alumni profile
Speaking from experience
Kristy Tomlinson is on a long-term
mission to change lives.

Dubai dreaming
Petite model and media host
Simone Heng makes a big splash
in the Middle East.

Campus life

In perspective
Dawn of a new era
Engineers are fast becoming an integral
part of decision making on issues that
shape society and underpin its wellbeing.
Curtin’s Head of Civil and Mechanical
Engineering points the way.

Fully engaged
The real test of leadership is how a
company performs over a CEO’s entire
tenure. Curtin’s new Chancellor
Dr Jim Gill traces the lessons of success.
THROUGH Cite we are able to communicate the socially important work undertaken at Curtin and acknowledge our valuable partners and graduates, in addition to publishing ongoing stories about our teaching and research. Copies of this edition of Cite are being sent to 96,700 Curtin alumni around the world, to maintain contact with members of the extended Curtin ‘family’ and keep them informed of their University’s progress.

One of our important recent initiatives was the establishment of the Office of Advancement to enable us to build a cohesive philanthropic culture within Curtin. The next stage of development – the Curtin University Foundation – was officially launched by Curtin’s new Chancellor Dr Jim Gill.

The Foundation, with prominent external board members including WA businessman Gene Tilbrook, will lead the philanthropic culture within Curtin and nurture our stakeholder relationships. Gene brings substantial financial management experience as well as a particular interest in the arts and education. I wholeheartedly welcome him to his new role.

More than $2.3 million has already been received by the Foundation this year, including a generous contribution by former Chancellor Gordon Martin. My husband and I have also made a personal contribution.

I also thank other individual donors such as Malcolm and Tonya McCusker, whose foundation recently donated $400,000 to help fund research into alcohol-related problems (see cover story). Another dedicated supporter is Dr Ian Bernadt, who has donated many wonderful artworks to the John Curtin Gallery over the years (page 14). Other donors have rewarded academic excellence with scholarships and new awards. Such individuals, and many generous corporations and patrons, know and appreciate the work we are doing at Curtin to help better society in innumerable ways.

ON BEHALF of the University I thank all those who contribute to a better future for the next generation through their generous support.

With our exciting plans for the future in a time of reduced government funding, we appreciate more than ever the efforts of our alumni and friends of the University to help forge new partnerships and to spread the word about our commitment to excellence in research, teaching and global citizenship.

As Dr Jim Gill says in this magazine (page 32), ‘The more we listen, collaborate and are appreciated as adding value, the more opportunities will occur for us and the parties with whom we collaborate’.

We hope you enjoy reading this edition of Cite. We are proud of its contribution to the culture and character of Curtin at home and abroad.

Professor Jeanette Hacket
Associate Professor Vincent Williams, a distinguished cytologist, teacher and researcher, has joined the Curtin School of Biomedical Sciences. Williams comes with strong industry, clinical and research experience gained from 24 years in charge of the cytology unit in the Anatomical Pathology Department of PathWest at Sir Charles Gairdner Hospital, and more recently Symbion Health/Western Diagnostic Pathology.

The main focus of his research before joining Curtin was the epidemiology, pathogenesis and diagnosis of asbestos-related diseases including benign pleural fibrosis, asbestosis, lung carcinoma and malignant mesothelioma in exposed subjects in Western Australia.

His current research – in collaboration with investigators at Royal Perth Hospital – is directed at human papilloma virus infection and other risk factors in anogenital disease in high-risk subjects.

The group is interested in developing the most efficient methods for collection and preparation of specimens for microscopic detection of disease and virus DNA testing for accurate diagnosis and patient management,’ he says.

Williams has been offered the prestigious position of Saal-Foley lecturer at the Australian Institute of Medical Sciences national meeting to be held in Perth in October.

The offer acknowledges his positive contribution to the development of laboratory medicine in diagnosis, education and research.

Not even official retirement can dampen the enthusiasm of three long-standing members of Curtin who received recognition in the Australia Day Honours list.

All three were named as Members of the Order of Australia (AM).

Professor Robin Watts, who always wanted to be a nurse, says she is keen to continue with evidence-based care after her upcoming retirement and attributes her life-long motivation to ‘people’. ‘People for whom you have been able to make a difference in their lives either directly or indirectly – children and families you are caring for, people you are teaching, and colleagues who support and encourage you,’ she says.

Watts received the award for her service to nursing through the development of nurse education, promotion of evidence-based health care and the establishment of ethical research standards.

Emeritus Professor David Black began teaching Australian history and politics at the WA Institute of Technology (now Curtin) in 1968. He became a leading commentator on Western Australian and Australian politics in addition to researching the life of John Curtin. In 1998 he was appointed historical consultant to the John Curtin Prime Ministerial Library.

Recognised for his service to education and to the social sciences, Black is currently Parliamentary Fellow (History) and Chairman of the Parliamentary History Advisory Committee.

Australia’s leading expert on the conservation biology, ecology and physiology of the banksia family and grass trees, Professor Byron Lamont has published more than 200 papers, becoming Curtin’s most cited researcher.

Lamont received recognition for his service to conservation and the environment, particularly Australian flora, as an educator, researcher and author just as he retired from Curtin after 36 years.

Road safety is about more than driver education, says the new director of the Curtin-Monash Accident Research Centre (C-MARC), Associate Professor Brett Hughes. ‘We need many different professionals to contribute to reducing crashes and injuries,’ Hughes says. ‘Safety also includes design issues such as protective barriers and electronic technology. ‘New rope or rail fences alongside the road are effective in preventing drivers from careering into a tree or off a bridge.’

Hughes, who was previously the Australasian Railways Association Director of Transport Policy, is an electronics engineer specialising in traffic and transport engineering, lighting and management.

He says that electronic technology such as seatbelt warnings and electronic stability control could be installed in more vehicles.

C-MARC is also researching the behaviour of young drivers, vehicle power, vulnerable road users and rural crashes. ‘One particular area of interest is the effect of health issues, such as cataracts, on road safety,’ Hughes says.

Of added concern were fatalities at level crossings, and C-MARC welcomed the new National Rail Level Crossing Strategy released in February 2010. ‘Level crossings are a complex location where road and rail are in conflict – multiple strategies are therefore necessary,’ Hughes says.

A joint collaboration between Curtin and Monash University, in Victoria, and initially funded by the WA Government, C-MARC’s research will relate to the government’s road safety strategy, Towards Zero.
NEW ERA OF GIVING

Influenced by the nation’s changing economic and social landscape, philanthropy in Australia is maturing into a dynamic and multifaceted endeavour. What motivates donors to give? And how is this seemingly simple and generous act a vital part of who we are as a society?

STORY ANDREA LEWIS PHOTOGRAPHY JAMES ROGERS

From left: Professor Mike Daube, Tonya and Malcolm McCusker, Carolyn McCusker and Tony Hume
When it comes to fundraising, the US stands alone as the envy of the world. Giving in the US totals around US$222 billion, compared with AUS$11 billion in Australia and £10 billion in the UK.

Most of the charitable money raised in the US comes from individuals, the majority of funds raised through well-run and ever-constant pledge and gifting programs. Indeed, finding new ways of tapping into individual giving has become an endeavour in itself.

Barack Obama raised half a billion dollars online in his 21-month campaign for the White House, dramatically ushering in a new digital era in presidential fundraising. In Obama’s campaign, three million donors made a total of 6.5 million donations online, adding up to more than $500 million. Of those 6.5 million donations, 6 million were in increments of $100 or less.

In itself, this is an inspiring lesson: that even a small act of giving can work towards making a big difference. But small donors participating in lengthy campaigns have long co-existed with those at the other end of the spectrum: the traditional major philanthropic donor.

In Australia, until the 1990s, philanthropic activity took place primarily through wills and bequests, or by means of long-established family wealth. Dame Elizabeth Murdoch, icon of Melburnian old money, has not only given wealth but devoted her life’s work to philanthropy. Other examples of family wealth have seen the Myer Foundation, the Ian Potter Foundation and the Vincent Fairfax Foundation one of the most notable for its model of long-term partnerships with community organisations. To reach its transformative potential, it would seem, philanthropy needs to be more than just the sum of its parts. It needs a teleological motive: none other than that of social change.

Given the changing landscape, it makes sense that most universities in Australia appear to be taking a good hard look at their current avenues for fundraising in an effort to reshape their relationship with donors.

The founding and endowment of educational institutions have always relied on private philanthropy, or on land grants from the state. In Australia, the sandstone universities have long enjoyed strong support from their alumni. But this has not always been true for the nation’s newer universities.

Last year, Curtin established an Office of Advancement with the aim of building a cohesive philanthropic culture within the University and maximising the impact of the newly established Curtin University Foundation.

The potential for developing a similar culture of giving in this country is here. It just has to be developed.

A lot of people in Australia give, but we don’t yet enjoy the levels that US universities do. Donors are becoming increasingly aware, however, that educational philanthropy can contribute to universities gaining access to greater resources to enable first-rate education, research and service to the community.

Australian universities are embracing the cultural change of actively involving the community to provide addition sources of funding. The value that donors see in giving is all about the common good, and the higher education sector is, arguably, one of the best places to deliver such value.

Through their core business – teaching and research – universities engage in activity that, by its very nature, serves the broad base of society, with outcomes directly benefiting those less fortunate or clearly supporting the public good.

Philanthropy in the higher education sector is then not just about the university getting money: the relationship is a reciprocal one.
‘Curtin will direct funding from the Foundation to areas of community impact,’ Hume says. These include, for example, health research centres. Curtin also has a major sustainability institute, and we have one of the highest enrolments of Indigenous students in Australia. Programs such as these, certainly along with others in the humanities and the arts, look after broad public interests.

‘Without a doubt, supporting students is also an essential part of the business of the Foundation. We are raising funds for an engineering pavilion with facilities that will enhance the student learning experience, and so greatly improve their education.’

With industry support for universities already strong, Curtin is keen to attract potential private donors. ‘Alumni have the most at stake with regard to the reputation of their degrees,’ Hume points out. ‘They have a reason to stay involved and participate in strengthening the University’s capabilities.’

The McCusker Charitable Foundation is one of WA’s strongest philanthropic bodies, and its commitment to strengthening health and medical research capability is impeccable.

EARLIER this year, the McCusker Charitable Foundation gifted $400,000 over two years to fund work, being undertaken by Professor Mike Daube, on reducing alcohol-related problems through the Public Health Advocacy Institute of WA, based at Curtin.

‘Malcolm and I recognised the growing problem with alcohol abuse and binge drinking amongst young people in Australia,’ says Tonya McCusker, one of four trustees of the foundation. ‘We realised that something needed to be done.

‘We looked around and recognised Mike Daube as a leading researcher and advocate in public health policy, particularly with regard to anti-smoking and anti-alcohol advertising and healthy eating campaigns.

‘So we had conversations with Curtin’s Vice-Chancellor, Jeanette Hacket, and with Tony Hume about how we could support his work, particularly with regard to alcohol. From those discussions has emerged this partnership with Curtin.’

While in this instance the McCusker Charitable Foundation is supporting the work of one professor, it is particularly committed to greater philanthropy, where, together, multiple funding bodies can have a bigger impact.

The idea of a shared approach to philanthropic effort is, indeed, a powerful one. When wealth and passion converge, great things will always be done. But when that wealth and passion are part of a larger, collective effort, then we would witness a truly powerful shift. Australia may just be on the cusp of something big.

‘While it was all very well to make money, I knew I couldn’t keep this focus forever,’ she recalls. ‘I needed to do something else. I thought about returning to the Middle East to work.’

She didn’t go. Instead, she stayed with Westpac for seven years, eventually taking up the position of Head of Community Involvement for the Westpac Group.

With the support of senior management, Anderson initiated many programs. The all-important starting point was perhaps the Westpac-Cleveland Street High School student mentoring program, aimed at assisting students in broadening their life experiences and improving self-esteem.

The program was highly successful. An ABC documentary about the program aired nationally and Anderson compiled a manual that had a huge influence across the country.

Her efforts showed not only what mentoring could do for at-risk students, but what was possible when a large corporation and those in need came together.

‘Australia didn’t have the aristocratic wealth of Europe or the industrialised wealth of the US,’ she says. ‘But what it does have is a strong culture of volunteering. We have always been a generous society. It’s just that now we’re learning to give money.

‘As the sector grows, we are seeing a greater interest by universities in philanthropy. Universities have always engaged in fundraising, particularly around scholarships, but now they are beginning to look at philanthropy in a different light. What was for many universities a peripheral activity is now becoming embedded as part of their key strategies.

‘One area that universities have not been good at tapping into is their own alumni. We know that people give because they have a link to, or a passion for, something. It seems to me that there is a natural opportunity for universities to reach out to those who have had involvement with a university, and want to stay connected.

‘Philanthropy is emerging quickly in Western Australia, with much greater interest than there used to be. Clearly, this is a product of the resources boom, but it’s also a part of the evolution of Perth. The city is changing from being a suburban to an urban environment. This kind of growth brings with it other social changes, and great opportunities.’

I see people in Perth now wanting to be philanthropic. There is a will to invest in the city. And I think that the Curtin University Foundation is a timely and potentially very important entity in the West.’
'I used to be a perfectionist, but I’m trying to improve …' It’s an old joke and it still raises a smile. But the sad truth is that, for many, being a perfectionist is no joke at all.

PERILS OF PERFECTIONISM

LIFE can be a very serious matter for the world’s bona fide perfectionists. It can be so intense, so driven, that it exacts a heavy toll, both emotionally and physically, on themselves and on those around them. Perfectionism can be a life of continual disappointment, chronic failure and impaired relationships. It can lead to anxiety, stress, sleep disruption, depression, eating disorders and, at its most extreme, suicide. Some researchers have even linked it to shorter life spans generally.

But a little perfectionism isn’t a bad thing, surely? Isn’t it good to be goal-focused, achievement-oriented, organised, successful, punctual, precise, neat, in control? Can’t perfectionism spur great accomplishment, foster perseverance and help overcome discouragement?

Well … yes, says clinical psychologist (registrar) and Curtin PhD candidate Dolores Elek-Roser but with some obvious reservations. Elek-Roser, who is researching in this field, explains that there’s a perfectionism continuum – with high-achieving at one end (the positive end) and low self-esteem.

According to Elek-Roser, clinical perfectionism is driven by fear of failure – and conversely, fear of success – fear of criticism, fear of others’ negative opinion and low self-esteem.

Essentially, it boils down to one’s sense of self and how an individual evaluates his or her sense of self-worth,” Elek-Roser explains.

High achievers set a goal for themselves, but if they don’t quite achieve it, they say: “Well, I’ve done the best I can, and I’ll try to do better next time”. There might be some initial anxiety, but it’s usually fleeting, they don’t dwell on it. When they do achieve the goal, they’re proud of what they’ve accomplished. Unlike their high-achieving counterparts, when clinical perfectionists achieve a goal, they’ll often make excuses for it – ‘I just got lucky’, ‘the exam was easy’.

PROCRASTINATION and under-productivity are often associated with the condition. Clinical perfectionists set such high goals that tasks can become overwhelming – they may spin their wheels instead of getting started or constantly redo a job, rewrite a report or assignment, or waste time on irrelevant details or activities, and so miss vital deadlines. This process can cause work-related issues, problems with colleagues and, in a self-defeating, downward spiral, trigger increasing anxiety, depression and a sense of failure.

‘Also what we find with clinical perfectionists is that they’re quite rigid in their thought processes – they see things in black and white – they have an all-or-nothing mindset. This kind of mindset is not only destructive for the perfectionist, it can play havoc with their interpersonal relationships.’

But the perfectionist in our joke is actually doing better than most of their fellows. He or she has perceived a need to ‘improve’ but many don’t, and of those who do, many don’t want to change.

‘This unwillingness to change, or to seek help for the condition, despite experiencing its negative side effects, is exercising Elek-Roser’s mind. She aims, through her PhD research, to develop and assess what she believes will be the world’s first screening tool for determining a clinical perfectionist’s readiness for treatment.

Why would anyone want to persist in a behaviour with such significant negative outcomes? Elek-Roser gives the example of the perfectionist student – one who has consistently achieved distinctions and high distinctions, won academic prizes, scholarships and grants.

‘As they see it, they’re being rewarded for their perfectionism, so why would they want to change? For them, the gains outweigh the pains. They perceive any behavioural change to be a lessening of standards. But the available treatments aren’t about changing people’s goals or lowering their standards, they’re about helping people modify their thinking and manage their lives better, about showing them they can still be high achievers, but in a healthy, well-adjusted way, minus the associated negative psychological and physical impacts.’

Elek-Roser has called for community members to participate in focus groups to discuss their ideas on what has made them want treatment for their perfectionism, what might impede their progress and what might help them complete treatment.

‘Once I’ve collated that information, I’ll develop an assessment tool that can be used by health professionals anywhere. When patients present with anxiety, depression or relationship issues, for example, the health professional could administer the tool, determine whether clinical perfectionism is at play, assess the patient’s readiness to address it and use it to help introduce the topic. Ultimately it could enable treatment of the root cause of the problem – perfectionism – rather than just a symptom such as anxiety or depression.’

Sounds perfect.
Speech pathologist Kristy Tomlinson has come a long way since her graduation in 2007 and if her new-found leadership skills, confidence and personal growth are any guide, she has an exciting life journey ahead.

‘I was really overwhelmed at the conditions and had not anticipated the lack of stimulation and general healthcare at the centre,’ she says. ‘Very little was being done to enable participation among the residents and seeing children with such severe disabilities without wheelchairs or other assistive equipment was heartbreaking. ‘There had been no speech pathology intervention prior to our visit.’

Tomlinson said the team realised immediately that the programs they had made in Perth, prior to their departure, would be impossible to implement. They regrouped to focus on providing stimulation and communication through games, craft, music and dance based on local cultural values.

Modelling and providing education on the importance of inclusion and participation among the residents became a priority.

‘Through Go Global, Tomlinson and her colleagues were able to provide activity equipment such as swings, table tennis tables and basketball hoops from funds raised by the students. Everyone at the centre was delighted with the gifts.

‘The assistance we provided came from the skills we learned at university,’ Tomlinson says.

‘It was an amazing learning experience for me and I knew from that point I wanted to continue advocating for individuals with disabilities.’

GODDARD says the young speech pathologist has come a long way since her graduation. ‘When Kristy returned from her first trip she assisted in the formation of the Go Global Alumni Chapter, which now has over 310 member volunteers,’ he says.

‘She is currently president of the alumni and has also played a big part in launching Australian Allied Health for International Development Inc. that advocates for the provision of allied health services in developing nations.

‘The Go Global Alumni Chapter runs this body but it exists outside of the University so it can apply for AusAID and Lotterywest funding. It also creates opportunities for alumni members to go back to the host sites and continue providing service.’

Tomlinson returned to Anadaniketan with Equal Health for two weeks of volunteer work in February this year and says she felt a lot more comfortable the second time around.

‘Before the first trip in 2007 I was unsure if I wanted to work in the disability sector. Having the opportunity to see first hand the incredible benefits of multidisciplinary allied health intervention set me on my career path and gave me a deeper appreciation of the benefits of speech therapy,’ she says.

‘On both volunteer occasions our multidisciplinary team pulled together to achieve a common goal to assist where we could in the time we had. Everyone’s roles blended together and we learned to be advocates for healthcare and inclusion rather than discipline-specific therapists.’

Curtin academic Alma Dender, who has been on the academic fieldwork placement program five times as an academic supervisor, describes the program as ‘absolutely brilliant’.

A senior lecturer in the Faculty of Health Sciences within the School of Occupational Therapy and Social Work, Dender says the volunteer students and the Anadaniketan residents benefit greatly from the project. Visiting Australians are frequently told by orphanage staff that the changes would not happen without students going there.

All three Curtin representatives see a time when the skill-sharing with local staff and capacity building at the four international centres will build up sufficiently to ‘do themselves out of a job’.

KRYSTY Tomlinson stepped out of her comfort zone when, in her final year of speech pathology at Curtin, she signed up for volunteer work in West Bengal, India.

She worked with a Go Global allied healthcare team for a month at the Anadaniketan Society for Mental Health Care and was struck by the need she saw all around.

Go Global is a Curtin initiative that supports community-based health care providers in India, China, South Africa and Ukraine. It was founded in 2001 by Trevor Goddard who is a senior lecturer at the School of Occupational Therapy and Social Work and currently director of the program.

Go Global aims to foster an international multidisciplinary health and development learning experience that enhances the cultural awareness and personal, professional and clinical skills of health science students. Its vision is to provide quality international opportunities for students to contribute to humanitarian-based health services that can be sustained by those who follow.

Goddard initiated the program by taking the first group of student occupational therapists to the Shanghai BoAi Children’s Rehabilitation Centre in China. He used the visit to start developing and sharing a service model that now includes physiotherapists, speech pathologists, occupational therapists, pharmacists and nurses in the four countries.

As one of nine graduates in occupational therapy, physiotherapy and speech therapy to volunteer for India, Tomlinson absorbed as much as she could about the local Bengali language and culture before leaving Perth. But she admits none of it prepared her for the challenge of working with the 300 children and adults who were experiencing physical, intellectual and psychological disabilities at the remote rural facility.
Among the many charities Curtin supports, the World’s Greatest Shave is a big attraction on campus. With the participation of women on the rise – from four who shaved their heads in 2007 to 16 this year – it seems the more women who willingly shed their ‘crowning glory’ the more money is donated. Since 2002 about 1,200 students and staff have participated and the University has raised more than $72,000. In March 2010 about 60 Curtin staff and students queued to either lose their locks or to colour their hair to raise money for the Leukaemia Foundation. Funds raised provide practical care and support to patients and families living with leukaemia, lymphoma, myeloma and related-blood disorders. Last year Curtin won the inaugural Inter-university Challenge Trophy by raising $25,000. This year Curtin raised $35,000.
Could henna help catch criminals?

Henna has been used since the Bronze Age to dye hair and adorn skin with temporary tattoos. Used to celebrate festivals and identify individuals undergoing rites of passage such as marriage, it may now become the latest way for police to identify criminals.
RENEE JELLY, a PhD student in the Forensic and Analytical Chemistry Group within the Department of Chemistry at Curtin, is investigating whether the staining property of henna can help police detect fingerprints at crime scenes.

Fingerprints have been used to help solve crimes since the 1890s. Visualising fingerprints on smooth sealed surfaces such as glass is easy, using fine powders that stick to the water or oil in the fingerprint residue. But what do you do when the surface is porous, like paper, and absorbs the fingerprint residues?

Luckily fingerprints also contain small traces of amino acids, and these bind quite strongly to the cellulose in paper. Chemicals such as ninhydrin react with these amino acids and turn them pink/purple, allowing police to visualise the print. Fingermarks over 40 years old have been successfully visualised with amino acid-sensitive reagents.

Ninhydrin and similar compounds are now routinely used by the police for fingerprint detection, and have revolutionised the technique over the past 40 years. However ninhydrin has limitations, as Jelly explains: these treatments stain fingerprints a pink colour – it’s often not a very good contrast against the background. The newer compounds also use photoluminesce, which improves sensitivity, making prints much easier to see when viewed with appropriate light sources. Unfortunately, background fluorescence can also interfere, caused by the whiteners, brighteners and dyes in modern papers.

Jelly’s ‘eureka’ moment came when she thought about the way that some natural dyes can stain skin, giving her the idea to test them on fingerprints. The active ingredient that makes henna dye skin is thought to be a chemical called lawsone, and I wondered if it would react with fingerprints on paper. We tested it, and discovered that it does, and turns them a purple-brown colour.

One advantage of this new reagent is that the colour is darker and produces a better visual contrast than ninhydrin on many surfaces. It is also strongly photoluminescent without further treatment. ‘It has a bit of an advantage here,’ says Jelly. ‘It luminesces at a longer wavelength than ninhydrin and the other compounds in common use, which may avoid some of the interference caused by native background fluorescence.’

Jelly’s supervisor, Associate Professor Simon Lewis from Curtin’s Forensic and Analytical Chemistry Group, explains that this new research doesn’t aim to replace existing fingerprinting technologies. ‘It’s about offering a range of complementary fingerprint reagents that are different colours and luminesce at different wavelengths. The police need a broad range of options depending on the nature of the surface, the age and condition of the fingerprint, and any background interference.’

There are always new challenges in fingerprint detection, such as the recent transition from paper to polymer banknotes. ‘Some of the most difficult surfaces to visualise fingerprints can be common things like the brightly coloured labels on some types of drink bottles,’ says Lewis wryly. ‘So we’re not trying to replace the tools in the toolbox; we’re aiming to increase the number and variety of tools available to the forensic investigator.

Jelly’s findings are particularly exciting because they open the possibility of a whole new class of useful compounds that may lead to further improvements in fingerprint detection. ‘Lawsone is a naphthoquinone, so we’ve looked at other naphthoquinones and they’ve all worked too,’ Jelly says. ‘So now we’re testing related compounds to see which others may be useful. We’re also systematically working out the best way to apply and use these new reagents.’

THE research has been done in collaboration with the Australian Federal Police, Forensic Science South Australia, and the Western Australian Police, to make sure that these new developments fit the working requirements of forensic teams, and can be tested under realistic conditions. Not only do these techniques need to be sensitive enough to detect very small quantities of amino acids (down to about 10 nanograms) against a range of background materials and contaminants while preserving the pattern of the fingerprint, but their potential interactions with other forensic techniques must also be known. For example, if lawsone is applied to a document using a solvent that makes ink run, other important information on a piece of evidence could be lost.

‘The expertise provided by the police has been invaluable,’ Lewis says. ‘They’ve been very willing to help us put this research in the context of what they actually do, so we can contribute to the overall body of knowledge on fingerprint detection.’

It is a collaboration that should prove profitable. Fingerprints collected at crime scenes or on items of evidence remain the most commonly used forensic evidence worldwide. Fingerprint databases are growing by the tens of thousands daily and fingerprints are used to make more positive identifications of people worldwide than any other system.

People use hair dyes and temporary tattoos to draw attention to and individualise themselves. Soon police will be using the same compounds to identify where individuals have been.
THE diminishing availability of high-grade, easily accessible ore deposits poses significant challenges for the minerals industry in Australia.

In short, new deposits are not being found fast enough to replace those being extracted, while the declining grades of existing deposits means that these ores are becoming more costly to process and potentially more waste-producing – at a time when the resources industry is being asked to reduce its environmental footprint.

Helping to support the minerals industry in its hour of need is the Curtin Institute of Minerals and Energy, established late last year to help advance the interests of this critically important sector. According to its director, Mark Woffenden, the Institute will build and strengthen vital research links with industry.

The minerals industry is in need of new approaches on a range of fronts – from the development of novel exploration technologies to speed the discovery of new mineral deposits to new ways of unlocking the value of low-grade accessible seam, making them difficult to process economically using conventional mineral processing technologies.

While bioleaching is a slower process than smelting, it’s an economical option for utilising low-grade ore and it has less of an environmental impact.

Once we determine which bugs are the most effective at bioleaching, we can then work to ensure that these ones have the best opportunity to operate and deliver better rates of mineral extraction.”

As a spin-off to this complex bug profiling project, the Parker Centre has funded the group to investigate how changing specific components of their microenvironment affects the behaviour of the microorganisms. As mining heaps are complex environments – highly acidic with heavy metals that can threaten the growth and survival of the bacteria – determining which populations cope best with these extreme conditions should prove useful to the minerals sector in managing the right mix of microbes in a healthy bioleach heap.

To progress matters close to home, PhD student Carla Zammit is being funded by the Parker Centre to explore which populations will best tolerate the bioleaching practices in Western Australia.

According to Woffenden, fundamental research of this kind has enormous potential and will directly benefit from the Institute’s support and industry connections.

This is exactly the type of leading-edge research that the Institute will be championing to industry, he says.
DRIVING AND THE BRAIN

Young adults with Autism Spectrum Disorders (ASD) will benefit significantly from a research program that focuses on the development of visually based strategies leading to safer driving techniques.

STORY SUE EMMETT
PHOTOGRAPHY JAMES ROGERS

AUTISM costs Australia an estimated $7 billion a year, a reflection of a 10-fold increase in rates of autism and Asperger syndrome. Statistics show that males with the condition outnumber females four to one. Common traits within the autism spectrum include an inability to socially interact with peers and a fixation and repetitive ability that to some other people may seem boring and redundant. People with the condition also often avoid eye contact.

Until now, there has been limited research on the visual spatial perception of people with ASD. As a result, many young people with the condition are held back from enjoying a full and satisfying life.

A new five-year program, headed by Professor Torbjorn Falkmer, a Senior Research Fellow in the School of Occupational Therapy and Social Work at Curtin, may assist people with ASD and people whose visual perception has been affected by stroke, traumatic brain injury or multiple sclerosis.

Falkmer, a specialist in pediatrics, received his PhD in Medicine at Linkoping University, Sweden, in 2001 for his work on transporting children and adolescents with cerebral palsy. His current research focuses on driver education and driver assessment for young learner drivers, drivers with disabilities and older drivers.

‘Some people with autism are unique in that they may be unable to look after themselves, do not look you in the eye, and yet these same people have savant visual memories and visual perception skills,’ he says.

‘In most western countries, including Australia, being diagnosed as having Asperger syndrome requires a medically based driving assessment before a learner’s permit is issued, despite the fact that any increased crash risk for these particular groups of drivers has neither been established nor proven. One way to overcome this situation and to keep persons with Asperger syndrome mobile by driving, is to study their hazard perceptual abilities in traffic through eye movements and their actual driving, by way of an eye tracker and driver simulation.’

The eye tracker at first glance looks like a lightweight pair of glasses frames without the lens. The high-tech device has a micro video camera in the centre of the frame, an infra-red illuminator and a camera that detects the position of the pupil, tracking its movement to calculate the exact position of the eye at any given time.

The results will give researchers working with ASD participants a good understanding of how their world is laid out in front of them and if necessary, they can help change their visual strategies, thus giving more young people the opportunity to participate to a greater extent in society.

Curtin is also developing computer-based tools to assist in the teaching of language concepts to autistic children. The tools are being developed by Professor Svetla Venkatesh and the team at the Institute for Multi-sensor Processing and Content Analysis.

PROJECT leader Stewart Greenhill says early behavioural intervention has been shown to improve communication for children with autism, and therapy is often started as young as two years old. Current practice is to use flash cards to teach concepts – objects, colours, actions and social situations. Pictures must be collected, printed and laminated for use in lessons. This preparation can be repetitive and time-consuming. Unless sufficient variety is provided the child may ‘overlearn’ and be unable to generalise.

‘We have developed a system that uses a multi-touch table to present “touchable virtual cards” while retaining face-to-face interaction between the therapist and child,’ he says.

‘The range of stimuli is increased in type and breadth, and multimedia can be used to capture the child’s interest through movement and sound. It also aids the therapist by reducing lesson preparation time and automatically monitoring progress for later review.’

Curtin has a strong and respected reputation for its ASD research, integrating research from genetics and technology, and also listening closely to the consumer. ‘It is our intention to translate research to primary health care and also engage with the real needs of parents with children with autism today,’ says Associate Professor Garry Allison, Dean, Research and Graduate Studies in the Faculty of Health Sciences.

‘We recognise that parents need assistance now, so we aim to engage with the family in service delivery through facilities such as the newly opened Autism Specific Early Learning and Care Centre at Warwick and the Autism Association of WA.’

C
Individual donors have contributed many paintings and objects to the John Curtin Art Gallery on the Bentley Campus over the years, thrilling many visitors. What inspires such generosity?

STORY ISOBELLE MCKAY
PHOTOGRAPHY JAMES ROGERS

Left: Dr Ian Bernadt (foreground). Gallery Director Christopher Malcolm and Collection Manager Barbara Cotter (background) holding Peter Upward’s Self Portrait – Sun in Libra, c1960, acrylic on canvas, donated by Dr Bernadt.
one of the wonderful works is Turkey Tolson’s _Somewhere_.

As impressive as that sounds, it is just a fraction of the paintings and objects the generous philanthropist has gifted to the University and the John Curtin Gallery over the years.

Bernadt is the University’s single biggest donor of artworks and he has been awarded a Doctor of Letters from Curtin.

The Swanbourne ear, nose and throat surgeon has been involved in arts philanthropy since 1984 and has no intention of stopping anytime soon.

With more than 500 pieces in his ever-expanding private collection, he chuckles that his family often thinks he’s mad for giving so many of his acquisitions away.

‘An art collector is an irrational human being,’ he says. ‘They [the artworks] are in the bedroom, under the bed, in the cupboards, in storage and sitting in my surgery – it’s crazy.’

But Dr Bernadt is by no means alone.

According to collection manager Barbara Cotter, a handful of key donors has helped to boost Curtin’s collection by more than 750 objects to 2,423 in the past five to 10 years through the Federal Government’s Cultural Gifts Program and outright gifts.

Some other philanthropists include Dr Ben Korman, Sir James and Lady Sheila Cotter, the Pontre family, Dr Johanna Lagerberg and partner Dr Stephen Swift, and Dr Douglas Kagi. For their contributions, all are acknowledged wherever the works they donated are displayed.

Giving is a trend noted in the art sector. There is the financial benefit but also it is that some people just really enjoy buying art and being involved in the arts, Ms Cotter says.

‘It’s a way of showing their support. As they get more involved, they keep an eye on what’s happening, what exhibitions and auctions are on. They get to know what’s worth collecting, both financially and culturally.

‘For a lot of people, giving objects and paintings is far more interesting than just writing a cheque.’

Donated works in Curtin’s collection range from the whimsical to the political – but all are uniquely Australian. Examples include Stuart Elliott’s colourful _Wheat Madonna_ and Nora Heysen’s luminous _Portrait of Dorothy Hewett, 1975_, both gifted by Dr Bernadt.

Gloria Petyarre’s stunning homage to Aboriginal women’s ceremony and dreaming, _Awelye for Atmankere_, was donated by Dr Lagerberg and Dr Swift – and that’s just one of many works.

‘I just liked the exhibitions and the Gallery and I liked the people who work there.

‘I’ve got a huge collection myself and sometimes it’s good to share it and move it on.’

Dr Lagerberg has become closely involved with Curtin and is pleased by the acknowledgment given in return.

‘With the University, I’ve had the chance to co-curate shows and things like that, which is great fun,’ she says. ‘It’s always been very much appreciated and it’s a pleasure to donate things.’

ANOTHER source of works is the artists themselves.

‘Photographer Sonia Payes donated one of her works … Australian ceramic artist Pippin Drysdale also donated three of her pots to us, which sell for quite a lot,’ Ms Cotter says.

‘I know they loved their shows at Curtin so much that it was basically just a thank you.’

Drysdale agrees that she enjoys giving back to Curtin after it offered her many years of support.

‘I had all those years out at Curtin which gave me an incredible board to bounce off and the confidence to reach out for the stars,’ she says. ‘When there are opportunities for me to help financially through my work, it’s a nice thing to do.’

She says that along with the financial benefits of philanthropy, it is wonderful for artists to know that their works are documented and can be reflected upon long into the future.

‘All artists like to feel that their work has wandered into a very important public collection, because it builds on your profile and history,’ she says.

When works are not on exhibition at the Gallery, they are stored under high security in temperature, pest and humidity controlled surroundings to extend their lifespan.

Collection exhibitions are often held in the Gallery, while other works are displayed throughout the University. As well as being a showcase of Curtin’s commitment to cultural development, the collection is also used extensively by staff and students for teaching and research.

Curtin’s art collection, which started in 1968, is already a significant part of WA’s cultural estate and a major financial asset for the University – one of the few that appreciates in value.

Several years ago, the Gallery decided to concentrate on acquiring Indigenous art from the western half of Australia and works by Western Australian artists, as well as new works using new media, to become more distinct from other WA collections.

Finding new donors to help make it stronger and more cohesive is ever more critical.

‘The financial crisis has affected the budget of every art organisation across Australia – if they haven’t had it cut, then it’s certainly pared back,’ Ms Cotter says.

JOHN Curtin Gallery Acting Director Christopher Malcolm, appointed in 2009, credits his predecessor Professor Ted Snell, the Gallery’s former Dean of Art, with nurturing excellent relationships with donors.

He aims to build on those relationships and find more people to contribute.

‘There are not many people in Perth who are in a position to donate sizeable, culturally and financially valuable artworks,’ he says.

‘Some significant works are worth hundreds of thousands of dollars each and we just don’t have the resources to be buying works like that.’

Curtin Director of Advancement Tony Hume says the John Curtin Gallery is a world-class art museum making it a fitting home for the valuable works and a stunning exhibition space to boot.

With storage space at a premium, Hume hopes to one day have the resources to develop a touring exhibition program and allow the works to be enjoyed by a wider audience while giving the collection room to expand.

‘It’s operationally fairly tight for the Gallery, so we’d like to be able to put on more exhibitions and open it for longer hours,’ he says.

‘We are working pretty hard to make sure that we can get that additional support, to be able to acquire new works … an acquisitions budget could be something else for donors to support.’

In the end, Dr Bernadt puts it simply: ‘I hate paying the tax office money but I love giving paintings away. When you give away art, you’re actually sharing the work of art that you give away with the community.

‘It’s always yours in a way – except it now belongs to an institution and everyone will be able to enjoy it for posterity.’
CONSUMER confidence is a key driver of economic growth. It measures the degree of optimism or pessimism that consumers express about the future of the economy. Information on consumer confidence is useful for a variety of purposes: it enables manufacturers to reduce or increase inventory, industry to delay or proceed with projects and facilities, and banks to anticipate an increase or decrease in lending activities. Most importantly, it enables governments to adjust a country or a state’s fiscal policy.

A new partnership between Curtin Business School (CBS) and the WA Chamber of Commerce and Industry (CCI) Economics is providing the State’s first and only survey of consumer attitudes in Western Australia.

The result, the CBS–CCI Survey of Consumer Confidence, offers WA-specific information – that is important because the resources-driven economies of Western Australia, Queensland and, to a lesser extent, the Northern Territory, show different patterns in consumer confidence to national trends.

CCI Chief Economist John Nicolaou says that consumer sentiment is an important litmus test for the wellbeing of a local economy.

‘Consumer sentiment often leads overall economic activity,’ says Nicolaou. ‘It can help you to understand what business conditions will be like six to 12 months in advance.

‘Consumer spending makes up about 40 per cent of total economic output – which is not insignificant. For these reasons, it’s important to get accurate data on consumer attitudes that indicate spending behaviour.’

The CBS–CCI Survey is produced quarterly. In each survey, 80 per cent of questions remain the same, while 20 per cent of questions are shaped around a feature issue on a particular topic – such as the Federal Government’s stimulus package, or extended retail trading hours.

Curtin researcher Justin Hancock says that the survey canvases the views of more than 400 adults across metropolitan and regional WA.

‘We obtain the raw data through CCI and, with help from the Bureau of Statistics, ensure the demographic information is weighted to be representative of the WA population.

‘We then conduct a statistical analysis using software called SPSS – Statistical Package for Social Sciences. It’s predictive analytic software that calculates both general scientific as well as quantitative behavioural and attitudinal data.’

The calculations produce a reliable single index score, expressing an overall positive or negative attitude that captures consumers’ expectations for the economy. The analysis also produces more nuanced results, with responses broken down by age, gender, income and location.

The March 2010 survey showed that nearly half of all respondents believed that economic conditions in WA would improve in the coming three months, and nearly 80 per cent believed it would improve over the coming year. This compares to just four per cent that expected the WA economy to weaken in the near term.

On this quarter’s feature question – purchase of major household items and property – confidence has also risen. Some 51 per cent of respondents thought that buying conditions for major household purchases were favourable, up from 45 per cent last quarter. By contrast, only 13 per cent believed that buying conditions were poor.

ON housing, some 40 per cent of respondents thought that current conditions for property purchases were favourable, down from 43 per cent in the previous quarter. Just one-fifth of respondents believed that it was currently a poor time to buy property.

With regard to employment, the ability of Western Australians to find a job has continued to improve. More than one-fifth of respondents reported that their employment prospects were better than a year ago, up from 16 per cent in the previous quarter. Only 11 per cent believed that their ability to find work had deteriorated.

When compared with international measurements, these figures show WA’s economic activity representing that of Asian economies,’ says Nicolaou. ‘Recovery in Europe, the US and Japan has been patchy, but recovery in WA and Asia has seen a stronger upturn.

‘We are also seeing that the resources-driven states in Australia are showing a greater degree of optimism than other states.

‘The CBS–CCI partnership has yielded useful results that will have long-term value for the State. Two or three years from now, we will be able to get very useful trend analysis underway.

‘This initiative also complements CCI’s existing Business Confidence Survey, and so helps build the breadth and the quality of information that CCI can offer businesses in WA.’

EVAN NICHOLAS, Director of External Relations at Curtin Business School, says that the partnership between Curtin and CCI is a mutually beneficial one that, through collaborative efforts, can bring more robust results and better information to Western Australian consumers.

‘CBS places strategic importance on connecting with industry,’ Nicholas says. ‘Our partnership with CCI Economics allows us to do this and provides an important benefit to the Western Australian community.’
Interior architecture stands at the intersection of architecture, design of the built environment, and conservation.

Curtin’s Department of Interior Architecture marks 20 years in 2010 with a series of exhibitions and lectures – culminating in the launch of a new interior architecture course in February 2011. The much-anticipated celebrations began in April with the opening of an exhibition showcasing the work of the top 20 national and international Curtin graduates from each year since the Department’s inception in 1990. A four-volume collection of essays about the history of interior architecture at Curtin will be published later this year.

PHOTOGRAPHY JAMES ROGERS
Lynn’s design of the three-level addition to an old house in Perth contrasts contemporary and early 20th century life – the old and new linked by a lantern-like steel and glass structure. An environment that also reflects the owners’ lifestyles – a pilot and a park manager – the basement-level sleeping apartment opens into a garden spa and the upper apartment overlooks rooftops towards the city. Connecting the two apartments are the kitchen and entertaining areas. ‘Being able to include lots of friends while the owners cook and relax was a priority; guests are drawn towards an amazing view through glass balcony doors.’
When designing for Hunter Store, Lance said he wanted to create an environment that reflected the brand – hunting for shoes. ‘The logo depicted an abstract forest scene which I used as a base for my design, choosing the natural material of wood to wrap around the store. This achieved the dual purpose of creating a simple and uncluttered space – which the owner wanted – while reinforcing the idea behind the brand.’
Sarah says the spatial planning and orientation of this commercial fit-out for an international oil and gas company was designed to allow flexibility and good access to natural light. Adjacent to the stairwell, which is an abstraction of the chart of rock formation that geologists use, are breakout areas where new ideas can be generated through informal meetings. ‘The deep ochre and burnt wood colours used in the reception area reflect the landscape in which my clients work.’ Sarah worked on this project with graduates Ashleigh Lyford, Melanie Porrins and Clare O’Donovan.
Pictured with the manufacturer of her 'Terrain' table/stool derived from a tessellating pattern of intersecting polygons, Penelope Forlane says the design explores the theme of consumer desire for both excess and sustainability. It was achieved by combining simple joinery techniques with 3-D CAD modelling tools. The table/stool is made of 9mm-thick solid American black walnut. ‘The design was driven by a paper-folding process resulting in an efficient use of the material,’ Penelope says.
If not for the desperate people being corralled there after dangerous sea journeys, most Australians would be only vaguely aware of Christmas Island.

STORY NORMAN AISBETT

**AFTER ALL**, the tiny (135 sq km) Australian territory in the Indian Ocean is nearer to the Indonesian capital, Jakarta (500 km) than to the WA capital, Perth (2600 km) and was previously known only for phosphate mines, fascinating red crabs and a failed casino for Asian high rollers.

But now it’s a household name, for what human rights organisations and refugee advocates say are the wrong reasons.

The notoriety began in 2001 when the captain of the Norwegian freighter, MV Tampa, was refused permission to land 438 rescued asylum seekers, resulting in a dramatic stand-off with the former government of Prime Minister John Howard.

Christmas Island now hosts a $400 million, high-tech maximum-security Immigration Detention Centre built by the Howard Government in 2002 and two smaller camps. Current Prime Minister Kevin Rudd promised ‘more humane’ treatment of asylum seekers.

By December 2008, the main complex, with its electrified outer fence, was receiving its first treatment of asylum seekers.

Minister Kevin Rudd promised ‘more humane’ care for asylum seekers as a result of ‘the wrong reasons.’

The Rudd Government has scrapped the Pacific Solution but the excisions policy and mandatory detention remain, and new Afghan and Sri Lankan arrivals have more recently been denied immediate consideration of their claims for refugee status, as the Government tries to stem the inflow of boats.

This is all to the chagrin of Linda Briskman, Professor of Human Rights Education at Curtin and a researcher/publisher and advocate on asylum-seeker rights.

She is co-author of ‘Human rights overboard: seeking asylum in Australia’, which details more than 200 first-hand accounts of the ‘systemic cruelties’ in detention centres. The book won the 2008 Australian Human Rights Commission annual literature award (non-fiction).

Having twice visited Christmas Island last year, she says: ‘The detention centre is an extremely stark and sterile metal facility. And even though detainees are treated better now, they’re still held in a jail setting on the far side of the island, North-West Point, about 20 km from where other people live.’

She says there are more people in detention (2060) than permanent island residents (1100).

‘Australia actually receives a very small number of asylum seekers by international standards, while the cost of operating the detention centre is enormous. It doesn’t even make economic sense but it’s not about good policy or fair treatment. It’s about politics and even a reformist government will only go so far as they think is palatable to the wider, voting community.’

Briskman says that if more developed nations took asylum seekers, and in greater number, fewer people would make risky sea journeys to find refuge.

She believes Australia could safely use open accommodation for asylum seekers. ‘It’s hard to get jobs and settle your life if you’re free floating, without any papers. So I don’t think they be running away, and it would be much fairer,’ she said.

Jon Stratton, Professor of Cultural Studies at Curtin, says Australia has lacked ‘moral, political leadership’ on the issue. The only shining light was Prime Minister Malcolm Fraser, whose 1970–83 government accepted tens of thousands of Vietnamese boat people ‘without debate’.

Stratton says Australians are on the whole ‘very sympathetic, generous, hospitable and indeed thoughtful people’ but the detention policy meant very few could meet asylum seekers and come to know them as people with backgrounds and everyday hopes and fears.

‘Asylum seekers need to be humanised,’ he adds, in accord with Briskman. ‘Once that happens a lot more people would be sympathetic.’
Imagine if the bus that carries you to your destination or the council vehicle that passes through your neighbourhood could become ‘eyes in the street’ that help to reduce crime and anti-social behaviour.

THANKS to highly promising research carried out at Curtin’s Institute for Multi-Sensor Processing and Content Analysis (IMPCA) ‘eyes in the street’ could soon be a reality in WA.

The mobile video surveillance system known as Virtual Observer has been a finalist in the WA Inventor of the Year awards, and is already being used to keep the University’s campus safer. It is now being evaluated for a number of other commercial applications such as police work, assessment of insurance claims, provision of evidence in court cases, intelligence collection and counter-terrorism.

The system was designed by the director of IMPCA, Professor Svetha Venkatesh, and colleague, Dr Stewart Greenhill. Its unique feature is a cutting-edge software program that combines the functions of closed-circuit television and Global Positioning System (gps) technology. In trials with buses, for example, cameras mounted on the vehicles continuously record round-the-clock pictures that are later pooled and able to be coordinated with the GPS data to provide footage of a particular place at a particular time.

The researchers have been working with transit security company Digital Technology International (DTI) for several years, and have now commercialised the venture with the establishment of a new company, Virtual Observer Pty Ltd.

Fortuitously, the first customer is the University itself, which has recently fitted its security vehicles with cameras housed on rooftop pods, providing much wider surveillance than would be possible from fixed cameras at a similar cost.

The CEO of the company, Justin Davies, has a background in advertising and marketing as well as software development and is enthusiastic about the potential fruits of cooperation between the University and business.

‘Curtin has some amazing researchers coming up with some very clever technology. The challenge is to connect it to the market, to find out what people are prepared to pay for it and then to look at how to go about promoting it so that the opportunity is not lost,’ he says.

‘When you’ve got industry and a university collaborating like this, it’s great for both parties. What it means is that industry can grab hold of some ideas that they might not have got in any other way. They can also feed problems to the university and get some smart applied research brains working on a real-world problem.’

Davies said he has been delighted by the results achieved by the security team at Curtin in the short period they have been using the system. The step had provided the company with a ‘live’ client and helped to iron out some of the problems that invariably arise when implementing new technology in an untried and unproven area.

‘Our thinking now is to explore the security market further. For example, local government authorities now have lots of security vehicles running around their council areas. They have all got similar sorts of needs. If the technology can make people safer and help keep criminals off the streets, then it’s clearly something the councils will be interested in looking at.’

THOUGH it’s still early days, some councils, notably the City of Swan, are investigating how they might be able to make use of the technology.

‘There are also other uses a council can make of the technology that are not security related. They have huge investments in assets in their areas. A new aspect of the technology is the capacity to measure the height of something on the screen. Let’s say that a light pole gets knocked down. By retrieving the footage you can see whether it’s a three-metre pole or a five-metre pole and decide which crew to send out.

‘There are also lots of other public spaces, such as hospitals, where there are big external areas with lots of people and hospital vehicles moving about. If you equip the vehicles with cameras and if, for example, there is an incident in the carpark, then you’ll get a sense of what’s going on and what you can do about it,’ Davies says.

However, he stresses that the system is not designed as a ‘snoop’, and is actually less intrusive than static closed-circuit television systems as it does not provide a live feed to observers and specific requests have to be made to access the footage.

Davies said the Virtual Observer had obvious potential as a counter-terrorism tool, and this aspect had been the catalyst for a lot of the thinking behind the research. It had become apparent that the massive investment in closed-circuit television in cities like London had been largely ineffective.

‘What we can do with our system is to overlay our software on an entire existing network, including static cameras, which makes it potentially more valuable as a tool. You don’t have to replace existing systems.’

According to Curtin’s Director for Research and Development Andy Cohen, Virtual Observer is one of 13 technology projects that the University has supported with funding and commercialisation over the past five years.
Reaching out

Trawl through the profiles of most large companies and you’ll find corporate social responsibility is a part of their ethos. From mining companies and banks to cosmetics giants like The Body Shop, corporations around the globe substantially invest in, and promote, a commitment to help solve social, environmental and economic problems. Should universities do the same?

IN the business world, the role of corporate social responsibility has long been accepted, if not expected. More recently, the spotlight has shone on universities.

Anne Raudaskoski, Sustainability Manager at the University of Westminster, posted in a blog that a university is a corporation in the sense that it needs to have a positive bottom line, it needs to be able to sell education to students, to be competitive in the marketplace, to be an appealing workplace to retain high-quality staff, and it has a significant role through its buying power.

So, is it important for universities to adopt a corporate social responsibility strategy?

Yes, says Curtin’s Vice-Chancellor; Professor Jeanette Hacket, who also stresses CSR is at the very heart of a university’s activities. ‘We only exist to serve the community,’ she says.

Curtin’s strategy underpins all its activities. The University uses the Balanced Scorecard, a recognised management tool, as the framework that defines its strategic plan. Assessing the University’s core activities of teaching and learning and research against the needs of students, clients and the community, and the potential risks of those activities to the environment, as well as the need to be financially sustainable, ensures Curtin maintains an appropriate triple-bottom-line balance of people, planet and profit.

‘The University has very systematically gone through creating a framework which has made it a responsible member of the community,’ Hacket says.

TRANSLATING a university’s strategy to its students, staff and business partners is vital in creating a vibrant culture of CSR. Businesses that invest and collaborate in university research do so with universities that share similar social, environmental and economic concerns. Staff wish to be informed and to be given opportunities to engage in CSR activities, and students are particularly interested in knowing the social actions a university takes.

Keenly aware of student expectations, Hacket outlines how Curtin cultivates a CSR culture.

‘We have a student charter, and we require our students to acknowledge our charter and be aware of its contents. It causes them to be aware of our guiding ethical principles and our values of fairness, integrity, care and respect,’ she says.

One area in which student and community interest is particularly high is environmental sustainability. Curtin, in collaboration with the Australian Technology Network of universities (University of South Australia, RMIT University, University of Technology Sydney and Queensland University of Technology) has set goals for reducing its carbon emissions level by 10 per cent by 2012.

Curtin’s own environmental sustainability policy seeks to motivate staff, students and contractors to promote an environmentally responsible culture – evident, says Hacket, through education and research programs, and the way Curtin conducts its management and communicates to the community.

The University’s rolling out in 2010 of its industry, intercultural and interdisciplinary-focused curriculum – the triple i curriculum – also aims to develop socially aware and responsible graduates. Developed following an extensive review of its undergraduate courses, triple-i attributes include graduates becoming culturally competent in international and Indigenous knowledge.

‘In Health Sciences, for example, the curriculum is being revised so that every student undertakes a unit of study around Indigenous issues,’ Hacket says.

An initiative that sees the University encourage student participation in community outreach abroad is Curtin’s Go Global program. It provides opportunities for Health Sciences students to attend clinical placements overseas to help build healthcare capacity in local staff. Programs in China, Ukraine, South Africa and India have enabled students to work variably in rehabilitation centres and hospitals with children who have Down syndrome, physical and mental illnesses and AIDS.

Closer to home, Curtin students actively engage in CSR activities through the student-led Curtin Volunteers organisation. Among numerous events throughout the year are regular trips to remote WA Indigenous communities in Laverton, Leonora and Wiluna to do community work, with the support of local mining companies including BHP Billiton Nickelwest.

‘Curtin Volunteers is something we’re very proud of. It’s been running for nearly two decades, and has about 1000 students who are active volunteers,’ Hacket says.

‘One of the big activities is the annual John Curtin Weekend, when about 500 volunteers travel to more than 30 regional towns and several metropolitan sites over each weekend in October for community work. It’s a huge outreach.’

NOTWITHSTANDING the breadth of volunteer work, a university’s significant CSR contribution is through its research, which cannot be overlooked or overestimated, stresses Hacket.

‘The University has to generate funds to undertake research and the creation of new knowledge, and our researchers are looking at research projects that can be applied to assist industry and the community.

‘We don’t make a profit out of this. We invest a very significant amount, so through any activities that are generating revenues there’s a capacity to generate investment in research. The research we undertake does make a significant contribution to the community and to improving the quality of life in our community – and that’s one of the big areas of corporate social responsibility.’

The Centre for Human Rights Education, for example, is directly funded by Curtin and, in collaboration with sponsors, undertakes research to promote an understanding of human rights in the community.

Good research outcomes from government-funded programs beget further funding.

The Federal Government recently announced it would give Curtin, through its Centre for Research on Ageing, $1.2 million to continue its WA Dementia Training Study Centre (WA DTSC) until 2013.

The Director of the Centre for Research on Ageing, Professor Barbara Horner says the continued funding for the WA DTSC is one primary outcome of the research program that involved educating more than 5000 healthcare professionals in best-practice dementia training programs.

Curtin’s Vice-Chancellor cites one example after another of the University’s CSR credentials.

‘It’s about doing what we do better,’ Hacket says.

‘We would like, through our education and research, to cause communities to examine what they’re doing, not least to shape their policy, and for us to be significantly influencing the future of the nation and our region.’

STORY MARGARET McNALLY PHOTOGRAPHY JAMES ROGERS
Simone Heng is living the dream – with a high-flying international career in radio and television, modelling and hosting events.

RECENTLY named in the Ahlan Hot 100 for 2010, a list of the United Arab Emirates 100 most influential professionals, Simone Heng’s star is rising. But it has taken persistent hard work and making the most of career opportunities to get there.

Born in Singapore to Chinese and Portuguese parents, Heng and her family migrated to WA when she was three. Her work ethic was instilled early. ‘As migrants, hard work was something I was constantly reminded about,’ she remembers.

‘My family is still all about achievement. In a sense, I always felt that my value was tied to how “above average” I could be. Mediocrity was a sin! That attitude moved with me from my studies to being part of my approach to my career. Being competitive is as normal to me as breathing, and is probably a large part of my success.’

In her teens, Heng had wanted to be an actress and enrolled in Curtin’s Bachelor of Arts (Communications and Cultural Studies) in 2003, on the reputation of its drama program. During her second year of study her father passed away suddenly, prompting Heng to reassess her life and goals. ‘I decided life was far too short to not achieve what you want, and that I needed to get out into the industry immediately. In retrospect this turned out to be a blessing – in entertainment, turning 30 might be able to help.

Heng was well aware of the lack of media jobs in Perth, and that her chance of landing a job might be better in Asia, where mixed-race women are popular for front-of-camera work. She spent the summer volunteering at CTV Perth, compiling a DVD of her presenting work, organising promotional photographs, and networking to develop contacts in Singapore. She organised a three-week internship at a Singapore radio station, and while there, passed on her promotional pack to anyone who might be able to help.

The programming head at Channel V International (a music cable network broadcast across Asia) saw Heng’s DVD, and flew her to Kuala Lumpur for an audition. ‘I got the gig,’ says Heng, ‘and the rest, as they say, is history.’ Based in Singapore as a VJ with Channel V in 2005, Heng quickly moved on to become the face of HBO (Home Box Office) Asia, charming 300 million viewers with her delivery of the latest movie and entertainment news until 2008.

Heng also maximised modelling opportunities, becoming the face of Sunsilk in the Philippines and gracing countless magazine pages. As an MC, she hosted numerous events across Asia, from FHM’s Hottest 100 Women in Malaysia to the rebranding of the Philippines’ TV5 network. In April she was set to host the Grazia Style Awards in Dubai.

Unfortunately, working abroad took its toll, and Heng returned to Perth to live in 2007 but kept her HBO Asia hosting role. ‘I was tired and jaded, I needed to be with my family again, and I wanted to do something more cerebral than modelling and hosting,’ she says. ‘I continued my studies at Curtin, commuting every three weeks from Perth to Singapore for HBO Asia. I was amazed at how understanding the Curtin staff were, with my absences for work. There is a wonderful “human” factor in the Humanities Faculty.’

Within a month of being home in Perth, Heng made her Australian TV debut as a presenter on season 10 of Channel 9’s travel and lifestyle show Postcards WA, making her one of the very few Asian faces on a commercial network in Australia. She continued to study at Curtin and fly back and forth to Singapore.

AFTER finishing her degree, Heng entered the world of radio in 2008 as a host on Singapore’s Power 98FM. Within a year she was poached by Richard Branson’s Virgin Radio International, and relocated to the United Arab Emirates to work at their new station in Dubai, Virgin 104.4. Shortly after arriving, Heng successfully auditioned for Dubai’s leading English TV station, Dubai One, and became the host of an expatriate lifestyle guide titled Dubai 101. Six months into her stay in Dubai, Virgin Radio became the leading English radio station in the market. For the time being, Dubai suits Heng. ‘I love that everyone here is similarly motivated. There are many young professionals here who are very hard working and have worked in all the major cities, so they can teach you a lot. Most people are ethnically mixed too, so we have a shared experience. The multinational vibe of the city sits well with me.’

This year Heng looks set to continue a hectic pace. She was shooting season two of Dubai 101, while continuing her lunchtime show on Virgin Radio. ‘I’d really like to see how far I can go as a broadcaster. I’d love to have a primetime national show in Australia but casting is still very colour conservative – maybe they’ll be ready in a few years! In the meantime, one of my dreams is to spend a whole year doing a series in each country I have worked in. Four months doing a travel series in Asia, four months in Australia, and four months in the Middle East. I love parts of all these places.’

It seems the perfect fit for this media savvy global citizen.
I BELIEVE that through its new strategic plan, Engineers Australia [EA] has recently undergone a process of regeneration that heralds an outward-looking focus, moving engineering towards a more central place in society and meeting the challenges that it faces regionally, nationally and globally. At EA, the agreed focus is very much about the relationship between engineers and the community. This is because politicians and society are increasingly looking to engineering to provide solutions for a sustainable future.

Traditionally, engineers have worked at a distance from the community, concentrating solely on the technology. In this role, engineers have, of course, done great things, such as developing water supply and sewerage systems that have radically improved health and quality of life. But they have also inadvertently developed products that have had detrimental effects.

The public and policy makers also have to understand the technology that engineers develop. I feel strongly that genuinely successful engineering outcomes result from collaboration between provider and user. Solutions are only successful when both parties are equally convinced. Engineers need to close this gap.

The learning environment at Curtin is providing the ground for us to educate the next generation of engineers. Of course, the engineering curriculum will always be founded on the enduring principles set by the laws of physics and chemistry. But we are building other skills into the curriculum. Core elements in an undergraduate engineering degree now include sustainability, cultural awareness, law, project management and communication.

How we teach students is also changing. In my day, there was a one-way transmission of information, in what was a very passive form of learning. Now, learning is much more problem-based; it’s a voyage of discovery guided by the lecturer. It’s a natural and intuitive way of learning, which is how humans developed.

In 2005, Curtin introduced a common first-year program now called the Engineering Foundation Year. A new engineering studio provided a learning space with laboratories and collaborative work areas for all incoming students. The facility is closely allied to the curriculum, teaching styles and access to lecturers; it is this four-way integration that has made it so successful.

We won a national Carrick Award for Australian University Teaching for this approach. The judges recognised that we were developing self-learners who could work across disciplines as highly skilled and confident engineers.

For me, this dawning new era of engineering is exciting. My parents were intrepid travellers, so from a young age, I was exposed to different cultures and the diverse challenges facing humanity. I can remember observing this and asking myself: how can I make a difference? The connection between engineering and community wellbeing, through education and research, is what makes the field so engaging for me.

It has also given me the enthusiasm to pass this perspective on to the students I teach, so that the next generation of engineers embraces the expanded opportunities that engineering now provides.
WHAT would motivate people to fly thousands of kilometres across a vast continent to attend class? For at least two Curtin students who make the long journey, the motivations are commitment to their communities and a desire to make a difference.

Five times a year, Cairns resident Ronnie Bosuen – originally from the Napranum community near Weipa on Cape York – and Raymen Fauid from Poruma Island in the Torres Strait Islands, pack their bags, kiss their families goodbye and travel to Perth to attend the Block Release Program at Curtin’s Centre for Aboriginal Studies (CAS), staying for either a fortnight or a week at a time.

Both are undertaking the Bachelor of Applied Science [Indigenous Community Management and Development] – Bosuen in third year and Fauid in second. They are two of 194 students currently enrolled in the three block release programs offered by CAS.

GETTING ON BOARD

After flying clear across the country to attend class, Indigenous students are determined to prove they used their time well.

STORY GLENYS HAALEBOS PHOTOGRAPHY JAMES ROGERS
Both also see a need in their communities for Indigenous leaders and strong and committed leadership based on sound management principles. These principles should be rooted in a deep understanding of the local community’s needs, culture and history. Recognising that need, they have taken on the challenge of studying and learning to become that kind of leader.

The block release program provides the ideal way for them to enhance their skills, knowledge and careers while simultaneously living and working in their own communities.

Bosuen has worked in the mining industry for almost 16 years, starting with a four-month traineeship in Comalco’s regeneration team. It wasn’t long before his natural aptitude, energy and enthusiasm caught management’s eye. With the company’s support, he undertook studies in training and frontline management. When he heard about the block release program, Bosuen was working for Rio Tinto in Perth, managing its training department in the Pilbara Iron operations. It was a logical progression in his career and community development aspirations to enrol.

‘The program is right up my alley,’ he says. ‘In the mining sector we have lots of tools to use in training but they don’t cover all the historical and cultural issues. This course has given me that knowledge as well as tools to use in my life. The community development part of the program has been fantastic and the lecturers are so passionate about what they teach, it really inspires you to take that learning back to your community.’

And inspired he has been – the CAS program has literally changed Bosuen’s life, giving him a whole new career.

A major feature of the program is that students are required to turn their classroom knowledge into a real-life practical community project in their local environment and Bosuen’s project has now turned into his own business.

‘One of my projects was to take people from remote communities across Cape York to Weipa to visit the bauxite mine, get exposure to the operations and see the employment possibilities there,’ he says. ‘I organised a mine site tour with relevant activities and talks by management. Since the first tour kicked off in August 2008 we have taken 25 people to Weipa and nine are now working in traineeships there. Another five are being trained in Camooweal.’

NOW director and general manager of Indigenous PathWays Solutions (IPS), Bosuen has four other directors on board who work with major employment companies. IPS trains Indigenous people to work in the mining sector. The company’s mission is to provide high quality and culturally appropriate training and qualifications to Indigenous people.

‘The CAS block release program has made a real difference to my life,’ he says. ‘I’ve had numerous roles in the past that have made me a bit more self-directed but starting this company as a result of my CAS project has really given me that next level of being more responsible and aware. It was a big decision for my partner and myself to make – to leave the secure Rio Tinto job, move to Cairns and start this work with Indigenous communities.

‘But it’s about giving people some hope and empowering them to make good choices. It’s about driving home the message that if you don’t change now, then the generation after you won’t change. To have a really good community and a good future you have to have good, strong leaders and good role models. What I’m really striving for is about the future. Let’s start talking real training that results in real jobs – and not just bottom-of-the-ladder jobs either.’

With further to travel than Bosuen, Faud takes four flights and spends nine and a half hours in the air to get to Curtin. And while leaving behind his wife and children is tough, the program’s flexible structure means he can live and work in his community while he studies and only be away for short periods.

Employed by the Torres Strait Island Regional Council at Poruma’s aerodrome, Faud also has a vision for the people of his community.

‘In my community I can see there is a need for some form of leadership,’ he says. ‘I want to meet those needs and help people towards self-determination or autonomy one day. We are currently in the process of working towards autonomy.

‘I applied for this course because I am interested in the management area. I looked into it and I was very happy with the course content. I knew it was a big challenge – not just on account of the travel, but academically too. It was the overview of the course that attracted me. They teach the management principles but also encompass the value of the community and marry the two together.

‘I have not worked in management before but I am very excited about applying the principles I’m learning because it also highlights Indigenous values in the community. This course can really help people understand the principles of meeting community needs and helping your people drive towards greater and better things. I want to be a role model, not only for my kids, but for other kids in the region and nationally.’

Faud will start his community project this year.

When he has finished studying, Faud says he will participate in any groups that are running useful community programs, assisting them by using the knowledge he has gained from Curtin about the processes and nature of the work involved.

If Bosuen and Faud are typical of the Aboriginal and Torres Strait Islander students participating in the program, then a powerhouse of leadership, commitment and energy will be unleashed into communities across Australia as they graduate.
Wine sense

Curtin is the first Australian university to offer internationally recognised wine sensory evaluation courses.

Curtin wine production lecturer Simon Hanley, who was responsible for bringing the UK-based Wine and Spirit Education Trust (WSET) courses to the University, says the format provides students with a comprehensive knowledge of the major wine-growing regions of the world.

They include tastings of wines from these regions, sometimes using products that are rare and not commonly found in bottle shops,” Hanley says.

Suitable for wine professionals or individuals looking to increase their wine knowledge, the courses start with a basic one-day introduction to winemaking and tasting, wine terminology, and food and wine matching.

The intermediate level introduces a more in-depth approach to wine tasting over six sessions – one-week intensive or classes spread over six weeks.

The 12-week advanced certificate is far more comprehensive and includes international practices, laws and regulations.

The wine sensory courses started at the Margaret River Education Campus in February this year.

Hanley is hoping to introduce the diploma course in 2011, a qualification that will enable students to study for the Master of Wine (MW) – regarded in the industry as one of the highest standards of professional knowledge.

He says the accreditation process was comprehensive and involved rigorous training on his part and included a site inspection of the campus facilities.

‘During his inspection, WSET’s International Director, David Wrigley, MW, said the purpose-built labs were professional and some of the best he had seen in Australia,” Hanley says.

Breastfeeding online

Nursing mothers in rural areas of WA may soon be sharing stories online.

A trial website involving lectures and discussion forums aims to support mothers who breastfeed their babies.

In an Australian first, Dr Roslyn Giglia from Curtin’s School of Public Health has developed a website called Nurturing Together to encourage the women to interact and learn from experts and each other.

‘There are many websites providing breastfeeding information but what makes this website unique is the virtual community that I am trying to build for rural mothers,’ she says.

According to Giglia, mothers who live in remote communities often do not have access to comprehensive support services after they give birth. As breastfeeding can be difficult without support, new mothers get discouraged and give up too soon.

‘Mothers will be able to log on to the site, participate in discussion forums with each other, take part in lectures and request individual support directly through Skype if they are having difficulties.’

Giglia said the project aims to encourage more rural mothers to persist in breastfeeding their babies for longer and participation would be monitored through online surveys and website statistics.

‘We hope to see a relationship between the intervention group (who have access to the website) and their rates of breastfeeding compared to the control group who will have access to normal services.

‘Hopefully from this support network, more mothers will breastfeed their babies for as long as possible as this can benefit the baby greatly by offering all the protective immune factors and breastmilk is the perfect food for optimum growth and development.’

THE GOOD OIL

Research into the extraction process of olive oil has boosted the product’s health benefits and offered significant benefit to the industry.

Curtin doctoral graduate Hui Jun Chih found that the simple addition of citric acid during processing increases the concentration of total phenolic compounds by 135 per cent.

Phenolic compounds in olives are proven anti-oxidants that rid the body of the free radicals that cause oxidative stress and contribute to cardiovascular disease, diabetes and cancer,” Chih says.

Her research was supervised by Professor Vijay Jayasena, Dr Anthony James and Associate Professor Satvinder Dhaliwal from the School of Public Health.

The result has provided important data to the olive oil industry,’ Jayasena says.

The method currently used by the industry is not efficient enough and more than 90 per cent of the valuable phenolic compounds end up in the by-product.

‘With Hui Jun’s results, the industry is now aware of a simple and easily adoptable method to process olives that can deliver not only a high extraction yield of oil and bioactive phenolic compounds, but also oil that has high antiradical activity.’

The health benefits of olive oil have long been known to consumers and the industry cannot keep up with worldwide demand.

‘The industry is keen on implementing alternative processing techniques to improve the yield and quality of olive oil and ours is of comparable quality to commercial ones,’ Chih says.

Companies in WA and Victoria have shown interest in the new processing technique.
Bonny Rawson, this year’s Aileen Plant Memorial Scholarship recipient, enrolled in food science and technology because she is eager to take the science of food from the laboratory to the kitchen.

Rawson, aged 17, says her interest in food science developed in high-school chemistry where she produced compounds that smelt like apple and banana.

'It is interesting that everything is made up of tiny atoms and that different formations make different types of food,' she says.

'I love food from other cultures and countries and since visiting France and Holland this interest has grown stronger. 'I want to be able to create nice-tasting food that is nutritious."

One of her goals is to learn how to produce foods that sustain freshness and nutrition, and integrate them into Indigenous lifestyles.

'Indigenous communities are isolated, so fresh food is not always available. Heat and other factors prevent it from lasting longer,' she says.

The communities are generally below the general Australian population health standards so being able to produce nutritious food – that not only can be kept fresh but will last while being transported – will greatly improve health standards.

'The Aileen Plant Memorial Scholarship offers me a good opportunity to help my people,' she says.

The scholarship, which honours the work of the late Professor Aileen Plant in public health and Australian Indigenous health, meets students’ fees for each year of study and includes an additional $2000 annually.

In the mood for food

Bonny Rawson

Health care workers face a future epidemic of older people living with chronic neuro-degenerative impairments.

Professor Barbara Horner, Director of Curtin’s Centre for Research on Ageing, says that as Australia’s population ages, the propensity for those with cognitive impairments such as dementia increases.

‘Regardless of the progress that is being made around diagnosis and management, there are thousands of people living with dementia who will come in contact with the health system,’ Horner says.

‘It could be as many as 465,000 in 2031.

‘It is critical that health professionals are prepared to provide appropriate care for people with dementia and their families.’

Under a continuation of the Rudd Government’s National Dementia initiative, the Centre for Research on Ageing has received an additional $1.2 million to run its WA Dementia Training Study Centre (WADTSC) until 2013.

‘We are very pleased to receive this funding as it establishes Curtin as a leader in dementia education and research in WA,’ Horner says.

The additional funds will allow the centre’s successful dementia training program to be expanded.

‘Our goal is to build career pathways and help evolve the roles of health professionals, like nurse practitioners, by building their knowledge and skills to better care for people with dementia in metropolitan, remote and rural WA.’

Curtin’s Centre for Research on Ageing is also a partner with Queensland University of Technology in one of the three national collaborative research centres that has received $4.1 million in funding.

Curtin will contribute to future research in the broad conceptual domains of quality of life and quality of care.

Lest we forget

Hayman Theatre
Metamorphoses
By Mary Zimmerman
30, 31 July and 3-7 August 2010
Set in and around a large pool of water onstage, Metamorphoses brings Ovid’s ancient tales to life through a gorgeous combination of contemporary language and vivid imagery.

Writer-in-Community Project
By Kate Rice
7-11 September 2010
Jeremy Rice, the artistic director of the Perth-based Barking Gecko Theatre Company and AWGIE-winning (Australian Writers Guild) playwright Kate Rice will create a new one-act play with an ensemble cast.

Hayman Theatre Upstairs at 8pm
Tel: +61 8 9266 2383 or l.brennan@curtin.edu.au

John Curtin Gallery
GET smART
10 June – 13 August 2010
A curated exhibition and auction featuring select local, national and international artists who have been exhibitors and supporters of the John Curtin Gallery. Work will be auctioned at the end of the exhibition.

dOFa
16 September – 10 December 2010
The annual dOFa exhibition provides a forum for Curtin’s postgraduates to showcase the spectrum of their art. Exhibiting are Master of Arts graduates Lee Mansbridge (video installation) and Tania Lee (painting) as well as three Doctor of Creative Arts graduates – Theo Constantino (drawing), Angela Stewart (painting) and Anna Nazzari (kinetic sculpture).

Tel: +61 8 9266 4155 johncurtimgallery.curtin.edu.au

up_coming
events
1. **WA’s Water Corporation is widely regarded as Australia’s leading water utility in dealing with climate change. When you were CEO of the Corporation, you attributed part of this success to ‘solid relationships’ and ‘engagement’. What can you tell us about this idea of partnership?**

The huge challenge we had at the Water Corporation was that as from 2001, Perth’s dams only yielded one quarter of what they had up to the mid-1970s. Yet the population served had almost doubled since that era.

One of the reasons WA weathered the following 10 years better than any other part of Australia was that the community, industry, government and research bodies worked together with the Corporation to come up with solutions.

The people at the Corporation had long had a culture of engagement and an inclination to work with others – from those who influenced public water use like garden centres, land developers, primary schools and the media, to big water users like laundries, hospitals and brewers, and to researchers like CSIRO and universities.

When the ‘big dry’ befell us in 2001, these relationships led to an ‘all in this together’ approach in which we tackled both supply and demand in a wide range of innovative ways. This put us ahead of every other state. We coined the term ‘Security through Diversity’ to describe our approach.

2. **Why did you come up with that model for managing change and innovation?**

By the mid-1990s, it was looking as if the huge drying of the south-west corner of our nation was linked with global warming. We began accelerating new water source development in 1996. With hindsight, the drying had begun around 1975, but there still wasn’t much public acceptance of global warming as a threat.

We needed to work with others to understand the science behind the threat, explain it to people and enlist their help in solving the problem.

Otherwise we, ourselves, would be seen as the problem rather than the solution – which is exactly how we were painted in some of the media.

The thing was that it was potentially such a huge crisis – a quarter of the water for nearly twice the population – that we could never have solved it on our own. Working together with others was the key.

3. **How do you think the tertiary sector can develop stronger relationships with both big players and the community, internationally and nationally?**

Curtin is already doing great work in engaging with other players but to me, the first step is to know our own capabilities and people. We must play to our strengths, and build new ones.

Next, we need to understand closely our potential industry, government and community partners and figure out where we can add value. Often, this will mean doing a lot of listening and learning about their strategic issues before we can position ourselves to add value.

We need to take a long-term view, and build relationships which become highly valued by our community and economy. These will involve both teaching and research.

We must leverage off our alumni base, which by now is highly impressive and spans the globe. And we must engage and add value for graduates from other places across the world who come to work in our region.

You mentioned the notion of ‘planning for engagement’. I think this is precisely how it needs to be tackled. There is a lot of excellent collaboration and joint research done around the place. But for us at Curtin to go about it in a very systematic and analytical way would put us in a unique position for a university. We would find ourselves leaping up the curve. In our region, I can see no limit. The more we listen, collaborate and are appreciated as adding value, the more opportunities will occur for us and the parties with whom we collaborate. Of course, there’s a hard side to adding value – the question of resources – and you have to address that. But in the end there is no limit.

4. **How would you like to see the Curtin brand developed?**

I think the evolution of Curtin has been very impressive. There’s a ‘can-do’ character and a refreshing ability to succeed in new things.

I would like Curtin to be seen more and more as one of the great strategic advantages of living and doing business in WA and the region. We must be thought-leaders in our society and one of the reasons for its success.

Sometimes I reflect that the older states of Australia – Victoria and New South Wales – have the intellectual and cultural edge, and that our great strengths are our resources and our enviable lifestyle. And the opportunity for Curtin – as I see it – is to add the brains to the brawn. To add the intellectual and the cultural to the assets we already have.

If we can lead and transform our society in that sort of way, then I think the future for our University will be great indeed.

5. **What has been the most important thing you have learnt as a CEO?**

The power of your own people. If you stimulate them, unleash them, help them to read the scene, formulate strategy and then implement it, it’s impossible to stop them. I am always awed by the capacity of teams of self-motivated people.

The biggest reward is watching other people grow. You build the vision together. You get out of the way and they keep growing. You change your own role, and that’s fun too. Bringing on successors and younger people, watching them reformulate the future and then build it, is the best part of being a CEO.
Curtin University of Technology is Western Australia’s largest and most diverse university. Curtin strives for excellence in teaching, and offers a wide range of courses in business, engineering and science, resources and energy, sustainable development, health sciences and humanities.

The University is committed to building world-class research capability through partnerships with business, industry, government and community organisations. Curtin has a growing international presence, with an offshore campus in Sarawak, East Malaysia, and with Curtin Singapore.

The University is named after John Curtin, Prime Minister of Australia from 1941 to 1945, and strives to honour his values of vision, leadership and community service.

An international leader shaping the future through our graduates and research, and positioned among the top 20 universities in Asia by 2020.

Through its vision, Curtin has set itself an inspirational goal, and is asking all alumni to stay connected and involved with the University.

The Curtin University Foundation will help support the next generation of students as well as help increase the impact of Curtin’s community building work.

If you have been inspired by any of the stories in this edition and would like to support the Foundation, we have included an easy response slip within the magazine. Please don’t hesitate to get in touch if you would like to know more about the Foundation and its work.

Or give online at:
giving@curtin.edu.au