Making waves

Curtin FM in community service for 30+ years

Behaving badly
How climate change affects bushfires and biodiversity

Alcopops
Tax policy also needs sweetening
Contributors

Sue Emmett is a freelance writer and photo-journalist, with special interests in science, technology, Western Australian business, education and the marine environment.

Glenys Haalebos is a freelance journalist, with a specific interest in academic research. She previously worked in public relations and journalism in both the private and higher education sectors.

Roger Hughes graduated from Curtin with a Bachelor of Arts in professional writing. His writing interests include health, the media and education.

Anita Lee Hong is Director of the Centre for Aboriginal Studies at Curtin. She holds a Bachelor of Applied Science (Indigenous Community Management and Development program) and a Master of Human Rights Education, and specialises in social justice and human rights.

Andrea Lewis is a freelance writer and editor. She was formerly publications manager in Curtin’s Corporate Communications area.

Isobelle McKay is a freelance journalist, who has written broadly for newspapers and magazines. She is a Curtin graduate, with a degree in journalism and professional writing.
COVER STORY

17 Radio reach
Curtin FM 100.1, Western Australia’s first community radio station established more than 30 years ago, does more than play music. Cite explores this non-visual medium… in pictures.

FEATURES

4 The burning debate
Climate change has a profound effect on the behaviour of bushfires and on Australia’s fragile biodiversity. Curtin researcher Grant Wardell-Johnson explains the fire ecology of native species, and how best to use prescribed burning to protect our biodiversity and reduce fuel build-up.

10 Too hard to swallow?
Policy researchers say the Australian Government’s ‘alcopops’ tax bill misses an opportunity to address alcohol-related issues through effective policy.

14 A socially just career
Curtin’s Bachelor of Social Work has produced more than 2,000 graduates since its first incarnation more than 40 years ago. So what’s behind the degree’s longevity and success?

24 A helping hand for a higher calling
The Smith Family and Curtin are partners in finding pathways to tertiary education for children of financially disadvantaged families.

SNAPSHOTS

8 Women on board
Graduate School of Business research fellow Dr Jeremy Galbreath extends his recent investigation into whether a link exists between boards that have women serving as directors and corporate sustainability.

13 Fellow in flight
Why are Federation Fellowships and the research they produce so important? Peter Teunissen’s research provides the answer, as Curtin’s Professor of Geodesy aims to enhance Australia’s capability in Global Positioning Systems and Global Navigation Satellite Systems.

16 Ways of seeing
An Australian Research Council grant is helping Curtin’s Professor Svetha Venkatesh and her team to develop smart technologies for the blind and visually impaired.

REGULARS

2 VC’S VIEW

3 NEWS IN BRIEF

7 ALUMNI
Kirsty Griffiths and Melinda Whelan’s designs on making their mark landed them the most prestigious project of their respective careers so far – designing Curtin Stadium, the landmark sports and recreation facility at Curtin’s Bentley Campus.

9 CAMPUS LIFE

28 PERSPECTIVE
Centre for Aboriginal Studies Director Associate Professor Anita Lee Hong has experienced first-hand how a strong attachment to traditional culture provides better socio-economic outcomes for Indigenous Australians.
COMMUNITY engagement is a primary focus for Curtin. It is embedded in our commitment to innovation and excellence in teaching and research, for the benefit not only of our students, but also of the wider community we serve. That commitment is evident in the dynamic and important community projects we support, many of which are initiated by Curtin and run by staff and students, who often commit their time voluntarily.

Curtin embraces the opportunity to potentially transform and improve society through our engagement with community. Whether our involvement is on a small or large scale, the activities we engage in are broad and diverse, and you can read about some of them in this issue of Cite.

The recent Victorian bushfires reminded Australians about our nation’s vulnerability to such a natural disaster. In ‘The Burning Debate’ Curtin researchers share their deeper understanding of how climate change affects the way bushfires behave, and how prescribed burning can be used to reduce the threat to the ecology of native species as well as reduce the build up of fuel.

Curtin FM 100.1 has been broadcasting to Perth’s metropolitan community from the Bentley Campus for more than 30 years. Supported by volunteers and airing to a 170,000-strong audience, Western Australia’s first community radio station not only plays music, but also supports more than 200 community groups a month. You can glimpse the radio station at work in this issue’s lively photo essay.

Curtin welcomed the Bradley report’s emphasis on access and equity issues for higher education participation, and the importance placed on providing appropriate funding for regional and remote delivery, Indigenous participation and low socio-economic populations. The University provides substantial leadership in this area. Read about just one example – our partnership with The Smith Family, which works to remove the barriers to higher education for children of disadvantaged families, and find them pathways to university.

It’s always rewarding to see Curtin graduates excel in the community, as have Melinda Whelan and Kirsty Griffiths, who designed Curtin Stadium – the new sports and recreation facility at the Bentley Campus. They are a fitting example of our alumni applying their skills and talents to projects that benefit the community, including, in this case, the Curtin community of which they continue to be a part.

Professor Jeanette Hackett
VICE-CHANCELLOR
CURTIN UNIVERSITY OF TECHNOLOGY
A decade on
Celebrating 10 years since it first opened its doors in a local high school premises, Curtin Sarawak, a joint venture between Curtin and the Sarawak Government, has matured into an internationally renowned university campus.
Sarawak Deputy Chief Minister Datuk Patinggi Tan Sri Dr George Chan, who is also Curtin Sarawak Council Chairman, has described the partnership between the Sarawak State Government and Curtin as an extraordinarily powerful one.
*“The outstanding success of Curtin Sarawak has helped put Miri on the world map, and will continue to propel us to the forefront of tertiary education in the region. It has put us well on the road to fulfilling our vision of making Miri a preferred education destination and education hub,” he says.

The event to mark 10 years of excellence in education and research was attended by several Sarawak Government ministers, Curtin executives, senior government officials and corporate and community leaders. It included the official opening of the Lance Twomey Building as well as the Recreation and Events Centre, where the event was held.
Sarawak Chief Minister Pehin Sri Haji Abdul Taib bin Mahmud said in his address that Sarawak will have about 1.5 million job opportunities by 2030, which would be a direct challenge to institutions of higher learning like Curtin Sarawak to help produce a quality workforce to meet the demand.
“Being a university of technology, Curtin Sarawak will certainly play a big role in producing engineers as part of the development of the Sarawak Corridor of Renewable Energy,” he says.

Hall of Fame double
Professor John de Laeter, who was instrumental in founding Scitech WA, has been inducted into the Western Australian Science Hall of Fame for his lifelong dedication to science in Western Australia.
A scientist of international standing, de Laeter has worked constantly for the advancement of science education, and to make science accessible and applicable to everyone in the community.
As well as being involved with Scitech WA – an interactive, non-profit science museum for people of all ages – de Laeter is Chairman of the Gravity Discovery Centre Foundation (GDCF), in the Shire of Gingin, Western Australia.

The GDCF – a self-supporting, non-profit enterprise dedicated to public education – is a unique science education facility that offers visitors the opportunity to learn about humanity and the Universe.
De Laeter’s significant contribution to geochronological research (the science of dating and determining the time sequence of events in the history of the Earth) has also earned him an induction into the Australian Prospectors and Miners Hall of Fame.
He was involved in the groundwork for the Square Kilometre Array (SKA) Radio Astronomy Park at Boolardy Station in the State’s mid-west. This site is a frontrunner in a global competitive bid to secure the $3 billion SKA telescope that will be more than 50 times as sensitive as the best present-day instruments.
De Laeter began his career at Curtin, when it was the Western Australian Institute of Technology, in 1968 as the inaugural Head of Physics. Until his retirement in 1993, he held various positions at the University, and served as Acting Vice-Chancellor.
As Emeritus Professor of Physics, de Laeter continues to contribute to Curtin’s research, both locally and globally.

Power to the people
Old Parliament House in Canberra was the venue for a significant event designed to reinvigorate the political process. Australia’s first-ever Citizens’ Parliament, held over four days in February, was attended by 150 people from across Australia, who spent the time discussing and deliberating how our democracy could be improved.
This unique event was organised by Curtin Professor of Sustainability Janette Hartz-Karp (renowned internationally for her innovative work in community engagement and deliberative democracy), together with the Australian National University, the University of Sydney and non-government organisation New Democracy.
Hartz-Karp, from the Curtin University Sustainability Policy Institute, says there was an extraordinarily high response rate of 3,000 from the invited 8,000 people, who were then invited to join an ‘online parliament’ to develop proposals for the Citizens’ Parliament to consider.
Of those who participated, the final 150 ‘citizen parliamentarians’ chosen to attend Canberra – one per federal electorate – mirrored the Australian population in terms of gender, age (18–90), level of education and ethnic diversity.
In Canberra, they deliberated in small, facilitated groups to discuss the proposals, with the help of networked computers.
Many participants said the Citizens’ Parliament was a “life-changing” experience that had altered their initially cynical attitude towards our political system.
After the event, both the Prime Minister’s office and Senator John Faulkner wrote that the final citizens’ parliamentary report, which documented their priorities for change, had been forwarded to parliamentary committees for their consideration.
Climate change is having a profound effect on the behaviour of bushfires in Australia and on our rich but fragile biodiversity. Researchers at Curtin are providing a deeper understanding of the fire ecology of native species, in an effort to determine how prescribed burning can best be used to protect our natural resources, while reducing fuel build-up.
THE recent catastrophic fires in Victoria – Australia’s worst natural disaster – have prompted debate on a number of fronts about both the causes and the ongoing management of bushfires. One of the key strategies that fire and land management agencies have at their disposal is the practice of prescribed burning.

Prescribed burning in Australia has a long history. Forty thousand years ago, Indigenous Australians deliberately used fire to survive in this harsh environment. But with European colonisation, the clearing of land for agriculture and the rise of permanent settlement saw a radical shift in the attitudes towards the management of fires, as protecting property became a priority for governments and rural communities.

With the establishment of the Forests Department in Western Australia, in 1919, came the practice of creating firebreaks. While this went some way to protecting property, it failed to address the problem of fuel build-up. The result was some devastating fires – among them, the 1961 Dwellingup fires that burnt 1.8 million hectares of land and destroyed 180 buildings in the State’s South-West.

To try to reduce problematic fuel loads, broad-scale prescribed burning introduced in the 1950s was ramped up in the 1960s. By the mid-1980s, however, growing disquiet was being heard from some conservationists concerned with the effect of broad-scale burning on biodiversity. Many more Australians were also living in and close to the bush, complicating this approach.

In recent decades, there has been increased community acceptance that Australia’s assets in the bush amounted to more than just property, and that the rich biodiversity had to be protected by effective fire management – including by prescribed burning.

“Without prescribed burning to manage the build-up of flammable vegetation, other strategies to reduce the impacts of wildfires – such as detection and suppression – will be less effective or will fail,” says Dr Neil Burrows, Director of Science at Western Australia’s Department of Environment and Conservation (DEC), the agency responsible for protecting the State’s biota and for managing the State’s forests.

“Prescribed burning to reduce fuel levels – while at the same time conserving biodiversity – is a balancing act. The current fuel reduction burning strategy in the South-West forests is a trade-off between protecting biodiversity and reducing fuel loads.

“If we were not concerned about biodiversity, we could burn every two or three years. But that could have irreversible ecological consequences. So the interval between fuel-reduction burns varies from six to 10 years, depending on the vegetation type.”

“More than three decades of research and monitoring has not revealed any significant, long-term adverse environmental affects of prescribed burning, but we cannot be sure that this will continue to be the case in a changing climate.

“So we look to research to help better understand the fire ecology of native species, and how fire can be used to both protect our natural resources and afford an acceptable level of protection to people who live in or near the bush.”

ASSOCIATE PROFESSOR Grant Wardell-Johnson, from Curtin’s Centre for Ecosystem Diversity and Dynamics, has a long-standing research focus on biodiversity within high-rainfall Mediterranean climate regions (MCRs). Much of his work is done in collaboration with DEC to develop more effective prescribed burning practices. And much of it is concerned with climate change.

A soon-to-be-released CSIRO report on fire management, titled The impact of climate change on fire regimes and biodiversity in Australia: a preliminary assessment, makes a very close link between biodiversity and climate change in relation to fire behaviour and management. The report makes clear that climate change is causing extreme fire conditions, but it is also threatening Australia’s biodiversity.

A collaborative response to climate change should bring a better understanding of Australia’s biodiversity and, with it, safer strategies for prescribed burning and a broader approach to fire management. Put another way, any prescribed burning activity must be part of a comprehensive plan aimed at both conserving biodiversity and reducing the risk of fire to people and property.

While this is a key driver of the DEC fire management policy, the nation still has a long way to go to understand Australia’s biodiversity and the impact that climate change will have on it – and on the changing behaviour of fires.

One of the projects that Wardell-Johnson is undertaking in collaboration with DEC is experimental and survey work in the tingle mosaic of Western Australia. The area is home to five species of highly restricted forest eucalypts – unique to a small area near the town of Walpole.

“The southern edge of this section of Gondwana is highly vulnerable to the impacts of climate change,” Wardell-Johnson says. “The biota of this area have been changing because, for millennia, Australia has been drifting north by a few millimetres each year, and so the South-West has been becoming drier and warmer. Add to this the greatly accelerated warming associated with climate change, and many of the biota restricted to the wettest areas of the South-West will drop off altogether.”

The project – Biodiversity in high rainfall Mediterranean-climate ecosystems: integrating fields of ecological enquiry to achieve improved conservation outcomes – builds on Wardell-Johnson’s prior and existing Australian Research Council-funded projects. The research uses multivariate data collected by international collaborators over a 20-year period, and is the first to combine four fields of ecological enquiry – biogeography, growth form, phylogeny and environment – across multiple high-rainfall MCRs.

Because the origins and diversification paths of the flora of the individual MCRs are varied, analysing the datasets of each region will enable the researchers to resolve a number of critical questions. These include why different habitats and regions vary in their level of species richness and composition at different scales; why particular taxonomic groups predominate in different habitats in particular regions; and why specific growth forms prevail in different habitats of certain regions.

The outcome will be a picture of how local plant species and plant assemblages are linked with particular processes at a range of spatial scales – providing ecologists with a more locally based and precise framework for biodiversity conservation.
The key to this work, as it relates to prescribed burning, lies in understanding whether groups of species from different regions share similar functions or responses, and whether those responses vary between regions or fire regimes. This means that a blanket approach to prescribed burning is unlikely to either adequately protect species or to work effectively to reduce fuel loads.

**Effective prescribed burning has to be based on an understanding that ecosystems are highly complex, and that different habitats and regions vary in their species composition and ecological responses. And, so, equally reasoned fire management techniques are needed.**

In the South-West of Western Australia, conservationist and fire management bodies recognize that karri, jarrah and peat swamps all burn differently, yet in many places they co-exist in a small space. Therefore, if prescribed burning is to be implemented at a particular place, it makes sense to consider which habitats in the area should be burnt, and how to provide the greatest benefit of protection and the least biodiversity cost.

“If you burn a peat swamp at the wrong time, you cause damage to the sub-strata, and you end up burning the things you are trying to protect,” Wardell-Johnson says.

“But if you do not burn at all, large-scale intense fires may see the demise of peat swamps and other vulnerable areas’ substrates that take ages to form, and in this new climate may never re-form.

“Burning at the wrong time can also interfere with natural regeneration of some species, resulting in a homogeneity of the vegetation and a decrease in the diversity of the landscape.

“This kind of knowledge suggests the benefits of a more frequent use of fire in few, carefully targeted areas, rather than a broad-scale use of the occasional blitz that’s been done in the past. In more frequent burning, new fires meet recently burnt places and stop. So the regeneration already begun following a previous burn would not be jeopardised.”

Says Burrows: “Simply put, there are good fires and bad fires. Good fires, or fires that have least long-term impact on people and the environment, are generally low intensity and burn in a patchy manner. Bad fires, well, they’re the exact opposite. They’re what we saw in Victoria earlier this year.”

**But** the question of how we, as a nation, manage a future of extreme fires runs deeper than an ecological one.

“On a fire-prone continent,” says Wardell-Johnson, “we need to re-think how we live in this landscape. How governments release land and zone it, what facilities are established, what plants we introduce into the landscape – these are questions that must be part of the holistic response to how we face the extreme conditions that we will have to live with in regard to fire activity.

“It must involve planners, social scientists, communities, governments and researchers coming together. And it has to have broad public engagement and awareness so that, as a society, Australia makes informed decisions about this issue.

“I think universities have a key role to play in leading these approaches because they offer a variety of expertise.”

Besides asking some tough questions about where and how we should be living, managing bushfires in the future would almost certainly require a fundamental change in attitude. As a government and as a society, we would need to see both fire and humans as part of the landscape.

Perhaps this means reflecting a little more on how things were done 40,000 years ago. Perhaps it requires an even greater act of humility in realising that fire has been in our landscape for at least several million years, and it’s here to stay – although we are certainly experiencing it in very different and challenging forms.

**For more information:** cedd.curtin.edu.au
Two Curtin graduates have made their indelible mark on the University for generations to come, in the form of Curtin Stadium – the dazzling new sports and recreation facility on the Bentley Campus.

YOU can’t miss it. Its pure white form rises dramatically from the rich green of the surrounding playing fields, drawing the eye. It’s a landmark building – its expansive north and south arched porticos offering an invitation to all comers. It’s the new Curtin Stadium on the Bentley Campus, and it’s spectacular.

The $27 million building’s concept is a stroke of genius. Not only does it form the heart of the University’s sports precinct, incorporating multiple state-of-the-art sporting and fitness facilities, but also its flexible design allows for events, including academic, corporate, ceremonial and community events.

Adding to Curtin’s excitement about this stunning facility is the fact that it was designed – both inside and out – by Curtin graduates.

And, wheels within wheels, the designers studied concurrently, knew each other at university and work for the same architectural firm – James Christou + Partners Architects, in Perth, which successfully tendered for the project.

It’s clear the graduate designers, Melinda Whelan and Kirsty Griffiths, are thrilled with this commission.

“This is my favourite project so far,” enthuses Whelan, who graduated in 2000 with a Bachelor of Architecture.

“It’s certainly a building that’s given me a lot of responsibility, but I think the hard work has paid off.”

Griffiths, who graduated in 1999 with a Bachelor of Arts – Interior Architecture, has enjoyed the challenge of creating interiors that work for everything from a gym to a black-tie dinner for 2,000 guests.

“Elegant but robust (read student-proof) was my goal,” she says.

Both graduates’ chosen careers have been the logical fulfilment of their talents and interests.

Whelan recalls being a high school student, watching the curved wing of the QV1 office tower, in Perth’s CBD, taking shape and thinking, ‘I could do that’.

“It seemed iconic to me at the time, and there was the self-belief that I could do it,” she says.

“I’ve always had a passion for design, art history and architecture history. Besides winning the lottery I can’t think of anything else I would want to do.”

After a long summer break to recover from an intensive five years of university study, in 2001 Whelan applied to about 15 Perth architects for a position. She was interviewed and snapped up by James Christou + Partners Architects within two days. Since then, she has worked extensively in the education sector, designing both public and private school buildings. Her design expertise and her client relationships and project management skills have resulted in her promotion to Associate Director within the firm.

As for Griffiths, she says construction is in her blood.

“My dad is a builder, so we were constantly moving house, building, renovating and being dragged through buildings on weekends to look at different techniques,” she says.

“I kind of just fell into it. I was also creative at school, loving art subjects, drawing, so it was a natural link.”

At 21, she moved lock, stock and barrel to Sydney, working with workplace interior planners and designers Roberts Weaver Group for more than seven years. It was a call from Whelan in mid-2007 that brought her back to Perth to develop James Christou’s interior architecture arm. Griffiths, too, is now an Associate Director.

CURTIN STADIUM is the first project on which the designers have collaborated.

“We’re both pretty proud to have been graduates of Curtin, and to go back and contribute to its landscape,” Griffiths says.

“It will be our mark there for generations. And our client was very proud that we were Curtin graduates as well!”

Seeing Curtin Stadium come together has been a thrill, particularly for Whelan, who’s been with the project since the initial briefing sessions in 2005.

“We wanted a building to contrast against the green floor plane, and one that glowed during the night,” she says.

“We wanted a building that was transparent and offered maximum indoor-outdoor relationships – a building that breathed through ‘openable’ walls. This building is about flexibility, activity and contemplation.

“It’s energy efficient. The whole sports hall will operate without airconditioning. The [interior] lights probably won’t need to be on because it feels like you’re outside. The volume is huge and there are views all the way through. The tiered seating is automated and can be projected or retracted, so the venue can go from recreation to events mode at short notice.”

Picking up the thread, Griffiths explains that creams, beiges and whites have been used extensively for the interior, to give the building timelessness, with strong colour applied in high-energy areas like the gym.

“And how do Whelan and Griffiths feel when they look at it?”

“I’m immensely proud of it,” Whelan says.

“You do get that buzz, particularly when client feedback is positive. I think we’ve reflected everything Curtin wanted and they’re happy with how it’s come together.”

Griffiths concurs: “Listening and asking the right questions so that you meet the client’s expectations gives you the most satisfaction.”

For the future, Whelan’s goals are to “get to the point where I build the perfect building”. Griffiths’ goals are to “develop a reputation as a good designer, strive to innovate and exceed on every new project.”

DESIGNING WOMEN

From Left: Melinda Whelan and Kirsty Griffiths.
Social aspects. which combines economic, environmental and corporate governance and sustainability – a project supported by corporate boards that have women serving as directors and an investigation into whether a link exists between women directors and sustainable performance.

“Women board members, on the other hand, often come from more ‘social’ organisational roles – for example, not-for-profit organisations or charities. Research suggests that women encourage business integrity and are more inclined than men to ensure codes of ethics are in place and enforced, which can protect against misuse of shareholder funds.”

Galbreath also notes that diversity in the organisational backgrounds of board members is likely to give rise to wider discussion about the firm’s corporate behaviour, and critical debate about board responsibilities and processes.

“This isn’t a new issue for them – for the past 10 years there’s been sustained public pressure for boards to get their act together. The spotlight has been on corporate governance since the dot-com crash of 2000,” he says.

“Recently there’s been a public backlash against salary increases and perceptions that the current financial crisis has been an avalanche of issues from the top down.”

Having more women on boards may also help ensure that economic activities are balanced against environmental and social requirements. Such balance might be a result of the greater relational capabilities of women, who work to see that all stakeholder requirements and concerns are addressed – not just those that are economic in nature.

“We must convince the business community that sustainability is a legitimate and necessary business approach – one that seeks long-term value by embracing opportunities and managing risk from economic, environmental and social developments. Businesses need insights as to how they can optimise their board structures and processes to oversee performance across economic, environmental and social dimensions.”

“Based on previous research comparing men with women, they may also be more apt than women to behave unethically – for example, by subverting shareholder funds for personal gain through large bonuses and other executive perks.

“Corporate scandals and concern over large salary increases and perceptions that the current financial crisis has been an avalanche of issues from the top down.”

Women on board

Times are tough enough for Australian businesses. And be warned: those that do not address corporate sustainability face the prospect of lower economic growth, a higher cost of capital and fewer international opportunities than those that do.

Such advice comes from Dr Jeremy Galbreath, a research fellow at Curtin’s Graduate School of Business (GSB), who is exploring the relationship between corporate governance and sustainability – which combines economic, environmental and social aspects.

Galbreath’s interest has come from a trend that has called for business firms to move beyond narrow financial self-interest, and to respond to stakeholder demands for environmental quality and social responsiveness.

“Corporate scandals and concern over large bonuses for management have encouraged public scrutiny on organisational conduct,” Galbreath says.

“Corporate sustainability means that firms perform in challenging economic climates, respect the interests of multiple stakeholders and respond to their requirements.”

Galbreath’s research follows his recent investigation into whether a link exists between boards that have women serving as directors and corporate sustainability – a project supported by Curtin and the GSB’s Women In Social and Economic Research group.

With previous research having confirmed there’s a positive link between women directors and a firm’s financial performance, Galbreath realised that management researchers and practitioners could now benefit from research that investigated whether women directors and sustainable performance were linked.

To determine the economic performance of various firms listed in the Australian Stock Exchange (ASX), Galbreath analysed data from secondary databases, then studied the environmental and social dimensions of those firms, using content analysis of annual reports. The results showed there was indeed a positive association between women directors and economic and social performance.

“There are several reasons for this. Firstly, male board members tend to have had a continuous background in business enterprise – they’re accustomed to reacting solely from an economic viewpoint,” Galbreath says.

To the roles of boards and how these roles impact on organisational conduct, Galbreath says.

“If firms are serious about corporate sustainability, they’ll be plugged into their stakeholders. Many firms face the challenge of demonstrating balanced performance across sustainable outcomes. I’d encourage them to look at their board structure and promote gender diversity from here on in.”

With the ratio of men to women as board directors at about 10:1 for firms listed in the ASX200, many Australian firms might be doing that, now that Galbreath’s research results are becoming more widely known.

He is convinced that businesses that do not address sustainability risk lower economic growth, a higher cost of capital and fewer international opportunities than those that do. His new study, funded by the Australian Research Council, will be a comprehensive examination of factors that link corporate governance and sustainability.

The project will identify the conditions whereby firms can adapt to market transformation, and determine resource reconfigurations that respond to sustainability challenges. The findings will help companies structure their boards in a way that can help improve sustainable performance.

“Studying board structure lends understanding to the roles of boards and how these roles impact on organisational performance,” Galbreath says.

“We must convince the business community that sustainability is a legitimate and necessary business approach – one that seeks long-term value by embracing opportunities and managing risk from economic, environmental and social developments.”

With the ratio of men to women as board directors at about 10:1 for firms listed in the ASX200, many Australian firms might be doing that, now that Galbreath’s research results are becoming more widely known.

Sustainability is a legitimate and necessary business approach – one that seeks long-term value by embracing opportunities and managing risk from economic, environmental and social developments. Businesses need insights as to how they can optimise their board structures and processes to oversee performance across economic, environmental and social dimensions.
As a gesture of goodwill, and symbolic of Curtin’s prosperous international relationships, a gift is accepted by Protocol and Visitor Coordinator Ruth Williams on behalf of Curtin from Associate Professor Xiong Renmin, Chairman of the Nanjing Audit University in China. Curtin hosts many visits annually from international universities, fostering student and staff exchange programs, as well as forging opportunities for collaborative research in areas of mutual interest. In 2008, Curtin hosted 46 international visits, not only from universities, but also from dignitaries, foreign ambassadors and government officials from Brazil, Malaysia, Indonesia, Botswana, Russia, Saudi Arabia, Thailand, Japan, China, Oman, Ireland, South Africa and the United States.
The ongoing wrangle over the Rudd Government’s ‘alcopops’ tax bill misses an opportunity to address alcohol-related issues, say policy researchers.

TOO HARD TO SWALLOW?
FAMILY FIRST  Senator Steve Fielding used his deciding vote to block the Rudd Government’s alcopops tax bill in the Senate in March this year, stating it was a cynical tax, more to do with raising revenue than addressing social issues. Yet policy researchers have long known cost is the most powerful influence on alcohol consumption, and therefore an effective approach to reducing alcohol-related harm. But difficulties remain in getting that message through to the public and policymakers. As both sides of politics blame each other for the tax’s recent failure, we are the real losers, say researchers.

Professor Tim Stockwell, from the Department of Psychology at the University of Victoria, in Canada, has been pursuing policymakers for 15 years. He says they haven’t got the right tax policies to address alcohol-related problems. At his seminar in December 2008 at the National Drug Research Institute (NDRI) at Curtin, Stockwell likened his quest to that of another elusive trophy. “Convincing governments to change alcohol tax policy is like trying to grasp the Holy Grail. You lobby hard, think it’s within reach, then it vanishes,” he says. “It’s a frustration for health researchers all over the world.”

Stockwell, who is Canada’s Director of the Centre for Addictions Research of British Columbia, states: “Canada has similar issues to Australia. There’s a frightening amount of alcohol-related harm to public health and safety, but not enough political courage for policies to address it. “Reducing alcohol consumption has high stakes. Revenue from alcohol is immense; the industry employs a lot of people; the anti-tax lobby is very powerful; and alcohol tax is a hard sell to the general public.”

This is not surprising. For generations, Australian media and alcohol marketing has soaked us in images of jovial intoxication, representing alcohol as an intrinsic part of our culture and history, and a necessary ingredient for a good time.

A few previous tax reforms, however, have worked. “Tax incentives for beer manufacturers were introduced here in the 1980s,” Stockwell says. “The Australian market now has about 40 beers that are low- or mid-strength. Consequently, there’s been a massive rise in consumption of these.”

But, he stresses, the traditional line from health policy researchers – that alcohol is the most dangerous of drugs, and we must raise the price so people drink less – hasn’t worked. The strategy works, but the message needs re-thinking.

“International research is in agreement: tax and price and harm have a powerful relationship,” Stockwell says.

He cites a recent meta-analysis of 132 studies, which concludes that a 10 per cent increase in price will create a five per cent decrease in consumption. Other studies confirm that when the price of alcohol rises, there’s a corresponding decrease in alcohol dependence, road trauma, youth suicide and alcohol-related diseases.

“But we need to be more clever with our message,” adds Stockwell. “For example, we might have more success with a question like: Would you support a small increase in price so we can reduce high-risk drinking behaviours and have safer drinking venues in Australia?”

Stockwell’s recommendations are designed to encourage a shift to drinking lower-alcohol products. These include minimum prices per unit of alcohol, with products taxed on alcohol content, rather than on the price of selected beverages.

“The thing about alcohol,” he says, “is that it’s thousands of different products, with different strengths and sizes. If you raise the price without considering the complexity, there’s a lot of shifting that people can do along the quality–price spectrum.”
Adding to that complexity, there are currently 13 different tax rates in force in Australia, including excise, wholesale and sales taxes. Alcohol attracts different taxes depending on whether it is brewed, fermented or distilled. Major manufacturers get taxed differently from small wineries, and beer and wine are taxed less than spirits, for the same amounts of alcohol.

“A tiered rate of tax that applies a higher rate to beverages with higher alcohol content would be fairer, and would offer more incentive for choosing low-alcohol products,” Stockwell says.

So what effect did the alcopops tax have while in force?

A popular argument, and one pushed heavily by the liquor industry, is that it just created substitution, where pre-mixed drink sales fell off, but bottled spirits and beer sales increased significantly.

Throughout the tax implementation, the Distilled Spirits Industry Council of Australia (DSICA) had claimed it was a complete failure.

Curtin’s Associate Professor Tanya Chikritzhs’ response to this is unequivocal.

“In countries where alcopops prices increased, drops in consumption were consistent, as were drops in related harm among both heavy drinkers and young people. Curtin’s Associate Professor Tanya Chikritzhs cited the following worldwide data regarding alcohol, price and harm in the electronic Medical Journal of Australia (eMJA), in March 2009.

In Australia, market research company Nielsen compared the three months of May to July 2007 with May to July 2008, when the alcopops tax was implemented, and found that alcopops sales declined by 26 per cent, or 91 million standard drinks. Spirits sales increased, but only by 11 per cent, or 35 million standard drinks, while wine fell by 21 million drinks, and beer rose by 13 million drinks. Overall, Australians consumed 64 million fewer standard drinks in the three months following the tax change.

**For more information:** ndri.curtin.edu.au
Internationally renowned researcher Peter Teunissen has come to Curtin University of Technology as Professor of Geodesy for five years, with an aim to enhance Australia’s capability in the rapidly emerging fields of Global Positioning Systems (GPS) and Global Navigation Satellite Systems (GNSS).

As one of 14 eminent scientists to be awarded a prestigious Australian Research Council (ARC) Federation Fellowship, and the first to hold an ARC Fellowship at Curtin, Teunissen is well qualified to make a major contribution to this cutting-edge technology.

The ARC is a statutory authority within the Australian Government’s Innovation, Industry, Science and Research portfolio. Its mission is to deliver policy and programs that build and strengthen world-class research capability in Australia by supporting groundbreaking, internationally competitive research that benefits the global community.

The ARC Fellowship has enabled Teunissen to bring his advanced knowledge of GPS and GNSS to Australia, and to further his work and development in this area.

The Dutch-born scientist studied geodesy as an undergraduate in the Netherlands during the early 1980s, when GPS was an emerging science. He completed his PhD and went on to win a research fellowship to study at a number of foreign research institutes.

For a brief period, the dedicated researcher worked as a surveyor with Shell oil company. The job entailed all the technical aspects of oil production, from positioning of rigs and survey vessels to monitoring and mapping the sea bed topography.

By 1987, Teunissen had become a professor at the Delft University of Technology, in the Netherlands. Around that time, GPS technology was attracting keen interest internationally, and the professor’s research in the groundbreaking science led him to a dedicated career path from which he has not looked back.

“Geodesy is the science of determining and mapping the size and shape of the Earth and its gravity field in space and time,” Teunissen says.

“Our Earth is constantly deforming. This happens at global, regional and local scales, and ranges from global plate tectonics to local land subsidence. These deformations may be very small indeed, and therefore require very precise measurement systems to monitor and study them.

“In the pre-GPS era, we were primarily dependent on terrestrial measurement systems which, however, were severely limited in accuracy. The entry of GPS has opened a totally new field of research, where the possibilities are endless.”

In 1988, Teunissen’s research group received funding to buy the first GPS receiver in Holland, at a cost of AUD$300,000.

“I remember the unit being as large as an average-size work desk, and there was yet little demand for its uses—a sharp contrast to the palm-size units and demands of today,” he says.

“Big changes in technology have taken place since those early days, prices have dropped and GPS technology applications have increased tenfold.”

Teunissen says Australians were early users of GPS, and the new-generation GNSS technology is now considered vital for the country’s future.

“When the opportunity arose to come to Curtin to establish a research team to work on a number of challenging projects, the proposal looked very attractive. I feel honoured to be chosen to set up the research program and meet the obligations that come with it,” he says.

“There are huge opportunities in my field right now, and breakthroughs over the next few decades will be quite amazing. Curtin, the Australian Government and the ARC have seen these opportunities, and they are keen to push the research forward and assist small to medium-size businesses to add value to these developments.”

He anticipates it will take about six months to assemble his team of 15 top-level scientists, establish a laboratory on campus and purchase the GPS receivers and other high-tech equipment required for the research program.

The work he will oversee includes finding ways to improve the accuracy of multi-frequency, next-generation GNSS satellite signals, and examining unsolved mathematical problems that currently hinder further signal improvements.

More accurate positioning and formation-flying of satellite clusters is also high on the research list. Each tennis ball-size satellite needs to perform individual tasks as well as communicate with the other units in the cluster so that the ‘swarm’ works as one huge satellite.

Integrity and quality control are equally important to the program.

Teunissen says while the future for GNSS seems endless, there is one area currently where it has its limitations. It is primarily an outdoor system and cannot easily be used indoors.

“The modern world has a great need for indoor positioning, so scientists are giving a good deal of thought to how the GPS concept can be used to create a seamless positioning capability that can be moved indoors and outdoors at will,” he says.

“Major airports, large government and corporate buildings, and large factories could then have GPS-like units positioning goods and people in real time, with the ability to track and follow with an accuracy range of one centimetre or less.

“Some time in the future, we will also be able to build a receiver small enough to place on the wing of an aircraft, to real-time monitor the integrity of the deforming wing in flight.”
A socially just career

Curtin’s Bachelor of Social Work – one of the University’s longest running degrees which had its genesis at WAIT in 1967 at the height of the last mining boom – developed out of a desire to connect theory with practice, and to use knowledge to solve practical problems. Since then, more than 2,000 graduates have walked out of the Bentley Campus into myriad workplaces. So what’s behind the degree’s longevity and success?
THOSE who are attracted to the thought of supporting the needs of the most vulnerable citizens in society, while challenging the status quo to ensure their rights and needs are addressed in policies and legislation, may do well to consider a career in social work.

But according to Dr Angela Fielding, Curtin’s Head of Social Work and Social Policy Department, the wish to do good needs to be balanced with an ability to understand the complexities of the role.

“While social workers start from a value base, it is important to learn and develop skills and knowledge to deliver on a desire to be helpful,” she says.

A good social worker, she says, is somebody who can analyse the environment they are working in and work with organisations to get them to respond to needs – those of the individual, their family and community – and, in turn, influence social policy to reflect those needs.

Senior Lecturer Sabina Leitmann says Curtin’s Bachelor of Social Work degree prepares students for that role, and its strength is the requirement for them to be actively involved in both classroom and field-based learning. She says first-year students are often hit with a reality check in the process.

“Initially our students think we paint a too-depressing picture of the social fabric. After they’ve done their first practicum in second year, they come back and say we painted too rosy a picture,” Leitmann says.

“Until you do the job yourself, you can only imagine it.”

Leitmann says with the global financial meltdown and recession, when anyone could suddenly and unexpectedly find themselves with no means of putting food on the table, social workers are needed more than ever.

“The time we need strong human services is during the hard times, to deal with the human casualties,” she says. “You need to not only help them in practical ways, but also help them emotionally. It’s very easy to tell someone what to do, but it’s much more difficult to walk with someone and guide them so they can do it for themselves.”

ANOTHER important function of social workers is to lobby and advocate on behalf of those who have been left out, when governments draw up policy aimed at social inclusion.

Curtin lecturer Robyn Martin, whose current research focuses on women’s experience of homelessness, is examining the issue’s “revolving door”, and the ways social workers can help to create a sustainable pathway out and address those policy gaps.

She says for many years, homeless people were treated as a homogenous group, but there were all sorts of variations in why they ended up in that situation – a fact that is only now being addressed by the Rudd Government.

“When you have all those different presenting reasons, you have different presenting needs,” Martin says.

One group of homeless women she has identified through her work is overwhelmingly more complex than the others, she says, requiring “incredibly skilled” practitioners.

“They tend to be people who have been institutionalised, with histories of abuse, who have lived on the streets and get caught in cycles. This is the group that people want to shut the door on,” she says.

“I’m always saying to students: ‘If you’re a social worker, you have a commitment to be a change agent and address social injustices, and to find space for people who have been marginalised in the community.

“Social workers have an incredible role to play in bringing forward the voices of groups which have complex needs, at a practice level.”

IAN PERCY, who coordinates Curtin’s Master of Human Services Counselling program, says the course constantly evolves to take into account contemporary issues affecting people in the community.

He says a counselling postgraduate course allows students to develop significant field practice skills.

“In the undergraduate course, we introduce the students to some basic principles, and in the postgraduate area, we’re able to go into these in more depth,” he says.

“For example, in the undergraduate course we may talk about family work and consider the various skills; at the postgraduate level, students may go on counselling placements to work with families more intensely.” Percy says all lecturers maintain active practice while teaching, and the key principles that underpin the course are based on social work values, such as respect for a fairer society, diversity and inclusiveness.

“One of our key aims in any counselling process is to establish reconnection – to other family members, to a person’s sense of a valued self, or to a wider community,” he says.

“Even though we’re seeing one person, we’re always thinking of them as a person in social context.”

It’s an approach which resonates with Associate Professor Fran Crawford, who is currently involved in a study on child protection with Aboriginal practitioners, and another with an Aboriginal health training college on the mistreatment of older Aboriginal people.

Crawford says what comes through powerfully is how many Aboriginal women and children still live in vulnerable communities.

“Our whole way of providing services at both State and Federal level is generally to provide a service to an individual, but the impact at the community level might actually be detrimental,” she says.

“Older Aboriginal women are loaded with childcare responsibilities, both by family and government services – that’s our big issue at the moment, and how you address that, there’s no easy answer.”

A social worker who spent from the mid-1970s to early 1990s working with rural Aboriginal communities, Crawford says she returned to Perth feeling that many people did not understand where Aboriginal people were coming from.

Social work practice involves listening to people’s stories, and it connects well with emerging approaches within qualitative research. Several PhD graduates have made “quite an impact”, says Crawford, in the community with their work, including Dr Andrew Tunell – social worker, family therapist and child protection consultant – whose work on strengths-based practice is being used by the WA Department for Child Protection to train their workers.

Another recent graduate is Dr Jennie Gray, the manager of Anglicare services in the North-West.

“Her PhD was about working with women who’d been diagnosed with psychosis, and unpacking what it was like to be living with that label. It was a very powerful piece of work,” Crawford says.

FOLLOWING a move from Humanities into the School of Occupational Therapy and Social Work, in the Faculty of Health Sciences at Curtin, social work students are being increasingly exposed to interdisciplinary approaches to working with people, which Fielding says is proving enormously beneficial.

And this increasing diversity coupled with an enduring commitment to social justice may be behind a significant shift in the number of 2008 school leavers choosing to study social work.

“I suspect there is a questioning about individualism, an ethical way of living and what sort of principles we build our lives on,” Fielding says.

For Tess Lau, Social Work Student Association president and Hazel Hawke Scholarship winner, those values are exactly what attracted her to a career in social work.

With a strong interest in policy and politics, Lau looks forward to a renewed focus on the nurturing side of a role that recently got bogged down in bureaucracy and red tape.

“I do have a very strong sense of social justice and human rights, and I believe that social work is an incredibly important thing that I can do to make changes,” she says.

“It’s not just a career, but a way of thinking – and it’s so multi-faced that it can be applied almost anywhere.”

For more information: ot.curtin.edu.au
ways of seeing

New mobile phone software aims to give sight to the blind and vision impaired.

**SNAPSHOT**

CURTIN researchers at the Institute for Multi-sensor Processing and Content Analysis (IMPCA) are working in collaboration with the Lions Eye Institute and the Association for the Blind of WA to develop better navigational aids for the blind and vision impaired.

When a person who is blind or who has severe visual impairment walks along the pavement next to a busy road, guided only by a trained dog or white cane, those of us with sight marvel at their confidence and independence.

But the reality is that most people with vision impairment make their journey comfortably because they have already been guided along the route and are familiar with the majority of obstacles they will come up against.

It can be quite a different story for these people when they are faced with a need to go into an area they are familiar with but which is different and unknown.

In this instance, the person who is visually impaired usually requires guidance from a family member or friend to reach their destination.

Cutting-edge technology being developed by a research team led by Professor Svetha Venkatesh, at Curtin’s Department of Computing, aims to change this situation during the next five years, thanks to an Australian Research Council Linkage grant of $480,000.

As Director of IMPCA, Venkatesh is globally recognized for her work in the areas of active vision, biological-based vision systems, image understanding and applications of computer vision to image and video database indexing and retrieval.

Her research team includes Professor Kanagasingam Yogesan, from the Lions Eye Institute, and Professor Tanya Packer, from both Curtin’s School of Occupational Health and the Association for the Blind of WA. Together with a group of advisers who are vision impaired, the team aims to enhance the quality of life for the blind and vision impaired by providing them with technology and tools for early detection of eye disease, and navigation that is both effective and affordable.

The team’s immediate priority is to work on the development of better and more efficient algorithms for large-scale patterns recognition. This GPS-like technology will be downloaded from the web into a mobile phone to enable the blind and vision impaired to navigate indoors and into unknown territory outdoors for the first time.

“Numerous technologies for external navigation already exist, but there is nothing available that can be used inside a building,” Venkatesh says.

“By employing a variety of signals available for mobile phone users now, we can develop a versatile system for people who are blind or visually impaired to navigate their way through buildings the first time.

“A major advantage of our project is that most people who are blind already have a mobile phone, so they won’t need to buy or carry additional equipment in order to use the program.”

The potential of the technology has been applauded by Packer, who describes the statistics on vision loss and blindness in our society today as staggering.

“It’s not if you lose your vision, but when. If you live long enough, you will,” she says.

“This research project, when concluded, will have a marked effect on the spiraling cost of health care and employment loss among those who lose their sight each year in Australia.”

THE Centre for Eye Research Australia reported in 2006 that the cost of vision impairment in Australia for 2004 was $3.4 billion.

The Association for the Blind of WA website states there are 24,900 people in Western Australia alone who, due to a loss of sight and inability to see normally when wearing glasses or contact lenses, are blind or vision impaired. This is about 1.36 per cent of the State’s population. The majority of these people are 65 years or older (63 per cent). Almost 32 per cent are between 18 and 64 years old, and five per cent are children 17 years of age or younger.

Equally sobering is the estimate that between 1998 and 2016, the number of Western Australians with sight loss or vision impairment will increase by 57 per cent, with the largest growth area being among people 65 years and older (77 per cent).

Packer says vision impairment is known to trigger other losses such as loss of a driver’s licence, independence, and even social contact due to the inability to recognize faces and social cues. Co-morbidities are also high and include an increased risk of falls, depression and early admission to nursing homes.

“This new navigational aid is not just a nice idea for people, it is an important contribution to the community in terms of financial cost,” Packer says.

“A large number of ageing baby boomers will experience visual impairment or sight loss over the next 30 years, and it is essential to improve and provide facilities for these people so they can independently access all areas of community life.”

For more information: im pca.cs.curtin.edu.au
Curtin FM 100.1, Western Australia’s first community radio station, was established in October 1976. It broadcasts from studios at Curtin’s Bentley Campus to a 170,000-strong audience in Perth’s metropolitan community. Licensed as a community broadcaster, the station is heavily supported by volunteers, and caters mainly to the over-45 age demographic.
reach for the stars

Playing “the greatest songs of all time”, the station specialises in music from the ’50s, ’60s and ’70s. The music library holds up to 250,000 songs, made up of traditional vinyl records and CDs. On-air presenters individually select the music to play.
Broadcasting news and talk-back programs about community issues, Curtin FM’s newsroom also provides on-the-job training for journalism students within Curtin’s School of Media, Culture and Creative Arts. As a result, many graduates have found jobs in the broadcasting industry.
During the annual Radiothon appeal, volunteers take phone calls for donations, which raise funds that contribute towards running the station and infrastructure upgrades.
production
values

Curtin FM 100.1 does more than play music. The station’s 10 staff are supported by a dedicated team of about 100 volunteers who produce programs, work in the record library, answer enquiries from listeners and provide administrative support, to ensure the radio station runs smoothly. Curtin FM also promotes Curtin’s teaching and research initiatives and supports more than 200 community groups a month.
A helping hand for a higher calling

A partnership between The Smith Family and Curtin works to remove the barriers to tertiary education for disadvantaged students and find them pathways to university.

WHEN former prime minister Bob Hawke declared in 1987 that no Australian child would live in poverty by 1990 – a comment he now labels “one of the biggest regrets of my career” – there were an estimated 580,000 Australian children living in poverty. But instead of national child poverty being eradicated, one in seven Australian children, or 743,000, were living in poverty in 2000, according to the 2004 Senate Community Affairs References Committee Report, *A hand up not a handout: renewing the fight against poverty*. UNICEF’s 2007 report, titled *Child poverty in perspective: an overview of child wellbeing in rich countries*, examined OECD nations and concluded that more than 11 per cent of Australian children lived in households with equivalent income less than 50 per cent of the median, placing Australia 11th out of 24 OECD-identified “rich countries”.

Being born in poverty or in a low socio-economic status (SES) household can
dramatically affect a child’s life chances. Research has consistently shown that, in a self-defeating cycle, unemployment is a key generator of poverty, and low education levels are linked to unemployment. These findings are highlighted in the Australian Council of Social Service’s 2005 document Causes of poverty – the facts, which states that people who have not completed secondary school have an unemployment rate of 11.3 per cent compared with three per cent of people with a bachelor degree. The document also shows that in 2004, 97.5 per cent of the 236,000 new jobs created went to people with skills and a university degree, a TAFE diploma or equivalent work experience. Lack of income is an important determinant of post-school education participation, particularly tertiary education, and it significantly impacts an individual’s future earnings. Poverty rates for Australians aged over 15 with no post-secondary qualifications grew from 12.1 per cent in 1990 to 14.7 per cent in 2000 – a rise linked to increasingly poor school performance, as likely to participate in higher education as Australians from medium and higher SES.

The financial impacts of this lack of higher education participation are starkly demonstrated in the November 2008 AMP/National Centre for Social and Economic Modelling (NATSEM) Income and Wealth Report, titled What price the clever country? – The costs of tertiary education in Australia, which shows the financial gain generated from income to a university graduate over a working lifetime is more than $1.5 million – or 70 per cent more – than those whose highest qualification is year 12, after allowing for foregone earnings during study. But the value of higher education isn’t just greater personal income. Nor is it a means of improving a nation’s GDP.

Higher education is like a master key, unlocking many doors, not only to direct financial gains and enhanced employment opportunities, but also to broader individual and social benefits.

Social scientists have demonstrated that wider benefits from higher education include better health outcomes, less crime, greater social and civic participation and inclusion. It is the key to upward mobility, and there are strong intergenerational implications – where parents have a higher education, children are more likely to pursue higher education. Education also trains individuals to acquire, assess and use information and, as a result, potentially makes choices that enhance their quality of life.

Given these facts, it was appropriate for the recent Bradley report to focus strongly on access and equity issues for higher education participation. The report stated that the current access rate to higher education by low-SES students is around 16 per cent – relatively unchanged since 2002. Adequate representation would mean a 25 per cent access rate.

These levels of low-SES student participation in higher education reinforce inequality and, as Anglicare Victoria states, the struggle for tertiary entrance in this group tends to depress aspirations for university. The perceived cost of tertiary education, the prospect of a long-term HECS debt and the knowledge among many low-SES students that their parents may be unable to support them at university and they will have to be self-supporting, tend to be depressors.

But in our current global environment, higher education is becoming ever more important. Leading Australian economic consultant firm Access Economics states that from 2010 the overall demand for people with higher education qualifications will exceed supply.

The OECD declares that tertiary education is a major driver of economic competitiveness in an increasingly knowledge-driven global economy. This makes it imperative that all capable Australian students have access to higher education.

Established in 1922, The Smith Family has been working to support disadvantaged families. However, in 1989 it began promoting education as the key to breaking the poverty cycle.

“This change in direction was supported by national and international research and the voice of our families,” says Dr Lynette Buoy, The Smith Family’s General Manager for Western Australia, “so responding to the needs of disadvantaged children and families through education in Australia has been our driving echo.

“It’s the philosophy behind our Learning for Life program which is an integrated group of programs across the whole lifespan, working with families and students, from zero through to adults, primarily in transition points for education by providing personal support, financial scholarships, literacy skills and personal development.”

More than 27,000 disadvantaged children are accessing Learning for Life programs nationally, and The Smith Family WA and Curtin are working together to encourage people from low-SES backgrounds to undertake university study, and to provide practical support to assist them to do so.

“The Smith Family has been in WA for only seven years,” Buoy says, “but since 2002 we’ve had 17 Learning for Life students graduate from Curtin, and 20 current students are being supported by the program.”

Shontelle Curtis and Elvin Nguyen have both had their Curtin study assisted by The Smith Family. Curtis graduated in mid-2008 with a double degree – a Bachelor of Science (Applied Geology) and a Bachelor of Social Science (Anthropology).

Nguyen will graduate in electrical engineering in 2010. Curtis and Nguyen’s Learning for Life scholarships each provided them $2,000 a year, which assisted with textbooks, travel and general study-related expenses. They were also supplied mentors.

The graduate and student each value the benefits provided by their scholarships.

“I would definitely have struggled with costs,” says Curtis.

“The scholarship really helped. I think it reduced the burden on my parents. It has helped me to progress through uni and finish my degree, and it really assisted with the hidden costs. My mentor was always there, and it was great having her support.”

Nguyen has been a Learning for Life student since primary school. He is the first in his family to undertake tertiary study.

“My parents came over here during the Vietnam War,” he says. “They’re pleased I’m doing a degree, but it was also their expectation. I would still have studied without the scholarship, but it would have been much harder. The scholarship and the mentor have made a big difference.”

The Smith Family undertakes national appeals to attract sponsors who can elect to support primary, early/late secondary school or tertiary students. Each level requires a different dollar contribution.

“We work in partnership with the schools to identify families who would benefit from one of our scholarships,” Buoy says. “Our anonymous sponsors receive regular activity and progress reports from parents and older students. Some have supported students from primary to tertiary education.”

Curtin and The Smith Family are currently working on ways to broaden their partnership.

“Given the chance at a tertiary education, low-SES students achieve 97 per cent of the pass rates of their medium and high-SES peers – and that’s amazing, considering the obstacles many have to overcome.”

Den Hollander is excited about working more in-depth with The Smith Family.

“The Bradley report recommended a target of 20 per cent of undergraduate enrolments from low-SES students by 2020. I think that’s absolutely achievable – where there’s a will, there’s a way. It certainly can be done, and what we need to do is develop appropriate strategies,” she says.

“I see our ongoing work with The Smith Family becoming a great contributor to those targets.”
Mines and towns: creating a neighbourly connection

A study just completed by the Research Centre for Stronger Communities at Curtin begins to establish a common understanding on which Australian mine sites and communities can become ‘good neighbours’. The study, which builds on five years of baseline research, concentrates on the Shire of Ravensthorpe, some 600km south-east of Perth, in Western Australia – the location of the much-publicised nickel mine closure early in 2009, eight months after it opened. The research findings are expected to have a wider, national application because of the Australian tradition of communities developing in the shadow of a mining operation.

“While environmental and social-impact studies are carried out in anticipation of a mine’s opening, we need to ensure through research that assumptions made by the community at the beginning of any venture are tracked through the lifecycle process, and then made available for future planning,” says the centre’s Director, Professor Daniela Stehlik.

Stehlik believes the inter-dependent relationship between towns and mines develops because of expectations given to the community beforehand – expectations that have changed considerably over the past 20 years.

“In the past, communities grew and died on the life of a mine, and that uncertainty was accepted,” she says. “Today’s technology can provide more stable information about the operation, so expectations are that longevity can be predicted to a certain point.”

Longevity is one reason why Ravensthorpe has become an important part of the centre’s research.

“Most mines decline over a decade, and although Ravensthorpe had more than five years to expand because of the widely promoted longevity of the nickel mine, going from launch to closure in eight months is a unique situation,” Stehlik says.

The report has been made available to the community, and todecision-makers in local government, State government agencies and other stakeholders.

For the report and more information: strongercommunities.curtin.edu.au

Water meter to aid flow in Cambodia

A unique water measurement designed by a team of five first-year engineering students from Curtin has the potential to offer a viable water supply to rural Cambodia.

According to Curtin’s first-year Engineering Design Unit Coordinator, Dr Doug Myers, Cambodian communities have a shortage of clean water supply, and because there is no means of metering household water use, funding bodies and agencies won’t make the investment in water supply and treatment.

“The cost of the present meter used in Cambodia – the standard propeller-type – is prohibitively high and therefore only used by the wealthier people,” Myers says.

He says the water meters used in the western world cost the equivalent of the annual income of a rural Cambodian, so the students’ design – at a cost of USD$4.52 – is a sustainable alternative.

“The Dripper Water Meter has no moving parts, is easy to maintain and has the advantage of working with existing Cambodian systems, which will open the way for funding bodies and agencies to expand water supply for communities in the region,” he says.

The Dripper Water Meter won the 2008 Engineers Without Borders (EWB) Thies Award for Innovation in Appropriate Technology.

The EWB Challenge is an Australasian design program for first-year university students, who work in teams to provide sustainable and long-lasting solutions that will have community impact.

Since entering the challenge, two engineering students from the winning team – Sam Hammond and Tim Kenworthy – have taken a year off to work with aid agencies as part of EWB’s volunteer program.

An idea for a poem that kept growing until it turned into a novel has earned the author, Natasha Lester, the prestigious T.A.G. Hungerford Award for Fiction.

“The poem became a short story, and while I felt it was good, at the back of my mind there was always more to come,” Lester says.

Her compelling novel What is Left Over, After tells the story of a French woman who had travelled the world in her youth with her mother, and who takes one last journey of personal development, abandoning her husband and newborn baby in Sydney, and running away to a holiday park near Busselton, in Western Australia’s South-West.

“I wanted most of the places she visited to be sketchy but the place where she ran away to be somewhere she could settle into and become connected,” Lester says.

She says the process of writing the novel was an interesting one.

“I actually just let the short story grow, and there were some surprises, like unplanned characters that appeared as the story developed,” she says.

Lester wrote the novel as part of her Master of Creative Writing. She says her supervisor, Vogel-winning author and Curtin Senior Lecturer Dr Julienne van Loon, helped her considerably.

“It was an unknown path to me, and it was under her guidance that I learnt the discipline of writing until the end, and then re-writing until you get it right,” Lester says.

The experience from writing to publishing has added a new dimension to her role as a tutor at Curtin, and she is keen to pass on what she has learnt to her students.
No mid-life crisis on the horizon

The Curtin Student Guild continues to make a positive difference to students at the Bentley Campus, 40 years since it opened its doors on 11 February 1969. Then known as the WAIT Student Guild, it was established, with the approval of the Minister for Education, to create a sense of community for the students.

Services then offered were minimal, and included a newspaper, weekly publications, Orientation Week and a ‘Recovery’ Ball. The guild depended entirely on student membership for its income.

Guild Managing Director Cliff Paget believes while the guild’s main and clear mandate is to provide services to students to make their university experience outside of studies a rewarding one, its commercial aspect should also be a focus for the future.

“Those services not only embrace the provision of information and student assistance, but also include the amenities and social functions on campus,” he says.

“Student membership income can change dramatically, depending on government policy, so the guild has, over the years, developed independent revenue generated largely through its own efforts.

“Today it has grown into an organisation with more than 220 employees and an annual turnover of about $18 million.”

The guild operates and controls the student-oriented retail outlets at the Bentley Campus. Its catering arm runs food and beverage outlets on campus, and provides a functions service.

Paget says negotiations are underway for future expansion of business ventures, on and off campus.

RESEARCH BANKS ON PLANT SURVIVAL

Fulbright scholar Laura Merwin, from Pepperdine University, California, in the US, has come to Western Australia to study the genetic diversity and dispersal patterns of the banksia candolleana, more commonly known as the duckbill banksia because of the shape of its woody fruits.

Merwin chose to undertake her Fulbright scholarship under Professor Byron Lamont, from Curtin’s School of Agriculture and Environment, as a sequel to her study in California.

“Coastal southern California and south-western Australia are two of only five Mediterranean ecosystems worldwide, and they are characterised by long, hot summers; short, wet winters; prolonged drought; and periodic wildfire,” she says. “In addition, they share a similar vegetation type.”

These regions are classified as ecological ‘hotspots’ because of their high levels of species diversity under threat from human disturbance, and yet they occupy less than five per cent of the planet.

“While these natives are fire-adapted, it is to a regime where you have inter-fire intervals of between 12 and 20 years, whereas, of late, in California the intervals have dropped to about three years,” Merwin says. According to Merwin, this poses a threat to the survival of the species, and the removal of even one part of a complex ecosystem can have unexpected results.

Merwin will be at Curtin for one year, which she says will be a valuable experience and will hopefully contribute to the ecology research community in general.

“Professor Lamont has a lifetime of experience, and his work analysing the molecular structure of populations in the Australian flora contributes to long-term conservation efforts,” she says.

The banksia candolleana grows only in Eneabba, 300km north of Perth, where Merwin says is ideal for her genetic research.

“The banksia populations grow on top of the isolated sand dunes, but not in between, so it has a natural sub-population structure where you can delineate populations easily,” she says.

Under normal circumstances, the plant propagates only a few metres from the parent, but every once in a while a long-distance seed dispersal event occurs, which is important for survival because if one population gets wiped out from drought or fire, that population can be regenerated.

up coming events

John Curtin Gallery
Drifting in My Own Land
Nalda Searles
19 June – 30 August 2009
A comprehensive range of more than 21 works, this exhibition is a melting pot of mixed media, using recycled clothing and textiles, hair, plant materials and meadow hay, and including found and salvaged objects combined with seemingly endless stitching.

Cathy Blanchflower
19 June – 30 August 2009
The John Curtin Gallery presents the largest collection of paintings by renowned artist Cathy Blanchflower ever seen in Australia. The exhibition features more than 25 of the artist’s paintings dating back to 1992, many of which have never been shown in Perth. The gallery is open between 12pm and 5pm Monday to Friday, and is also open for its Sunday@Curtin events between 1pm and 4pm on 26 July, and 16 and 30 August 2009.
Tel: +61 8 9266 4155
johncurtingallery.curtin.edu.au

Hayman Theatre
Attempts on Her Life
21-25 July
28 July – 1 August 2009
Directed by artist-in-residence Adam Mitchell, this is one of the most challenging, contemporary and fascinating works by playwright Martin Crimp. The play dispenses with a linear narrative and instead presents a series of scenarios in monologue, scenes and songs that are connected to a woman called Anne, who may or may not exist.
Hayman Theatre Upstairs, at 8pm
Tel: +61 8 9266 2383 or l.brennan@curtin.edu.au

Hayman Theatre
up coming events

John Curtin Gallery
Drifting in My Own Land
Nalda Searles
19 June – 30 August 2009
A comprehensive range of more than 21 works, this exhibition is a melting pot of mixed media, using recycled clothing and textiles, hair, plant materials and meadow hay, and including found and salvaged objects combined with seemingly endless stitching.

Cathy Blanchflower
19 June – 30 August 2009
The John Curtin Gallery presents the largest collection of paintings by renowned artist Cathy Blanchflower ever seen in Australia. The exhibition features more than 25 of the artist’s paintings dating back to 1992, many of which have never been shown in Perth. The gallery is open between 12pm and 5pm Monday to Friday, and is also open for its Sunday@Curtin events between 1pm and 4pm on 26 July, and 16 and 30 August 2009.
Tel: +61 8 9266 4155
johncurtingallery.curtin.edu.au

Hayman Theatre
 Attempts on Her Life
21-25 July
28 July – 1 August 2009
Directed by artist-in-residence Adam Mitchell, this is one of the most challenging, contemporary and fascinating works by playwright Martin Crimp. The play dispenses with a linear narrative and instead presents a series of scenarios in monologue, scenes and songs that are connected to a woman called Anne, who may or may not exist.
Hayman Theatre Upstairs, at 8pm
Tel: +61 8 9266 2383 or l.brennan@curtin.edu.au

Laura Merwin

Fullbright scholar Laura Merwin, from Pepperdine University, California, in the US, has come to Western Australia to study the genetic diversity and dispersal patterns of the banksia candolleana, more commonly known as the duckbill banksia because of the shape of its woody fruits.

Merwin chose to undertake her Fulbright scholarship under Professor Byron Lamont, from Curtin’s School of Agriculture and Environment, as a sequel to her study in California.

“Coastal southern California and south-western Australia are two of only five Mediterranean ecosystems worldwide, and they are characterised by long, hot summers; short, wet winters; prolonged drought; and periodic wildfire,” she says. “In addition, they share a similar vegetation type.”

These regions are classified as ecological ‘hotspots’ because of their high levels of species diversity under threat from human disturbance, and yet they occupy less than five per cent of the planet.

“While these natives are fire-adapted, it is to a regime where you have inter-fire intervals of between 12 and 20 years, whereas, of late, in California the intervals have dropped to about three years,” Merwin says. According to Merwin, this poses a threat to the survival of the species, and the removal of even one part of a complex ecosystem can have unexpected results.

Merwin will be at Curtin for one year, which she says will be a valuable experience and will hopefully contribute to the ecology research community in general.

“Professor Lamont has a lifetime of experience, and his work analysing the molecular structure of populations in the Australian flora contributes to long-term conservation efforts,” she says.

The banksia candolleana grows only in Eneabba, 300km north of Perth, where Merwin says is ideal for her genetic research.

“The banksia populations grow on top of the isolated sand dunes, but not in between, so it has a natural sub-population structure where you can delineate populations easily,” she says.

Under normal circumstances, the plant propagates only a few metres from the parent, but every once in a while a long-distance seed dispersal event occurs, which is important for survival because if one population gets wiped out from drought or fire, that population can be regenerated.
Cultural success

GROWING up in Far North Queensland in the ‘80s, good, young Aboriginal girls were not expected to finish year 12 and go to university. In line with those expectations, I did not pass year 12 and never aspired to go further. Instead, I went to business college to learn how to be a secretary, and after several jobs was offered a position in the public service.

It was not until the arrival of my second child that I realised I wanted a better life for my boys and I needed to go back to school. While facilitating training in a community on the western Cape York Peninsula, I met a graduate of Curtin’s Centre for Aboriginal Studies (CAS) who encouraged me to apply to study at university. I applied, was accepted, and was surprised by what I found. I felt that the people there understood my culture and what I had been through to get a job, to keep a roof over my head and provide for my two young boys. I believe that understanding of my culture has been crucial to my success.

In his paper, Dr Dockery rejects the widespread view that attachment to traditional culture hinders the achievement of “mainstream” economic goals. Instead, he finds that Indigenous culture should be seen as part of the solution to addressing Indigenous disadvantage. I couldn’t agree more. I think white Australia still has difficulties understanding that an intrinsic connection to land and culture, and how essential it is to people to maintain that in order to achieve economic success. The activities that contribute to that cultural attachment – such as using language or taking part in activities such as art, music and storytelling – are crucially important to the health of communities. Respect and acknowledgement of country are equally important. I believe if most Indigenous people had to choose whether to be wealthy or maintain their land culture, they would pick culture. Money comes and goes and could eventually run out, but looking after the land looks after everyone.

We’ve got a belief that if we don’t look after the land, Mother Earth, we won’t be able to survive. I think non-Indigenous Australians are just starting to recognise that too, and realise that they have a lot to learn about economically sustainable communities from the traditional people who continue to live in remote areas. Indigenous people manage to sustain themselves using traditional culture alone – knowing the seasons and when to burn-off, knowing about which animals are plentiful that season, but killing only what they need. The range of products coming on to the market, with native Australian flavours such as quandong or boab root, is a good example of how Indigenous people are starting to use their traditional knowledge to develop businesses for the benefit of their communities.

A little while ago, I participated in an international Indigenous Resilience Alliance meeting. While at this meeting, we visited Mungulla Station at Hinchinbrook, just outside Ingham, in Far North Queensland. The traditional owners who got back their 2,500 acres of land seven years ago are slowly working out how they can sustain the land and live with traditional values while generating income. They can’t afford to buy Brahmin cattle at the moment, but the main homestead carries information about their traditional clan for the tourists coming through. They’re just breaking even but diversifying to make money – and while they’re growing their business, they’re training up young people, and have been hugely successful in addressing the community’s problems. The traditional owners take wayward kids out to the station to teach them how to break-in horses while addressing their mental health and talking about the abuse they’ve suffered. Without this holistic approach to business and the community, it would have far less chance of succeeding.

We need to change the way we perceive success for Aboriginal people, as, for them, economic success doesn’t necessarily come unless the community works together on a community-identified need.

With artefacts and art, for example, the simple act of people sitting around yarning while they create, passing down those stories from the old people to the young, would be considered a success for that group. If they sell their paintings for $10,000, that money comes back into the art centre to buy more materials – it may not lead to personal profit, but the passing down of knowledge may generate income into the future. Success is measured in all the outcomes, in people’s recognition of your knowledge and contributions.

Some of the community-based projects CAS’s second-year students work with operate on a shoestring, but the benefits that flow back to the community are amazing. The Northern Territory intervention, whether you agree with it or not, has focused Australia on the needs of Indigenous people and what’s happening in their communities – the abject poverty and despair. The Little Children are Sacred report not only highlighted the deep problems in many Northern Territory communities, but also underlined how significantly Aboriginal people’s connectedness to traditional culture, language and land impacted on employment and health and wellbeing.

I believe that to find out how more communities can address their issues and tap into their own means of achieving economic success, more consultation is needed with the Aboriginal communities themselves. If you involve elders and others in the community, and ask them what they think are the solutions, a way forward may be found. The whole community will feel as if they have contributed to a possible solution, and their culture has been respected, instead of the government coming in with a top-down approach. When you take away someone’s rights, it affects their ability to succeed.

For more information: business.curtin.edu.au/files/09.01.pdf

Dedicated to Jeanette Hamill, a lifelong friend, mentor and inspiration to those who know her.
About Curtin

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.

curtin.edu.au

The great university... should look ever forward; for it the past should be but a preparation for the greater days to be.

John Curtin
PRIME MINISTER OF AUSTRALIA
(1941–1945)

Curtin innovation

Curtin aspires to be a leading-edge university of technology. To fulfil this vision, we strive to be innovative and forward-looking in everything we do. It’s in our approach to teaching and learning. It’s in our research. It’s in our staff, our students, and our graduates. It’s in the way we think and act. It’s what we call Curtinnovation.