High-impact education: students supporting dairy production
High-impact research: science in the dairy

A t the University of Melbourne our research centres around three general themes, the grand challenges of our times. They are: understanding our place and purpose, fostering health and wellbeing, and supporting sustainability and resilience.

In a country that faces challenges of economies of scale, of climate change and increasing urbanization among many others, high-impact research that creates solutions to problems, or increases the effectiveness of current attempts to solve problems is a high priority.

Such research is outward looking and has maximum impact when conducted with partners and collaborators.

Late last month, a new state of the art robotic dairy was opened at the University’s Dookie campus. The dairy is an example of research-led innovation from top to bottom, with solar panels supplying half the milking robot’s energy needs and hot water to take care of vat cleaning, while a massive 250,000 litre rainwater tank provides water for dairy wash-down, with all run off draining into closed loop settling ponds that contribute to pasture irrigation. The pasture itself is studded with automated moisture probes calibrated to produce optimum growth using the least amount of water.

Developed in partnership with Regional Development Victoria, the facility is a major step forward in education and support for our state’s dairy producers – bringing them new and profitable information about animal health and optimal growing practices.

That’s an example of high-impact research to support an industry valued at $1.85 billion in 2012-13, and which engages many, many families across the state.

It also affects every one of us, at the supermarket or corner store, where buying a carton of milk or a coffee takes place with little thought for the producers, or the state.

See our link on page 3 of Voice to an episode of Melbourne strengthened

Positive psychology at Melbourne strengthened by major gift

A major gift of $2.3 million from philanthropist John Higgins has strengthened the University of Melbourne’s research and teaching in the field of positive psychology – which aims to build psychological health and resilience in individuals and organisations.

The gift will fund the Gerry Higgins Chair of Positive Psychology. Professor Lea Waters, who is currently Director of the Centre for Positive Psychology in the Melbourne Graduate School of Education has been appointed to the post.

Professor Waters is a leading international researcher in the field of positive psychology, and a known expert in the areas of organisational change and psychology. She says she is excited to be taking on the role.

“The Centre for Positive Psychology is uniquely placed to have a positive impact across business, health and school practice in Australia and across the world,” she says. “A particular interest of our centre is the wide-scale application of teaching positive psychology to school students to support the wellbeing and learning of young Australians.”

This is the second Chair and fourth academic position at the University named to honour Gerry Higgins, an Irishman who emigrated from Kiltimagh in County Mayo, Ireland in 1949 and established Higgins Coatings, a successful commercial painting business, in Melbourne.

Those posts are in philosophy, Irish studies, and medieval art history, and were variously supported by generous philanthropic support from Allam Myers, Maria Myers and John Higgins.

The Chairs (in Irish studies and now Positive Psychology) have been established in collaboration with Newman College, a Catholic residential college of the University, and incumbents play a role in College life.

Mr Higgins is a member of the Advisory Board of the Centre for Positive Psychology and also a board member of the Campaign for the University of Melbourne. He is passionate about education and has a vision that every student be exposed to the principles of positive psychology through their time at school, so they have the skills to influence their own lives, and those of the people around them.

“Psychology has traditionally supported people to move from minus ten to zero,” he has said. “What I love about positive psychology is it helps people move from zero to plus ten.”

www.education.unimelb.edu.au/research/research_centres/positive_psychology_at_melbourne
Healthy cattle, happy farmers: vets supporting dairy production

A partnership between the University of Melbourne and dairy industry groups is creating new research and training opportunities for the next generation of dairy vets. Andi Horvath and Clemmie Wetherall report.

**Teaching and Learning**

From the field to the fridge, the Australian dairy industry is growing to become a world leader in innovation, sustainability and best practice in food production. The industry is the third largest exporter of dairy in the world and Australia’s third largest agricultural export product.

Research has played a key role in helping the industry find its way to the front of the pack, but back in 2010 a looming shortage of specialist dairy vets prompted a collaboration between the University of Melbourne, the Gardiner Foundation and Dairy Australia.

The partnership provided $1.4 million dollars for research in areas of importance to local dairy communities and the future of the wider dairy industry, and out of this funding, a unique training scheme called the ‘Dairy Residents Program’ was initiated.

The ‘Dairy Resident’s Program’ involves on-farm research and practice for students as part of their course work for a Master of Veterinary Studies and Master of Veterinary Science by research.

The dairy residents are embedded for three years in one of four rural veterinary practices in Maffra, Warrnambool, Rochester and Timboon. During this time they conduct an on-farm research project, acquire knowledge and skills through advanced clinical training and develop expertise in whole-farm production programs.

The students also attend conferences and farmer meetings to update their knowledge and present their research to various industry stakeholders. In addition they are involved in the training of the next generation of dairy practitioners, hosting final year students from the University of Melbourne Doctor of Veterinary Medicine course.

Professor Michael Pyman is senior lecturer in Dairy Cattle Medicine and Production at the University of Melbourne and supervisor of the residencies program. He believes the project will begin to address the shortage of experienced vets in rural areas by providing career opportunities in dairy practices and the wider dairy industry.

“The rural training scheme enables all veterinary students undertaking the Doctor of Veterinary Medicine (DVM) to gain first hand practical experience in dairy cattle medicine in practices managed by dedicated and skilled practitioners,” he says.

“We see this world class training as crucial to maximising movement of these students into dairy and rural practice after graduation, an outcome vital to the productivity and sustainability of our rural sector.”

The four dairy resident vets enrolled in the second iteration of the project are now entering the second year of the three-year program and are already having positive impacts on farms, farmers, vet clinics, the next generation of vets, rural communities, the industry and the University.

Dr Kelly Plouza is a dairy resident at the Warrnambool Veterinary Clinic. She is conducting clinical trials in improving the reproductive performance of cows who do not display visible fertility cycles, known as non-cycling cows.

Dr Plouza says on-farm research has helped her build a better relationship with local farmers.

“That’s something you don’t have time for in a regular vet practice, you tend to be too busy running between jobs. It’s really nice to be able to revisit the farmers with your latest results and they are really excited about the scientific investigations. They love hearing about the research outcomes as much as we do because it opens up ideas for proactive intervention measures.”

Dr Plouza has been comparing current approaches for managing non-cycling cows, and the results are revealing useful information and more options for farmers. This is particularly important as non-cycling cows can present problems for farmers trying to decide when they can be mated.

Over in Timboon, Dr Andy Hancock, is undertaking his residency with The Vet Group. He is studying how farmers manage bulls up to and during the breeding period and investigating if there is a correlation between bull management and fertility. As part of his research Dr Hancock has worked with 32 herds and examined 256 bulls prior to, and after, mating.

“As a vet you usually go out to farms to see a sick or problem animal but with this project I am usually seeing healthy animals, so the farmers are happy to see me,” he says.

Dr Hancock hopes his work will help refine the guidelines for fertility risk assessment in bulls, and says the residency has also helped him become a better vet.

“I’ve picked up a lot of extra skills that I would not necessarily learn during day-to-day vet practice, things like project management, time management and building rapport with clients, and of course technical research skills like conducting literature reviews and scientific report writing. The research gives your work a goal whilst ensuring you develop useful technical expertise.”

“If you can contribute something to the knowledge base, that’s great in itself, but if your results improve farming practices that is a real bonus and on top of that we will be sharing it with fellow vets and trainee vets.”

Though only in their second year of research, the ‘Dairy Residents’ are already receiving industry recognition for their work.

Maffra based Dr Stephanie Bullen earned the title of 2013 Rural Ambassador, an award that recognises outstanding individuals dedicated to making contributions to the local community.

Dr Bullen and her partner live on a 340-cow Holstein dairy farm and her research focuses on improving parasite control in young stock.

Resident Dr Ashley Phipps who is based at the Rochester Veterinary clinic was awarded a Greenham’s Dairy Scholarship, to help finance his research studies. Dr Phipps is investigating colostrum volume and management practices and its effect on the quality of the harvested colostrum.

He says he applied for the residency because he always had a strong interest in calves and calf health.

“This was a real interest area of mine and I thought there were gaps in our knowledge. Calves are the future of a hard, so I think we need to give more thought to how they are raised.”

Dr Phipps has already made inroads into understanding colostrum management practices on the four farms and 442 cows he is working with in Northern Victoria.

Watch an episode of Visions exploring experimental robotic diary practices at the University’s Dookie campus: [www.visions.com.au](http://www.visions.com.au)
Clarifying higher education for all

Professor Hamish Coates from the University’s Centre for the Study of Higher Education says transparency is needed as Australia ponders the future of higher education.

A ustralian higher education in 2020: what do we want? What issues should be traversed by someone who is 10 or 30 years old today when considering whether to participate? Proposals in the May 2014 Federal Budget sharpen the mind. But almost irrespective of how current machinations play out, greater transparency will be required to guide peoples’ thinking on key issues.

First, is there value in participating in higher education? Most families would already have a reasonably good idea about whether a 10-year-old is likely to attend university. National survey findings indicate that with most school-leaver entrants this big decision happens around late primary school. We don’t understand this decision process well – too little research has been done in Australia – though we know it blends a complex tapestry of social, personal and financial considerations.

Financial factors will be weighed more in future. Decisions by the 30-year-old are equally as complex, though informed also by vocational deliberations. For Australia to build the professional workforce of the future we must understand this early decision-making process and help people and their families get it right – a task which has become more difficult in times of change.

What to study? After deciding to venture into higher education this is the second most substantial choice people could make. It is also the most complex, taken simply, any first degree (or the pathway into one) would help set the course for an entry-level professional job, further vocational study, or a research degree.

But simple is rare, and invariably myriad personal, professional and social factors shape reflection. Should people work backwards from the presumed status of target professions, or forwards from detailed analysis of potential career outcomes? How much higher education must a person complete? Is higher education affordable? Inevitably, higher education in 2020 will be more expensive than it is today. This is partly because it will cost more to do higher education (efficiency improvements aside, like many service industries, higher education suffers from what economists call the ‘cost disease’).

But for the most part a higher degree will be more expensive because it will be more valuable – the passport to a global professional career. There are trade-offs from deferring work for several years, and then there is the need to fund internships and study costs. Participation decisions in Australia have been shaped so far by non-financial factors, though this may change with any marked inflation in price, nuanced calculations of return on debt.

New debt providers are likely to emerge, potentially even institutions themselves. Has Australia’s income-contingent government loan scheme been stretched to its limits, or can it be expanded? People will want to know what prices reflect – delivery costs, quality, services, commerce constraints, or future prospects? Acting rationally, Australians will need to ask if higher education is worth the cost, time and effort. They will seek information on the cost of study, the likely income required to service debt repayments, and the overall return on investment.

How much higher education is needed? The qualifications of board members of our major companies affirm that decades ago a bachelor’s degree could set up a professional life. It still can, of course, but it is very likely that ongoing education will be required across the career. Certain professions make clear what study is required to start work, but many people rightly pursue degrees that have indirect and complex links with yet-to-be-identified jobs. This is a knotty matter, for trading higher education (which is a transformative and prospective experience) is tricky business. Care will be required to ensure that people are not ‘sold’ higher education that they do not really want or need.

Is the study good quality? Outside the industry, and even largely within it, there is little if any evidence of a market in ‘higher education quality’. Regrettably, what the research shows counts for quality differs from the most widely publicised markers of status and prestige. For instance, global research-based rankings have little link with much teaching. Australia sits atop the world in disseminating information on university resources and environments, though there remain areas for improvement. Yet today, other than knowing an institution or program has been accredited by the relevant authority, there is little to affirm that graduates have acquired the capabilities espoused by their degree programs. For the most part this might reasonably be assumed, but this is not always the case, and even so more evidence would be helpful.

Over the next half-dozen years can Australia do more to bridge the chasm between sectoral and public perspectives on quality?

What experience is expected? Higher education in Australia already has an older student profile than in many countries. Increasingly, not least because workers will upskill via newly funded diploma-level and associate degree courses, the student mix will age further. Whether it will by truly diverse from a socio-economic perspective hinges on the success of any equity scholarship arrangements. The last few decades have seen Australia thrive from exporting higher education, but by 2020 our students may seek to travel overseas. Major foreign universities may be cheaper, closer to the world’s alpha cities, and offer foreign-language study to boot. People entering the system in 2020 will seek clear information and assurances about the experiences and services they are paying for.

Among benchmark countries, Australia has a very transparent higher education system but it remains very hard to understand – even for experts. With higher education becoming more important to Australians, now is the time for substantial research into how people can – and should – go about understanding and navigating the system. Australian universities must therefore consider how best to provide advice on whether people should participate in higher education, what and where they should study, whether higher education is affordable and of quality, how much is needed, and what experience and services are required to meet student needs and demands.

Watch a video of the first of this year’s Higher Education Policy Seminars on University Financing with Professor Mark Chapman, Deakin VC Professor Jane den Hollander and Emeritus Professor Steven Schwartz at: http://www.cshe.unimelb.edu.au/research/hrse_seminars/pub_policy/2014/
The higher education funding debate we had to have

Voice speaks with Melbourne Vice-Chancellor Professor Glyn Davis about implications for the University of changes to higher education policy proposed in the recent Federal Budget.

**VOICE:** Do you support/oppose the government's planned higher education reforms? Why/why not?

**GLYN DAVIS (GD):** The debate about deregulation should be about more than just student fees. We should be talking about a system in which fees are linked to the courses a student chooses to study and where the burden of changes is shared more equitably. The current funding system prioritises and privileges some areas of study over others. For example, the cost of offering a place in our Masters of Teaching is around $5,000 a year more than the total public subsidy and the current maximum charge (student fee) allowed by the Commonwealth. While this gap reflects the expense of delivering the course, sometimes it is only possible to offer such financially unavailable programs by taking money from other courses. As a key government report in 2011 noted, a consistent rate of student contribution would cover some course costs now and others in the future.

Fee deregulation will also give students more choice as to the kind of degree they want to study and what they are willing to pay. Some students may prefer not to study at a research-intensive university, which typically may have higher costs than degrees offered at non-research intensive universities.

**VOICE:** What impact will the changes have to the background of students who attend Melbourne in the future?

**GD:** We are still some time off knowing what changes to course costs will occur. However, under Australia's current system, there would be no up-front fees, thanks to our income contingent loan system for student fees (see: HECs). And we're encouraged by the current government flagging a possible extension of taxpayer support to students who go to private colleges and the TAFE system. Competition is a good thing, it ensures that students have choices and that matters. So in providing public funding to sub-bachelor degrees, the range of choices for students is broadened; not everyone wants to do a degree, so giving them the chance to do further study in a field of interest that isn't at university could be very productive.

**VOICE:** Are you able to provide any estimates of the scale of fees future students are likely to face at your university as a result of deregulation and the government's changes to public funding?

**GD:** The Federal Government's Budget introduces a proposed cut to the government contribution to the university fees of Australian students. They also propose to introduce legislation that will allow Australian universities to compensate for this by charging students fees from 2016. This does not impact international student fees as they do not receive Australian government support.

At this stage we do not know what the Australian student fees will be, as the legislation has not been introduced into parliament and indeed, some senators have already flagged that they intend to block these reforms. However, if the legislation is passed, it is likely that some subjects and degrees will be affected more than others. Currently, Australian university students do not make an equal contribution to their education. For studies in dentistry, medicine or veterinary science, the Australian taxpayer covers around two thirds of the course cost. But for law, accounting, commerce, economics or administration, the taxpayer provides around a fifth of the cost. We would anticipate that deregulation of fees may allow a more equitable distribution of costs.

Scholarships to support cost of living for students are rare, but Justin King couldn’t have come to Melbourne without one. By Chris Weaver.

**JUSTIN KING:**

King is adamant his life could have taken a depressing turn had he not received support to finance his university studies. The 19-year-old Bachelor of Environments student from rural New South Wales desperately wanted to come to the University of Melbourne, where he believed his dream of entering Melbourne’s booming property industry could begin. Finances though were an issue.

"Without financial support I wouldn’t have been able to attend university in Melbourne," he says.

"This would have left me with two options – study a degree that didn’t interest me in Albury or Wagga, or take up a trade." Mr King is honest about how that would have affected him.

"Neither of those options was what I strived for after completing Year 12. I have a few mates back home who are hating their degrees because they didn’t have the chance to strive for anything more." The real barrier to Mr King’s dreams was the impact of the cost of living. However Mr King’s fortunes changed when he applied for the Prudence Myer Scholarship – a residential scholarship at St Hilda’s College, an affiliated residential college of the University. Without the help of a residential scholarship, Mr King’s move to Melbourne would have been a stretch at best. At worst, it would have been impossible.

"Without the scholarship, my family would have struggled financially," he says.

"Mum’s part-time job would in no means have been able to support both me at college and her at home." Mr King’s personal sacrifices would have been traumatic.

"If my scholarship application wasn’t accepted, I would have had to sell some possessions including my pride and joy – a 1972 Holden HQ ute that I bought and built up myself!" he says.

"That would have been an additional pressure considering my older brother – who is an apprentice carpenter – used my ute while he was paid to provision for the cost of living at residential college of the University." Mr Herd was adamant more could be done to help students in financial need.

"It was only a few years since we had both finished our undergraduate degrees, so the memory of juggling study and part-time work was still fresh in our minds," he says.

"At the time, we were both struck by the fact that while there were a number of scholarships to cover the academic costs of study, there seemed to be very few that provided any living allowance." The Herds feared that too many students were being scared off pursuing their dream degrees by living expenses.

"We saw living expenses as being a greater barrier to rural students than tuition fees, which could be postponed until a professional career was under way," Mr Herd says.

The Herds retained a family connection with St Hilda’s College, where Mr Herd’s grandmother – Prue Myer – had been on the founding council. The longstanding Myer family commitment to philanthropy underpinned the Herds’ generosity.

"Prue’s passion for social justice and her rural childhood made St Hilda’s an appropriate avenue to approach," Mr Herd says.

"They then made it incredibly easy to give, as the University and its associated colleges happily do all of the administrative work in helping to identify the ideal candidate for a scholarship to match the guidelines you choose.

The impact has been profound. Mr King’s ambitions have grown, while his family no longer need to worry about making their own sacrifices to support him.

"When I received the Scholarship, I didn’t know it’s real worth – all I knew was that my dreams had come true," he says.

"My mum has tears rolling down her face while I sat there astonished at what it all meant." St Hilda’s College has since become a second home.

"I have made mates who will stick by me for the rest of my life, while St Hilda’s has allowed me to immerse myself into study and the College lifestyle.

Mr King still works during semester breaks, but now has the time to study and follow his property industry dreams. Already he has lined up work experience at property developer Mirvac.

Mr King’s gratitude is immense.

"When I finally met Simon, I didn’t know what else to say apart from ‘thank you’, he says.

"I sent Simon and Natalie a letter saying ‘thank you’ countless times – I realised I sounded family ridiculous, but all my gratitude was heartfelt.

For the Herds, the joy in giving is deep:

"To know we are helping students enjoy and benefit from their studies is beyond a sense of giving. It’s an incredible feeling to witness their joy. For the Herds, the joy in giving is deep.

"We would anticipate that deregulation of fees may allow a more equitable distribution of costs.

**PRUDENCE MYER SCHOLARSHIP**

The Prudence Myer Scholarship is part of ‘Believe – the Campaign for the University of Melbourne’. www.campaign.unimelb.edu.au/
Explainer: The GM ‘revolution’

Daryl Holland cuts through the spin to give some key facts about genetically modified food.

Humans have been ‘modifying’ their food crops and domestic animals for thousands of years. We have selectively bred sheep to produce the finest wool. We have selected crop varieties that give the highest yield, or the best flavour, or the longest shelf life. We have crossed different types of roses to create new and exciting colors. Domestic plants and animals today bear little resemblance to their wild cousins. These modifications tend to occur slowly, over many generations and with much trial and error.

In the last 30 years, however, scientists have developed new tools that allow us to add desirable traits to plants and animals faster, more precisely and more dramatically than ever before, by directly modifying their DNA.

Proponents promise it will revolutionise agriculture, but this new frontier in agricultural science is not without its risks.

To date, the majority of commercial genetically modified (GM) crops have been altered by adding genes from bacteria that make them resistant to either herbicides or pests, but new varieties are being developed that have added nutritional benefits. For example, ‘Golden Rice’ has been genetically modified to produce high levels of beta-carotene, which is a source of Vitamin A. Hundreds of thousands of children die from Vitamin A deficiency every year.

In 2010 the European Union analysed the results of GM crops and found that, in the countries where it is allowed, GM foods are produced out of commercial self-interest rather than for the common good. These companies have also been accused of exploiting farmers and manipulating research. ‘Humanitarian’ GM crops on the other hand are produced by non-profit organisations and are given away for free.

In Australia, the only commercially grown GM crops are cotton and canola. However, foods containing GM varieties of corn, alfalfa, potatoes, sugar beet and soybean can be imported into Australia. No GM animals are used in commercial agriculture, although they are used in medical research.

Most commercial GM crops have been created by large agri-businesses, and opponents of GM say these crops are produced out of commercial self-interest rather than for the common good. These companies have also been accused of exploiting farmers and manipulating research. ‘Humanitarian’ GM crops on the other hand are produced by non-profit organisations and are given away for free.

In Australia, Food Standards Australia New Zealand (FSANZ), and similar bodies in Europe and North America assess all GM foods to ensure they are as safe and nutritious as conventional (non-GM) foods, before they are allowed on the market.

Many environmental NGOs – including Greenpeace, the Wilderness Society and Friends of the Earth – oppose GM crops because of concerns about health, environmental and economic impacts. Other organisations, such as World Vision, support the use of GM crops if they contribute to sustainable farming practices.

The Australian Greens and the consumer group Choice are not strongly anti-GM, but they have called for stricter regulations and testing of GM foods and compulsory labeling of all foods containing GM plant products.

In Australia, food only needs to be labeled as containing GM if it contains genetically modified DNA or protein. Sugars and oils produced from GM crops often do not contain any GM material and therefore do not need to be labeled. All Australians have probably unwittingly eaten foods derived from GM crops.

In 2010 the European Union analysed the results of 50 research projects on the safety of GM crops. It found that there was “no scientific evidence associating [genetically modified organisms] with higher risks for the environment or for food and feed safety than conventional plants and organisms”.

Designer rice brings nutrition to developing world

Dr Alex Johnson is an academic in the School of Botany at the University of Melbourne and heads the Melbourne node of the Australian Centre for Plant Functional Genomics. He has developed genetically modified rice and wheat strains that might one day improve the lives of billions. By Daryl Holland.

I don’t eat white rice, it’s just empty calories,” says the modern, health-conscious, weight-watch western urbanite.

But what if the choice between eating white rice and not eating white rice is a choice between living and dying? For billions of people in developing countries, this ‘high GI’, ‘over-processed’ grain full of ‘empty calories’ makes up 80 per cent of their diet, and they don’t get to choose what they eat.

White rice is packed with carbohydrates, which is a source of energy, but only contains small amounts of other vitamins and minerals. These ‘micronutrients’ are vital components of a healthy diet. The ‘big three’ micronutrient deficiencies in the developing world are of iron, zinc and Vitamin A. People who eat mostly rice, or another major cereal crop such as corn or wheat, are likely to be deficient in one or more of these.

Iron deficiency causes poor mental development in children, depressed immune function and anemia. Zinc deficiency also affects development and immune function, while Vitamin A deficiency is a major cause of blindness.

“If we can just improve the nutritional composition of these foods we could have a big impact,” says Dr Alex Johnson, from the School of Botany at the University of Melbourne.

Dr Johnson works on genetically modified crops. He did his masters and PhD at Virginia Tech helping to develop a GM potato that had natural resistance to a pest called the Colorado Potato Beetle.

More recently he became interested in the role GM could play in improving nutrition among the world’s poorest people. So he turned his attention to iron.

He says traditional cross-breeding of rice varieties has failed to substantially lift the iron levels in rice.

“Back in 2007 I was looking at genes that transport iron in rice, which is a very complex process,” he says. “We found this one gene from a bacterium called NAS (Nicorvanium synthase) genes, and they control a lot of this process. If you just turn them up a bit higher you get rice plants that absorb more iron in the soil. They put about four times more iron into the grain.”

Gene expression is turned off and on by a region of the gene called the promoter. The promoters in the rice plant’s NAS genes only turn on when the plant is low on iron. Dr Johnson replaced the promoter region of one of the NAS genes with a promoter that is always on. This greatly increased the amount of iron stored in the plant, and in the rice grains. Coincidentally, this modification also assists with zinc uptake, and doubles the amount of zinc in the rice grains.

Dr Johnson and his team are currently half way through five-year field trials in Colombia and the Philippines. If these are successful, Dr Johnson hopes to release the crop to developing countries, with Bangladesh at the top of his wish list.

He has also developed wheat varieties that have twice as much iron and zinc as conventional varieties. He will shortly trial these in Western Australia, with his partners from the Australian Centre for Plant Functional Genomics.

One criticism of GM crops is that they are are controlled by profit-making, multinational agri-businesses. Dr Johnson works on a different kind of business model. He wants to give it away for free.

He’s been working with non-profit group the HarvestPlus Challenge Program (which receives funding from the Bill and Melinda Gates Foundation) to develop and trial his crops, and is also working with World Vision Australia to identify and develop markets for his rice.

“I’ve just found that GM’s a really great way of improving nutritional composition of foods,” he says. “It’s fast, and it’s very targeted. We can take an existing crop and give it some vitamin A or give it some iron or some zinc, and it could have a big impact, it could affect billions of people.”

Iron and zinc enhanced rice is not the first GM rice crop. Vitamin A rich Golden Rice will soon be released in the Philippines, and Dr Johnson thinks Bangladesh will follow soon after.

He does not anticipate much opposition to the release of his rice in developing countries.

“In Bangladesh, 60 per cent of women are iron deficient. So if you have a product that can provide you with enough iron in a rice-based diet, it’s hard to argue against that,” Dr Johnson says.

When plant breeders combine several new traits into a single plant, they call this stacking. “I would love to stack Golden Rice with high iron and high zinc,” says Dr Johnson, “because then you’ve tackled the three huge micronutrient deficiencies in developing countries.”

His ultimate wish is to make his product redundant. “At the end of the day, the greatest thing would be to create that stacked product so that people will eat it and they become more healthy and then much more productive, so that national GDP increases and these people are wealthier and can afford a more diverse diet.

“One day it would be great to wean people off these mega-crops, so they don’t have to get 80 per cent of their calories from a single crop. But that’s not going to happen overnight. That’s going to take generations.”

www.botany.unimelb.edu.au
The great food debate

As debate about the comparative merits of organic produce, conventional farming and genetically modified (GM) crops continues here and overseas, Zoe Nikakis asks, what are the food issues we face now, and how will we eat in the future?

Food is a basic need. What we eat, how much we eat, the variety of foods and frequency with which we access them are a major factor in the way we live. Given its centrality to our existence and lifestyle, it is unsurprising that the different ways in which food can be grown, the comparative benefits of using only naturally-occurring fertiliser and pesticides (organic farming), the impact of synthetic pesticides, and the development of genetically modified (GM) crops cause ongoing community debate.

Dr David Tribe is a microbiologist and food scientist from the University’s Melbourne School of Land and Environment. He says debate over whether organically or conventionally grown food is better, and the idea that GM and organic are opposed is muddying the conversation about how to feed the world. Some, is actually preventing food safety messages from reaching the public.

“Food Science is not about labels, it’s about ideas,” he says. “It’s about how we can make food production better. GMOs (genetically modified organisms) sometimes help do that, and the ideas behind organic farming sometimes help do that. We need to concentrate on how to make farming work better in terms of the environment and the livelihoods of farmers, and how to offer people better food choices.”

Scientists are solely concerned with discovering how to achieve the best outcome. We can take the best of these two different worlds. Dr Tribe says in any conversation about the future of food it’s important to remember that genetically modified organisms are very highly regulated. Food Standards Australia and New Zealand (FSANZ) assess all GM foods to ensure they are safe and as nutritious as their conventionally grown counterparts. He says regular food surveys by government analytical laboratories reveal that meaningful pesticide contamination is absent from our food, and that farmers are complying with legal restrictions.

Dr Tribe says in any conversation about the future of food it’s important to remember that genetically modified organisms are very highly regulated. Food Standards Australia and New Zealand (FSANZ) assess all GM foods to ensure they are safe and as nutritious as their conventionally grown counterparts.

“This ongoing debate continues as we draw closer to a time when we will have bigger issues than how our food is grown: without action, food security will increasingly become an issue across the world due to population growth and climate change.”

Dr Tribe says it is not that Australians will face famine, but rather some food will be very expensive and overseas, poor people will suffer, especially in cities.

“People in developing countries will face price shocks, such as when prices rose suddenly in 2008, causing riots around the world,” he says.

“Governments have had a role to play, but we could say this about so many trends being exploited today, such as the emergence of hand-made artisan ice cream, for example. "As long as a product adheres to quality levels, and consumers perceive there to be an advantage to consuming organic produce, organic will continue to prosper while the trend towards cleaner produce equates to healthier living."

This ongoing debate continues as we draw closer to a time when we will have bigger issues than how our food is grown: without action, food security will increasingly become an issue across the world due to population growth and climate change.

Dr Tribe says it is not that Australians will face famine, but rather some food will be very expensive and overseas, poor people will suffer, especially in cities.

“People in developing countries will face price shocks, such as when prices rose suddenly in 2008, causing riots around the world,” he says.

“Australians only spend a fraction of their income on food. People in the developing world spend proportionally much more.”

Dr Tribe says GM advancement is key to ensuring nutritional security. “Enhanced rice and iron micronutrients in rice are potentially incredibly important,” he says.

One of the best examples of such GM crops making a positive difference on the global scale was the development of Vitamin A enriched Golden Rice.

“It was developed after a project team went to Acheh with vitamin capsules to try to prevent blindness in children subsisting on rice,” Dr Tribe says. “They found – by accident – that within the treatment group, death rates were 20 per cent lower, and that Vitamin A deficiency was actually causing people to die from measles, diarrhoea, and bacterial infections because it affects the immune system.

“By introducing a source of Vitamin A to rice, a high volume staple, those living on it now receive essential nutrients in trace amounts, which makes a big difference.”

Dr Tribe says several such projects, which are examples of the next phase of GM technology, are under way at the University of Melbourne and at research centres around the world to ensure food supply for the future.

“The University’s research program includes work to protect food crops against insect attack, and a project to improve iron content in major cereal crops,” he says.
My life as a playlist

Your desert island discs do more than entertain! Research shows they also play a significant role in our complex emotional and psychological inner life. By Liz Banks-Anderson.

If you had to define your life in a playlist, what songs would you choose? Nearly everyone has that collection of songs. Whether it’s a particular beat, rhythm or the words alone that move you – it takes hold of you, triggering a vivid memory which we are immediately transported back to, each time we hear a certain tune.

Music holds a special place in most people’s lives. It’s fun and for many people, a place of joy and understanding.

One of the world’s most respected music psychology academics Professor Jane Davidson’s research focuses on how we use music to accompany us through our lives and the social psychological theory investigating personality and music preference. Professor Davidson leads the recently launched research initiative in the Creative and Performing Arts, based at the Faculty of the Victorian College of the Arts and the Melbourne Conservatorium of Music. She is also Deputy Director of the ARC Centre of Excellence for the History of Emotions, where she also leads the Performance Program. Her research looks at how we use music to regulate our emotions, both as individuals and in groups.

These concepts have become a lifelong passion for Professor Davidson, particularly the way in which music can communicate different moods and emotions to different people, depending on their interpretation. “I was fascinated by interpersonal communication and the dynamics in music as a listener and as a performer,” she says.

This study saw Professor Davidson collaborate with Dr Sandra Garritto, also from the Centre of Excellence for the History of Emotions (CHE) and was part of an industry collaboration with the Australian Broadcasting Corporation that launched My Life As A Playlist in 2013, as a major interactive website produced by ABC-Arts which encouraged users to create their own playlists.

The research strand of My Life As A Playlist is seeking respondents to participate in a survey aiming to collect important data on how music impacts our lives in terms of personality, culture and history as well as its health benefits.

The website allows visitors to provide information on their soundtrack preferences for major life events such as births, deaths and marriages.

These ideas are now the subject of a book of the same title, launched at the Melbourne Conservatorium of Music recently. During the launch Professor Davidson explored concepts of how we use music to accompany us through our lives and whether music can influence personality and behavior.

“We all have a playlist for our lives,” she said, “and some people have considered it in detail.”

“You can see how we use music to help us understand that feeling. Regardless of the mood, music can have a positive regulating effect – like a release valve for your emotions,” Professor Davidson says.

A report will be delivered to the National Mental Health Commission by September 2014.
From Manchester to Melbourne: a rare treat for book lovers

A rare and richly decorated volume of the Gutenberg Bible will be on show at the University of Melbourne’s Baillieu Library for two weeks in late July. The Bible bears the family arms and motto of one-time owner the second Earl Spencer, who collected a fabulous library of art books.

By Gabrielle Murphy

Robustly decorated and with magnificent bindings bearing the family arms and motto of the second Earl Spencer – one-time owner of this edition of the Gutenberg Bible and collector of a fabulous library of art books – an exquisitely decorated volume of the Bible will be on view at the University of Melbourne’s Baillieu Library for two weeks in late July.

“This copy of the Gutenberg Bible first appeared in the catalogue of the library of the second Earl Spencer in 1814,” says University of Melbourne Librarian Philip Kent. “The 200th anniversary of its cataloguing, and the fact that it was owned by the same Earl Spencer who commissioned Matthew Flinders to circumnavigate Australia and after whom Melbourne’s Spencer Street was named, made it even more attractive as a drawcard for this year’s Cultural Treasures Festival.”

Coming from its current home in the University of Manchester’s John Rylands Library, which houses one of the largest and most significant collections of early printed books in the world, the Gutenberg Bible is the first book printed in the Western world by use of movable type.

According to Charles Zika, a cultural historian of late medieval and early modern Europe in the University of Manchester’s School of Historical and Philosophical Studies and Chief Investigator in the Australian Research Council Centre of Excellence for the History of Emotions (1100 to 1800), it marks the beginning of a cultural revolution in human communication.

“The invention by Johann Gutenberg of moveable metal type led ultimately – in the 19th century – to mass literacy,” says Professor Zika. “We need to remember that the radical change in book production initiated by the Gutenberg Bible was a slow and gradual process.

“But it has had a massive and lasting impact on society, similar, I imagine, to the invention of the wheel.”

A particular focus of Professor Zika’s long and distinguished research has been on the German-speaking territories of central Europe, the cultural and political environment from which Gutenberg’s invention emerged.

“Gutenberg was born into an aristocratic family in the south German city of Mainz around 1400,” says Professor Zika, “and it is there that he set up his press in 1450, and printed his 42-line bible in 1454 to 55.

“About 180 copies were printed, 140 on paper and 40 on parchment. Then professional scribes decorated various pages by hand – prominent initials, the margins, page headings – just as they decorated manuscripts.

“For that reason, each of the surviving copies is unique.”

Melbourne is already familiar with the Gutenberg Bible through the acquisition in recent years of separate leaves by the University of Melbourne (on paper) and the State Library of Victoria (on parchment). These leaves are simpler in colouring than the Manchester copy, limited to the use of blue and red for chapter and sentence initials and page headings.

Importantly, according to Professor Zika, they demonstrate very clearly that this was a transitional period in book production, when many of the techniques of manuscript culture were combined with the practices of what was to become the new print industry.

“The University of Manchester loan which will be on display during Rare Book Week is one of only 21 complete versions of the 49 surviving copies of the Bible,” says Professor Zika.

“They are bound volumes which include the Old and New Testaments in Latin and are highly ornamented.”

In the estimation of Anthony Tedeschi, Deputy Curator of Special Collections at the Baillieu Library, seeing a complete bound volume of the Gutenberg Bible is not to be missed.

“When the internet in the 1990s, Gutenberg’s invention revolutionised the entire nature of how information was disseminated,” says Mr Tedeschi, “making it possible to produce many identical copies of a single work, and his Latin Bible was the first fruits of his labour.”

“It represents a tangible object from a seminal moment in history.”

www.shaps.unimelb.edu.au
www.unimelb.edu.au/culturalcollections/treasuresfestival

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How environmental issues are springing from the page

Laura Soderlind explores the emerging field of literary criticism known as Ecocriticism.

Science is not the only discipline to have environmental complexity and looming catastrophic threats in its sights. Now, climate change, environmental activism and agricultural practices are being picked up, held up to the light and examined by literary and cultural critics. Ecocriticism is a theoretical framework that looks at the relationship between the physical environment and literature and cultural artifacts. Researcher Dr Tom Bristow has accepted a post-doctoral fellowship at the University of Melbourne and is currently using ecocriticism to inform his approach to Australian ‘pastoral’ literature.

“Ecocriticism is part of a cultural revolution, a new move in how we think about nature and the environment.” Dr Bristow says.

Our awareness of the human impact upon our planet and our relationship with other species is informing the literature and pop culture we consume. There is a growth in films and books about environmental catastrophes, from Pixar’s The Road to Cormack McCarthy’s The Road.

Dr Grace Moore from the University of Melbourne says what we read and watch can shape our relationship and understanding of the environment in which we live.

“There is even a new genre on the rise – climate fiction or ‘cli-fi’,” Dr Moore says.

“People read and write about the things that concern and interest them. Climate change is right up there.”

Dr Moore is using ecocriticism to look at how 19th-century literature set in Australia is informed by attitudes towards the environment. Anthony Trollope was among the most prolific and successful novelists in Victorian England. He visited Australia twice and wrote significantly about his observations on the Australian or ‘Oceanian’, frontier, which were narrated and filtered through his British sensibility.

During the period Trollope was in Australia early English colonialists enacted their familiar European rituals and traditions on the Australian landscape.

Mounted hunting, which was popular in England was brought to Australia. However, owing to the different environment it was transposed across species from a fox hunt to a dingo hunt.

“The process of elegantly jumping a fence to reach a fox instead involved horses falling and riders crashing down. It just didn’t work in Australia,” says Dr Moore.

Ecocriticism can help to unpack complex colonial dynamics and help us understand Australia’s relationship with its past and present.

Dr Bristow explains the way places in Australia were named according to British geographical benchmarks.

“The first state settled in Australia was New South Wales. It was as though the Australian environmental conditions could be compared to a place in Britain: South Wales. But really the environment is similar to North Africa.”

Botany Bay was named in 1770. It was part of the young King George III’s patronage of the Royal Society that was granted an official charter by King Charles II in 1662.

Australia was sold and packaged to the Western world as an important destination for botanical expeditions. It was a botanical colony, which displaced Australia’s Aborigines, ” he says.

The researchers say the Australian environment and landscape has, since settlement, been subject to the terms and values of European discourse. Trollope and botanical and agricultural practices are good examples of the relationship between Europe and Australia.

Dr Bristow says today’s framing of our attitude toward the environment straddles two distinct narratives.

“There is the framework that perceives the environment in terms of its resources, currency and capital, while there is also the more modern narrative that is protective of the environment and interested in our emotional response to it,” he says.

Ecocriticism evaluates the language and values located in each of these two positions.

Dr Grace Moore and Dr Tom Bristow are co-convenors of a conference, ‘Affective Habitual: New Environmental Histories of Botany, Biology and Emotions’ that is co-sponsored by the ARC Centre of Excellence for the History of Emotions. The event will take place at the Humanities Research Centre in Canberra on June 19-21.

New trial unlocks secrets behind sudden death in epilepsy

In a world first, leading Melbourne medical researchers have found a crucial link to understanding epilepsy and sudden death.

During pre-clinical trials, researchers at the Royal Melbourne Hospital and the University of Melbourne discovered a unique method of understanding what happens to the heart during a seizure.

University of Melbourne medical researcher Dr Kim Powell said her team had been able to show that heart function is detrimentally altered during a seizure in genetic and acquired animal models of epilepsy.

“Sudden Unexpected Death in Epilepsy (SUDEP) accounts for up to 30 percent of all epilepsy deaths but we are now one step closer to understanding why this happens,” Dr Powell says.

“Thanks to some ingenuity, we have developed a method to monitor electroencephalogram (EEG), which measures electrical activity of the brain, and Electrocardiogram (ECG), which monitors the performance of the heart to see what is actually happening during a seizure in our animal models.

“We discovered that epilepsy itself causes changes in the heart that may predispose patients to the development of serious heart conditions, and potentially SUDEP.”

The Royal Melbourne Hospital’s epilepsy specialist and head of the University of Melbourne’s Department of Medicine at the Hospital, Professor Terence O’Brien, says this exciting research provides new hope to people with epilepsy.

“While the research is still in its early stages it has the potential to motivate new thinking into how and why SUDEP occurs and what we can do to prevent this from happening.”

Family history reveals predisposition to multiple diseases

Researchers have identified nine simple questions that can be used to identify people who may be at increased risk of various cancers, heart disease and diabetes because of their family history of these conditions.

The family history screening questionnaire can be used to provide insight into people’s susceptibility to breast, ovarian, bowel and prostate cancer, melanoma, ischaemic heart disease and type 2 diabetes. These findings will lead to greater insight into the process of preventative treatment for cancer in primary care and provide a cost-effective intervention for tailored disease prevention in Australian primary care.

Lead researcher and Professor of Primary Care Cancer Research at the University of Melbourne Jon Emery said the research is the first of its kind to validate the family history screening questionnaire as a tool to cover multiple conditions.

“While a brief tool has been developed to cover a range of conditions in primary care that has been validated to the same extent as ours,” he says.

“This finding could be used as a screening tool in general practice to identify people who need a more detailed discussion about their family history of cancer, diabetes or heart disease. “Some people may require referral to a genetics clinic to discuss genetic testing, while many more may require earlier cancer screening and lifestyle management,” he says.

Family medical history remains the most relevant genetic risk tool in use in clinical practice.

Evidence suggests that having knowledge of a family history of a specific condition is associated with improved uptake of a range of disease-preventative activities, such as cancer screening and reduced sun exposure.

Melbourne to host Outlook conference

The 2014 Melbourne Institute- The Australian Economic and Social Outlook Conference will take place on campus 3-4 July.

Now in its ninth year, the conference continues to be Australia’s leading platform for public policy discussion. A key focus of the conference, held at Melbourne University, is to address pertinent issues and examine global headwinds that Australia faces. Senior members of the federal government and opposition will be confirmed soon.

Pathways to Growth is the theme of this year’s conference and Professor Ross Garnaut will be a panelist to open the second day on the subject of emissions, while Paul Howes, national secretary of the AWU will speak on the subject of a productive workplace.

www.melbourneinstitute.com/Outlook_2014

Civil society summit comes to Melbourne

The University is hosting the C20 Summit in partnership with C20 (the Civil Society 20) from Friday 20- Saturday 21 June. A key lead-in event to the C20, speakers include Minister for Foreign Affairs Julie Bishop, Shadow Minister for Foreign Affairs and International Development Tanya Plibersek, Transparency International Chairwoman Hollie Catterall, Labelle and World Vision Australia CEO Tim Costello.

www.c20.org.au/the-summit
The power of partnership will take its place on an international stage next month as an innovative Somali-English Language Dictionary app is launched on iOS and Android platforms. Kate O’Hara talks to the creators of this new and, importantly, free resource.

Which language is it? Where is it from? What’s it called? Wait, that doesn’t count. ‘Somali’ is not only the language name, it is an indigenous cultural and linguistic experience for Somali people around the world. Although we’re all used to seeing it on maps, on the internet, and in the news, there is little understanding of the Somali language, other than a few words that we hear on the radio or TV. However, with the launch of the Ma’lwaadja project, which will officially be launched in the coming weeks, this will change. Ms Faragaab, director of Somali arts and culture organisation Burji Arts, says the partnership project is an innovative first.

In my art I work with a lot of themes around language, and quickly became aware of the fact that there weren’t any free resources for Somali speakers," she says. "Through Burji Arts I contacted Nick, who was doing this sort of documenting work in other languages. The challenge was there – we’d tried this once before, to create a working Somali dictionary, but it was unsuccessful because we got a developer overseas to record a list of words and it was terrible. What we really needed were developers in Melbourne that we could work closely with, and linguists who know what they’re doing."

With a particular interest in language and technology, and developing new ways of dealing with dictionaries and textual representations, Dr Thieberger helped to develop the concept, drawing on the example of the highly successful Ma’lwaadja, an Aboriginal language app.

“Social media has a significant role to play in fundraising and communication efforts, as well as on-going conversations with potential new funding sources,” Ms Faragaab says. "It can seem like a big undertaking – and of course it is – but we are very committed to the project."

An up-coming trip to the US will provide Ms Faragaab with opportunities to share the new language app and explore new ways to expand the project beyond 2014. In developing the project we’ve worked broadly across Melbourne, but also been in touch with other significant Somali diaspora around the world, like in Minnesota," she says. "So we’re connected to those communities and always getting really positive feedback. When we launch the app, we’ll be asking these same users to also record Somali words which can then be uploaded to our website for inclusion in the next edition."

Far from being a static project, the current language app will depend on this interaction and continually updating content to remain relevant. While the ongoing costs of curating the information will largely be borne by Burji Arts and in-kind support – including funds from the Melbourne Social Equity Institute and the Faculty of Arts Engagement Committee – the task of now building a user base through cost-effective means looms large.

"Social media has a significant role to play in fundraising and communication efforts, as well as on-going conversations with potential new funding sources," Ms Faragaab says. "It can seem like a big undertaking – and of course it is – but we are very committed to the project."

When Somali-Australian artist Nadia Faragaab first got in touch with academics at the University of Melbourne, she brought with her a challenge. It was early 2013 and a few initial phone calls eventually led her to the door of Dr Nick Thieberger, Australian Research Council QEII Fellow at the School of Languages and Linguistics (SOLL) and one of the founding members of the Pacific and Regional Archive for Digital Sources in Endangered Cultures project (PARADISEC).

The challenge: can we create a free, accessible and interactive language resource for Somali speakers around the world?

The Ma’lwaadja project is a great template for this type of app - it’s a dictionary but it also has phrases, and is really aimed at people who want to be able to communicate in that particular Aboriginal language.

"So we took that 1980 Somali dictionary and entered all 26,000 head words into the app program. My role was to undertake the textual work - that’s a lot of computational pulling apart and making it fit into structured fields. It will be an iterative process where we’ll continuously be improving the base content and updating to reflect changes in language."

The idea is to build it once and have multiple ways of viewing, like a website, an app and then maybe comparative word lists. All these kinds of things you can do if you construct the material properly.”

As Dr Thieberger and Ms Faragaab finalise work on the app’s first iteration, the depth of engagement across other, non-technological areas of work continues to expand.

The capacity for this fledgling partnership to influence and support teaching and learning streams at the SOLL is only just beginning to be realised.

While her art has a particular focus on language themes as part of their research.

PARTNERSHIPS

Drawing on extensive community consultations with significant Somali diaspora, here in Melbourne and across the globe, Ms Faragaab and Dr Thieberger have created a 26,000-word Somali-English dictionary app which will be available for free download from both Android and iOS platforms. Part-funded by a Vice-Chancellor’s Staff Engagement Grant in 2013, the app was given the go-ahead in late May and will be officially launched in the coming weeks.

Ms Faragaab, director of Somali arts and culture organisation Burji Arts, says the partnership project is an innovative first.

"In my art I work with a lot of themes around language, and quickly became aware of the fact that there weren’t any free resources for Somali speakers," she says. "Through Burji Arts I contacted Nick, who was doing this sort of documenting work in other languages. The challenge was there – we’d tried this once before, to create a working Somali dictionary, but it was unsuccessful because we got a developer overseas to record a list of words and it was terrible. What we really needed were developers in Melbourne that we could work closely with, and linguists who know what they’re doing."
Searing of hearts and minds

Melbourne hosts the 20th World Aids Conference this month, and a University of Melbourne exhibition documents responses to the epidemic since 1979. By Annie Rahilly.

It has been just over 30 years since the term HIV/AIDS came into being. Despite sophisticated health promotion campaigns, infection rates have climbed and in Australia, two generations of people have been affected. Young Australians today may view HIV/AIDS as something that happened to an older generation of men. A newer generation of gay men may feel they are untouched by it.

The perception is that HIV/AIDS is now a chronic but manageable disease. It is, however, still a lifelong, and potentially fatal disease. While treatments and social acceptance have improved over the years, it is still an issue that should not be taken lightly.

To coincide with the 20th International AIDS Conference to be held in Melbourne in July, TRANSMISSIONS: Archiving HIV/AIDS – Melbourne 1979-2014 is an exhibition of manuscripts, posters and other material from public and private collections. It will examine the nexus between government, policymakers, health professionals and Melbourne’s gay community.

TRANSMISSIONS will articulate how design helped to brand political activism in this community. It will highlight the community health.

The exhibition will focus on key events through primary source material drawn from the Australian Lesbian and Gay Archives, the University of Melbourne Archives, and other public and private collections. This material vividly evokes the history of the epidemic in Melbourne, and a major outcome of the exhibition will be to promote the rich holdings of these collections.

Although Australia has implemented one of the world’s most successful HIV/AIDS prevention campaigns, the exhibition and conference coincide with a 20-year high in infections rates. Current health promotion campaigns have become increasingly sophisticated to be able to reach a younger generation, and Australia mobilised quickly, establishing the AIDS Task Force in 1983, and the National Advisory Committee on AIDS in 1984, well ahead of the worst onslaught of the epidemic. Unlike the US model, the medical community worked reasonably closely with affected communities, although tensions did flare up on a regular basis. If it was to survive the epidemic, and it was a matter of life or death, the gay community had to unite and communicate with doctors, researchers and policymakers.

Professor David Pennington, who headed the AIDS Task Force, was a key figure in the medical response to the epidemic in Australia.

“People’s memories and their lives have been seared by the epidemic. We’ve tried to keep a professional distance but when you start to read letters and other personal material which delves into people’s hearts and minds, it’s difficult not to be affected,” Mr Graf says.

“A amongst the sea of official papers and publications, our eyes are often drawn to handwritten writing as it offers us a sense of someone at a particular time and a particular place.”

As Melbourne was the site of significant cultural responses to the epidemic, the exhibition will also present a unique opportunity to revisit some of the works shown in major exhibitions about HIV/AIDS held between 1989 and 1994. TRANSMISSIONS will present works by several significant artists. Many of these works have not been seen since they were exhibited in the 1990s.

A publication and a comprehensive public program will accompany the exhibition, which is co-curated by Michael Graf and Russell Walsh.

TRANSMISSIONS is on show Monday 14 - Friday 25 July in the George Patton Gallery, Level 2, Student Union Building, University of Melbourne Parkville campus.

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Historian Professor Mark Philip Bradley examines the origins of the concept of human rights. He also discusses the development of a language around this construct.

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Doyen of the field of neuroesthetics Professor Semir Zeki explains the neuronal behavior that underlies perceptions of ‘beauty’. Professor Zeki is Professor of neuroesthetics in the Department of Cell and Developmental Biology at University College London.

Quash and prosper: How free market capitalism learned to quell dissent.
Law historian Professor Alasdair Roberts discusses the strategies implemented by the neoliberal establishment to attenuate dissent.
Professor Roberts is the Jerome L Rappaport Professor of Law and Public Policy at Suffolk University Law School in Boston.

Every move you make: Employee monitoring and its often unsettling consequences
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Pallavi Sharda is an Australian-born Bollywood actress who studied Arts and Law at the University of Melbourne. Christopher Strong asked her about her education in Australia.

**ALUMNI**

Every year many university students feel they need to decide between studying a creative passion or something considered ‘safer’ for finding a job after graduation.

Pallavi Sharda, University of Melbourne Arts and Law alumna, now living her life as a Bollywood actress, believes taking the safer option does not necessarily mean the end of the pursuit of creativity.

“Having a degree takes the pressure off when you go out there and pursue your dream. You can give it everything you’ve got because you know that if you do happen to fail, you have something to fall back on,” she says.

“I believe in education and the traditional foundations it can give you to help you pursue your passions.”

Ms Sharda arrived at the University when she was only 16 after completing high school at Lowther Hall Anglican Grammar School. She decided to fast track her University study plan because she wanted to start a career as soon as possible, but now wishes she had spent more time enjoying campus life.

“It was the old Arts/Law double-degree so the Melbourne Model was introduced and by the end of it I was a little burnt out. I was passionate about my arts degree and wanted as much time and headspace to concentrate on that, but Law was very intense and I was studying French as well,” she says.

“I now wish I had taken my time and taken advantage of the opportunities to be more social. There were lots of activities on campus to try. I think students at university should enjoy the environment and try to make the most of the moment.”

Ms Sharda completed the final subject of her degree via a research program based in Mumbai. Instead of returning to Melbourne, she stayed to pursue a career in Bollywood productions.

“Although it would not seem studies in Arts, Law and French would transfer to a career in Bollywood, it has helped with her communications in her Arts degree have helped her to understand the Indian media industry within a global context and contribute to Indian publications as a writer.

“My focus on international and human interest law while studying law gave me the skills to work in the development sector in India as a supplement to my work in the film industry. It has enabled me to work as a cultural communications consultant for organisations in India and I hope to continue to approach my career in an inter-disciplinary fashion.”

“Overall my academic background and the robust culture of debate at the University of Melbourne equipped me to be part of broader policy discussions around cultural integration and the promotion of the arts and multiculturalism in Australia,” she says.

Ms Sharda has already featured in eight films and has signed contracts to appear in leading roles in another three, including an Australian drama.

“I cherish being able to move between India and Australia for work. Even though time on set in Mumbai can sometimes mean 20-hour days, I am trying to enjoy every minute of it.”

Pallavi Sharda will speak about her education in Australia at the Asia Education Foundation National Conference to be held June 16-17.

Epilepsy: from demons to enlightenment

A program to develop an enlightened empathy in medical students for people with epilepsy is being run as part of the Medical Humanities program of the Melbourne Medical School, and a new exhibition in the Melbourne History Museum, bring new insights into focus. By Annie Rahilly.

Arist Jim Chambliss was recently awarded what is believed to be the world’s first PhD in Creative Arts and Medicine by the University of Melbourne. The complexity of Dr Chambliss’s thesis involved traversing these two disciplines with the cooperation of the University’s School of Culture and Communication, the Department of Medicine at St Vincent’s Hospital and the Epilepsy Foundation of Victoria.

The English neurolinguist, John Hughlings Jackson, described the ‘dreamy state’, ‘psychic seizures’ and ‘double consciousness’ features of focal epilepsy – which perplexed and fascinated people for centuries, contributing to misconceptions of people with epilepsy as being blessed with mystical, religious or philosophical revelations or cursed by demons, witchcraft or insanity.

Studying the visual expressions of 50 artists with epilepsy Dr Chambliss discovered that more than 90 per cent had actually experienced what he terms ‘intrinsic perceptions’ and integrated these fascinating imagery and experiences into their art.

An intrinsic perception can be spontaneously and independently derived from the brain/mind in simple or complex hallucinations or happen when what is seen, felt or experienced is so altered within the neurological processes impacted by the misfiring of electrical impulses that what would be common perceived or understood as ‘real’ takes on surreal or dream-like qualities.

Epilepsy: From Demons to Enlightenment includes over 30 works by 25 artists from around the world with epilepsy or seizures triggered by migraines.

The artworks provide a window into the thoughts and experiences of people with epilepsy and show alongside explorations of some of the earliest attempts to distinguish between disease and the tragic misinterpretations of abnormal phenomena associated with epilepsy.

According to neurologist Mark Cook, Eccles Chair of Medicine at St Vincent’s Hospital, exploring historical attitudes to epilepsy is an excellent way to gain a perspective on the collision between magic and science that has occurred throughout humanity’s attempts to understand epilepsy. Professor Cook, who leads a multi-site team of researchers based in Melbourne and Seattle in the development of device that predicts epilepsy seizures in humans, also maintains an abiding interest in medical history and has worked closely with curator Jacky Heal on the development of this exhibition.

Epilepsy: From Demons to Enlightenment runs until Saturday 20 September.

Margaret Lawrence’s giving legacy

Liz Banks-Anderson reports on the month of reflection on impactful philanthropy in the arts that took place during May.

Ben Cameron knows a thing or two about the power impactful philanthropy has to transform the arts.

Mr Cameron is the Program Director for Arts at the Dons Duke Charitable Foundation and he visited Melbourne as part of the Give it up for Margaret festival, a month of philanthropic inspiration throughout May.

Give it up for Margaret celebrated the centenary and legacy of philanthropist Margaret Lawrence (1914 – 2004) whose generous philanthropy and foresight continues to make a profound contribution to the arts landscape in Victoria.

Give it up for Margaret: a month of philanthropic inspiration was supported by the Victorian College of the Arts and the Margaret Lawrence Bequest. Ben Cameron’s visit was also supported by the Melbourne Business School and Creative Partnerships Australia.

Ms Lawrence had an abiding passion for the arts and nurtured a strong sense of social justice and passionately supported women in education.

The festival profiled Margaret Lawrence’s legacy while generating discussion about public and private philanthropy in Australia through a series of exhibitions, workshops and panel discussions with local and international artists and philanthropists.

Mr Cameron says the festival was timely as it promoted discussion about funding of the arts, its significance and the impact of philanthropy at a time of great transformation in the sector.

“The arts are in a moment of reallocation, and the Solomonic question in the arts – especially as needs in the field grow and arts giving contracts – is how to nurture and reward the dreams, hopes and aspirations of an emerging generation of practitioners, without dismantling the still vibrant achievements of the past.”

Director of the Victorian College of the Arts and inaugural President of the Australian Council of Deans and Directors of Creative Arts Professor Su Baker agrees.

“The arts needs to be recognised as an important component of Australia’s sense of nationhood and culture. Give it up for Margaret provided the perfect opportunity to celebrate the arts and its continuing contribution to society and the legacy of Margaret Lawrence, one of its great supporters,” she says.

One of the key public events at the festival was the workshop and panel discussion with Ben Cameron on the arts and impactful philanthropy.

The workshop looked at places where we have helped an organisation develop in new ways and change its behaviour,” Mr Cameron says.

These new ways refer to a new future of philanthropy, where new technologies are enabling crowdsourcing and where individual donations are playing an increasingly significant role, all indicative of a massive shift in arts philanthropy.

“The future, in the US at least, is in individual giving rather than organised philanthropy (corporations, foundations and governments). More than $0.84 of every contributed dollar in the US comes from an individual, not from a foundation or the government, and last year Kickstarter distributed more money funds to the arts than the entire federal government arts budget,” Mr Cameron says.

This innovative approach was demonstrated in the recently launched awards program the Doris Duke Artists Award, which is reinventing and supporting artists to excel.

Twenty artists who have received national support for at least three different projects over a decade were selected by a panel to receive roughly $400,000 from the Doris Duke Foundation over a four to five year period.

“This structure – which is unprecedented in a number of ways – is proving to have enormous impact,” Mr Cameron says. “As one artist said to us ‘It’s psychic breathing space – a space that I haven’t had in 30 years.’ The results are renewed, reinvigorated, recommitted artists.”

Something Margaret Lawrence would be pleased to see.
Life is a circus for University alumni

Monique Edwards stops by Circus Oz to chat with University of Melbourne alumni Ben Hendry and Lilikoi Kaos, who have both been announced as members of this year’s ensemble cast.

The 2014 Circus Oz ensemble is made up of 12 performers, with high-flying skills and talents ranging from acrobatics and dancing to music and unicycling. Ben Hendry is one of two core musicians in the ensemble’s band, specialising in drums.

“I feel great. I’ve been working with Circus Oz for about six weeks and I’m still getting up every morning and looking forward to coming to work,” Mr Hendry says.

“The new show is amazing, it’s fantastic. I’m realising that not many people in Australia would have seen this stuff, let alone the world. There are skills going on here that are really breaking new ground. It’s so exciting.”

Fellow ensemble member Lilikoi Kaos is a circus performer with skills including hula hoops and flying trapeze.

“Circus Oz is one of Australia’s most well-known contemporary circuses. It’s really exciting to be a part of that legacy that has been going on for 36 years,” Miss Kaos says.

Both performers offer some advice for students and others hoping to pursue a career in the arts.

“I’d encourage people that are going to pursue a life in the arts to treat the business side of things with the same sort of respect as they treat their creative aspects. You need to work on both those things,” Mr Hendry says.

“Practise your art form and become really good at it, particularly if you’re in a secure space, you may not have that freedom later on” Miss Kaos advises.

“Sometimes it is difficult, weighing up the pros and cons of following a creative career path but if it’s what you love, you just pursue it anyhow.”

www.circusoz.com/
www.alumni.unimelb.edu.au

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NAPLAN is missing the mark

A new report commissioned for the Whitlam Institute has suggested there are several problems with the national assessment program for schools — known as NAPLAN — that are not in the best interests of Australian children. By Professor Joanna Wyn.

VIEWPOINT

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he National Assessment Program – Literacy And Numeracy (NAPLAN) was introduced in 2008 by the Australian Curriculum and Assessment and Reporting Authority (ACARA) to improve literacy and numeracy levels in Australian primary and secondary schools. However, new research raises questions about NAPLAN’s impact on the wellbeing of students and on positive teaching and learning approaches. The question has to be asked: is it worth it?

The suite of tests that make up NAPLAN, administered in Years 3, 5, 7 and 9 are intended to measure three things: how individual students are performing, the extent to which national literacy and numeracy benchmarks are being achieved at each school; and how well educational programs are working in Australian schools.

Seven years of NAPLAN testing have produced mixed results. Our report, The Experience of Education: the impacts of high stakes testing on school students and their families: A Qualitative Study, undertaken for the Whitlam Institute by myself and colleagues at the Youth Research Centre at the University of Melbourne completes a series of studies on the impact of NAPLAN.

Our team spent time in five school communities where we interviewed students, parents, teachers and principals. This report builds on the previous work in the Whitlam Institute’s project on ‘high stakes’ testing including international literature review and a Newspoll survey of parents.

The results of this three-year suite of studies reveal that against its stated goals, NAPLAN is at best a blunt tool. The results aren’t universally negative. Some teachers find the results informative, there is evidence that in some schools NAPLAN results have been a trigger to implement literacy and numeracy programs, and some parents appreciate the straightforward assessment of their children’s achievement levels.

However, the research shows that NAPLAN is plagued by negative impacts on student wellbeing and learning. Our previous survey of teachers found 90 per cent of teachers reported students felt stressed prior to taking the test. The study draws attention to the need to take student wellbeing into account in educational initiatives. While Australian educational policies do not explicitly draw on the notion of acting in the best interests of children, it is timely to demand that educational programs conform to the ethical practice of ‘doing no harm’.

The plethora of unintended consequences of NAPLAN stem from the failure to take the interests of all Australian students seriously. There is a disconnect between the formal and inflexible style of NAPLAN, and learning and teaching approaches that emphasise deep learning that is supported by teamwork between teachers, students and parents, tailored to the students’ needs.

Those students who were struggling in maths and or literacy were found to be the most anxious about whether they would fail NAPLAN testing, and, worryingly, schools reported that these students (whom the tests are designed to help) were often the ones least likely to sit the tests. A smaller proportion reported specific stress-related conditions such as insomnia, hyperventilation, profuse sweating, nail biting, headaches, stomach aches and migraines.

When asked what message they would like to give to the Australian government about NAPLAN, a majority suggested that it should be scrapped.

However, many also made suggestions about how NAPLAN could be made more relevant (through the use of better examples and more accessible language) and made suggestions about how to lower levels of stress.

Those in favour of NAPLAN focused on the opportunity it provides students to practise the art of sitting tests.

Although NAPLAN is designed to improve the quality of education children and young people receive in Australia, its implementation, use and misuses mean that it undermines quality education, and it does harm that is not in the best interests of Australian children.

Joanna Wyn is Professor in Education and Director, Youth Research Centre, Melbourne Graduate School, the University of Melbourne.

www.education.unimelb.edu.au

A new building to connect Trinity College students and the main campus is planned for Tin Alley, on the Parkville Campus. By Katherine Smith.

CAMPUSSCENE

A

landmark new ‘gateway’ building to bridge Trinity College and the University of Melbourne is in the pipeline, to be located near the western end of Tin Alley.

Trinity is the oldest college associated with the University of Melbourne, offering residential and educational services, and theological training in the Anglican tradition.

The building is intended to enhance the student experience for residential and foundation studies students at Trinity, and will include tutorial rooms, laboratories and an auditorium, complemented by an art gallery and other specialist studio spaces for music and drama.

Just over a quarter of the University’s student cohort are international students, and of them, one third come through Trinity’s Foundation Studies program. Foundation studies are designed to assist international students from countries that employ different styles of education to adapt to the self-directed learning and group work that characterises the Australian educational style, and help students build their confidence academic conversation in English.

Warden of Trinity College Andrew McGowan says the Gateway building will give domestic students a wonderful opportunity to form long-lasting, strong relationships with international students that will endure into the future.

“Trinity has welcomed students throughout its history to a campus where impressive buildings and beautiful grounds express and foster the collegiate ideal,” he says.

“The project expresses this familiar principle in a new and striking way. It will provide world-class facilities for education and arts, link the College in a new way to the University of Melbourne, and embody a style and substance in keeping with our own history as well as our aspirations.”

Vincent Ramos came to Melbourne from Hong Kong in 1999 to begin foundation studies at Trinity, and after graduating with a Bachelor of Creative Arts, he is currently Development and Fundraising Manager in the Faculty of Business and Economics at the University of Melbourne.

Mr Ramos met his wife at Trinity – with whom he shares the exact same timetable – and still has many friends from his time there but says in general there was a bit of a gap between foundation studies students and University of Melbourne students living at Trinity.

“I think this was mostly to do with age, cohort and location,” he says.

“One group is made of university students, while the other is essentially still in high school, and also because people have a natural tendency to gather with others doing the same thing or living in the same space.”

“The new Gateway building will be a great way to bring together these communities that each identify very strongly as Trinity students,” he says.

Living at Trinity now is JD student Imogen Smyth-Waters, who grew up and went to school in Geelong, and moved to Melbourne in 2011.

“Living in a college is an opportunity to share your university experience with a group of diverse individuals,” she says. “Trinity offers a supportive environment in which I’ve been exposed to lots of new challenges and opportunities. The community fosters the attitude that everyone should branch out, get involved and try new things across the sporting, music, cultural and academic fields.”

“I’ve participated in several College-run programs including travelling to the Northern Territory on two occasions, in my first year to the rural community of Minyerri and in 2013 to North East Arnhem Land. I also participated in the Trinity Leadership Challenge, an educational year-long program, which culminated in walking the Kokoda track. These experiences have certainly left an imprint on my life and broadened my perspective on a number of issues.”

She says a number of student initiatives have organised fun events for residential and foundation students to meet, through sports and meals for example.

“The growth and further integration of the Foundation Studies program will no doubt enrich the College experience for Residential and Foundation Studies students alike, who may have had the opportunity to meet others. I can see this offering further scope to enhance cross-cultural understanding and build lifetime friendships and networks as we enter our professional lives,” she says.

The plan is for construction on the Gateway project to start at the end of 2014, with a view to the building being completed and ready for the 2016 academic year.

More: Scott Charles, Director of Advancement, Trinity College

voice.unimelb.edu.au

A gateway from College to campus
Fighting paediatric brain cancer through research and advocacy

Six years after losing their daughter Isabella to an incurable form of brain cancer, University of Melbourne HIV/AIDS researcher Robert De Rose and his wife Khush are working to fund research into this rare and unforgiving disease. By Elizabeth Brumby.

On 27 January 2008, Isabella’s five-year-old daughter was diagnosed with Diffuse Intrinsic Pontine Glioma (DIPG) - a cancer of the brainstem that only occurs in children and is terminal upon diagnosis.

Isabella passed away six months after her diagnosis. When Isabella lost her battle with DIPG, she was surrounded by her parents and two older brothers.

"Isabella was the last piece in the jigsaw that was our family," says Dr De Rose. "Like her dad, she wanted to be a scientist – and even at five years old, she was already a reservoir of knowledge."

Describing how the Isabella and Marcus Fund came to be, Dr De Rose recalls the feeling of helplessness and hopelessness that he and his wife felt throughout the period of Isabella’s illness. They soon realised this sense of powerlessness was shared by other families who had lost children to DIPG, like Marcus’ family.

Marcus was diagnosed in September 2009 and lived for only nine weeks. After Marcus died, his mother, Daniela, contacted the hospital. She needed to speak to another mother who had experienced this disease. My wife Khush responded and they had a long phone conversation.”

Later, they went to visit Marcus’ family. From this meeting, it became clear that they shared a desire to drive research for a cure for DIPG. They established the Isabella and Marcus Fund in June 2010, and began fundraising in October that year.

The goal of the Isabella and Marcus Fund is to advocate for DIPG research and in the longer term, establish a research base for DIPG in Melbourne.

"DIPG is a poorly understood cancer," Dr De Rose says. "This is partly due to the difficulty in accessing tumour samples, but mainly due to the poor level of research funding it receives. Most of the research dollars going into this area have been provided by charities founded by parents who have lost their children to the disease. “It’s a Catch 22: without the money for DIPG research there are few researchers, but without the researchers there are few proposals for government funding and progress remains stagnant.”

Despite these challenges, the past several years have delivered some success.

Dr Jeffrey Mann, a researcher in stem cell epigenetics at the Murdoch Childrens Research Institute, has been working on a DNA packaging process and its function in stem cell development since 2007. This protein regulates DNA or gene activity and in 2012 it was discovered that certain mutations of this protein were drivers of brainstem cancer.

A mutual colleague introduced Dr Mann to Dr De Rose and as a result, Dr Mann’s laboratory is now involved in making models of DIPG by using its system to introduce cancer driver mutations in nervous system tissue.

"Having these models will allow us to do further research on what causes the disease, which will help in the development of treatments," Dr Mann says.

"This story is a classic example of how basic research can lead to unexpected outcomes in translation to curing diseases," Dr Mann says. "That is why we are being involved in exploring the causes of DIPG in this way in an exciting and promising development for my laboratory."

In 2014, the Isabella and Marcus Fund will provide two to three scholarships for PhD candidates and its team is currently working to identify supervisors and students. Dr De Rose says they hope to identify PhD candidates with a focus on paediatric neuro-oncology, feeling that exposure to this disease through clinical research will encourage students to continue to study DIPG at a postdoctoral level.

Dr De Rose spends much of his time searching for cures for diseases that are the most unforgiving. During the day, he is a HIV/AIDS researcher at the Peter Doherty Institute for Infection and Immunity, working in the laboratory of Professor Stephen Kent. Through his research, he aims to generate an immune response that will form a barrier to HIV infection.

He is driven by a desire to help develop a research cure for DIPG, in any way he can.

www.isabellaandmarcusfund.org.au

Equity: not just Parlour talk

Niamh Cremins explores research that looks at why only 20 percent of practising architects are women, despite even distributions of men and women studying in that field.

At the mention of the title, Architect, you would be forgiven for envisaging a powerful, stylish and creative MAN.

That is how the architect is generally depicted in popular culture and, it appears, a reflection of male dominance in the architectural profession.

Research shows that, even though female architecture students graduate in approximately equal numbers to men, only 20 percent of registered architects are women. Women are also under-represented at senior level in the profession.

A group of researchers from the University of Melbourne and the University of Queensland are investigating equity, women and architecture as part of an Australian Research Council funded project – Equity and Diversity in the Australian Architectural Profession – which is led by Dr Naomi Stead. The public face of the project is the website Parlour, a venue for significant advocacy and engagement.

In an effort to guide the architecture profession towards more equitable working conditions, the team has developed the Parlour Guides to Equitable Practice.

The need to proactively address professional gender inequity is evident in many industries but extremely pertinent in architecture, where long hours and inflexible working arrangements traditionally define the industry. These conditions affect both men and women but are impacting female practitioners in more exaggerated ways.

Dr Stead says that according to registration figures, female architects are leaving the profession much earlier than men, particularly where the option for part-time work is not available.

However, recent census figures also show that fewer men in their late-40s, 50s and 60s are still practising compared to the 2006 census statistics.

According to Dr Stead’s colleague Dr Karen Burns there is widespread support for change as the industry re-evaluates how it defines itself.

"Architects – male and female – are now pushing for change," she says. "We have had lots of consultation with industry and we expect the guidelines, which present positive, productive strategies and suggestions for change, to have real impact."

Another major concern, which gives rise to the question of value, is the gender pay gap.

Even at graduate level women may earn less than their male counterparts, and this gap increases over time.

Many women are also choosing alternative or aligned career paths.

The researchers say there is no one reason for women’s underrepresentation in architecture and one solution, but the Parlour Guides aim to provide positive methods towards developing a more inclusive practice, which will benefit the industry as a whole.

The challenges broached by the Parlour team are not simply concerns of equity for women but of wellbeing and the advancement of the profession.

Justine Clark, Senior Fellow at the University of Melbourne and editor of the Parlour website says: “We are advocating for the architecture firms of the future, with the prospect of increased flexibility, meaningful part-time work, acceptable career breaks and reasonable hours. We see the potential for a more efficient profession that enables men and women to balance their demanding careers and their personal lives."

The suite of 11 guides address a range of issues, including equity, flexible work, career progression, negotiation, career breaks, leadership, mentoring and professional registration.

Together they provide employers, employees and industry bodies with a tool kit for addressing inequity in the workplace.

The researchers say the architecture profession can play a part in addressing significant global challenges such as climate change, urbanisation, sustainability and public health, but to do this effectively, balanced representation is vital.

The guides have already attracted significant interest so far both in Australia and internationally – with a number of leading architectural practices in Australia are eager to utilise the guides.

Grant Roberts, Practice Manager at Melbourne based firm John Wardle Architects says he sees equity and fairness in the workplace as a natural state of business, quite apart from the question of right and wrong.

"The Parlour Guides will help us to test the soundness of our frame of reference in all things relating to our people. We are starting by promoting awareness at our weekly staff get-together, pulling out key points from each of the 11 guides and gain the heart of some of our current concerns."

The Guides are available on the Parlour website:

www.archiparlour.org/parlour-guides

www.archiparlour.org
It’s definitely been a big step up for me in terms of the level of competition,” reflects Jo Weston, when asked about her first season in the ANZ Championship, Australia and New Zealand’s peak netball competition.

“It’s definitely a step up in intensity from what I’ve played previously, but it inspires me to get better and show my wares when I’m on the court.”

The Australian under-21 representative has every reason to be positive, at time of writing the Vixens were on top of the table with just a few weeks to go until the finals, and as part of the national team for the Fast 5s World Series last year, Ms Weston is primed for a breakout finals campaign.

“It’s pretty overwhelming, coming from my first netball camp in Canberra in 2011 where I was offered an Australian Institute of Sport scholarship, to now. To be in a position to play sport, and play sport that I love, it’s pretty phenomenal.”

It’s been a rapid rise for Ms Weston since that fateful invitation. From a starring role on her school team – “we were called the Sac Shooters,” she laughs, acknowledging her alma mater of Saint Coeur – to increasingly bigger roles in the Victorian under 13, under 19 and under 21 teams. She made the Australia under 21 squad in 2012, before being selected in the under 21 teams. She made the Australia under 21 team.

“I used to look up to both Bianca and Madi when I was just starting out, so to play alongside them is really a dream come true.”

“They’re great with their guidance, having grown up at a time when Australian netball didn’t have the mainstream media coverage that it does now, up they’ve taught me a lot about handling myself as an athlete.

“We’re not fully a professional sport – most players need a job alongside their time with the squad – and both Bianca and Madi have been incredible role models on this front.”

Ms Weston is one of nearly 200 athletes supported by Melbourne University Sport’s Elite Athlete program. One of the biggest university elite athlete programs in the country, the program aims to provide flexible study assistance to recognised elite or emerging athletes, and provide them with financial and in-kind assistance.

For Ms Weston, the transition from social netballer to professional athlete and full time student has been a relatively smooth one. “Given I’ve been playing sport from a young age, I think I’m quite adept now at managing my time, and I’m quite lucky we play mostly on weekends.”

“It’s more about just making up the study time I would have had if I wasn’t competing than it is making up classes, but the university has been very helpful regardless.”

joanna-weston

www.sport.unimelb.edu.au

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11 June  Focus on IT
11 June  Focus on Engineering
18 June  Focus on Melbourne Conservatorium of Music
25 June  Focus on Victorian College of the Arts (VCA)

Other events
10 July  UniExperience
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11 July  A Day at Melbourne
        Explore the Parkville campus and find out about your study options at Melbourne

futurestudents.unimelb.edu.au/events