As a boy, Flinders final-year medical student Jawed Noori was used to the regular bus trip from the family’s temporary home in rural Afghanistan to Kabul.

His family had fled the capital in 1994, when Jawed was eight, to escape the random acts of violence and destruction of warring ethnic groups which cost the lives of many thousands of Afghan civilians.

It was during one of these trips that his father was taken off the bus by unidentified gunmen and shot dead.

“We didn’t find his body for 18 days,” Jawed told Flinders Journal.

As if this was not devastating enough, soon after, Jawed’s 11-year-old brother and two year old sister died of diseases which could have been treated with simple medical therapy in any other country.

Jawed’s mother, pregnant with twins at the time of her husband’s murder, gave birth to a girl and boy. The boy only survived one year. Jawed along with his family fled to Pakistan as refugees, like the two million other Afghans at the time.

“Mine is not an unusual story. I know many people who have lost everything and are still living in refugee camps where the conditions are horrible and there’s no real future,” Jawed said.

He considers himself “lucky” because he had family in Australia who sponsored him and his family, however, this process took two years and a lot of borrowed money without which it would have been impossible to complete the requirements of the application process.

Hope in story of Afghan loss

continued on page 2...
The tragic strategy of the suicide bomber

In his new book, Life as a Weapon, Flinders sociologist Emeritus Professor Riaz Hassan rejects the popular notion that suicide bombings can be explained away as the acts of individuals who are morally depraved, psychologically impaired, uneducated or religious fanatics.

While acknowledging their horrific effects, his analysis of 1200 suicide bombings over 25 years has led him to the conclusion that suicide bombing is not an irrational act: rather, it is a strategic weapon, used by a weaker party in an asymmetrical, unequal conflict between the state and non-state actors.

“One must ask if these people are mindless terrorists or are they, rather, mindful martyrs fighting for a cause.”

Their causes are, almost without exception, political, Professor Hassan said.

“The phenomenon emerges in areas and countries which have been the location of endemic conflicts, and those conflicts are essentially political,” he said.

“They are either territorial, as in the case of Palestine and Israel, or they are conflicts in which the quality of citizenship has been withdrawn or denied, as in Sri Lanka, or where there is a change of power relationships because of occupying foreign armies, as seen in Iraq and Afghanistan.”

Professor Hassan said that all endemic conflicts result in dislocation, the creation of refugee camps and the incarceration of people who are considered to be insurgents.

“Invariably, the dislocation that results from endemic conflicts is at the heart of suicide bombing,” he said.

His research also concludes that suicide bombing is never a weapon of first choice, but is used as a last resort by the weaker party.

The book relies on a database of suicide bombings that was originally intended to record incidents that occurred between 1981 and 2004. But in the wake of the Iraq war, reports of attacks skyrocketed.

“In a single year, the number of suicide bombings in Iraq eclipsed the global total of the previous 20 years,” Professor Hassan said.

He finally “drew the line” at the end of 2006.

Life as a Weapon was recently published by Routledge in the US, the UK and Canada.

Charles Gent

Jawed Noori

Jawed, who had had only two years of schooling and no English at all, started school in Australia at Year 6. “I set myself a goal: I wanted to make the most of the opportunity, of this second chance at life,” he said.

He worked as a delivery boy in a pharmacy while at school, and remained committed to his studies.

“Life was getting a little bit better for us but, unable to adjust and come to terms with her losses, Mum developed a chronic mental illness,” he said.

At the end of Year 12, Jawed graduated as Dux of his school with a near perfect score in English. He went on to complete a Bachelor of Biomedical Science degree at the University of Melbourne before coming to Flinders in 2007 to study medicine.

He’ll return to Melbourne next year as an intern.

“I have a passion for surgery and I hope to follow through and become an Orthopaedic Surgeon,” he said.

But he lives every day with the memories of life in Afghanistan and the difficulties of those who continue to suffer from the horrors of war and the misery it brings upon a civilian population.

“You can never forget who you are. The positive thing is that it gives you the strength to try to make the most of what you have left.”

Vincent Ciccarello

Cover photo: Gunmen in Afghanistan
© Oleg Zabelin
Engineering the future in biomedical devices

It seems Karen Reynolds was always going to be an engineer. She designed her first mechanical device, a water pump, at the age of six. And while she knew what she wanted to do there was no clear pathway to get there in the absence of undergraduate degrees in biomedical engineering. This month Professor Reynolds received Engineering Australia’s highest accolade by winning the 2010 Professional Engineer of the Year in South Australia.

The journey has taken Professor Reynolds from studying physics at Oxford University and a PhD and the start of an academic career in biomedical engineering at Leicester University in the UK, to inspiring the next generation of biomedical engineers at Flinders University – the first in Australia to offer undergraduate biomedical engineering – for the past 14 years.

Professor Reynolds still finds that biomedical engineering is not well understood as a field of study and research.

“Biomedical engineering is basically the point at which engineering overlaps with medicine and life sciences. It supports the development of the tools that doctors use – the devices, the instrumentation and the monitors that you find in a hospital or a surgery,” Professor Reynolds tells Flinders Journal.

“Those tools and devices range from implants, replacement hip and knee joints and artificial heart valves through to monitoring devices that make sense of the body’s information and rehabilitative and assistive technologies,” she said.

In the future, Professor Reynolds sees biomedical engineering combining with the frontier technologies to be found in nanotechnology and human tissue technology.

“It is really important that the people in this field collaborate with the physicists, the chemists and the clinicians to work together and contribute the parts of the puzzle with which they are most familiar,” she said.

Professor Reynolds draws on her own experience to describe why students might consider study and a career in the field.

“Biomedical engineering appealed to me because it was a blend of the hardcore, get-your-hands-dirty sort of engineering, and electronics with a human dimension – it is the potential to achieve something for the public good that is so exciting,” Professor Reynolds said.

It is a long way from designing water pumps at the age of six but Professor Reynolds retains her passion for this rapidly developing field that is set to make a substantial difference to society.

Peter Gill

Scholarship has students going to water

A new industry scholarship, the first of its kind at Flinders University, is set to encourage a new generation of school leavers to study the issue Australians consider their highest priority: water.

The National Centre for Groundwater Research and Training (NCGRT), based at Flinders, with industry partner and leading engineering, sciences and project delivery firm, Sinclair Knight Merz (SKM), will jointly offer the $15,000 scholarship to a student undertaking a three-year hydrogeology-related degree in the University’s School of the Environment.

NCGRT Deputy Director, Professor Peter Cook said the scholarship will include a minimum six-week paid work experience placement each year, with one scholarship available to a new commencing student annually.

“Numerous surveys have revealed that the availability and use of water rates as a high priority among many Australians, and yet the nation has a chronic skills shortage in this area,” Professor Cook said.

“Groundwater is central to the issues of water supply. The NCGRT and SKM have developed this scholarship as one way to entice more people into what is an exciting and increasingly important field,” he said.

The scholarship will be awarded on the basis of academic achievement, satisfactory responses in the application form and an interview.

Applications open on 25 September 2010 and information is available at the following websites:

www.flinders.edu.au/scholarships

Peter Gill
Teaching

Business students soak up European experience

Looking, learning and networking were on the agenda for a group of eight students from the Flinders Business School (FBS) who recently took part in intensive, three-week short courses in Norway and Slovenia.

A variety of topics, ranging from negotiation techniques to intercultural management were available to the five students who attended Flinders’ partner school in Oslo, the BI School of Management, and the three students who attended the University of Ljubljana.

And while all gained valuable knowledge and credit toward one elective topic in their Flinders studies, the broader cultural experience also left a lasting impression.

Anna Macrow, a Bachelor of Commerce (Accounting)/(Finance) student, said Slovenia was her destination of choice. “I’ve always been interested in that part of Europe. This was a great opportunity to meet other students from around the world and learning to negotiate with their many different communication styles was valuable,” Ms Macrow said.

“It was also interesting to see on our company tours just how different businesses present themselves,” she said.

“I feel there are many opportunities in Slovenia.”

Renee Thorpe, who is undertaking a Bachelor of Business/Bachelor of International Studies double degree, said the short course gave her a taste of study in Europe without having to make a long-term commitment.

“I was glad to have this opportunity to include an international study component as part of my Flinders degrees,” Ms Thorpe said.

“We noticed that the Scandinavian model of business structure is rather flat. You find senior managers working alongside lower level staff in an open-plan space,” she said.

“There also appears to be gender equality in the workplace.”

Short course program administrator, Anne Gleeson said an international experience for students broadens their horizons.

“Short course program administrator, Anne Gleeson said an international experience for students broadens their horizons. It increases their intercultural competence and their maturity, as well as being a lot of fun,” Ms Gleeson said.

FBS and the University’s scholarships program provided some financial support to the students.

Curriculum change worries rural schools

A Flinders University survey of school leaders in rural and remote areas has found that while responses to the introduction of the national curriculum range from sceptical to enthusiastic, many believe that the time and resources allotted for the transition are inadequate.

Some of the 44 principals who responded to the survey have greeted the prospect of a standardised national curriculum with enthusiasm, but others are dismayed at being required to give up current State frameworks they regard as highly satisfactory.

Some principals are questioning the new curriculum for a lack of emphasis on local issues and interests and its failure to take up the educational opportunities afforded by ‘place’. At the same time there is concern that there will be insufficient teacher expertise available to small, rural schools to deliver the “specialist learning” required by the national curriculum.

Professor John Halsey, the Sidney Myer
Chair of Rural Education and Communities said that while response to the content of the national curriculum was “a mixed bag”, concern about a lack of resources for implementation was a common theme, occurring in the principals’ comments no less than 58 times.

“One respondent put the issue bluntly: ‘So we have the same curriculum, but do we get the same resources as our coastal and metropolitan counterparts?’”

“They are looking for time, they are looking for resources and they are looking for better information,” Professor Halsey said.

He said rural and remote schools are again faced with the problem of securing sufficient relief teachers to release their staff for training.

“In a nutshell there are mixed feelings, and the misgivings are being fuelled by lack of information and resources, including time. Professor Halsey said there is a sense in which the national curriculum is adopting a large, aggregate model for its implementation that does not respond to local variations.

“In terms of implementation, there needs to be horses for courses. If we really do value rural communities, we have to do more than follow a metro-centric ‘one-size-fits-all’ approach.”

Charles Gent
Keeping an eye on underwater aliens

Newly identified exotic species of marine life around the Eyre Peninsula that could threaten South Australia’s aquaculture industry need to be monitored closely, according to Flinders University researchers.

The first baseline survey of introduced marine species in the West Coast waters identified 16 species that originate from overseas or other parts of Australia, and found evidence pointing to the presence of three more.

**Associate Professor Sabine Dittmann** warns that exotic species have the potential to disrupt the native marine ecosystems and the aquaculture industry, particularly if changes to environmental and climatic conditions act in their favour.

Several months of work were required to confirm the identity of the various species, which include blue mussels, Pacific and pearl oysters, crabs and smaller crustaceans and various sessile (fixed) filter feeders and sea squirts.

Water temperature tends to dictate distribution: “Tropical species occur more in the upper Spencer Gulf, while those that originate in more temperate, colder waters tend to thrive at the southern tip of the peninsula,” Associate Professor Dittmann said.

Most of the creatures would have arrived via encrustations on ship hulls and ballast water. Some originate from Europe, while other more recent arrivals derive from increased trade with Asia.

“Tropical species occur more in the upper Spencer Gulf, while those that originate in more temperate, colder waters tend to thrive at the southern tip of the peninsula,” Associate Professor Dittmann said.

Populations of Pacific and pearl oysters are of particular concern to aquaculture producers, as they compete directly for food with the native mussels and oysters farms and the managed fisheries of razorfish.

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Southgate Institute warns of holes in the Net

As the rollout of the national broadband network looms, a Flinders University study has found that not everyone has the knowledge or the resources to enjoy the benefits offered by digital technology.

The study, led by Dr Lareen Newman, a senior research fellow in the University’s **Southgate Institute for Health, Society and Equity**, found evidence of a “digital divide” among lower income groups in Australia, identifying wide differences in the frequency and quality of access to, and familiarity with, digital technology.

The findings are published in the latest issue of the online *Journal of Community Informatics*.

While previous studies looking at barriers to technological access have focused on particular social segments, the Flinders study employed focus groups of people aged between 25 and 55 from lower socio-economic backgrounds.

The responses revealed that because of their lower levels of exposure to computers, mobile phones and the internet, people in lower socio-economic groups have less of the skills necessary to access these technologies and use them effectively.

Lack of familiarity produces lower levels of confidence and trust in digital technologies, which in turn compounds the distancing effect. “It becomes a vicious circle,” Dr Newman said.

Dr Newman said most people who are relatively well off and well educated are familiar with operating digital technologies.

“I know how to do an internet search, how to discriminate between and sort the results and I also have social connections who can help me with any problems: but there were people in the focus groups who didn’t even know how to turn a computer on and had no-one to show them.”

Dr Newman also said that the heavily text-based nature of digital information could be daunting to people who struggled with literacy.

She said as more and more information about services in areas such as health and employment move to the internet, providers need to be wary of presuming that providing a web address is all they need to do.

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Charles Gent

Dr Lareen Newman

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Charles Gent
Research

New system shortcuts campus obstacles

An innovative online resource will soon make negotiating Flinders University campus easier.

The Wayfinding Project is an initiative of the University’s Disability Service division and is primarily aimed at helping people with reduced mobility.

However, Disability Adviser Paula Williams said that while the project addressed legislative requirements and goals in the University’s Strategic Plan to improve access for people with disability, the resource would also benefit a wide range of people who use and visit the campus.

“There are people who are just nervous about coming to a new place for the first time,” Ms Williams said.

“And there are people who are coming to the campus who don’t have much time to negotiate the campus which is spread out and over different levels,” she said.

“For some students, their disability is anxiety and they can fear having to find a new place at the start of each semester.

This resource will allow them to rehearse their journey first, taking away a lot of that fear.”

Brett Wilkinson, a lecturer in the School of Computer Science, Engineering and Maths, has been developing the system over two years.

“We’ve mapped the entire campus, pinpointing various important points – lecture theatres, doors, security phones, lifts, access toilets, emergency exits – as nodes,” Mr Wilkinson said.

“We’ve then made a video between each and every node, and assigned a ‘cost’ to each segment between nodes,” he said.

“Distance is the basic cost and we have multipliers: stairs multiply the cost by 100; a slope by 50, and so on.

“Users enter the departure and destination points and the system calculates the overall ‘cost’ in metres, selects the shortest path and creates a video and still images of the entire journey.”

The videos can be viewed and downloaded to a computer and Smartphones.

Ms Williams said the system may eventually include a voiceover to assist people with vision impairment, and has commercial potential.

Vincent Ciccarello

Just air may be better at the end of human life

While millions of patients with advanced disease are given oxygen therapy to help them breathe more easily, an international study led by Flinders University’s Professor David Currow has found that roughly half of them don’t benefit from the intervention. Among those who do benefit, ordinary air and oxygen offer equal benefit for those whose levels of oxygen in the blood are normal.

The study of 240 patients in Australia, the UK and the US found that while the practice of giving oxygen to ease breathing is widespread, it is not based on rigorous scientific evidence.

The results of the research were published in The Lancet.

Shortness of breath (also known as dyspnea) is a common symptom in very advanced stages of many diseases and disorders when every effort has been made to reverse underlying causes.

Clinical guidelines recommend oxygen when blood oxygen levels fall so low that a patient becomes hypoxic — when there isn’t enough oxygen in the blood to keep vital functions going. But there are large numbers of patients whose oxygen levels haven’t fallen into the critical zone who still experience difficulty breathing and feel they need help.

Patients in the trial received either oxygen or room air for one week to see if would help ease their breathing. The same percentage of patients in both groups reported the same degree of relief from each treatment, leading to the conclusion that supplemental oxygen isn’t any more beneficial than the delivery of air by the nose.

The results suggest that the same level of relief might be achieved by using something as simple as a small fan, a solution that would be less cumbersome for patients and less costly to the system.

“So while having air blow across your face may be helpful, this study demonstrates that for most people it is not the oxygen itself that is making the difference,” Professor Currow said.

“Studies like this can help inform our decisions during palliative care, help in health service planning and ultimately enable us to give the patients that we serve the best care possible at a time when they need it most,” he said.

Charles Gent
Flinders adds to its repository of Labor leaders

Another Labor leader is giving his collected personal papers to the Flinders University Library’s Special Collections, but the donor, former SA Premier John Bannon, cautions that a considerable amount of work remains to be done before the resource is ready for researchers.

Flinders already possesses collections left by Federal Labor leader Dr HV Evatt and an earlier State Premier, Don Dunstan.

Dunstan and Bannon’s leadership of State Labor covers a 25-year span from 1967 to 1992, with just a six month break in 1979 during Des Corcoran’s premiership.

Dr Bannon, who has a PhD in history from Flinders, said the collection includes official documents and reports, personal and public correspondence, briefings, speeches and files of newspaper clippings on public and political issues dating from the early 1960s up until 2000.

The Bannon Collection, which will be housed in the Central Library at Flinders, also contains photographs, posters, cartoons and other memorabilia, including an unsolicited portrait of dubious artistic merit.

Dr Bannon and his wife Angela are in the process of ordering and indexing the thousands of pages of stored material to make it accessible to scholars.

Dr Bannon said his contribution dovetails neatly with the existing holdings, as his records extend back to his time as a minister in the Dunstan government.

“The task we’ve embarked on is to collate and classify all the documents, sorting out the trivia and finding the gems,” Dr Bannon said.

Detailed descriptions of the material are being entered on a database that will be searchable by topic and by year.

“This material is supplemented by more official records held in the State Records Office, and the idea would be for someone working on a topic to cross-reference by moving from one to the other,” Dr Bannon said.

“A researcher could pick up my personal files and find my handwritten notes or a record of a telephone conversation to give a background and a context to the official material.”

Charles Gent

Medlin and Murdoch letters a literary prize

There is a new and valuable addition to the Flinders University Library’s collection of literary manuscripts: the correspondence between Brian Medlin, Flinders foundation Professor of Philosophy, and Iris Murdoch, Oxford University Don and Booker Prize-winning author.

Medlin has been described as an “internationally renowned philosopher who was also a poet, bushman, drover, horse breaker and photographer”, who had been arrested and imprisoned for his public leadership of the campaign to stop the war in Vietnam.

Special Collections Librarian, Dr Gillian Dooley, whose PhD research included the works of Iris Murdoch, said the letters reflect an affectionate relationship and are important as they reveal both sides of their exchanges.

“While Murdoch was a prodigious correspondent, spending up to four hours a day writing letters, it appears she habitually destroyed all letters she received,” Dr Dooley said.

“We are fortunate to not only have 42 handwritten letters of Murdoch to Medlin, but also Medlin’s letters which survive in electronic copies he kept,” she said.

“Murdoch and her husband, John Bayley, visited Australia on a lecture tour in 1967. They visited Adelaide, where she saw Brian Medlin,” she said.

The tour seems to have made little impact on Murdoch’s concept of Australia; nor did the information and advice she sought from Medlin for her novels.

“She kept asking Brian for help — about the way Australians spoke, the vernacular — but then she didn’t actually seem to take up any of his suggestions,” said Dr Dooley, who presented a paper on the subject to the Iris Murdoch Society Conference earlier this month at Kingston University, London.

“I get the feeling that Murdoch got into her own creative world. Even though her intention might have been to have her characters speak ‘authentically’, dialogue wasn’t her strong suit.

“It was the plot and what people were thinking that were important.”

Vincent Ciccarello

Photo: © The Advertiser
Mapping a different vision of the world

In the era of portable GPS devices and Google Maps, the notion of representing ‘cultural knowledge’ on a map may seem quaint.

But a forum earlier this month, presented at the Art Gallery of South Australia by Flinders Humanities Research Centre in association with Flinders University Art Museum with the support of the Australian Academy of the Humanities, challenged the concept of map-making as simply a way to indicate place and direction.

Cartographies of the Imagination was billed as an exploration of “the politics and aesthetics of map-making through the lens of contemporary art practice”.

It featured lectures by British artist Susan Stockwell, Professor Howard Morphy from the Australian National University, and Australian artist Jonathan Kimberley with Indigenous artists Jodie Carnegie and Ngipi Ward. The forum ended with a panel discussion.

Flinders University Art Museum Director, Fiona Salmon said the public forum on mapping in art was a vital part “of the dialogue we are beginning, about how we create representations of cultural histories and practices”.


Courtesy Ian Manton Art and Bett Gallery Hobart

Art and science meet in the laboratory

They could have passed for a group of diligent undergraduates, but the lab-coated group in the biotechnology laboratories at Flinders was actually comprised of artists, bristling with concentration and curiosity.

Under a program organised by Niki Sperou, the Department of Medical Biotechnology’s artist-in-residence, a group of artists from around Australia came to Flinders to learn about one of the most exciting branches of science.

As a result of her regular visits to the laboratories over the past four years, Niki has brought biological organisms and lab products and processes into her own work in a variety of media.

With the assistance of Flinders staff and postgraduates, Ms Sperou ran the four-day workshop to give the artists an introduction to a range of techniques and processes that can both inspire art and be used to create it.

“Science laboratories have long been a ‘closed shop’ and therefore there is great deal of public misconception of what happens here,” Niki said.

“The workshop provided artists with a first hand, hands-on experience of a science laboratory. The aim was to help demystify the processes of science in order to encourage greater understanding.”

Discussion sessions covered philosophical issues surrounding bio-ethics, genetic manipulation and the implications of working with living materials.

“Art is not primarily about creating beautiful images, it about the exchange of ideas,” Niki said.

Charles Gent

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