Dealing with disaster

With the pressure on to mitigate against natural disasters the University of Melbourne’s Natural Disaster Management Initiative in partnership with IBM is harnessing expertise in disaster management from across the University and beyond. By Silvia Dropulich.

There are significant shortcomings in Victoria’s emergency management arrangements, according to the former state Police Commissioner, Neil Comrie, who led the Victorian Government’s Review of the 2010-11 Flood Review (VFR) report.

The recently-released green paper “Towards a More Resilient and Safer Victoria”, cites research that in 2010 a total of 389 natural disasters killed more than 297,000 people worldwide, affected over 217 million others and caused US$129 billion in economic damage. This figure does not take into account the widespread natural disasters of 2011 including the Japan earthquake.

“Today’s first quarter of 2011 saw the Christchurch earthquake which devastated a whole city and led to hundreds of deaths and, soon after this, the earthquakes and tsunami in Japan resulting in many thousands dead, and severe damage to nuclear reactors. Although Australia lies more safely within a tectonic plate, there is still a significant risk from earthquakes, according to Professor Taylor.

Most recently, the strongest La Niña event since 1997 has been associated with major floods in eastern Australia and the largest tropical cyclone to cross the Australian coast. In Queensland, three-quarters of the state was declared a disaster zone with more than 70 towns and more than 200,000 people affected, and 35 confirmed deaths. In Victoria, more than 51 communities were impacted and two lives lost.

According to Mr Comrie’s final VFR Report, major regional flooding occurs somewhere in Victoria every 10 to 15 years, including the November 2009 floods, the Ash Wednesday fires of 7 February 2009 and the widespread floods of late 2010, early 2011, Narellan’s severely tested Victoria’s emergency management arrangements.

Mr Comrie’s report makes 93 recommendations – this is in addition to the 67 recommendations made already by the Victorian Bushfires Royal Commission.

Emergency arrangements are regulated through the Emergency Management Act 1986 (the EM Act), which is intended to ensure an organised structure exists to facilitate planning, preparing, operational control and coordination as well as community participation in prevention, response and recovery from an emergency incident.

“The all hazards, all agencies’ philosophy of emergency management is appropriate for Victoria,” Mr Comrie says in the final Victorian Flood Review (VFR) report.

“However, this philosophy is not being effectively implemented because of barriers in organisational culture, communication, co-ordination, interoperability and information collaboration and sharing. This situation is not sustainable and requires major reform,” he says.

The University of Melbourne is lending its considerable expertise to the reform process with its newly established Natural Disaster Management Research Initiative (NDMRI). Headed the NDMRI is Melbourne academic, Professor Peter Taylor, from the Department of Mathematics and Statistics in the Faculty of Science.

“We want to be able to provide government with research-based solutions that can be applied to all natural disasters and assist communities and decision-makers in their response to disasters,” Professor Taylor explains.

“The main objectives of the NDMRI will be to reduce the loss of life from natural disasters in Australia and internationally, reduce the impacts of natural disasters on assets and essential services, and reduce the negative economic and livelihood impacts of disasters. We are aware that there is a critical need for a rigorous knowledge base to underpin planning and decision-making – and the Australian research community has a lot to offer in this regard.”

The NDMRI will coordinate research structured under five broad disciplinary areas: data and communications; environmental science and land management; economic, regulatory and policy interests; social and community health and well-being; and urban planning and infrastructure. Research program priorities will be to apply technological solutions to issues of a cross-disciplinary nature.

The University of Melbourne recently welcomed the new IBM Research and Development – Australia laboratory which will help the community better prepare for and better cope with major natural disasters and lead to a more sustainable future.

The laboratory, focused on the theme of a “Smarter Planet”, is IBM’s first continuous exploration, whole-of-university relationship and will see IBM researchers from laboratories around the world exploring opportunities with University of Melbourne researchers from across all schools and faculties.

Projects in natural resources, disaster management and healthcare are being explored in collaboration with businesses, universities, and government agencies.

“By linking planning, exercise, actual disaster management and recovery into a coherent system, we will be able to provide more resilient systems and services to society, government and businesses,” says Dr Juerg von Kaenel, Senior Research Manager, IBM Research and Development – Australia.

“VSMC aims to achieve this by building a platform which allows various models to be run in real-time for incident display in a highly visual and interactive form to decision-makers.”

“Australia-Pacific and South-East Asia experience a range of natural disasters including bushfires, cyclones, floods, tsunamis, severe storms, dust storms, earthquakes and landslides.

“These events cause great financial hardship for communities and households, and result in significant loss of life. The past three years have provided deep-seated evidence of the similarity of existing models in Australia, New Zealand and Japan,” says Professor Taylor.

“Bushfires have become a significant seasonal hazard across south-eastern Australia due to long-term drought, increased population spread and a changing climate.”

“The tragic bushfires in Victoria on Black Saturday (7 February 2009) resulted in Australia’s largest single loss of life from a bushfire. In addition to claiming 173 lives, the fires destroyed more than 2000 homes and 2000 structures.

The first quarter of 2011 saw the Christchurch earthquake which devastated a whole city and led to hundreds of deaths and, soon after this, the earthquakes and tsunami in Japan resulting in many thousands dead, and severe damage to nuclear reactors.

Although Australia lies more safely within a tectonic plate, there is still a significant risk from earthquakes, according to Professor Taylor.

“Increasing pressure has been placed on government and government agencies to mitigate and respond to natural disasters.”

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Currently, research in this area is occurring in separate islands across the country, and we perceive that maximum efficiency and impact will be gained where these efforts can be combined,” he says.

“If we are better prepared, then we as a society will be able to respond better to future natural disasters.”

Five NDMRI projects received grants from the National Disaster Resilience Grants Scheme (NDRGS), an inaugural grants scheme managed through the Office of the Emergency Services Commissioner. The projects are:

Climate Change Adaptation: Suitability Indices of Vicinity

Capacity Survey

Bushfire Risk Modelling and Prediction

Climate Change Adaptation: Suitability Indices of Vicinity

Upper Murray Floods

Victoria’s Disaster Mental Health Workforce Capacity Survey

Design-led institutional transformation for resilience: Towards a more resilient, sustainable future

http://dmres.research.unimelb.edu.au
University of Melbourne Master of Teaching students and their lecturers are joining forces with the North Melbourne Football Club to foster social cohesion of Melbourne’s most culturally diverse neighbourhoods, by Gabrielle Murphy.

From the Vice-Chancellor

The power of partnerships

A December last year, senior University of Melbourne staff joined representatives from Melbourne Health to sign partnership documents to establish the Peter Munk Centre for Research Innovation.

Here is a visual representation of the content.
Design for a future of extremes

University researchers talk to Kate O’Hara about a project letting design lead the way in predicting extreme weather conditions.

The editors’ work is also pivotal for clear understanding of Australian architecture. Associate Professor Willis says: “The editors’ work is also pivotal because the history, process and ideas related to Australian architecture, but the history doesn’t apply in Australia, and the extreme weather event does occur and there is a range of possible futures, so the history, process and ideas in those institutions will respond to the current state of that uncertainty.”

We’re largely looking at an uncertain future, so the project is very challenging, and not in the least because of the community it will reach: “25 years ahead.”

“Together we can create visions and solutions which work in a complex way in the specific context. Certainly one of the purposes of this project is to redesign them,” he says.

The editors’ work is also pivotal for the culture and processes that are needed to participate in the creation of solutions. The project will involve researchers from the Victorian Eco-Innovation Lab (VEIL) and the School of Indigenous Development, who credit the Professional Certificate under its current title, “Over the past 10 years, we’ve developed as a formal professional certificate within the Indigenous postgraduate students from all over Australia, young and old, and virtually all of them have gone on to do amazing things,” she says.

Ann-Marie Hammond and Victoria Close are two recent Indigenous graduates who credit the Professional Certificate in Indigenous Research with their increased confidence to pursue and succeed in their studies and academic careers.

Hammond, who is studying for her Masters degree in the University of Southern Queensland’s cross-disciplinary Indigenous Development program, says she is excited to contribute to her research. “I valued the contribution from the university, and the support from academics and supervisors who have been world-class in terms of sharing and supporting early career Indigenous researchers across Australia, of whom I am one.”

Dr Victoria Close graduated in the same cohort as Ann-Marie Hammond, and is one of the other Indigenous students who has graduated from the Professional Certificate under its current title, “Over the 10 years this course has been developed as a formal professional certificate under its current title,” says Professor Anderson. “The original course was designed with dedicated input from a host of Indigenous and non-Indigenous scholars from universities across Australia.”

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“A lot of people have been very generous in committing their time and intellectual and academic skills to providing an environment that fosters the development of emerging Indigenous research leaders.”

This ongoing evolution has resulted in the development of a new research-intensive program to be hosted by the Murrup Barak Institute every winter. The Graduate Certificate in Indigenous Research and Leadership, an interdisciplinary coursework program, will build on the knowledge and skills acquired in the professional certificate.

“Over the past 10 years, we’ve continued to consolidate and refine our programs,” says Professor Anderson. “In the course of my frequent travels with Indigenous students who’ve studied with us in Melbourne, and they are always incredibly positive about the program.”

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Getting ready to cope with disasters

Natural events are difficult to predict and impossible to prevent, but new two research projects aim to make us better prepared for them. By Nerissa Hannick and Annie Rahilly.

The Redmond Barry Fellowship

The Redmond Barry Fellowship is named in honour of Sir Redmond Barry (1833-1908), a founder of the Melbourne and the First Hospital of Victoria. Valued at $20,000, the Fellowship is open to scholars and researchers to facilitate research and the production of works of literature that utilize the wealth of the State Library of Victoria and the University of Melbourne Library collections.

The Fellowship can be used to assist with travel, living and research expenses.

Guidelines and application forms are available at

Applications close Friday 27 April 2012.

Mental health recovery focus for bushfires studies

Researchers are working to determine the right kinds of services and the right levels of human resource required to maximise community mental health after a disaster. By Rebecca Scott.

Every day Revanne Traynor-Woldby meets people affected by the 2009 Black Saturday bushfires. She runs a community centre called funding to provide consistent long-term help.

“During any bushfire disaster there are also long-term mental health needs,” she says. “We never expected it to come so soon,” she says.

People were running from embers. Some said that with all the explosions and tiny sh offs, the trees were all burning. It was lonely. No one was there to help them. Some were left without even underwear or clothes. Some said their families were still missing.

“Although we didn’t have infrastructure ruined, we lost all our animals. Loss is loss, is disaster. This can be complicated by those who were separated from their loved ones.”

The University of Melbourne’s Recovery Centre after the 2009 bushfire, the centre changed to a community centre providing a range of services to the affected community.

“Three years later people are still experiencing homelessness and that offering ongoing support is very important. We do this in a number of ways such as activities and social events. We acknowledge individual journeys of grief and for some it will take some time to recover.”

Disasters can affect mental and physical health, family relationships, and communities.

“Disasters can affect mental and physical health, family relationships, and communities.”

Reanne Wisbly is participating in a University of Melbourne study to assess the long-term mental health impact in people affected by the 2009 fire.

The Beyond Bushfires: Community Resilience and Recovery” study focuses on the mental health and wellbeing of rural and remote communities across Victoria who were either directly or indirectly affected by the fires.

Dr Rob Gordon, a clinical psychologist and his staff at Cald at the University of Melbourne, say they are already seeing some of the early effects of the disaster.

“In the first week of August, many people who have been involved in the disaster will seek help and support,” he says. “We hope to establish some mental health and wellbeing strategies that individuals, agencies and communities can implement if they have to face future natural disasters.

Researchers developed the study in response to a need for research evidence to better support policy and service delivery for affected families and communities over time.

In the next few years researchers will survey around 2000 children, adolescents and adults from about 20 communities, which experienced varying levels of fire impact. In-depth interviews will also be conducted to further explore experiences of community and recovery.

Principal Investigator Professor Elissa Strang, says the long-term study is important.

“Our point of difference from other studies is that this looks at the impact of disaster on individuals and community in terms of the long-term trajectory and emphasis on the connection between individual and community recovery,” she says.

Dr Rob Gordon, a clinical psychologist who has worked in over 25 disasters in Australia and New Zealand says the study will be invaluable to gather urgently needed evidence about the patterns of impact and recovery and the full timescale involved.

“This information will be vital in preparing for effective support in future disasters,” he says.

Another University of Melbourne-led study focuses on assessing the disaster response of the Victorian mental health workforce.

The project, the first of its kind in Australia, involves assessing the capacity of practitioners and volunteers to provide best practice mental health support after natural disasters such as bushfires, floods or severe storms.

The Victorian Disaster Mental Health Workforce Capacity Survey will determine the capacity for mental health workforce to respond to disaster.

It will reach almost 20,000 Victorian health professionals including psychiatrists, clinical psychologists, social workers, occupational therapists, paramedics, GPs, nurses, midwives and others who work in the mental health sector.

“Not everyone is going to put their hand up and say, ‘I want to help,’” says Dr Gordon.

“In the 1990s it was much easier to get people to participate. We now need to think about disaster response in terms of mental health and wellbeing and we can’t assume that everyone will come forward.”

The workforce capacity survey is funded through the National Disaster Resilience Grants Scheme (NDRGS) of the Australian Government Attorney General’s Department and the Office of the Emergency Services Commissioner in Victoria. Partners include the Australian Health Workforce Institute and the University’s Melbourne Sustainable Society Institute.

Participants are sought for the Beyond Bushfires study www.beyondbushfires.org.au

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The economics of natural disasters

Most people tend to associate natural disasters with chaos, destruction and confusion. However, in this edited extract of his winning essay for the Reserve Bank of Australia Economics Competition 2011 / Best Essay by a First Year Student, Business and Economics student John Zhu explains that in real natural disasters often have minimal effect in the long run.

**Floods in Australia in 2011**

Particularly devastating in Queensland, with the flood hitting about 5 per cent of our population. Thankfully, the effect of the flooding was rather minor on our lives. However, these were significant short-term effects on the economy and society. The overall cost of the flood was calculated to be almost 2 per cent of GDP, and the cost per household was estimated to be about 2.5 per cent of its net worth.

**The high prevalence of vitamin D deficiency in our study is hard to explain.**

However, the researchers say, “The surveys we reviewed consistently showed a higher prevalence of overweight and obesity over the past 20 years.” They hypothesize that the increased prevalence of overweight and obesity is likely to be caused by decreased sun exposure from limited mobility and/or reduced outdoor activity. Nick Sharman, from the University of Melbourne’s Faculty of Veterinary Science, led the project conducted with the world’s largest genome sequencing facility, NGS-International and international collaborators including the University of Melbourne from a single pair of tiny worms using an automated approach to generate a comprehensive set of mutations. The project has been published in the latest issue of the journal Nature Genetics.

Schistosoma haematobium infection is a major health problem in many developing countries, and is the most deadly, particularly because of its link to bladder cancer. This study shows that there is a genetic predisposition to Schistosoma haematobium infection, even in populations at high risk for the disease. The researchers also found that the genetic code for blood parasite Schistosoma haematobium was sequenced, but is the most devastating, particularly because of its link to bladder cancer.”

**Almost one-third of Australian adults over the age of 25 have a vitamin D deficiency, a new study has found.**

The study involved almost 2,000 people and observed the prevalence of vitamin D deficiency, a common condition that can lead to a range of health problems. The study found that 31 per cent of women and 27 per cent of men had vitamin D deficiency, with the highest levels observed in women and men aged 65 and over. The study also found that the prevalence of vitamin D deficiency increased with age, and was higher in women than in men.

**Vitamin D deficiency rates concern**

Almost one-third of Australian adults over the age of 25 have a vitamin D deficiency, a new study has found. This is a significant concern, as vitamin D deficiency is linked to a range of health problems, including osteoporosis, cardiovascular disease and some cancers. The study found that 31 per cent of women and 27 per cent of men had vitamin D deficiency, with the highest levels observed in women and men aged 65 and over. The study also found that the prevalence of vitamin D deficiency increased with age, and was higher in women than in men.

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MUP Publications

This month's piece is Shannon Bennett's France: A personal guide to the dining in France by Shannon Bennett and Scott Murray. Mupmag unemployed, 2011.

Please email your answer to the question below by Monday 29 February 2012 and all correct answers will be published online. All correct answers will receive a copy of Shannon Bennett’s France.

What does the acronym AQD stand for, and which French industry is regulated by AQD?

Shannon Bennett's France: A personal guide to the dining in regional France

Shannon Bennett, chef, and owner of internationally renowned restaurant Vue de monde on Melbourne’s Southbank, has made a career exploring the culinary landscapes covered in his latest book about travel and food.

Bennett and friends review all the favourites, from three-star restaurants to local bistros, from luxury hotels to stores with a view. The guide includes Shannon’s perfect three-day break in Monte Carlo and a movie producer’s guide to Cannes, as well as a sommelier’s tips on choosing the best French wines.

In addition, of course, are Shannon’s own recipes, from everything from Gooie Gouie to Salade Lyonnaise and Gâteau Basque. Shannon Bennett’s France is the perfect read for planning a dream holiday in the country that is unsurpassed for its culinary experiences.

About the author

Shannon is one of Australia’s most acclaimed restaurateurs. He is the owner–chef of Vue de Monde and the multi-award winning Vue de monde, which tells the story of Melbourne through the plate.

Shannon’s philosophy is to present a theatrical dining experience, something he achieves through the ability to manage their restaurant efficiently, his uncompromising approach to classical techniques and his commitment to providing the best restaurant service. His accomplishments include Shannon has written the bestselling cookbooks My Vue and My French Vue, as well as Shannon Bennett’s New York and Shannon Bennett’s Paris.

Scot Murray is a film maker, author and Shannon’s travelling buddy. He was the co-founder and co-producing editor of the Sunday Project and editor of Food in the Fast Lane, which was selected for the Cannes International Film Festival in 1986. He has written extensively on nearly every cuisine and has edited several books on Australian cuisine. He also co-wrote Shannon Bennett’s Italy and Shannon Bennett’s France.

Teaching clever kids

A University of Melbourne researcher is using her knowledge of gifted children in her teaching skills, and for an academic year in Melbourne, watching them interact and integrate with preschool and prep.

Up close podcast

http://upclose.unimelb.edu.au

Diamond data mining

Graduate and postgraduate students and the materials that make it possible

Physicist Professor David Assotcllum discusses the powerful potential of quantum computing, and how materials such as diamonds are one step closer to the future of computing.

Dr Quigley is in the remarkable position of having been witness to such a scenario, living through the aftermath of the recent Christchurch, New Zealand, earthquakes. Eighteen months of investigation and unpredictable tectonic have resulted in local lobbing for a comparison to help them interpret their experience.

“A few hours before the experience of living through the Canterbury earthquake sequence to living through the bombing raids of the Second World War,” Dr Quigley informs.

There is uncertainty over the exact time and location of the next quake, how long the shaking will last, how much damage it will cause and when the sequence will be over,” Dr Quigley is in the remarkable position of being both expert and resident. After completing his PhD at the University of Melbourne, the Canadian-born scientist moved to Christchurch in 2008, where he is a lecturer in Active Tectonics and Geomorphology at the University of Canterbury.

Dr Quigley and his partner live in the “Tricentre” area, which suffered greatly, as major earthquakes in February and June 2011 caused widespread loss of utility and costs nearly 200 lives. “Following the major earthquakes, we had to be without power, water, sewerage and internet for weeks. It was a bit like camping in our house,” Dr Quigley recalls.

Damage to infrastructure caused by tremors and liquefaction means that certain health hazards have lingered.

“The dust pollution from the fine-grained sands that were ejected from the ground during the liquefaction was bad for our respiratory health. It also is in this material, as part of the devastation, trapped in our saby,” he says.

The destruction means Dr Quigley has had to contend with a condemned house and a move to the less-affected eastern side of the city. Such upheaval informs his own perspective.

“There is tremendous stress in dealing with insurance companies, the Earthquake Commission, bankers and lawyers; there is tremendous uncertainty and lots of waiting on phone calls or emails,” Dr Quigley laments.

In the midst of this chaos, Dr Quigley has become one of New Zealand’s foremost experts on the Canterbury earthquakes and the recovery process.

In December he was awarded the New Zealand Prime Minister’s Science Media Communication Prize, award for his efforts at educating and informing New Zealanders about the nation’s worst natural disaster since the 1931 Hawke’s Bay Big earthquake.

“It is a fairly balanced approach, as the professional demands of letters and reports do not always match,” Dr Quigley says.

“Somehow they manage to be able to respond immediately and succinctly to questions that aren’t always in our immediate area of expertise. It is also important to know when to say ‘I don’t know the answer to that.’

Questions can be unexpected, while the impact of an expert’s advice can alter public opinion in disaster management and recovery.

“It is a challenge to get the balance right while the cautious optimism required to facilitate recovery and the cautious realism of the situation at hand,” Dr Quigley says.

He believes New Zealanders are cognizant of the danger beneath them.

“For the scientist, it is important to be aware of our residence astride a tectonically active plate boundary. This provides for a tremendous landscape, but the most New Zealanders about the nation’s worst disaster management plans, highlighted by the 2003 formation of the multiagency Natural Hazards Research Platform. At a cost of $330 million, the platform was set up to increase New Zealand’s resilience to natural hazards via high quality collaboration research and responses,” Dr Quigley says.

“In the very last test the platform came through very well, although there are always lessons to be learned.”

Foremost among these are revised building codes and improved land use decisions – developments that recognise Christchurch’s vulnerability to further earthquakes.

“The recovery process is under way and science is playing a key role. More efficient, safer and more comfortable houses and buildings are being constructed,” Dr Quigley says.

“This will make Christchurch a better place to live in and work in the future.”

Further help has come with the recently established Earthquake Commission, which fulfils insurance claims to New Zealanders about the nation’s worst disaster management plans, highlighted by the 2003 formation of the multiagency Natural Hazards Research Platform. At a cost of $330 million, the platform was set up to increase New Zealand’s resilience to natural hazards via high quality collaboration research and responses,” Dr Quigley says.

The New Zealand Government is suitably prepared to deal with a catastrophic earthquake, and is ready to respond.

“The Commission has had to cope with a tremendous financial and logistical challenge and has, in most cases, come through very well,” Dr Quigley says.

Earthquake interpreted

University of Melbourne researchers have launched a new iPhone app that factors in local rainfall information and plant type to help gardeners determine how much to water and when.

Gardeners are now very aware of garden water efficiency so the “SmartGardens” app was developed by Dr Jon Pearce from the School of环境科学 and developed into a website to provide information to gardeners in Melbourne and Sydney, and is now available from iPutes.

“Gardeners are now very aware of garden water efficiency so the ‘SmartGardens’ schedule is calculated to suit your garden the optimum 10 Litre dose of water for each area of your garden based on the wind, rain and temperature for the day,” Dr Pearce says.

“The app also shows you the rainfall in your selected area for the past seven days, allowing you to adjust that schedule based on recent weather events.”

“Watering, scheduling and automatic watering system settings and regular hani-}

The “SmartGardens” app links to the SmartGardens mobile app, a garden watering advisory tool, init- bened by Gazelle Communications and colleagues from the Melbourne School of Land and Environment and developed within a website in collaboration with Dr Pearce.

The SmartGardens app enables gardeners to input their suburb, plant species, various garden conditions and water tank information, for tailored suggestions on water efficiency. By incorporating the SmartGardens app, gardeners also have a mobile watering reminder system.

“For those of us lucky enough to be going on holiday, or for those left in charge of watering a friend’s garden over holidays, the app tells you when you have felt earthquakes at some stage in their lives. Daily life is a struggle, but the tremendous beauty and scale of Christchurch’s vulnerability to further earthquakes.

“The Christchurch earthquake is the result of a very predictable tectonic tectonic process. This provides for a tremendous landscape, but the most New Zealanders about the nation’s worst disaster management plans, highlighted by the 2003 formation of the multiagency Natural Hazards Research Platform. At a cost of $330 million, the platform was set up to increase New Zealand’s resilience to natural hazards via high quality collaboration research and responses,” Dr Quigley says.

“In the very last test the platform came through very well, although there are always lessons to be learned.”

Foremost among these are revised building codes and improved land use decisions – developments that recognise Christchurch’s vulnerability to further earthquakes.

“The recovery process is under way and science is playing a key role. More efficient, safer and more comfortable houses and buildings are being constructed,” Dr Quigley says.

“This will make Christchurch a better place to live in and work in the future.”

Further help has come with the recently established Earthquake Commission, which fulfils insurance claims to New Zealanders about the nation’s worst disaster management plans, highlighted by the 2003 formation of the multiagency Natural Hazards Research Platform. At a cost of $330 million, the platform was set up to increase New Zealand’s resilience to natural hazards via high quality collaboration research and responses,” Dr Quigley says.

The New Zealand Government is suitably prepared to deal with a catastrophic earthquake, and is ready to respond.

“The Commission has had to cope with a tremendous financial and logistical challenge and has, in most cases, come through very well,” Dr Quigley says.

Earthquake interpreted

University of Melbourne researchers have launched a new iPhone app that factors in local rainfall information and plant type to help gardeners determine how much to water and when.

Gardeners are now very aware of garden water efficiency so the “SmartGardens” app was developed by Dr Jon Pearce from the School of Environment and developed into a website to provide information to gardeners in Melbourne and Sydney, and is now available from iTunes.

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“Gardeners are now very aware of garden water efficiency so the “SmartGardens” schedule is calculated to suit your garden the optimum 10 Litre dose of water for each area of your garden based on the wind, rain and temperature for the day,” Dr Pearce says.

“The app also shows you the rainfall in your selected area for the past seven days, allowing you to adjust that schedule based on recent weather events.”

“Watering, scheduling and automatic watering system settings and regular hand-}

The “SmartGardens” app links to the SmartGardens mobile app, a garden watering advisory tool, init- bened by Gazelle Communications and colleagues from the Melbourne School of Land and Environment and developed within a website in collaboration with Dr Pearce.

The SmartGardens app enables gardeners to input their suburb, plant species, various garden conditions and water tank information, for tailored suggestions on water efficiency. By incorporating the SmartGardens app, gardeners also have a mobile watering reminder system.

“For those of us lucky enough to be going on holiday, or for those left in charge of watering a friend’s garden over holidays, the app tells you when you have
**FEBRUARY**

The Joy of Sin

**Sin: it's good for you!**

The Ian Potter Museum of Art at the University of Melbourne is celebrating its 40th anniversary with an exhibition of major works from the University's collection.

**The Potter turns 40**

Two captivated performances will be included in the Melbourne Theatre Company’s Australian premiere of the work of Ruben Carrazana, stunningly painted yet destinies of her own. She turns Billy into a robot, controlling his every move.

**The sound of deafness**

The University Art Gallery has been acquired since the very early days of the University. From 1975 the Gallery was under the direction of Betty Clark, then on the Macquarie University. The current facility, designed by Norman Kirkaldy, was opened in August 1993 as The Ian Potter Museum of Art and Christopher Morris has been Director since 2003.
Managing giftedness in early childhood

By Ingrid Sanders.

Research by Anne Grant is using her knowledge of gifted children in her formative educational years to help better inform and teach gifted young people.

In research for her PhD, Dr Grant followed the lives of seven ‘gifted’ children for one full academic year in Melbourne’s north-east and northern suburbs, watching them interact and integrate with preschool and prep peers.

She found gifted children often ‘acted out’ their frustrations due to boredom, read ahead or behaved badly or not gain attention because they didn’t have the maturity to deal with issues any other way.

Dr Grant says her study showed a number of early childhood and primary teachers were not well equipped with the resources or knowledge needed to recognise and manage gifted children in the classroom.

She says it is important from gifted children’s earliest experiences of preschool and school that their learning needs are met if they are to maximise their learning.

Gifted children may be aware of a child’s giftedness but resources to provide any special attention may be available.

‘Heads up for Gifted Children’ is an early childhood professional development program designed to help teachers recognise and manage gifted children in the classroom.

The term gifted refers to approximately one in 20 people in the Australian population fit into this group classified as gifted.

‘Dr Grant says on average, there’s usually one gifted child in every classroom.’

The problem is that some teachers may not recognise they have any gifted children among their cohort, while others may be aware of a child’s giftedness but resources to provide any special attention are not available.

‘One of Dr Grant’s student subjects, Peter, started school well, but found all the teacher offered at the beginning was play, he got bored, didn’t want to interact in this way and was then unhappy about going to school.’

Another young boy, ‘Bradley’, showed he had high ability, but this was usually measured by the tests that were given instead of by the quality and quantity of the work that he did.

Another example of gifted children being identified is the case of ‘Sarah’, who is a gifted child who has already advanced beyond baseline knowledge and skills.

‘It is vital that teachers, even at pre-school level recognise the presence of gifted children, and then provide for them educationally,’ she says.

Another problem, she says, is the culture of the classroom and try to fit in rather than drawing attention to the fact that they are different. But ultimately this may be aware of a child’s giftedness but resources to provide any special attention may be available.

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‘It is vital that teachers, even at pre-school level recognise the presence of gifted children, and then provide for them educationally,’ she says.

Dr Grant says her study showed that almost 1 in 20 people in the Australian population fit into this group classified as gifted.

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**Global undergraduates**

As part of their undergraduate studies, a Science and a Business and Economics student have participated in major international fora. By David Scott and Zoe Nikakis.

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**SPORT**

Local sporting fans know there’s a lot that goes on behind the scenes to which they wouldn’t normally get to see. So when they watch players’ tops, or organise the team’s insurance, or even arrange for a ground at which to train and play, it’s a lot of resources and support to keep a team going, which has led to Melbourne University Sport (MUS) ensuring the Sport Foundation’s aspiration to provide long-term support for its many sporting clubs.

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**Good foundations**

David Scott finds out about Melbourne University Sport’s new approach to long-term support for its many sporting clubs.

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**Health careers in remote areas**

Blaise Murphet spoke to medical student Julia Payne about her recent clinical placement experience of bringing healthcare to remote communities in the Northern Territory.

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**THE UNIVERSITY OF MELBOURNE**

**FEBRUARY VOICE 9**

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February Timetable

WEDNESDAY 15 FEBRUARY
7PM
Rana Meil in Conversation with Gerth Claus - HealingIViocation by Preventing Future Abuse. To avoid future violence, it is important to understand how we can change society and our own lives.

Thursday 16 February
FRI, 10am
PUBLIC LECTURE THEATRE, OLD ARTS BUILDINGS
VICTORIAN COLLEGE OF THE ARTS
SHORT COURSES
Short courses are an opportunity for everyone to experience the excellence and innovation of the Victorian College of the Arts and enjoy some creative time out.

Friday 17 February
FRIDAY 17 FEBRUARY
10AM
The Rome State Ten Years On: where to from here for the International Criminal Court by Francisco Aguinaga (Director, Peace Palace Library) and Dr Steve Finlayson (Senior Lecturer, Sydney Law School, University of Sydney). COST: $200

Monday 20 February
MONDAY 20 FEBRUARY
10AM
Extending Relational Co-operation in Primary Health Care Education and Training by Jennifer Popple, Professor, Curtin University. COST: $200

Tuesday 21 February
TUESDAY 21 FEBRUARY
10AM
Composition: Working with Melody and Harmony

Concerts

MELBOURNE CONSERVATORY OF MUSIC
SHORT COURSES
Courses are offered for musicians of all ages and levels of experience, from junior to advanced, in piano, voice, orchestra, choirs, and music theory. The courses are designed to meet the needs of musicians and music lovers.

The VCA's School of Performing Arts is one of Australia's most prestigious and innovative professional industry training institutions offering a diverse range of programs, including acting, dance, music, and innovation of the Melbourne Conservatorium, with all courses taught by experienced, dedicated staff.

Visit: conservatorium.unimelb.edu.au/artseducation/shortcourses

Programs:
- Alexander Technique for Musicians Learn how to take care of your body while you play and perform music. Increase your well-being and comfort as a musician.
- Vocal Health for Singers
- Piano Pedagogy for Teachers
- Composition: Working with Melody and Harmony
- Composition: Working with Harmony in Composition
- Composition: Working with Advanced Harmony

15 March – 7 July, Monday evenings Cost: $275 (discounts for University of Melbourne alumni, staff and students)
www.conservatorium.unimelb.edu.au/artseducation/shortcourses

CONFERENCE

MONDAY 20 FEBRUARY
LOWE THEATRE, REDMOND BARRY BUILDING
Business and Economics Lecture

Tuesday 21 February
TUESDAY 21 FEBRUARY
11AM
Governance Hotspots in Victoria’s Public Services (Forum) by Mel De Frances (Auditor General, Victoria). Arts Lecture and rooftop viewing. See discounts for University of Melbourne alumni, staff and students.
www.conservatorium.unimelb.edu.au/performingarts/shortcourses

Wednesday 22 February
WEDNESDAY 22 FEBRUARY 6.30PM
Politics and Economics Lecture

Thursday 23 February
THURSDAY 23 FEBRUARY
1PM
Winter School Intensives (secondary students and adults)

Friday 24 February
FRIDAY 24 FEBRUARY
1PM
Film and TV Foundation Course

Saturday 25 February
SATURDAY 25 FEBRUARY
9AM
Artists for Hong Kong Concert at Melbourne Town Hall

Sunday 26 February
SUNDAY 26 FEBRUARY
10AM
Veterinary Science & Hospital Open Day

Monday 27 February
MONDAY 27 FEBRUARY
10AM
Poetry Performance Ensemble (VicMoz

Tuesday 28 February
TUESDAY 28 FEBRUARY
10AM
 freezer staff, current students or members of special interest groups.

Melbourne University of Veterinary Medicine & Science

PublicLectures

HOTSPOTS
TUESDAY 6 MARCH 5.30PM
Governance Hotspot in Victoria’s public services (Forum)
MELBOURNE BRAIN AUDITORIUM, KENNETH MYER BUILDING
Bookings and enquiries: http://alumni.online.unimelb.edu.au/artseducation/shortcourses

POLITICAL CRISIS
WEDNESDAY 13 MARCH 6.30PM
How can we ensure that our democracy is sustainable?
MELBOURNE BRAIN AUDITORIUM, KENNETH MYER BUILDING
Bookings and enquiries: E: rua@unimelb.edu.au, Ph: 03 8344 3673

HEAVENLY ART SHOW
THURSDAY 23 FEBRUARY 10AM-5PM

GIVE FOR HAPPINESS
THURSDAY 15 MARCH 6.30PM
How charitable giving improves your own happiness - and the organisation’s bottom line. See discounts for University of Melbourne and Freedom Foundation alumni, staff and students.
www.law.unimelb.edu.au, Law, 9623 2474

For University maps and locations visit: unimelb.edu.au/campuses/maps.html