

# news

January 2018

> from the University of South Australia



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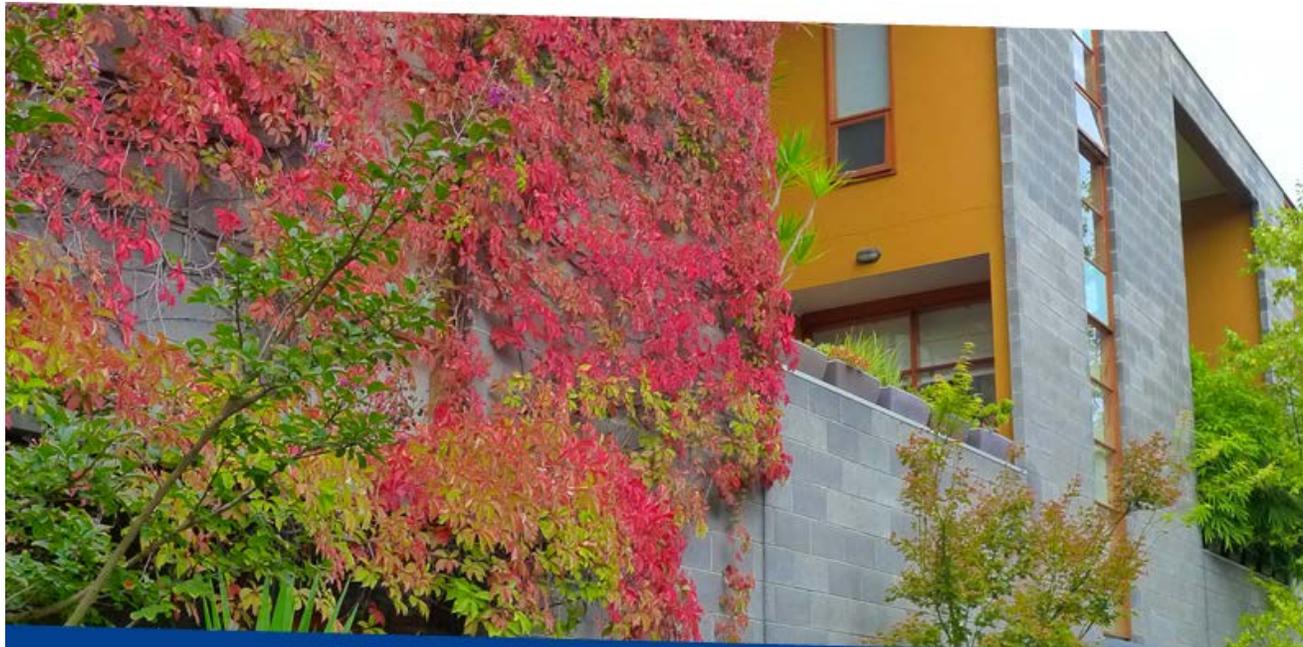


**University of  
South Australia**

## One change that could cool your home by 12 degrees

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by Candy Gibson



### SCIENCE AND TECHNOLOGY

A green wall in the Adelaide CBD. Research shows green walls help maintain better inside temperatures.

With South Australia now the most expensive city in the world for electricity, consumers are desperate to find ways to make savings in the midst of a long, hot summer.

UniSA PhD student Rosmina Bustami may have found a solution.

The civil engineering PhD candidate is investigating the energy savings that can be achieved by installing vertical gardens on household external walls.

Green walls – often referred to as living walls – consist of multiple pot plants housed within a frame, mounted to the wall and watered with a drip system.

The walls not only soften a harsh façade, providing an attractive feature, but can reduce the transfer of heat into the home with temperatures differing by as much as 12 degrees, Rosmina has found.

Her experiment involved installing a vertical garden on a west-facing wall, containing six different species of native plants – 144 pots in total.

Temperatures of the wall directly behind the vertical garden were taken, and compared with a control wall without plants, both western-facing.

The experiment was carried out between December 2015 and August



A vertical garden / green wall.

2016, encompassing the hottest and coolest months of the year.

The biggest temperature difference – 12 degrees – in the study was recorded in January 2016 while the smallest was in June 2016 (2.5 degrees).

However, outside the official experiment period, Rosmina recorded an even more remarkable difference. On Adelaide's hottest day of 2017, 8 February, when the temperature outside peaked at 42.4 degrees, Rosmina recorded a difference in temperature reading of 26.6 degrees Celsius between the green wall and its corresponding control wall.

"I observed a positive difference during the day and a negative difference at night and early morning when the green wall acted as an additional layer of insulation for the house on cold nights," she says.

Rosmina says the South Australian climate, with hot and dry summers, is ideally suited to green walls.

Singapore, renowned for its green credentials where the government has set a target of 50 per cent tree cover, holds the world record for the [largest vertical garden](#).

Attached to a 24-storey apartment building, the green wall measures more than 2229 square metres and results in energy savings of between 15-30 per cent, according to the Singapore Government.

While the green facades are also popular in Europe, they are yet to take off in Australia, partly due to cost, with planter boxes averaging from \$500 to \$700 a square metre.

While the upfront costs are expensive, the energy savings are considerable and over a period of time would more than offset the initial outlay, Rosmina says.

"The big savings are in cooling costs. If the walls are very warm the air conditioner has to work that much harder to cool the house down. Similarly, in winter, the living wall insulates the wall against the cold, reducing the temperature difference between the inside and outside of the house."

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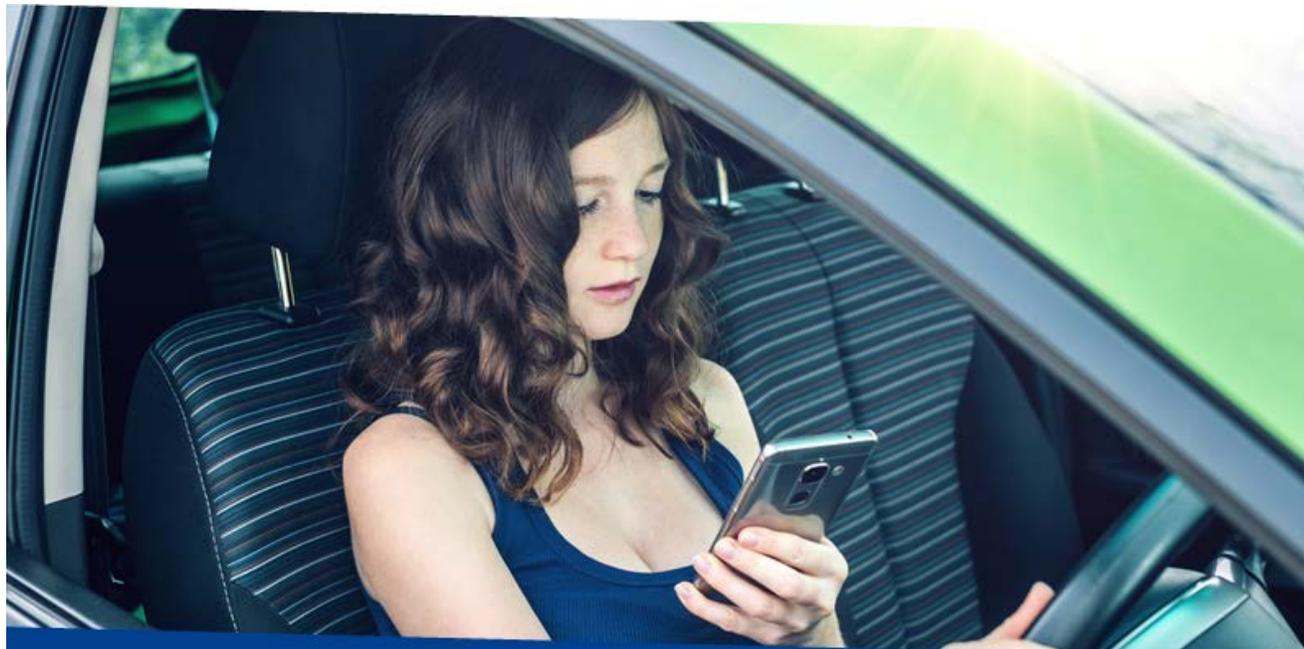


**University of  
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## Who's most likely to check their mobiles while driving?

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by Akshay Vij, Senior Research Fellow, UniSA



BUSINESS AND LAW

Employment was found to be a strong predictor of mobile phone use while driving.

Distracted driving is a significant contributor to road accidents and fatalities. Mobile phone use while driving is a particularly important form of driver distraction. It can increase the risk of traffic accidents by [up to four times](#).

At any moment, roughly [1-2 per cent of Australian drivers](#) are using their mobile phone while driving. In 2016 alone, police in New South Wales charged [39,000 people](#) for doing so.

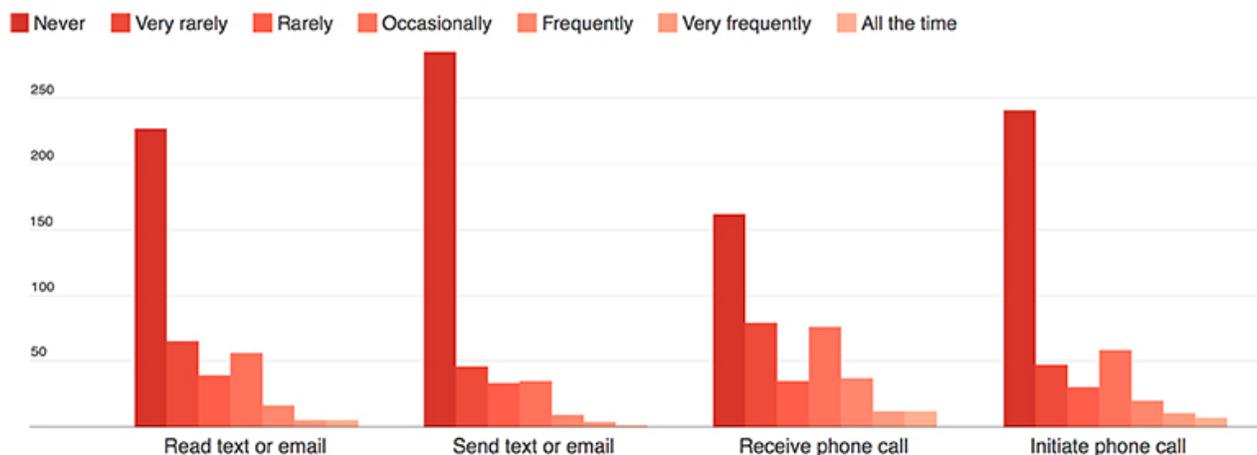
[Our survey](#) of 413 South Australians revealed that young working people were those most likely to use their phones while driving. Our broader findings could help inform the design of public information campaigns run by road safety organisations to discourage dangerous driving behaviour.

### How prevalent is it?

One in three respondents in our survey reported never using their phones while driving; one in two reported rare or occasional use; and one in five reported frequent use.

The chart below shows the frequency of engagement in different mobile phone use behaviours. Receiving incoming phone calls while driving was the most commonly reported behaviour: 61 per cent reported having received at least one call while driving in the past two weeks.

### Frequency of engagement in behaviour involving a mobile phone while driving, survey of 413 drivers



Source: Reducing mobile phone use while driving in South Australia

Using a mobile phone while driving is illegal across Australia. When inside the car, the driver is only allowed to use a phone if it can be operated completely hands-free or while placed in a cradle. It is illegal for the driver to hold a phone in their hand for any purpose other than to pass it to a passenger, even if the car is temporarily stopped at an intersection.

The laws are stricter still for L- and P-platers. Some states ban all mobile phone use while driving for these drivers: hands-free, cradled, or otherwise.

Of our sample, only 43 per cent reported having a hands-free headset. An even smaller 23 per cent reported having a mobile phone cradle.

### Who is most likely to use their phones?

Both popular media and academic studies have portrayed young adults as [being particularly prone](#) to mobile phone use while driving.

However, our findings indicate that 18-29-year-olds are no more likely than average to use their mobile phones while driving. 30-39-year-olds report the greatest frequency of use, and those over 65 report the lowest frequency.

Employment was found to be a strong predictor of mobile phone use while driving. Stated use was highest among those who were employed full time.

Together, these findings indicate that young working people are most likely to use their phones while driving. Our study finds they are also most likely to feel socially pressured to use their phones while driving, and more likely to perceive benefits from doing it, through real-time communication and increased work productivity.

Road safety campaigns targeting mobile phone use among these people should emphasise how perceived social pressure is not an acceptable excuse for engaging in the behaviour. These campaigns should attempt to debunk some of the perceived benefits of the same.

More generally, those who are more likely to use their phones while driving have lower perceptions of risk with regard to the behaviour, and are therefore less likely to experience guilt or remorse over doing so.

Our findings are consistent with previous studies and support the use of campaigns focused on [risks related with](#) mobile phone use while driving.

### Social disapproval doesn't always work

Our analysis reveals that those who feel strong social disapproval toward mobile phone use while driving are actually *more likely* to engage in it.

The use of normative messaging to foster safer and healthier behaviours has met with mixed results across different public health domains. In some cases, campaigns have [actually increased](#) the incidence of the undesirable behaviours they set out to change.

However, some public campaigns have [successful application](#) and have been credited with changing societal norms around the likes of smoking, drinking and driving, and safe-sex practices.

When used thoughtfully and based on evidence, public information campaigns can be effective policy

instruments to encourage safer and healthier behaviours, both on the road and off it.

Road safety campaigns frequently use the [perceived disapproval](#) of friends, family members and other peer groups as part of their strategy to foster changes in attitudes and behaviours. Our findings indicate that such strategies have the potential to backfire. They should be used carefully, if at all.

This article was originally published on [The Conversation](#).

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## Why holes in public paving are beneficial

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by Candy Gibson



### RESEARCH SPOTLIGHT

UniSA PhD student Harsha Sapdhare says harvesting stormwater is a low cost way to help keep street trees alive.

If there were any doubts about the growing impact of stormwater runoff on Adelaide's suburbs, [Mitcham Council's](#) Tim Johnson has laid them to rest with one simple statistic.

"The 400 megalitres of rainfall runoff from footpaths in Mitcham each year is enough to fill the Urrbrae Wetlands 20 times over," the arborist and recent UniSA graduate reveals.

Not only does stormwater create localised flooding in many Adelaide suburbs, it transfers pollutants from the urban environment into local streams, rivers and coastal waterways.

Collective research by Dr Johnson, the council's sustainable infrastructure engineer, and UniSA PhD student Harsha Sapdhare, is helping to both mitigate serious stormwater issues and also provide a passive watering option for the city's street trees.

Dr Johnson, who completed his thesis in 2017 in UniSA's [School of Natural and Built Environments](#), is working on a project to install thousands of square metres of permeable footpaths in Mitcham to prevent flooding and also damage caused by protruding tree roots.

Initial trials showed that permeable paving allows rain to run into the underlying soil instead of flowing into the gutters and drains, improving both the soil and reducing stormwater runoff.



Permeable paving in Brookside Road, Springfield.

And contrary to many civil engineering fears that Adelaide's reactive clay soils – which shrink or swell with moisture change – are not suitable for permeable paving, the results show otherwise, Dr Johnson says.

“Permeable paving lets the water in but because it’s porous, the soil surface directly under the pavement’s gravel base dries out pretty quickly so tree roots grow more deeply and you get fewer problems with damaged footpaths, unlike traditional impermeable concrete block paving,” Dr Johnson says. “The environment is healthier for root growth and you reduce localised flooding so it is a win-win situation.”

His work is being supported by PhD candidate Harsha Sapdhare, the first researcher to look at the best methods for harvesting stormwater via kerbside inlets and leaky wells installed in Mitcham and surrounding suburbs.

The inlets and wells, invented by local resident [David Lawry OAM](#), capture stormwater runoff and move polluted nutrient-rich water (containing nitrogen and phosphorus) from the gutter to passively irrigate street trees.

The end result is healthier trees, more liveable urban environments, reduced localised flooding and less polluted stormwater entering waterways and sea beds.

Harsha’s research is helping authorities determine which filters are the most cost effective in removing pollutants and providing the best water quality.

Between 50 and 150 litres of stormwater can be collected via the inlets and leaky wells, delivering thousands of litres of water into the soil each year.

**“Not only are we tackling problems with stormwater, but also providing a low cost option to keep our street trees alive,” Harsha says.**

“In times of drought, street trees often become stressed due to lack of water, many of them dying through harsh summers. Because water is a scarce (and expensive) resource, most councils only water young trees until they are established.”

Preliminary results for the permeable paving and kerbside inlet experiments at Mitcham are promising and it is expected that similar designs will soon be rolled out in other councils across Adelaide.

Dr Johnson’s PhD [Trees, stormwater, soil and civil infrastructure: synergies towards sustainable urban design](#) was completed in mid-2017.

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## High hopes for Team UniSA-Australia

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### COMMUNITY

Team UniSA-Australia comprises Scott Bowden, Alex Porter, Nathan Earle, Sam Welsford, performance director Mark Fenner, team manager Andrew Christie-Johnston, Zak Dempster, Tim Roe and Steele von Hoff.

Team UniSA-Australia is hoping to repeat the success of last year's Santos [Tour Down Under](#) (TDU) in which it won the team classification in the first UCI WorldTour race of the cycling season.

There are high hopes for the Australian development team which has traditionally been a proving ground for Australian cycling talent, though team manager Andrew Christie-Johnston says [Team UniSA-Australia](#) goes into the Tour with underdog status.

The 2018 men's team includes some familiar faces – Tim Roe, Steele von Hoff, and Zak Dempster – and some promising newcomers, including Adelaide's own Alex Porter who's racing in his first TDU.

Dempster and Roe both featured in an early breakaway in the People's Choice Classic, held in Adelaide's East End.

The Team UniSA-Australia men's start list:

- Scott Bowden (Australia)
- Alex Porter (Australia)
- Steele von Hoff (Australia)
- Timothy Roe (Australia)
- Sam Welsford (Australia)
- Zak Dempster (Australia)
- Nathan Earle (Australia)



Team UniSA-Australia men's team

UniSA built on its partnership with the Santos Tour Down Under in 2018 by becoming naming rights partner for the [national women's team](#).

It's the first time UniSA has officially supported the women's team, strengthening an 18-year relationship between the southern hemisphere's biggest cycling race and UniSA.

UniSA Vice Chancellor Professor David Lloyd says the University is a proud partner of the tour.

"As one of Australia's leading sporting and tourism events, the tour is extremely important in presenting all that is wonderful about South Australia to the world," he says.

"As Australia's university of enterprise, we are in the business of supporting people to reach their career goals and with the tour we feel we are doing that for some of Australia's most talented cyclists."

In 2018, the women's race was upgraded to a UCI 2.1 event, one level below UCI WorldTour status.

Team leader Katrin Garfoot claimed the sprint jersey in the [final stage](#) of the women's tour (the same East End circuit as the People's Choice Classic), and also won the first-ever uphill finish in [Stage 2](#) at Mengler's Hill in the Barossa Valley.

Australian [Amanda Spratt](#) (Mitchelton-Scott) claimed her second straight Santos Women's Tour Down Under crown.

The Team UniSA-Australia women's start list comprised:

- Katrin Garfoot (Australia)
- Shara Gillow (Australia)
- Rachel Neylan (Australia)
- Tiffany Cromwell (Australia)
- Lauren Kitchen (Australia)
- Laurretta Hanson (Australia)

Follow UniSA on [Twitter](#), [Facebook](#) and [Instagram](#) for all the action.

Visit the Team UniSA-Australia [Supporters Club page](#) for team profiles, history, merchandise and stage previews.



The women's team at the start of Stage 3 in Taillem Bend, before racing to Hahndorf. Photo courtesy Kirsty Baxter.



Team UniSA-Australia cyclist Katrin Garfoot (AUS) had a convincing win atop Mengler's Hill at the end of a rain soaked 102 kilometre stage through the Barossa Valley wine growing region. Photo courtesy Santos Women's Tour Down Under.

## Driving equity and diversity across UniSA

UniSA is committed to gender equality and proud to stand with and support Cycling Australia's women's team for the first time in 2018. In late 2017, the University also became an official partner of the [Adelaide Football Club](#), supporting both the women's and men's teams for the next three years.

UniSA is also a part of an Australian pilot program to improve the promotion and retention of women in science, technology, engineering and maths. The Science in Australia Gender Equity (SAGE) program rates gender equity policies and helps to develop ways to promote and retain women and gender minorities.

For more information visit UniSA's [SAGE Athena SWAN website](#).



Katrin Garfoot and her UniSA-Australia team mobilised to help her claim all four primes to win the southaustralia.com Sprint Classification. Photo courtesy Kirsty Baxter.

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## Achievements and Announcements

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### APPOINTMENTS

#### [New dean for division of IT, engineering and environment](#)

Associate Professor Abelardo Pardo has been appointed to the position of Dean: Academic for the division of [Information Technology Engineering and the Environment \(ITEE\)](#).

Currently the Associate Head in the School of Electrical and Information Engineering at the University of Sydney, Assoc Prof Abelardo has a PhD in Computing Science (from the University of Colorado Boulder) and his areas of research include leadership, and management of innovation in educational technology for IT and engineering education.

Pro Vice Chancellor Professor Simon Beecham says Assoc Prof Abelardo brings much experience and enthusiasm to the role.

"Professor Abelardo brings with him a wealth of experience having been engaged in initiatives to broaden the outreach of IT and engineering education," Prof Beecham says. "This includes the design, deployment and analysis of measures to promote student engagement, academic uptake of innovative teaching and engagement with industry partners."

Assoc Prof will commence in the role in March 2018.



### ACHIEVEMENTS

#### [UniSA honours champion of experiential science communication](#)

The man whose research helped to bring the open source [WorldWide Telescope](#) and who has championed science communication throughout his long career in technology development, [Curtis Wong](#), received an honorary doctorate from UniSA during the December graduations.

A principal researcher at the [Microsoft Redmond Research Laboratory](#), Wong is passionate about science communication and is keenly focused on innovation in data visualisation, interactive media, and natural user interaction.



Honorary Doctor Curtis Wong (centre) with

He completed a BA in Ecosystems and an MBA at the [University of California](#) in the 1970s, before embarking on a career in technology consulting, first with KPMG, where he created SPANS, a software-based knowledge system for organisation management structure modelling for long term strategy, mergers and acquisitions.

Wong worked for key technology development businesses on strategic organisational modelling systems for major companies such as GM and the divestiture of Pacific Bell from ATT before joining Microsoft.

UniSA Vice Chancellor [Professor David Lloyd](#) says Wong has been dedicated to the development of new technologies as platforms for more tangible, accessible knowledge.

“Curtis has focused his skills and creativity in software innovation and development on projects that help us to understand science, to picture data, and to give anyone with a computer access to some of man’s greatest cultural and scientific endeavours,” Prof Lloyd says.

“Keen to ensure the widest possible access to knowledge, he has worked with public broadcasters across his career, serving on advisory boards for PBS Online, PBS KIDS, WGBH and the [Corporation for Public Broadcasting](#).

“Curtis was a pioneer at the Voyager Company in the interactive media technology that created the first eBooks, interactive laserdiscs for education, and produced the first multimedia CD-ROM’s for Windows such as Multimedia Beethoven and the first children’s CD-ROM: *Amanda Stories*.

“Later he worked to bring the paintings of Van Gough and other masters into the homes of millions with the development of ArtMuseum.net which was the first broadband 3D virtual museum on the Web – a gallery at our desktops.

“All of his work is linked to creating better ways to learn and through that learning, to bringing the world closer together in understanding.

“It is a very great pleasure to welcome Curtis to the University of South Australia community.”

## Research grant to support people with ‘broken heart’ syndrome

A UniSA nursing lecturer will use grant funding to gather and share data about a rare condition, commonly known as broken heart syndrome.

Senior nursing lecturer [Dr Angela Kucia](#) has been awarded one of two inaugural seeding grants from the [Rosemary Bryant AO Research Centre](#) based at UniSA.

Dr Kucia will use the funds to promote patient-centred care for people with Takotsubo Syndrome (TTS).

TTS is a temporary condition where the heart muscle becomes suddenly weakened or ‘stunned’. It is usually triggered by a life changing event – severe emotional or physical stress.

Takotsubo Syndrome was first reported in Japan in 1990. The word ‘Takotsubo’ means ‘octopus pot’ in Japanese, as the left ventricle of the heart changes into a similar shape as the pot - developing a narrow neck and a round bottom. Other forms of Takotsubo have since been identified, but the condition has retained the name ‘Takotsubo’.

With no known treatment for TTS and little awareness in the community, Dr Kucia will develop a dedicated website to provide information on TTS for people with the syndrome as well as for health professionals, researchers and the general public.

“This grant will give us an opportunity to collect data from people with TTS about their experience, management, ongoing issues, potentially associated medical conditions, and complications,” she says.

“We are all grateful to the Rosemary Bryant AO Research Centre for giving us this opportunity and we will do our best to make a difference to the wellbeing of people with TTS.”

The seeding grants are designed to support early and mid-career research academics to undertake research that supports the nursing and midwifery workforce through evidence-based healthcare. The grants also support innovative research that may attract larger funding grants and have translational potential; and help non-



professorial researchers to build successful research careers.

From a total of seven applications, two were successful, one awarded to UniSA and the other to Flinders University.

The Rosemary Bryant AO Research Centre is a partnership between UniSA and the [Australian Nursing and Midwifery Federation](#) (SA Branch) to address the challenges that nurses and midwives face nationally and internationally, as a modern and continually evolving profession.

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## ANNOUNCEMENTS

### UniSA supporting Adelaide Fringe opening night party

UniSA is teaming up with the [Adelaide Fringe](#) for the first time and will host a free live music stage at City East on the Fringe's opening night.

North Terrace will come alive on Friday 16 February with roaming street performers, night markets and a sunset ceremony, as well as a free live music stage (Frusic) on UniSA's City East campus.

UniSA is officially supporting Frusic, which will be held outside UniSA's Brookman Building from 5pm to 10pm. The music will be programmed by [Music SA](#). UniSA is also supporting the sunset ceremony, Tindo Utpurndee, which will be held on the South Australian Museum lawns at 8pm.



Tindo Utpurndee Sunset Ceremony  
Photo by Claude Raschella.

The partnership with the Adelaide Fringe reflects a shared goal to support new and upcoming talent.

The opening night street party begins at 5pm on Friday 16 February on North Terrace.

For more information visit the UniSA Adelaide Fringe [website](#).



(L-R) Reuben Kaye in The Garden. Cirque Africa in the Mall - photos by Trentino Priori. Anya Anastasia - photo by Trentino Priori

### Channel 44 and UniSA join forces to train media students

Adelaide's only community TV station, [Channel 44](#) and UniSA's new School of Creative Industries have announced a new collaborative agreement.

The strategic partnership will deliver more hands-on training opportunities to budding media professionals in South Australia and bring more locally made content to screens across the State.

The collaboration will see increased placement opportunities both on set and in the office for UniSA students studying communication, journalism, media, web development, marketing, film and TV.

Students will have the opportunity to work on C44 TV and digital content productions, including the shows FringeWatch and Adelaide Community Diary, as well as UniSA-produced shows such as SA Sports Show and Our Time.

Recognising the important role that community broadcasters play in supporting the creative industries and artists of tomorrow, UniSA has signed on as a Channel 44 sponsor as part of the agreement.



Head of UniSA's School of Creative Industries Professor Jason Bainbridge says that with so much media content available, it's more important than ever "to see South Australian stories and events represented on our screens".

"This partnership with Channel 44 reflects UniSA's commitment to our students across the fields of communication, journalism, media, film and television and the performing arts to give them hands-on experience producing, performing and developing content throughout their studies.

"It also confirms our commitment to local content and developing the workforce of this state, while exploring the role of community television - now and into the future."

Channel 44 general manager Alex Sizer says the station is passionate about supporting the next generation of media creatives and providing a platform to promote homegrown talent.

"C44 aims to be the home of locally created content in SA and to provide a platform for SA voices, so this helps us work together to achieve that. We also aim to provide valuable, real-world training opportunities for the next generation of TV and media professionals," she says.

"It's exciting to partner with an educational institution whose values and goals align with C44s. We're looking forward to see what this partnership can achieve."

### New program to drive industry-research collaboration

A new program has been launched that will fund placements of up to 12 months for researchers to work within a business, or for industry representatives to work within UniSA, to transfer and exchange expertise, training and skills.

The [Future Industries Accelerator](#) Mobility Grants Scheme will drive industry-research collaboration, encourage innovation and help drive economic growth in South Australia.

The first placements involve [IPACS](#), an Australian technology company headquartered in Adelaide, and [Bionomics](#), a biopharmaceutical company in Thebarton making better treatments for cancer.

Funded by the State Government, the program is being delivered through UniSA's [Future Industries Institute](#) but placement opportunities are available across UniSA.

Future Industries Institute Director, Professor Emily Hilder, says the Mobility Grants Scheme provides a strong incentive for the University and local industries to collaborate.

"In an Australian context, this is hugely valuable because industry R&D budgets are generally very tight," Prof Hilder says.

"Through this scheme, the State Government is providing vital support for industry to advance technologies and product refinement, at the same time as ensuring University researchers can apply their expertise and insights in real world commercial contexts."

Science and Information Minister Kyam Maher says the scheme is the first of its kind in South Australia.

"South Australia is home to some exceptional researchers and through this scheme, we can help industry tap into these great minds to help solve industry specific problems, introduce new products and services and provide opportunities to develop and up skill staff," he says.

Applications for the next round of the Mobility Grant Scheme close Thursday 25 January 2018. For information and to apply, visit the [website](#).

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Trajan Scientific and Medical Business Unit General Manager Dr Anne Collins, UniSA Deputy Vice Chancellor: Research and Innovation Professor Tanya Monro, Science and Information Minister Kyam Maher and Future Industries Institute Director Professor Emily Hilder at the launch.

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## The hidden costs of selfie tourism

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by Marianna Sigala, Professor of Tourism, UniSA



BUSINESS AND LAW

Selfie tourism is changing the experience of traveling for many people – and not necessarily in a positive way.

Technology has changed the way we travel. Smartphones, travellers' comments and photos, search engines and algorithms can all inspire and empower us to plan complex journeys all over the globe within minutes.

Planning and booking tourism has always had an element of risk. One has to commit upfront – there is no sample to try before you buy, and no return policy. It is not surprising that people increasingly rely on social media content and networks to identify, evaluate and select their preferred tourism destination and suppliers.

But even if the final destination is beautiful, many social media users will now ask themselves a set of new questions. Is it the trendy and fashionable place that you want to be 'seen' travelling? Is this a place you won't be embarrassed to share this with your peers and followers online?

### In TripAdvisor we trust

Increasingly, [TripAdvisor](#) is the starting point for information (photos, videos, comments, blogs) for choosing a travel destination, particularly among millennials.

Travel inspired by social media has gained popularity because it saves time and reduces the purchase risk of travellers when searching for travel information and planning their trip.

The universal penetration of smartphones has created the 'always switched-on' tourists, who use their devices to share tourism experiences on the spot and in real time. Identifying, searching and sharing tourism experiences



ALL BY MY "SELFIE"

Travelling is always fun, and our technology has developed in a way that means we can plan our entire overseas trip from just our smartphone. While convenient, this raises questions about just how dependent we are on technology to guide us, and why we're so involved in "selfie culture".

Sydney radio station 2SER published an [interview](#) with Professor Marianna Sigala on selfie tourism.

and information [have been identified](#) as the two top major ways in which social media has transformed tourism.

For many people, mobile phones have become their external brain when on the road. However, in some cases, continuous mobile phone use on holidays has led to tourists anthropomorphising their devices, by attributing them human characteristics and perceiving them as personal travel companions.

### **'Selfie gaze' tourists**

These '[selfie gaze](#)' tourists see and experience the destination largely through their cameras and the comments and feedback that they receive to their posts.

In this sense, their satisfaction does not depend on the quality of the destination and experience, but on how well they manage impressions and attract 'likes' and positive comments.

The perception that those taking the selfie are [being widely viewed](#) has also changed the way people consume places and what they see and how they behave at a destination. This is because online profiles and posts have to be carefully managed by tourists to highlight positive attributes, socially desirable experiences and present a more idealised self.

'Selfie gaze' tourists do not only participate in touristic photography – they also artificially create it. One example of this is the infamous “duck-face” photo that so frequently appears in social media feeds.

Gone are the days that destinations had control of their image-making and communication. Once used as a travel memory, social media has converted personal photography to a significant source of travel inspiration and the most popular way of online communication, self-expression and identity formation.

### **The Insta-tourist**

Instagram hosts more than 220 million photographs hashtagged with #selfie and more than 330 million hashtagged with #me. People go to such trouble to get the perfect picture of themselves — creating at least a moment that is artificial – in their quest for an image of authenticity.

Tourists get killed, get condemned by priests or arrested by police for insulting local culture and people, or disturb local nature.

EU countries have banned selfies at major landmarks such as Eiffel Tower, while [attractions](#) and museums ban the use of selfie sticks for the physical protection of other tourists.

In the quest of self-promotion and the search of an idealised tourism experience, [my research](#) shows how tourists share fake and unrealistic information. This could include 'checking-in' to places they haven't been or pretending to be happy despite staying in terrible conditions.

Although this deviant online behaviour biases and dilutes others in their travel decisions, tourists continue doing it believing it doesn't harm anyone. But it can distort the real travel experience and give people false expectations about destinations.

### **Influencer marketing**

Tourism marketers spend more and more of their marketing budget on 'influencer marketing', a strategy referring to the use of celebrities and online opinion leaders to post favourable content for a brand.

The influencer market [has been estimated](#) as having a value of US\$10 to US\$15 billion in 2017. More than one-third of marketers now spend more than US\$500,000 a year on it, and influencer posts on Instagram alone are worth US\$255 million a month. Another [recent survey](#) of marketers found that almost half (48%) anticipate their influencer marketing budgets will rise in 2017.

[Research](#) shows that it is not age, but the dark triad of personality traits – narcissism, Machiavellianism and psychopathy that push people to pursue selfie glory regardless of the result.

Selfie-gaze tourism also leads to conspicuous consumption in which tourists travel to destinations and perform experiences in front of the camera to display economic power and attain or maintain social status.

### **Deeper tourism education needed**

Obviously, it's not useful railing against basic human needs or denying the functional benefits of technology. But what we need instead is a serious education of tourists and citizens for mindful use of social media before and while travelling.

This is an area of research that urgently needs to be explored to ensure technology use does not negatively

influence travellers' psychological, mental, emotional or even physical wellbeing.

This article was originally published on [The Conversation](#).

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## Contacts

### Editor

Adam Joyce , ph (08) 8302 0965

### Web author

Edmund Boey

### Graphic designer

Alison Hookway, ph (08) 8302 0028

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## How air conditioning could be making you feel hot

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by Candy Gibson



### SCIENCE AND TECHNOLOGY

People can become acclimatised to air conditioning and therefore demand lower temperatures in summer to achieve comfort.

An over reliance on air conditioning is placing pressure on Australia's electricity grid, increasing power prices and making Australians more vulnerable to the effects of the heat.

In a [paper](#) published this month in the international journal [Energy and Buildings](#), Dr Gertrud Hatvani-Kovacs and colleagues discuss how Australians use air conditioning, which contributes to blackouts, as well as the need to build homes which are more heat resistant.

Dr Hatvani-Kovacs, a Research Associate with UniSA's [School of Information Technology and Mathematical Sciences](#), says that Australians are becoming too reliant on air conditioning.

"Air conditioning changes our behaviour. It can have a reverse adaptation effect where people become acclimatised to it and therefore demand lower temperatures in summer to achieve comfort.

**"By setting our systems at cooler temperatures we are dumping waste heat to the streets generated by the air conditioners, placing extra demand on the grid, forcing prices upwards and causing more blackouts.**

"If a power cut does occur, it places people's health at risk because their



body is used to cool temperatures and they forget how to adapt to even moderate levels of heat.”

She has called for a change in Australia’s building codes in the wake of a study which shows new homes can be less resistant to heat than older, double-brick houses.

The solution, she says, is to incorporate a range of measures in new homes to deflect heat and lessen the reliance on air conditioning. These include appropriate orientation, lighter and reflective roof colours, and reflective foils installed in roof cavities.

Planting deciduous trees for natural shading, installing outdoor blinds to block the heat and opening windows at night when the temperatures are lower outdoors than indoors all help to cool a home and minimise the need for air conditioning.

In a study of typical, single-storey brick veneer homes in Adelaide and Sydney during a heatwave, UniSA researchers found that a newer home with a 6-star energy rating used the same amount of energy to cool the interior as an older double brick home with just 2.6 stars.

Dr Hatvani-Kovacs says Australia needs to change its approach when it comes to cooling homes in summer.

“The newer homes can be more prone to overheating in summer because of the high levels of insulation and air tightness coupled with a lack of shading and natural ventilation. We need housing designs which are both energy efficient and heat stress resistant.

“Over the course of a year, some newer homes can perform better than older ones only because they are more energy efficient in winter, but the reverse applies in summer.”

Dr Hatvani-Kovacs says building codes need to incorporate separate energy ratings for heating and cooling to give home owners a more accurate assessment of their efficiency.

“The current focus is making homes more energy efficient in winter but we should be looking at overarching housing designs that are both energy efficient and heat stress resistant in the Australian climate.”

More than 90 per cent of SA residents and 60 per cent of NSW residents have air conditioning but very few have double glazed windows which are effective in keeping houses cool in summer and warm in winter, she says.

The paper [Heat stress-resistant building design in the Australian context](#) is published in *Energy and Buildings*, an international journal focused on energy use and efficiency in buildings.

Dr Hatvani-Kovacs’ PhD was funded by the [Cooperative Research Centre for Low Carbon Living](#) (CRC LCL) and the [Australian Building Codes Board](#).

Poor building design can increase urban temperatures and increase exposure to heatwaves. This image by Dr Gertrud Hatvani-Kovacs won first prize in UniSA’s [2016 Images of Research](#) competition.



Sunraysia Daily, 5 January 2018



ABC presenter [Deb Tribe](#) interviewed Dr Gertrud Hatvani-Kovacs on ABC Radio Adelaide Mornings.

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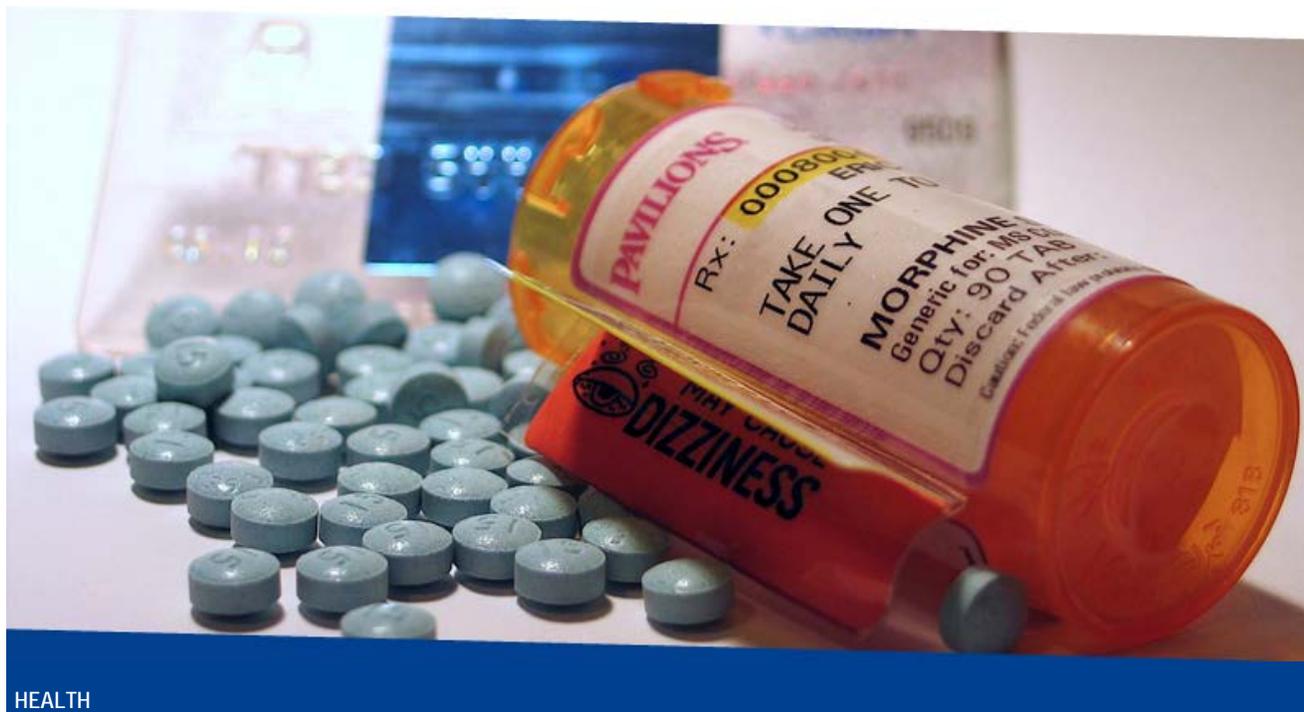


**University of  
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## Underdosing leaving patients in pain

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by Candy Gibson



HEALTH

Medication errors pose one of the greatest risks to patient safety.

An Australian review of palliative care services has revealed the impact of opioid medication errors on patients in the final weeks of their lives.

In a paper published in [BMJ Supportive & Palliative Care](#), researchers from NSW and UniSA reveal that errors involving opioids are almost three times higher than previously reported in other healthcare settings.

Researchers looked at opioid errors in three inpatient palliative care services in metropolitan NSW over a two-year period, from 2013-2015. More than half of the errors (57 per cent) involved patients receiving a lower dose of pain relief than ordered, requiring clinical intervention in a third of cases. The majority of patients had cancer and were aged in their 70s.

Professor Debra Rowett, from UniSA's [School of Pharmacy and Medical Sciences](#), says the study highlights the importance of understanding why opioid errors occur – particularly lower dosing – which may contribute to patients' pain.

"Palliative care clinicians have identified that safe use of opioids is a patient safety priority and this study is an important first step in quantifying and identifying opioid errors," Prof Rowett says.

"The high rate of errors in palliative care environments compared to other healthcare services most likely reflects the higher volume of opioids such as morphine being used for patients to manage their pain in the last stages of their lives."



The Sydney Morning Herald, 8 January 2018

Of 55 opioid errors identified, most involved morphine dosages (35 per cent) and two-thirds related to administration errors. Researchers say better understanding the factors that contribute to or mitigate opioid errors is a priority in this clinical setting.

Medication errors pose one of the greatest risks to patient safety, researchers say, particularly those involving opioids, which are high-risk medicines. The risk is amplified in patients who are older, have multiple health issues and are taking numerous medications.

*Opioid errors in inpatient palliative care services: a retrospective review* is published in the [British Medical Journal](#).

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Almost 840 degrees were conferred at UniSA's December graduations across two ceremonies at the Adelaide Convention Centre.

The graduates now join UniSA's [global alumni community](#).







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