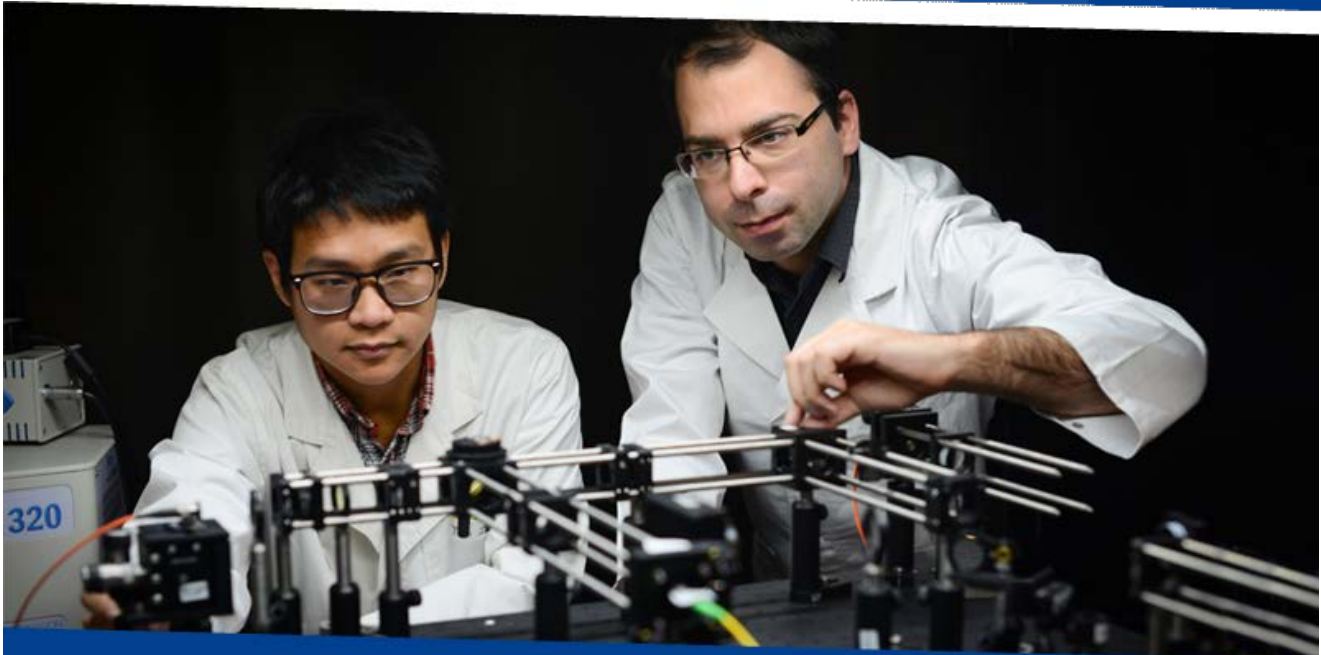


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July 2018

> from the University of South Australia



SCIENCE AND TECHNOLOGY

Salty solution to society's growing data storage needs

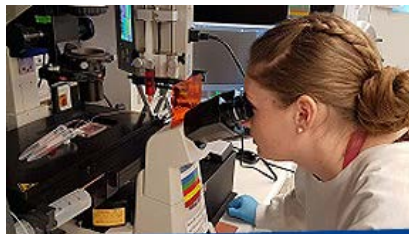
Tiny, nano-sized crystals of salt, encoded with data using light from a laser, could be the next data storage technology of choice, following research by Australian scientists. [more](#)



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Students win as UniSA expands its regional reach

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by Katrina Phelps



COMMUNITY

UniSA student Jacqui Holzhauser says the Aboriginal Pathway Program has helped put her on track to fulfil her dream to become a nurse.

> [Aboriginal Pathway Program shortlisted for national award](#)

Over the past year-and-a-half, Jacqui Holzhauser from Mount Gambier has been chasing her goal of becoming a nurse.

She is now a step closer to her dream and has new-found confidence to boot – thanks to UniSA's [Aboriginal Pathway Program](#) (APP).

Mount Gambier is one of five locations where the APP is offered and Jacqui says the location of the course was the biggest drawcard for her.

"If the APP was not offered in Mount Gambier, I don't think I would have even thought of completing something like this," she says.

"The APP has been one of the most important steps I have taken for myself so far. Before starting the APP, I never even thought I was smart enough for university but now I know I am and that I can do anything, as long as I believe in myself."

The APP is taught over one-and-a-half years and supports students with no previous qualifications, for university study. The program is open to all people who identify as Aboriginal and Torres Strait Islander and can lead to entry into a university degree at UniSA for students like Jacqui.

UniSA offers the APP in five areas across South Australia – Mount Gambier, Whyalla, Port Lincoln, Ceduna and in Adelaide's CBD at the City West campus. There are also a few students taking part in Ernabella, as part of a developing collaboration with the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands.

|

UniSA recently announced that it is committed to expanding its reach to more regional communities, focusing at the moment on engaging with members of the APY Lands and creating a regional hub there as well as at Ceduna and Port Lincoln.

UniSA Associate Director: Regional Engagement (APY Lands), Dr Sam Osborne says community demands need to be at the centre of each aspect of the hub.

“Language and culture will be a priority along with the development of enabling pathways like the APP,” Dr Osborne says.

“It’s got to be about providing in-community access and about student support being tailored to the students’ needs and context.

“Education for remote Aboriginal communities has to be responsive to the needs and aspirations of students and communities – which are diverse and often quite different to mainstream assumptions about aspiration and success.

“The APP makes a good first step for finding comfortable ways to bring people together; and the program is responsive to Aboriginal ways of being, doing and knowing.

“The hubs will enable more regional people to start on the road to higher education.”

The APP has been part of the [UniSA College](#) offering for several years now, along with [Foundation Studies](#) – both of which help prepare non-school leavers for tertiary education.

Program Director of the APP and Regions Tanya Weiler, says community needs in regional areas and Aboriginal communities, are at the forefront of their programs.

“During the community consultation that took place when the APP was being established, many Aboriginal community members spoke of the desire to continue their studies, but also emphasised the impossibility of this when coupled with moving to a city campus,” Weiler says.

“By offering the APP in five areas across the State, we can provide students with the opportunity to engage with higher education while still being surrounded by their support networks.

“Many of our APP students have multiple family and community roles and responsibilities, so being able to maintain these while studying is also a positive aspect of the program.”

According to figures from the Federal Government, while Aboriginal university enrolments have more than doubled during the past decade, Aboriginal students are still underrepresented in domestic enrolments and their completion rates are lower.

“The biggest win for our program is seeing people make a decision for themselves to engage with university study, to place their trust in us and for them to then develop their confidence and skills to see their potential in a new light and go out to actively pursue further opportunities,” Weiler says.

“It’s very satisfying to know that we have APP students who never believed they would have the opportunity or confidence to call themselves a university student but do so now with pride.

“I’m very optimistic about the impact this program can have on future generations, especially when I hear the children of students say ‘I’m going to go to uni like mum’.”

UniSA has hubs in [Ceduna](#), [Port Lincoln](#) and the [APY Lands](#) which deliver the [Aboriginal Pathway Program](#), in addition to the campuses which deliver it in Whyalla, Mt Gambier and Adelaide.

Aboriginal Pathway Program shortlisted for national award

UniSA’s Aboriginal Pathway Program has been shortlisted for a national higher education award.

The program is one of four shortlisted finalists in the community engagement category of the [Australian Financial Review Higher Education Awards](#).

The national awards are aimed at highlighting the tremendous contribution the higher education sector makes to Australian prosperity and quality of life.

The awards, to be presented on 28 August, will be judged by an independent panel of eminent higher education veterans.

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Lab-on-a-chip able to detect abnormalities during pregnancy

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by Candy Gibson



HEALTH

The tiny microfluidic device can isolate fetal cells from maternal blood.

A wide range of fetal genetic abnormalities could soon be detected in early pregnancy thanks to a world-first study led by UniSA researchers using lab-on-a-chip, non-invasive technology.

Biomedical engineers [Dr Marnie Winter](#) and [Professor Benjamin Thierry](#) from UniSA's [Future Industries Institute](#) (FII) and the [ARC Centre of Excellence in Convergent Bio-Nano Science and Technology](#) (CBNS) are part of a team of researchers who have isolated fetal cells from maternal blood using a tiny microfluidic device, allowing for improved genetic testing.

Lab-on-a-chip (LOC) technology integrates laboratory functions on a chip ranging from a few millimetres to a few square centimetres. The special design of the device allows large volumes of blood to be screened, paving the way for an efficient, cheap and quick method of separating fetal cells from maternal blood cells.



Future Industries Institute Research Associate Dr Marnie Winter at work in the lab.

“We are hopeful that this device could result in a new, non-invasive prenatal diagnostic test able to detect a wide range of genetic abnormalities in early pregnancy from a simple blood sample,” Dr Winter says.

Currently, prenatal diagnostic tests involve an amniocentesis procedure or taking a sample of cells from the

placenta (chorionic villus sampling), both of which carry a risk of inducing miscarriage.

“From about five weeks into the pregnancy, fetal cells originating from the placenta can be found in a mother's bloodstream. Using modern microfluidic technology, we can now isolate these extremely rare cells (about one in a million) from the mother's white blood cells and collect them for genetic analysis,” she says.

The UniSA researchers, working in collaboration with [Dr Majid Warkiani](#) from the [University of Technology Sydney](#) and specialists from the [Women's and Children's Hospital, SA Pathology](#) and [Repromed](#), adapted the device from one initially developed to isolate tumour cells from the blood of cancer patients.

“Many pregnant women would be aware of the new tests based on circulating fetal DNA that – with a simple blood test – help determine the risk of having a baby with Down syndrome.

“These tests have revolutionised prenatal care, but they can only detect a small subset of genetic conditions and are not always accurate. We hope this LOC technology will be able to reliably detect a greater range of genetic abnormalities, providing more information to families and healthcare providers,” Dr Winter says.

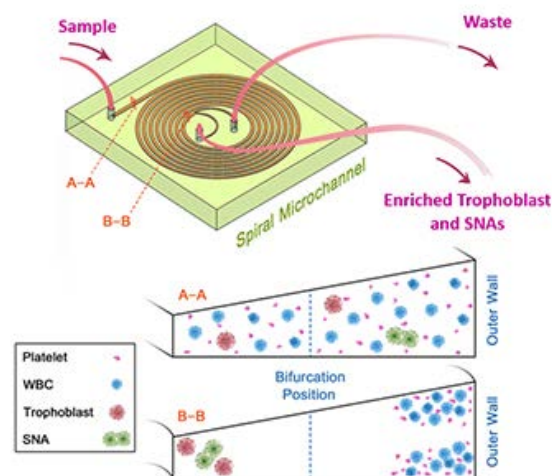
Professor Thierry, who leads UniSA's Bioengineering group, says there is significant scope to further develop the lab-on-a-chip concept.

“We are collaborating with industry partners to translate this technology in routine clinical prenatal diagnostics and make it available in the future to screen low and medium-risk pregnancies,” he says.

Professor Emily Hilder, Director of UniSA's FII, says the research breakthrough is testament to the cutting-edge technology being developed at the Future Industries Institute.

“UniSA is a leading player in LOC technology thanks to our [Australian National Fabrication Facility-SA](#) micro and nanofabrication facility at Mawson Lakes,” Prof Hilder says.

The technology breakthrough was published recently in [Advanced Materials Technologies](#).



The device allows large volumes of blood to be screened, paving the way for an efficient, cheap and quick method of separating fetal cells from maternal blood cells.

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SA report card delivers mixed news on skin cancer rates

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by **Candy Gibson**



HEALTH

South Australians living in coastal and agricultural areas have up to a 31 per cent higher chance of developing the most common cancer in Australia, according to a new UniSA study.

The UniSA study is the first to systematically document non-melanoma skin cancers (NMSC) in the State, revealing that people living on the Eyre and Yorke Peninsulas and coastal regions are 23-31 per cent more likely than metropolitan residents to develop NMSCs.

Between July 2010 and December 2014, about 77,500 South Australians were treated for NMSCs – otherwise known as keratinocyte cancers – says UniSA researcher [Pam Adelson](#) from the [Rosemary Bryant AO Research Centre](#).

Forty per cent had more than one non-melanoma skin cancer removed, with men (59.2 per cent) and people from coastal and agricultural regions more likely to be treated, although women were more proactive in seeing a doctor for suspicious skin lesions.

“Non-melanoma skin cancers are the most common cancers in South Australia by a long way and represent the second highest cost of all cancers in the country after colorectal cancer,” Adelson says.

“While they are not as aggressive as melanoma and are more easily treated if identified early, squamous cell carcinomas – which make up about 30 per cent of NMSCs – can potentially spread to other parts of the body.”

About 600 people died of NMSCs in Australia in 2014.

Adelson says the study findings will help primary health care providers target populations at risk and reinforce preventative advice such as self-skin examinations every 12 months.



Pam Adelson

The most recent figures from the [Australian Institute of Health and Welfare](#) (AIHW) estimate that non-melanoma skin cancers cost the Australian health sector \$367 million each year, with colorectal cancers topping the list at \$427 million, and prostate, Non-Hodgkin lymphoma, leukemia and breast cancer all behind NMSCs in terms of healthcare costs.

The researchers used Medicare data to assess the number of people treated for NMSCs in South Australia between 2010 and 2014, noting a 59 per cent increase in services for non-melanoma skin cancers since 2000.

While high, South Australian NMSC rates are still lower than the national average, with Queensland and NSW topping the country in terms of skin cancer. Victoria and Tasmania have the lowest incidence.

Adelson says the data shows that younger people are far less likely to have NMSCs, reflecting 40 years of consistent messaging about the dangers of sun exposure.

“A lot of the damage is done in people’s youth, which is the reason why approximately two-thirds of Australians experience at least one non-melanoma skin cancer before 70 years of age.

“People are also living longer and so we can expect the numbers being treated to increase in coming years.”



Professor Marion Eckert, Greg Sharplin and Professor David Roder.

The study was published in the [Australian and New Zealand Journal of Public Health](#). The authors – all from UniSA – are [Pam Adelson](#), [Professor Marion Eckert](#), [Greg Sharplin](#) and [Professor David Roder](#).

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Sliding doors



INSIDE UNISA

Sliding doors, the trousers of time, mirror universes, alternate realities ... there are so many science fiction parallels to the state of strategic quantum flux in which we find ourselves that I could geek out writing about them for several paragraphs. I'll resist that urge. The beauty about time is that it is linear. One thing happens after another after another. The difficulty with people is that we, in the main, are not linear. We operate on tangents and worry about hypotheticals and possibilities and what might come to pass if something or another happens or not. Which is understandable given that in the main, we worry about ourselves. That's why, when I was briefing the Senior Staff group at a meeting in June about our alternate possible futures – Enterprise25 or a possible merger – I reverted to type and pulled out a tried and trusted Douglas Adams quotation from the *Hitchhiker's Guide to the Galaxy*: Don't Panic. Written in large, friendly letters.

UniSA's new Strategic Plan, Enterprise25, will be sent for approval to our [Council](#) in August. It's a sound plan to place Programs at the centre of our activities, to consolidate structurally around Precincts, to invest in People and culture, all the while taking our research and engagement activities to even greater heights. It's a good plan, long incubated – and one which we are well geared to enact together. Even though we are ready to go with it, until we fully explore the recent merger opportunity, we will hold fire on enacting anything. Our merger exploration discussions with the University of Adelaide have just kicked off, the consultation stages are being planned and will be open from August, I have recently held some open conversations in Town Hall style – to take your views, to tell you what I know and what I don't – and to reinforce my Douglas Adams message. This is a unique opportunity to potentially create something new, which is more than the sum of the best parts from each organisation. It's worth careful consideration.

I wrote this in Singapore, ahead of graduations and where I hosted an alumni event – the tenth anniversary of our formal chapter here. It was a good event, made more so through the participation of a group of current

students from [UniSA Business School](#) – who arrived in Singapore as part of a [New Colombo Plan](#) study tour. I spent a good deal of the evening talking to both alumni and to current students about what they thought about the prospect of a merger. Not one person suggested we shouldn't explore it – universally they felt it could be good for our institution and for our State – and as such deserved to be looked at.

No decision has been made to merge – we are exploring the merit. That exploration will inform a Council decision – one way or another. That decision point is scheduled for December of this year. It's at that point that the strategy wavefunction will collapse to certainty (google Schrodinger's Cat). Once a decision is made, we will either be enacting a merger or we will be enacting Enterprise25. Nobody knows what the former entails, that's the point of the exploratory phase and whatever process would then flow from a positive decision. The latter is all ready and waiting. Either future is full of possibility for UniSA to do more, to build on our achievements, our outstanding institutional culture and our steadfast commitment to equity and excellence in equal measure. I think this readiness is emblematic of our culture. The fact that we are geared for either eventuality says a lot about our organisation. We don't panic. We get stuff done. I look forward to kicking off the conversation in the coming weeks.

Professor David Lloyd
Vice Chancellor and President

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ACHIEVEMENTS

UniSA technology helping Australia solve recycling problem

New technology developed by UniSA in partnership with [SAGE Automation and Container Deposit Systems Australia](#) (CDSA) to automatically count and identify packaging containers, has won an award at the [Packing & Processing Innovation and Design Awards](#) (PIDA).

The Vision & Sorting System will help make the returns process quicker and easier for Container Deposit Systems' customers – ultimately reducing Australia's landfill.



The technology uses a camera system and algorithm developed by senior lecturer [Dr Russell Brinkworth](#) and [Associate Professor Mark McDonnell](#) to sort containers. It's able to identify shapes as well as colours (for example green glass bottles and aluminium cans) – even when the containers aren't in their original condition.

"We designed a machine algorithm that analysed many thousands of images in order to learn to tell the difference between a can and a bottle, between plastic and glass, cardboard and recyclable HDPE and a bottle cap," Dr Brinkworth says.

"At the moment, it's not feasible or economically viable, or even sometimes safe, to have people picking through rubbish to find recyclable material. But if we could get robots to do it, then it'll be faster, cheaper, and start to become more viable. We can start recycling a whole lot more stuff," Dr Brinkworth says.

The system not only identifies and sorts containers in 0.1 of a second but is also extremely accurate.

"We were able to get the accuracy way above anything the company had previously been able to achieve and above the target. They wanted us to get something like 90 per cent classification accuracy – we got over 99 per cent," Dr Brinkworth says.

The development comes just before the government roll out of national legislation for a new recycling program.

UniSA supported SAGE Automation and CDSA to develop the Vision & Sorting System, which took home the PIDA Design Innovation of the Year Award – Beverage Category (Machinery & Equipment).

The advanced system will be implemented by the South Australian and Queensland container deposit schemes in December, with plans to expand to the rest of the country by the end of 2019.

"The system can be trained to recognise anything as long as you give it enough time to learn, enough training data, and enough variety. We're starting with recyclable material because there's an easy revenue source there but there are lots of other areas to move into," Dr Brinkworth says.

UniSA crime scene data system wins innovation award

A new way to digitally capture, coordinate and present evidence and data from crime scenes and other law enforcement matters, has won the UniSA developers a significant award.

UniSA's Narrative Visualisation for Law Enforcement project, headed by [Professor Bruce Thomas](#), has won the Research and Development category of the Australian Information Industry Association (AIIA) state iAwards.

Prof Thomas says the aim is to create a simpler and more effective method for agents and prosecutors to explore and analyse case information more easily rather than having to "dive through large amounts of paper records".

"Once information has been entered into the law enforcement's data management system, we provide a means to explore the information in an intuitive manner," he says.

The Narrative Visualisation for Law Enforcement project is part of the [Data to Decisions Cooperative Research Centre's Integrated Law Enforcement Program](#). The project aims to provide law enforcement agents and prosecutors with new ways to present complex law enforcement cases.

Team members Dr James Walsh and Dr Andrew Cunningham won the AIIA Research and Development SA [iAward](#) at the 2018 SA/NT gala dinner in June.

The iAwards recognise and rewards excellence in Australian innovation that is making a difference and has the potential to create positive change for the community.

The UniSA team, along with other state winners, are now in the running for the national iAwards, which will be held in Melbourne in August.

Hayley delivers the good oil on drug absorption

UniSA PhD candidate Hayley Schultz has capped off an exceptional year after being named one of South Australia's 10 best early career researchers.

The 24-year-old pharmaceutical scientist, who is working on new methods to improve oral drug absorption, was shortlisted in this year's [Fresh Science](#) competition, held in June.

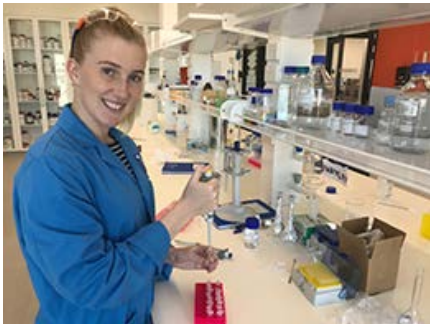
Her research into poorly water-soluble drugs could lead to improved oral delivery of medicines, including treatments for prostate cancer patients.

In the time it takes for a sparkler to burn down (about 45 seconds), Hayley told the Fresh Science audience that more than 40 per cent of drugs do not dissolve very well in the gut, limiting their impact.

To achieve the desired result, they are often administered in large doses which is not only expensive but often has negative side effects.



Data to Decisions CRC's Integrated Law Enforcement Program explained.



UniSA PhD candidate Hayley Schultz.

And because food plays havoc with their absorption, the drugs must be taken on an empty stomach, Hayley explained.

Her PhD project has led to the discovery of a new oil-based formulation with the potential to overcome these issues. It allows smaller doses to be given, reduces side effects and enables the drug to be taken with or without food.

“The new formulation mimics the action of a fatty/oily meal, which then allows the drug to be easily absorbed into the bloodstream at higher and more consistent levels,” Hayley says.

Hayley is testing the oily formulation on a chemotherapy agent commonly used to treat prostate cancer, abiraterone acetate. The drug has very low absorption rates of around five per cent due to its poor water solubility and therefore must be taken on an empty stomach and in large doses to be effective.

She has also done some experiments with ibuprofen, another poorly water-soluble drug.

If successful, Hayley’s oil-based formulation could be applied to many other poorly water-soluble drugs.

Hayley’s Fresh Science nomination comes on top of a 2018 UniSA Research Degree Excellence Award.

Professor Shudong Wang honoured at NHMRC awards

UniSA researcher [Professor Shudong Wang](#) has won a significant grant to develop a new and effective enzyme-targeted drug for cancer patients.

Prof Wang, who leads the team at UniSA’s [Centre for Drug Discovery and Development](#), won the Top Development Grant for 2017 at the National Health and Medical Research Council’s (NHMRC) annual *Research Excellence Awards* in Canberra in June.

Her team demonstrated the drug’s effectiveness against acute myeloid leukemia and cancers of breast and ovaries, and she is looking to secure investment to accelerate its development and make it available for cancer sufferers.

“It is estimated that more than 134,000 new cases of cancer were diagnosed in Australia last year – an average of 367 people each day,” Prof Wang says. “This novel drug we are developing offers new hope for many Australians living with this insidious disease.

“The population is ageing, Australians are living longer and the incidence and burden of cancer is rapidly increasing. Research focusing on new and more effective therapies is critical.”

Prof Wang’s team collaborates with researchers globally, funding organisations, donors and pharmaceutical companies in a common goal to find a cure for cancer.

The cancer researcher was one of 20 of Australia’s leading health and medical researchers honoured at the NHMRC awards, from an initial field of 5400 applications.

Wendy’s Law: safeguarding older Australians

Dean and Head of UniSA’s School of Law, [Professor Wendy Lacey](#), has helped deliver Australia’s first adult safeguarding legislation, which will help and support all vulnerable adults, including vulnerable older people.

In a landmark development on 20 June 2018, the [Office for the Ageing \(Adult Safeguarding\) Amendment Bill 2018](#) was tabled with the [South Australian Legislative Council](#), and when enacted will establish Australia’s first agency dedicated to protecting vulnerable Australians.

The bill draws considerably from the recommendations made in the 2011 [Closing The Gaps Report](#), a collaborative project between the South Australian Office of the Public Advocate and UniSA, for which Prof Lacey was the principal author.

It draws upon Prof Lacey’s significant work in the prevention of elder abuse, through multiple reports and publications, contributions to the 2016-2017 National Inquiry into Elder Abuse, promoting awareness of elder abuse and the implementation of the State’s strategy on safeguarding older South Australians.



Professor Shudong Wang pictured with Federal Health Minister Greg Hunt at the NHMRC Research Excellence Awards on 27 June.



Relatives of families affected by the Oakden scandal (from left) Elvin Serpo, Stewart Johnston, (second from right) Alma Krecu and (far right) Clive Spriggs with (in red) Council of the Ageing SA CEO Jane Mussared, Health and Wellbeing Minister Stephen Wade and Head of UniSA’s Law School Professor Wendy Lacey.

Prof Lacey says this is a significant milestone covering all of South Australia's most vulnerable adults.

"The Act will cover all forms of elder abuse – physical, sexual, financial, psychological, neglect - but will also extend to the unreasonable denial of a person's basic rights and freedoms," Prof Lacey says.

"The definition of a *vulnerable adult* has also been carefully worded to ensure that it is inclusive, and not based on ageist or paternalistic assumptions about a person's advanced age, disability or frailty.

The South Australian Adult Safeguarding Unit will be located within the Department of Health, with powers and responsibilities to investigate and respond to reports of actual or suspected abuse. It will reflect a rights based approach to adult safeguarding, to ensure the wishes of a vulnerable adult are directly taken into account.

"Until now, many cases of abuse are either unreported, not effectively investigated or not responded to in a timely fashion," Prof Lacey says.

"When enacted this bill will fill the gaps in the existing legislation and ensure that vulnerable Australians receive the respect, support and care they need."

The bill also requires the minister to develop a new Charter of the Rights and Freedoms of Vulnerable Adults to direct decision-making by the unit and its director. That charter will also bind agencies prescribed by the minister under regulation. A code of practice will be developed to sit alongside the Act, breaking down its day-to-day operation and implementation, into easy to follow procedures and practices.

Prof Lacey had a lead role in the development of the new bill and worked alongside Health and Wellbeing Minister Stephen Wade and his office, the Office of Parliamentary Counsel and the Office for the Ageing, throughout the consultation and drafting process.

When the minister gave his second reading speech in parliament, he said the legislation could be known as 'Wendy's Law', recognising the significant contribution that Prof Lacey's research and advocacy has made in the field.

National design award for recent UniSA graduate

UniSA graduate Louise Robinson has won a significant award from the peak industry body for professional design, the [Design Institute of Australia](#).

Robinson won the Visual Communications category at the institute's [2018 Australian Graduate of the Year Awards](#).

Robinson says she feels honoured to win the award.

"I know from my graduate show that there are so many good designers out there, so to be picked out from the crowd is a massive surprise and joy," she says.

Robinson's [winning entry](#) included three projects: a modern take on Pride and Prejudice; packaging for a new health drink 'jinjer' based on the name, flavour and form of ginger; and a poster campaign to encourage community gardens.

The judges praised each of Robinson's projects.

"Pride and Prejudice concept reinterpreted for a younger audience a real winner," they wrote. "Highly creative and imaginative."

They said her ginger drink bottle prototypes showed "great evolution of the model form and brand story" and the poster campaign "would capture the audience – nailed the brief!".

The award, presented in June, includes a \$1000 cash prize and a mentorship with a design practice.

Robinson graduated with a [Bachelor of Visual Communications](#) earlier this year. She attributes her success to dedicated and patient tutors and friends.

"They pushed me to go further with my designs and told me honestly when they were going horribly wrong," she says. "Their constant support gave me the confidence to explore my creativity and find my own style."

PhD graduate receives accolade for engineering research

UniSA PhD graduate Dr Iliana Delcheva has been awarded the Norton Jackson Material Science and Engineering Medal for her work investigating the interactions between ionic liquids (ILs) (organic salts often liquid at room temperature) and various solid substrates through



'Summer harvest': a poster designed to encourage community gardens.

wetting studies.

The medal is awarded annually to the PhD graduate from [Future Industries Institute](#) (FII) who has demonstrated the most potential or real application of research in industry.

Dr Delcheva says the lack of systematic knowledge about the wetting behaviour of ILs underpinned the need for her research.

“I hope that the outcomes of my studies will contribute, for example, to the manufacturing of nano- and microelectromechanical systems (NEMS and MEMS) with better, optimal performance and to their wider implementation in high tech industry which in-turn, will reflect positively on people’s everyday life,” she says.

Dr Delcheva was honoured to receive the medal and is grateful for the generosity and kindness of the late Dr Norton Jackson, and Pat Jackson.

“This is the first major academic award that I have received and I hope it will have a positive impact on my future career and plans,” Dr Delcheva says.

“I would like to take the opportunity to encourage all PhD students, especially when they are going through difficult times, to keep trying and to work hard, because eventually your efforts will be recognised.

“As a female PhD student, with a supervision team led by a female scientist, [Dr Marta Krasowska](#), I would like to think this award is a reassuring sign for females in the STEM field.”



Dr Ilana Delcheva (right) receives the Norton Jackson Material Science and Engineering Medal award from Pat Jackson.

APPOINTMENTS

Vice Chancellor appointed to key research advisory body

UniSA’s Vice Chancellor Professor David Lloyd has been appointed to one of the Australian Research Council’s key advisory bodies, the ARC Advisory Council.

The [Australian Research Council](#) (ARC) advises the federal government on research matters, administers a significant component of Australia’s investment in research and development (the [National Competitive Grants Program](#)), and has responsibility for [Excellence in Research for Australia](#) (ERA).

Prof Lloyd is one of seven new members appointed to the ARC Advisory Council.

ARC Chief Executive Officer Professor Sue Thomas says the ARC Advisory Council will provide advice to the ARC on key research policy issues, “lending independent strategic guidance and experience that will strengthen the ARC’s ability to support research and innovation in Australia”.

“It is important for the ARC to be informed by the views of suitably experienced individuals who can provide valuable insight into the issues faced by researchers in the higher education and research sector,” Prof Thomas says.

Prof Lloyd says he is looking forward to working with academic and industry colleagues on the advisory council.

“It’s a great opportunity to be central to policy creation that supports research and innovation in Australia and on a council that looks at how the quality and outcomes of research and research training are evaluated,” Prof Lloyd says.

The other members of the ARC Advisory Council are:

- Prof Sue Thomas, Chief Executive Officer, Australian Research Council (Chair)
- Prof Deborah Terry AO, Vice Chancellor, Curtin University
- Emeritus Prof Cindy Shannon, Shannon Consulting
- Prof Kevin Hall, Deputy Vice-Chancellor (Research and Innovation), The University of Newcastle



Vice Chancellor
Professor David Lloyd.

Lynley Marshall, Chief Executive Officer, Museums Victoria

- Prof Duncan Ivison, Deputy Vice-Chancellor (Research), The University of Sydney
- Mark McKenzie, Chair, Council of Small Business Australia

ARC Advisory Council members are appointed for up to three years. More information on the ARC Advisory Council and its new members can be found on the [ARC website](#).

Professor Tanya Monro appointed to new economic advisory council

UniSA Deputy Vice Chancellor: Research and Innovation [Professor Tanya Monro](#) has been appointed to the South Australian Government's new Economic Advisory Council.

Premier Steven Marshall announced the members of the new council in early July.

The council will provide strategic advice to the Premier on the State Government's ideas and policy initiatives aimed at stimulating economic growth and job creation.

Prof Monro says she's proud to have the opportunity to serve on SA's new Economic Advisory Council.

Prof Monro's appointment provides continuity as she was also on the previous state government's key economic advisory body, the Economic Development Board.

Marshall says he looks forward to working with the new Economic Advisory Council members.

"South Australia is home to some of the sharpest and most progressive minds across industry who constantly challenge the status quo to drive superior economic performance," he says.

"As prominent and respected leaders in their fields, the members are all true assets to the state, and I look forward to them bringing their unique insights and perspective to the table."

The council members have backgrounds ranging from information technology entrepreneurship, defence, banking and finance, education and tourism to mining and scientific research and development.

The advisory council also includes three UniSA graduates: Bank SA chief executive Nick Reade, former SA Tourism Commission boss Bill Spurr and defence expert Christine Zeitz.

The other members are Jacqui McGill and Geoff Rohrsheim.

Prof Michelle Baddeley new director at UniSA's Institute for Choice

Professor Michelle Baddeley has been appointed to the role of Director: Academic in the [Institute for Choice](#) (I4C).

[Prof Baddeley](#) will play a critical role in supporting the relocation of the institute to Adelaide and continue to build the institute's research capacity for 2019 and beyond.

She takes over from [Prof Joffre Swait](#) who steps down to focus on his large-scale research projects.

Prof Baddeley, who previously held the role of Research Professor in the institute, arrived at I4C from a professorship at University College London, where she was Director of the UCL Bartlett School of Construction and Project Management.

Before that she was Director of Studies (Economics) and Fellow at Gonville & Caius College, and lecturer for the Faculty of Economics, University of Cambridge UK.

Her research focuses on applying insights from macroeconomics and behavioural economics across a range of contexts, including investment analysis, neuroeconomics, labour markets, housing, cybersecurity, migration/refugees, energy and the environment. She specialises in the analysis of herding and social influence applied to these and other themes.

Professor Maureen Dollard appointed to international health board

Professor Maureen Dollard from the [School of Psychology, Social Work and Social Policy](#) has been elected as a board member to the [International Commission on Occupational Health](#) (ICOH).



UniSA Deputy Vice Chancellor:
Research and Innovation
Professor Tanya Monro.



Professor Michelle Baddeley.

[Prof Dollard](#) says she is honoured to be elected to the board and to be able to represent issues for Australian workers and employers in relation to occupational health.



Professor Maureen Dollard.

“In my role I will be able to facilitate communication between the board and the Australian team preparing for the ICOH congress in Melbourne in 2021, and assist in the representation of work health issues in the Asia Pacific, and psychosocial factors at work,” Prof Dollard says.

Prof Dollard is Professor of Work and Organisational Psychology and Director and Head of the [Asia Pacific Centre for Work Health and Safety](#), a World Health Organisation [collaborating centre](#) in occupational health.

She is the only Australian representative newly elected to the board and will serve for the triennium 2018-2021.

ICOH is the oldest scientific association in the field founded in 1906, with more than 2000 members in 93 countries. ICOH is recognised by the UN and works closely with the WHO and the ILO.

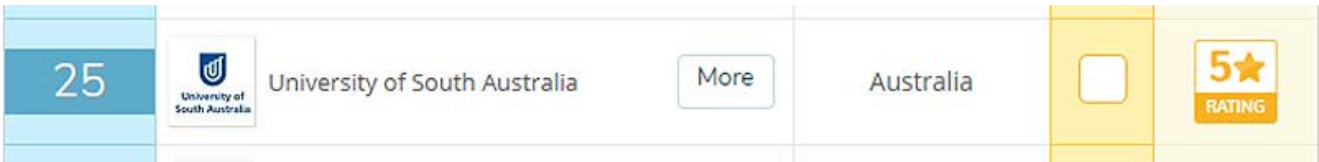


ICOH Saturday group High preview

ANNOUNCEMENTS

UniSA number 25 in list of top young universities in the world

UniSA has been ranked number 25 in the world for universities under 50 years old, in the latest ranking of its type.



The 2019 Quacquarelli Symonds (QS) [Top 50 Under 50](#) ranked UniSA at number 25, one place up compared to the 2018 ranking. First published in 2012, the QS Top 50 Under 50 ranks the best universities in the world under 50 years old.

The success follows on from UniSA increasing its standing in two other recent world university rankings: UniSA moved up six places in the [Times Higher Education Young University Rankings 2018](#) to 26; and rose a further 15 places in the [QS World University Rankings 2019](#) to be placed at number 264 in the world.

ATN students unite to tackle World Solar Challenge

UniSA is part of a consortium of five universities entering a solar powered car in the 2019 Bridgestone World Solar Challenge.

UniSA is banding together with the Queensland University of Technology, the University of Technology Sydney, RMIT University and Curtin University as the [Australian Technology Network](#) team.

Teams compete to create sustainable innovative solar powered electric vehicles able to travel 3000km from Darwin to Adelaide. The biennial event runs from 13-20 October 2019.

SA Tourism Minister David Ridgway says the Bridgestone World Solar Challenge is a global event on the South Australian calendar, regularly generating millions in revenue, international exposure and showcasing innovation.



UniSA PhD student Erika Belchamber and RMIT student Matt Millar who will be part of the Australian Technology Network 2019 World Solar Challenge team.

“It’s great to see the nation’s most innovative and enterprising universities working together,” Ridgway says.

“The Dutch may have hit the trifecta last year, but the young minds of Australian Technology Network are telling

me their solar-car will be one to watch.”

For more information visit worldsolarchallenge.org.

Resource to help improve research writing and guard against plagiarism

In announcing the release of the latest version of the [Australian Code for the Responsible Conduct of Research](#), UniSA Deputy Vice Chancellor: Research and Innovation Professor Tanya Monro reminded the university community about the importance of maintaining and enhancing a culture of research integrity.

A key element of the new [code](#) relates to plagiarism – the unattributed copying of the work and ideas of others.

UniSA staff and research students now have access to a quick and easy online tool, iThenticate, to check drafts of their writing to ensure its originality.

Head of Research Education in UniSA's Research and Innovation Services, [Prof Alistair McCulloch](#), says that in a guide accompanying the 2018 code, it is made clear that plagiarism of someone else's work – including theories, concepts, research data and source material – constitutes a breach of the code.

“The iThenticate software enables staff and students to check drafts of their writing against the very extensive iThenticate databases and also against the Internet more generally,” he says.

Prof McCulloch says university teachers, researchers and research students need to be aware that most book and journal publishers use [iThenticate](#) to check the originality of manuscripts before sending them out for refereeing.

“Using the system is simple and intuitive and provides a colour-coded similarity report (usually within a few minutes) showing any matched text and where the original can be found,” he says.

Because submitted documents are not stored in the iThenticate database for comparison with future submissions, it means that later drafts are not compared with earlier versions.

“This means that iThenticate can be used more easily in a developmental way to help improve either your own writing or that of any research students you might be supervising,” Prof McCulloch says.

Last year, UniSA piloted iThenticate and evaluated its use. One lecturer said iThenticate was a “useful educational tool, especially in learning how to move to substantial revision of text when working with research students”. Another said that the “software is an absolute necessity ... as authors we need to be aware of how the editors are evaluating the originality of submitted manuscripts”.

A UniSA research student said it was an “excellent tool to assist and ensure I have cited correctly”.

An account to use iThenticate can be quickly established by emailing a request to iThenticate@unisa.edu.au from a UniSA email account. More information on iThenticate is available on the [resource's webpage](#).

More than \$700k for UniSA students to learn in Indo-Pacific

More than 200 UniSA students will get to study in one of Australia's neighbouring countries next year, after UniSA was awarded more than \$700,000 for an Australian Government initiative to increase knowledge of the Indo-Pacific region.

UniSA will receive the funding under the [New Colombo Plan](#), which supports Australian undergraduates to study and undertake internships in the Indo-Pacific.

The funding will allow 214 UniSA students to undertake study, internships, mentorships, and research in nine host locations across the Indo-Pacific region during 2019; comprising 16 short-term programs.

UniSA Executive Director: International Gabrielle Rolan says the University's success in applying for funding through the [New Colombo Plan Mobility Program](#) means more opportunities for students to experience and learn from Australia's neighbouring countries.

UniSA works with partner organisations across the region, such as universities, government agencies and non-government organisations, to provide opportunities for students through the [New Colombo Plan Mobility Program](#).

The funding will support UniSA study visits and internships to the following host locations in 2019:

- Brunei
- China

- Cook Islands
- Kiribati
- Myanmar
- Philippines
- Singapore
- South Korea
- Vietnam

The New Colombo Mobility Program is open to Australian university undergraduates aged between 18 and 28.

Tutor wins UniSA News reader survey

UniSA tutor [PJ Tan](#) has won a \$100 Coles Myer gift card after completing the UniSA News reader survey.

UniSA’s News and Communications team undertook a reader survey to identify ways to improve the monthly ezine, UniSA News.

The winner of the \$100 Coles Myer gift card was randomly selected from all eligible entrants, in accordance with the competition’s [terms and conditions](#).

Information on the results of the reader survey will be provided after they have been analysed and any subsequent changes made to UniSA News.

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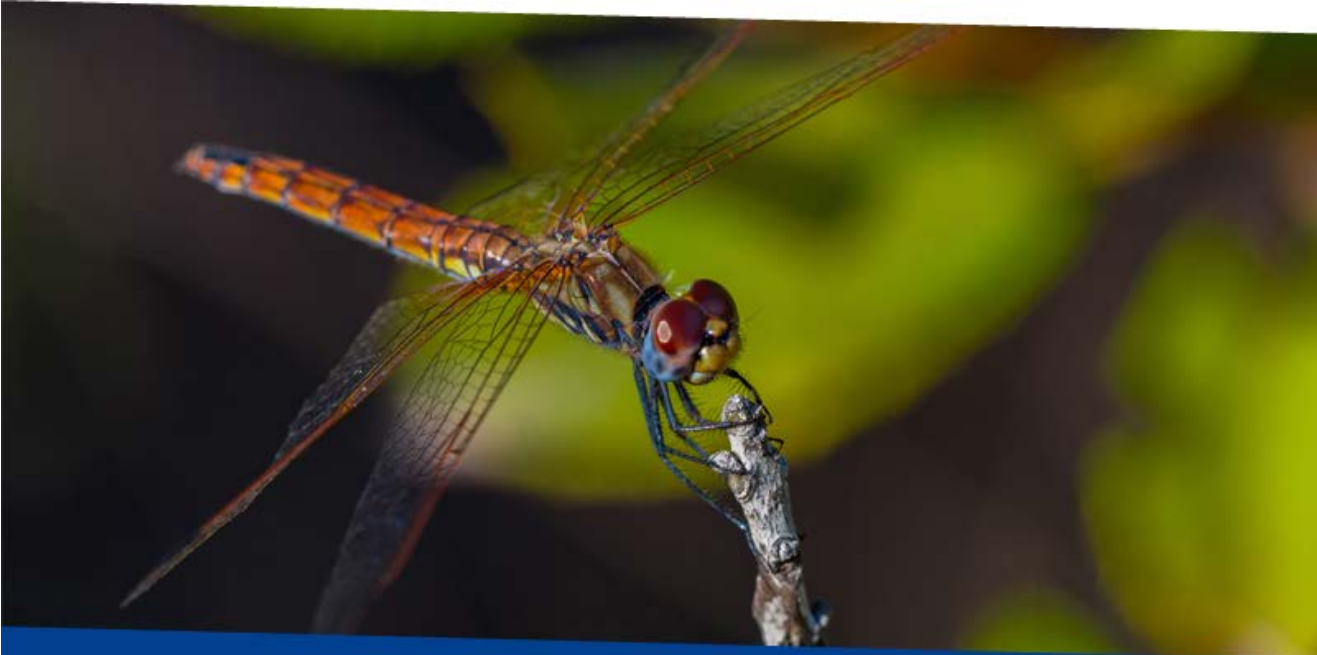
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Dragonfly inspires new fight against surgical infections

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by Candy Gibson



SCIENCE AND TECHNOLOGY

South Australian researchers are embarking on a \$20 million medical and manufacturing research project which could reduce the chance of infection after orthopaedic surgery, thanks to a little help from the humble dragonfly.

Working with leading surgeons and an Australian orthopaedic medical device company, researchers from UniSA and the University of Adelaide will use nano-modification technology based on the structure of the dragonfly wing, whose tiny spikes rip bacteria apart.

The researchers hope to create medical implants with the antimicrobial surface to reduce the likelihood of infections after surgery.

In a unique R&D and manufacturing environment, researchers are carrying out a range of groundbreaking experiments to test whether mimicking the nano-patterns of the dragonfly wing on orthopaedic implants can kill harmful bacteria that cause infections.

The four-year project, co-funded by [Global Orthopaedic Technology](#) and the [Innovation Manufacturing Cooperative Research Centre](#) (IMCRC), could give scientists and clinicians a critical breakthrough in their global fight against antibiotic resistant bacteria, and is intended to create new technologies and processes to benefit the wider manufacturing sector.

UniSA [National Health and Medical Research Council](#) (NHMRC) Fellow [Professor Krasimir Vasilev](#), who will lead research focused on the surface characterisation of the implants, says the technology has the potential to

Bacteria-busting dragonfly cou

UniSA Professor Krasimir Vasilev explains a unique \$20 million project using nano-modification technology based on the structure of the dragonfly wing to reduce the chances of infection after surgery.

improve the quality of life of millions of patients around the world.

“The project is also a great example of transdisciplinary collaboration between scientists, clinicians and industry with the potential to transform healthcare, the manufacturing industry and the Australian economy,” Prof Vasilev says.

The bacteria-busting qualities of the dragonfly were first identified by Australian researchers who observed bacteria being killed on the insects’ wings, characterised by tiny spikes – nanopillars – which are about one thousandth of the thickness of a human hair.



Professor Gerald Atkins from the University of Adelaide (left) and Professor Krasimir Vasilev from UniSA, examine orthopaedic implants which will have the dragonfly wing-like surface.

[Professor Richard de Steiger](#), a leading Australian orthopaedic surgeon involved in clinical research, says implant infection post-surgery is a billion-dollar problem worldwide, affecting around 2-3 per cent of medical implants, including devices to stabilise fractures, hip and knee replacements and spinal implants.

“There has been minimal improvement in orthopaedic infection rates for the past 15 years,” Prof de Steiger says.

“Infection after surgery is a devastating problem, costing not only hundreds of millions of dollars in additional surgery worldwide, but leading to more trauma for patients. They may need extra recovery time after further operations, which are not always successful and pose an even greater risk of infection,” he says.



[Watch](#) the story on 7 News.

Scientists from UniSA and the University of Adelaide will combine their expertise to create titanium implants with the dragonfly wing surface while confirming their safety and testing their bacteria-killing properties in the University of Adelaide’s Centre for Orthopaedic and Trauma Research (COTR) and UniSA’s new Musculoskeletal Biotest Facility.

The research is a combination of cell biology and clever nanomanufacturing techniques, driven by an unmet medical need.

Global Orthopaedic Technology is taking the technology a step further, partnering with Australian researchers to commercialise the technology and tackle the growing epidemic of resistant bacteria and resulting infections.

David Chuter, IMCRC’s CEO and Managing Director, says the research project is reshaping not only the future of the medical device industry, but potentially other sectors.

“Due to the nature of the nano surface, which is independent of the chemistry and material properties of the substrate to which it is applied, the technology can potentially be used in other manufacturing processes across multiple industries, most notably the hospital supplies and equipment industry, the food industry, the marine industry, the building products industry, and the aeronautical industry,” he says.

“The new technology will open many doors, not just in the medical field, as antibacterial surfaces are also valuable in the food industry - in fact, for any surfaces subject to high levels of bacteria.”

Global Orthopaedic Technology and IMCRC are each providing a \$3 million cash investment as part of a total medical and manufacturing R&D investment of \$20 million, with the additional funding provided through in-kind contributions from Global Orthopaedic Technology and both universities.

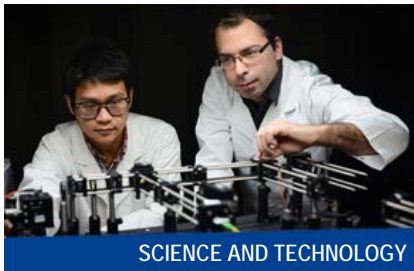
Head of UniSA’s Musculoskeletal Biology Research Biology, [Associate Professor Paul Anderson](#), will undertake some [in vivo](#) and antibacterial safety studies.

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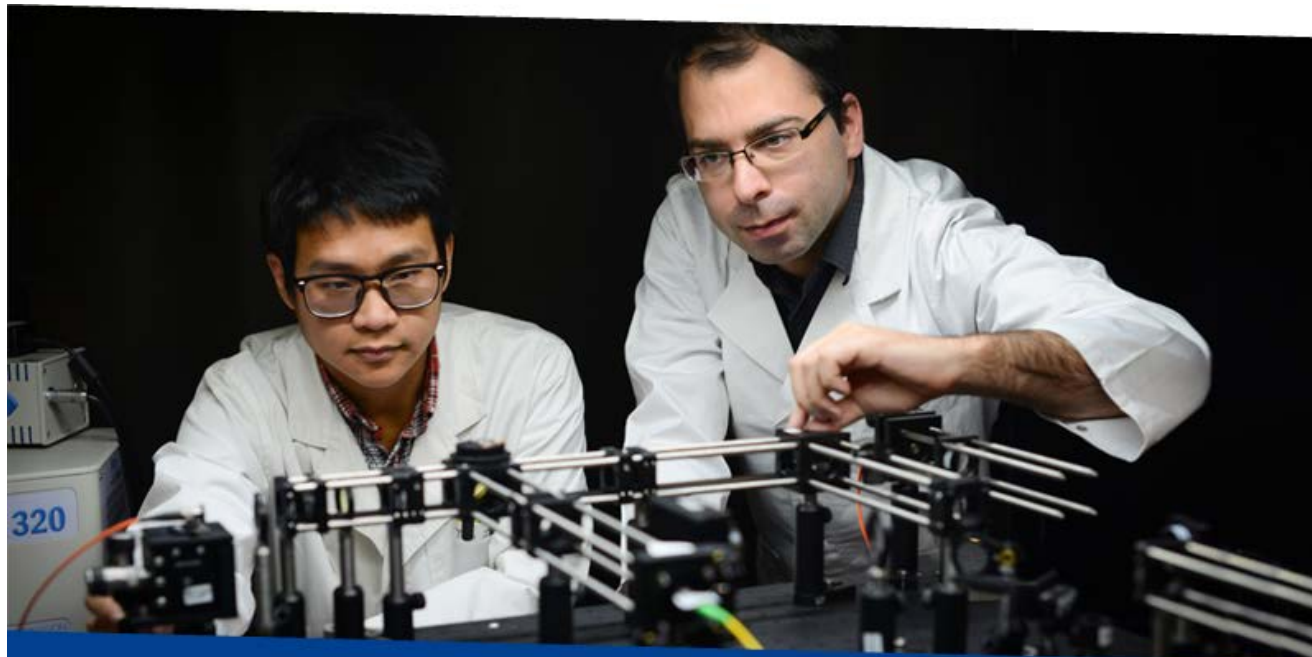
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Salty solution to society's growing data storage needs

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by Candy Gibson



SCIENCE AND TECHNOLOGY

Scientists Xuanzhao Pan and Dr Nick Riesen demonstrating a novel optical data storage platform. Photo by Elizaveta Klantsataya.

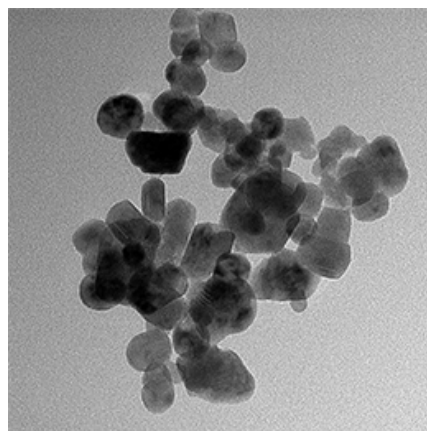
Tiny, nano-sized crystals of salt, encoded with data using light from a laser, could be the next data storage technology of choice, following research by Australian scientists.

Researchers from UniSA and the University of Adelaide, in collaboration with the University of New South Wales, have demonstrated a novel and energy-efficient approach to storing data using light.

Project leader [Dr Nick Riesen](#), a UniSA Research Fellow, says that society's dramatic increase in data use means existing data storage technologies such as hard drive disks and solid-state storage are fast approaching their limits.

"We have entered an age where new technologies are required to meet the demands of hundreds of terabytes (1000 gigabytes) or even petabyte (one million gigabytes) storage," Dr Riesen says. "One of the most promising techniques for achieving this is optical data storage."

Dr Riesen and University of Adelaide PhD student, Xuanzhao Pan, developed technology based on nanocrystals with light-emitting properties that can be efficiently switched on and off in patterns that represent digital information. The researchers used lasers to alter the electronic states, and therefore the fluorescence properties, of the crystals.



Nano-sized crystals of salt.

Their research shows that these fluorescent nanocrystals could be a promising alternative to traditional magnetic (hard drive disk) and solid-state (solid state drive) data storage or blu-ray discs. They demonstrated rewritable data storage in crystals that are hundreds of times smaller than anything visible with the human eye.

“What makes this technique for storing information using light interesting is that several bits can be stored simultaneously, and, unlike most other optical data storage techniques, the data is rewritable,” says Dr Riesen.

This ‘multilevel data storage’ – storing several bits on a single crystal – opens the way for much higher storage densities. The technology also allows for very low-power lasers to be used, increasing energy efficiency and being more practical for consumer applications.

UniSA Deputy Vice Chancellor: Research and Innovation, [Professor Tanya Monro](#), says the results showcase the benefits of establishing complementary research capabilities and infrastructure at collaborating universities.

“This has been a deliberate strategy in the photonics domain that is bearing fruit across a number of projects,” she says.

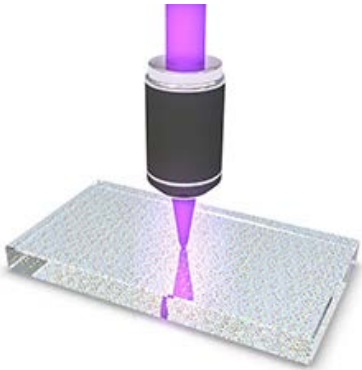
The technology also has the potential to advance the boundaries of how much digital data can be stored through the development of 3D data storage.

Dr Riesen says 3D optical data storage could potentially allow for up to petabyte level data storage in small data cubes.

“To put that in perspective, it is believed that the human brain can store about 2.5 petabytes,” he says. “This new technology could be a viable solution to the great challenge of overcoming the bottleneck in data storage.”

The research has been published in the open access journal [Optics Express](#).

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An illustration of a laser writing data on a nanocrystal within a glass matrix.

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The not-school movement helping young people love learning

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by Annabel Mansfield



HUMANITIES

The one-size-fits-all solution for modern education is not working.

Alternative schooling programs could deliver greater learning outcomes for young people who are struggling at school, according to UniSA researcher Dr Thomas Stehlik.

In a paper presented at the recent [Education and New Developments 2018 Conference](#) in Budapest, Dr Stehlik says that the growing 'not-school' movement is challenging the confines of traditional schooling because the one-size-fits-all solution for modern education is not working.

"Compulsory schooling is considered a basic responsibility of civil society, yet for many young people, school is a narrow experience that can restrict their potential," Dr Stehlik says.

"We need to start looking at education from the perspective of the student.

"The not-school movement is all about encouraging different educational initiatives and practices that 'think outside the box' to provide young people with positive education experiences that they enjoy."

Including all educational programs that occur outside of the school environment, the not-school movement covers activities from art-based initiatives to home schooling. Often unstructured and informal, not-school learning can be delivered by adult educators, youth workers, community developers and parents.

Echoing the findings of the [2018 Gonski Report](#), Dr Stehlik says today's mass approach to education is outdated and despite long-term calls for change, little change has occurred.

“Young people have different individual learning needs and talents, but when we try and fit everyone under the same standard schooling model, it doesn’t work,” Dr Stehlik says.

“Different educational experiences can provide options for those who do not respond well in traditional school environments, including alternative career and post-school pathways; as well as contributing to an improved sense of identity and wellbeing.

“Just think of the gap year. One in four young Australians take a gap year post-secondary schooling; it’s essentially formal time out of study, yet is looked upon positively as a means to gaining real world experience.”

Dr Stehlik says that Australia needs to think more broadly about how it delivers education, particularly given the growing demand for innovation and creativity and other ‘21st century skills’ that by definition require unconventional teaching approaches.

“Given the increased use of flexible and online learning methodologies, it is surprising that more alternatives to face-to-face classroom teaching are not being considered,” Dr Stehlik says.

“Innovation is considered critical for the sustained success of Australian business, but this starts with education. If we’re not being inclusive of those young people who do not fit the convention, Australia could be overlooking a whole sector of creative and alternative thinkers.

“It’s time to ask ourselves, ‘what else can we do?’”

The paper is based on a chapter of Dr Stehlik’s new book, [Educational Philosophy for 21st Century Teachers](#), which provides an in-depth analysis and review of alternative education options and questions the current approach to schooling and the traditions upon which it is based.

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Study asks if nuts can make kids smarter

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by Candy Gibson



HEALTH

UniSA researchers are testing whether nuts can improve children's cognitive ability – something that's already been demonstrated for adults.

Nutrient-rich tree nuts – including almonds, Brazil nuts, cashews, chestnuts, hazelnuts, macadamias, pecans, pine nuts, pistachios and walnuts – are already recognised for their health benefits, but there is mounting evidence that they can also help perception, thinking and learning, UniSA researchers say.

The UniSA study follows on the heels of research that shows tree nuts can improve vascular health and cognitive function in adults, but there is scant research looking at the health benefits for children.

Lead researcher [Associate Professor Alison Coates](#) wants to recruit healthy boys and girls aged 8-13 years who are not allergic to nuts and have no sleep or behavioural disorders.

"We will be asking the children to eat 30g of almonds five days a week for eight weeks – that's about 23 almonds each day," Assoc Prof Coates says.

The researchers will use brain game tests to compare the children's cognitive ability with a control group of other children on a nut-free diet for eight weeks.

Less than 10 per cent of Australian children consume nuts regularly, Assoc Prof Coates says, despite demonstrated health benefits in adults.

"Multiple US surveys involving 10,000 adults have already demonstrated a link between regular nut consumption and improved cognitive function, regardless of age, gender, race, education, BMI, smoking, alcohol consumption and physical activity.

"Other European studies looking at the benefits of a Mediterranean diet – including mixed nuts – showed better



cognitive ability and a lower risk of depression compared with participants on a low-fat diet," Assoc Prof Coates says.

The UniSA nutritionist was recently commissioned by the Australian organisation [Nuts for Life](#) to create a fact sheet about [nuts and brain health](#), based on evidence-based research. Her current study is funded by the Almond Board of Australia.

For more details and to take part in the study please email alison.coates@unisa.edu.au

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All the world's a stage for malaria-busting researcher

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by Candy Gibson



COMMUNITY

Children dressed as mosquitoes for a drama performance in a Cambodian village. Photo by Nicky Almasy.

A novel project using drama, art and music workshops has helped to educate remote Cambodian villagers about the importance of taking anti-malaria pills.

UniSA researcher [Dr Renly Lim](#), along with a team of international researchers from the UK, Thailand, the Netherlands and Cambodia, trialled a highly unusual but effective method to increase the uptake of mass drug administration (MDA) in 20 remote villages in the South East Asian country.

Dr Lim, a Research Fellow in UniSA's [School of Pharmacy and Medical Sciences](#), was the only Australian researcher to take part in the project, initiated by the [University of Oxford](#).

By engaging villagers in a series of drama workshops, the researchers helped them weave together entertaining stories using caricatures to drive home the dangers of mosquitoes and convince locals to receive treatment.

While malaria rates are declining overall in Southeast Asia, transmission is still high in many rural areas, due in part to illiteracy, lack of health services and education, and lack of trust in officials.



Dr Renly Lim (right), pictured with Sanaan Nou from the Mahidol Oxford Tropical Medicine Research Unit in a Cambodian village.

“Many villages have limited infrastructure and electricity, poor access to potable water, sanitation and irrigation systems, and minimal education,” Dr Lim says.

“It was important to travel to each village and reach people who might not have access to health education.”

Meetings were held with local stakeholders to help recruit and train drama performers on key malaria messages and the best ways to impart them through acting, art and music.

“The MDA uptake following the visits averaged 84 per cent – exceeding the target and resulting in some very positive feedback from the villagers,” Dr Lim says.

The key messages reiterated the need to use insecticide-treated bed nets and repellents, the importance of early diagnosis and treatment and the risks of forest-acquired malaria.

The project also combined traditional entertainment with the modern; using drones to film the villagers and sharing photos and videos on Facebook across the province.

Across the villages, attendance rates at the drama performances averaged 66 per cent and led to an increased willingness among locals to do blood tests, Dr Lim says.

“This was heartening on two fronts. Some villagers believe in spiritual and psychic mediums to cure their illnesses and in the past have rejected blood tests and vaccinations.

“Also, in 2014, an unlicensed doctor infected more than 200 people with HIV in a Cambodian village, leading to the deaths of 10 people. This raised concerns and rumours that healthcare personnel came to the villages to collect their blood and sell it,” she says.

The researchers hope to roll out the project across Cambodia to promote high MDA coverage, although this is contingent on funding.

Their findings have been published by the London-based [Wellcome Trust](#), which funded the project, and resulted in Dr Lim being named one of 10 [Fresh Scientists](#) for South Australia in June.

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UniSA's creative revival as new tech-arts fuel industries and innovation

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by Michèle Nardelli



INSIDE UNISA

Guests at the launch of UniSA's School of Creative Industries were able to play the role of Dorothy from the Wizard of Oz as part of a virtual actor research project.

As South Australia continues to grow its base in major creative enterprises and start-ups, UniSA's new School of Creative Industries will be a front-runner in creative education – offering unique industry experiences and educating the next generation of creative talent.

Incorporating the cultural industries (including the galleries, libraries and museums (GLAM) sector) and the creative economy, the [School of Creative Industries](#) brings together arts, film, television, music, visual effects, performing arts, publishing, research and development, radio, journalism, public relations, games, software, and general artistic expression.

The new school was officially launched in June.

Employing one per cent of the world's working population – a staggering 29.5 million jobs globally –creative industries are driving employment and contributing to economic growth locally and around the world.

Leveraging the creativity boom, the School of Creative Industries is offering studies at the cutting-edge of creative thinking and drawing connections between creativity, the arts, technology, and business.

The school is possibly South Australia's most connected university faculty with established partnerships with some of Australia's most prominent and influential creative organisations, including [Rising Sun Pictures](#), [Matchbox Pictures](#), [Kojo](#), [Channel 44](#), [South Australian Film Corporation](#), [Mighty Kingdom](#) and [ABC iView](#).

Head of UniSA's School of Creative Industries, [Professor Jason Bainbridge](#), says the University's diverse

industry partnerships offer students invaluable opportunities and access to industry experience as part of their studies.

“We are adopting an exciting way of educating future creative leaders and thinkers through co-creation with new collaborators and partners,” Prof Bainbridge says.

“Our students are able to study and learn in professional industry environments, learning from the best in the business under the mentorship of global leaders in industry.

“Our experience shows that the placements act as a talent pipeline for industry as well with many students being offered great paid employment, in the fields they love, while they are still studying.”

The school also has a new industry collaborator – global film, television and virtual effects giant [Technicolor](#).

“As automation and digital communications shape the way all industries ‘live’ in the world, the demand for creative thinkers and architects of great communications, entertainment and ideas has entered an era of huge growth,” Prof Bainbridge says.

“We want to be leaders in delivering work-ready graduates and innovators to meet that demand.”

See [In Pictures](#) for photographs from the event.

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Tips and tricks from local food and wine experts

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by Michèle Nardelli



BUSINESS AND LAW

Local produce icon Maggie Beer and Foodland CEO Con Sciacca speaking at a roundtable premium food and wine marketing event by the Ehrenberg-Bass Institute for Marketing Science.

Bring together fresh local produce icon, Maggie Beer, the owner of Woodside Cheese, Kris Lloyd, respected wine and food journalist, Tony Love, and Con Sciacca, CEO of the local supermarket group Foodland, and what do you get? It's a rich conversation about the business of premium food and wine and for anybody tuning in – a powerhouse of insights born from highs and lows in the industry.

Part of a new suite of executive education courses in food and wine marketing hosted by UniSA's internationally renowned [Ehrenberg-Bass Institute of Marketing Science](#), the roundtable was a highlight in the five-day program.

The roundtable, looking at "The culture and meaning of premium food and wine: from farm to fork", brought real insights into the challenges in creating and marketing premium products.

The four talked about new trends in where premium products are sold and consumed, and how changes in consumer behaviour are driving the development of local food and beverages, from wines and boutique spirits to new beers and ales.

Open to postgraduate business students and industry professionals who want to expand their skills and understanding, UniSA hopes to repeat the short course next year.

For more information or to express your interest in attending the course in 2019, visit marketingscience.info/premium-food-and-wine-marketing. Current UniSA students should visit study.unisa.edu.au/courses/101228/2018.

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New Books

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Copycats and Contrarians: Why We Follow Others ... and When We Don't

Rioting teenagers, tumbling stock markets, and the spread of religious terrorism appear to have little in common, but all are driven by the same basic instincts: the tendency to herd, follow, and imitate others.

In the new book *Copycats and Contrarians: Why We Follow Others ... and When We Don't*, UniSA's [Professor Michelle Baddeley](#) explores the curious human tendency of 'herding', seeking to understand its place in our everyday lives.

"As social animals, we have strong instincts to copy and conform, a pattern of behaviour that has helped many species, including our own, to survive and prosper," Prof Baddeley says.

"This behaviour is reinforced by the social skills we learn during infancy and childhood.

"But sometimes our instinct to copy others can be dangerous, especially in today's interlinked world, where adverse or speculative information can flash across the globe driving rapid shifts in group opinion."

Examining high-impact global events from Princess Diana's funeral to Trump's presidential campaign, Prof Baddeley considers the contexts in which behaviour is driven by the herd. She analyses the rational versus non-rational and cognitive versus emotional forces involved, investigating why herding only sometimes works out well.

With new perspectives on followers, leaders, and the pros and cons of herd behaviour, *Copycats and Contrarians: Why We Follow Others ... and When We Don't* discusses the key question: "Why do some people go with the flow, while others buck societal conventions?"

Published by Yale University Press, *Copycats and Contrarians: Why We Follow Others ... and When We Don't* is available [online](#). UniSA News readers can access a 15 per cent discount on the book by using the code BClub18 via the Australian distributor [Footprint Books](#).

Prof Baddeley will be speaking about the book at a free event, *Raising The Bar: Adelaide*, in Norwood on Tuesday 7 August. See the details on [The Parade](#) website.

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**University of
South Australia**

Highlights from the Media Centre

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Two new postgraduate programs that will involve students starting their studies in London this year; and a new space innovation fund – these are some of the latest stories from UniSA’s [Media Centre](#):

[Data science and energy systems students get the best of two hemispheres](#)

Australian students who successfully apply for entry into one of two exciting international postgraduate programs in energy systems and data science could be studying in London this year.

Building on UniSA’s strong partnership with University College London, two new joint masters’ programs – the [Master of Science in Data Science \(International\)](#) and [Master of Science in Sustainable Energy Systems](#) – will commence in September.

UniSA Pro Vice Chancellor: IT, Engineering and the Environment [Professor Simon Beecham](#) says the new offerings will give masters students a remarkable opportunity to gain international perspectives in their field of study.



[Space incubator program launched](#)

Applications are now open for a new program to support start-ups and entrepreneurs to enter the growing space industry market.

The space incubator program ([Venture Catalyst Space](#)) is part of the State Government’s \$4 million Space Innovation Fund which was launched in September last year. UniSA’s [Innovation and Collaboration Centre](#), along with its global partners, will deliver the incubator program.

The program will support people with cutting-edge ideas to transform those concepts into new start-ups and sustainable businesses in South Australia.



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news

July 2018

> from the University of South Australia

IN PICTURES

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Festival of Ideas on campus

Dozens of events were held across UniSA's City West campus as part of the 2018 [Adelaide Festival of Ideas](#).

Over three days in July, the festival brought together thought-provoking speakers to Adelaide from across Australia and the world, to challenge the public's thinking and address a combination of blue-sky thinking and the urgent issues of the times.

UniSA sponsored this year's event.



Author, journalist and TV screenwriter Benjamin Law spoke at UniSA's Allan Scott Auditorium about the Safe Schools program. You can listen to his session on the Festival of Ideas [website](#).



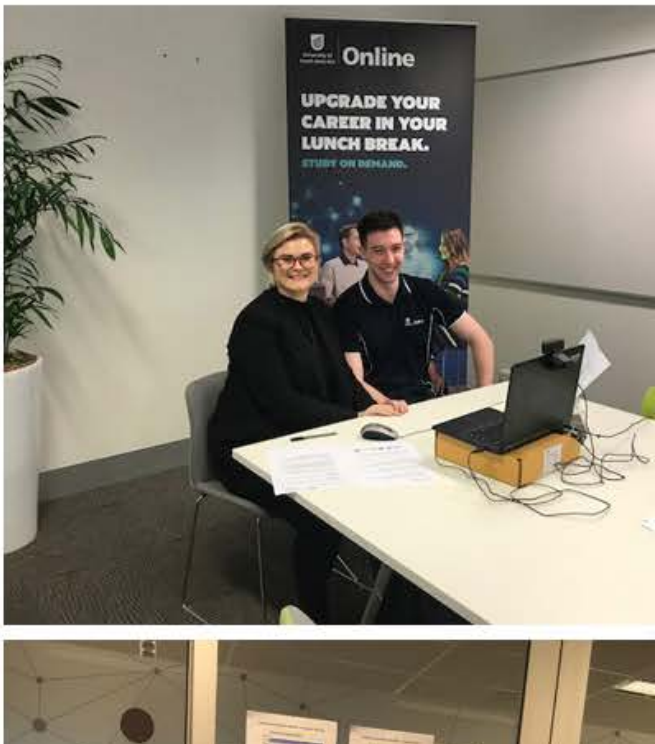
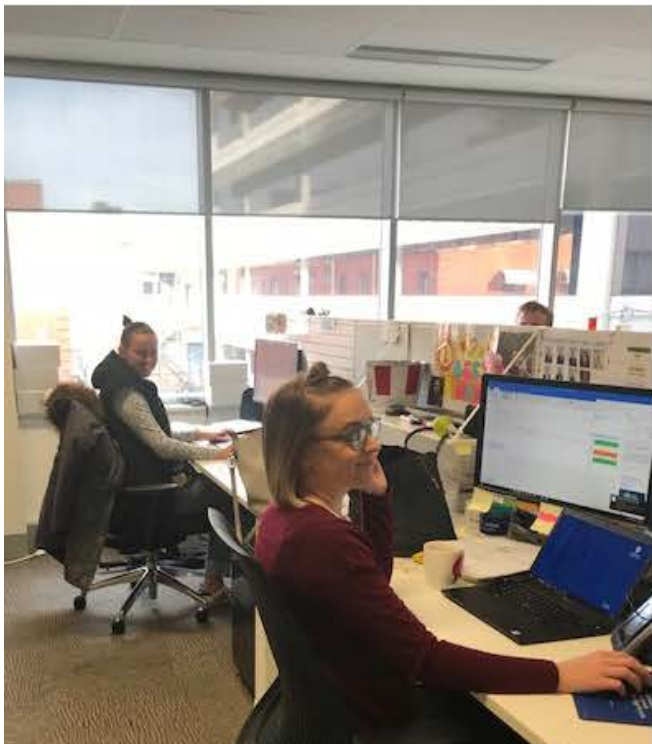
Professor Gillian Triggs delivered the [Dame Roma Mitchell Oration: Lauded and vilified: the highs and lows of leadership in human rights](#) at the Allan Scott Auditorium. The session was in conversation with Equal Opportunity Commissioner (SA) Dr Niki Vincent.

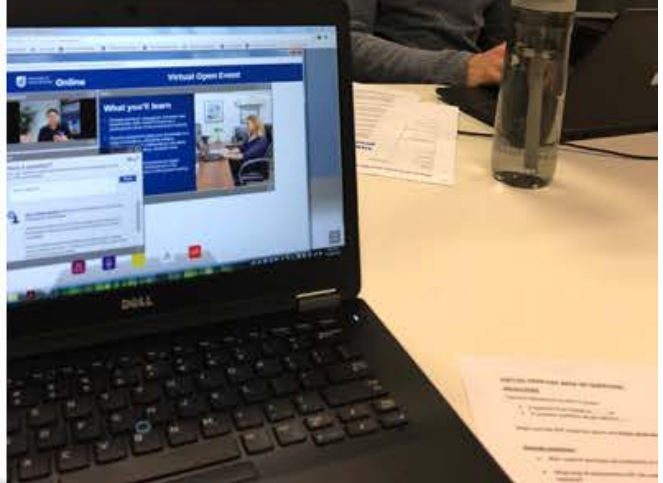
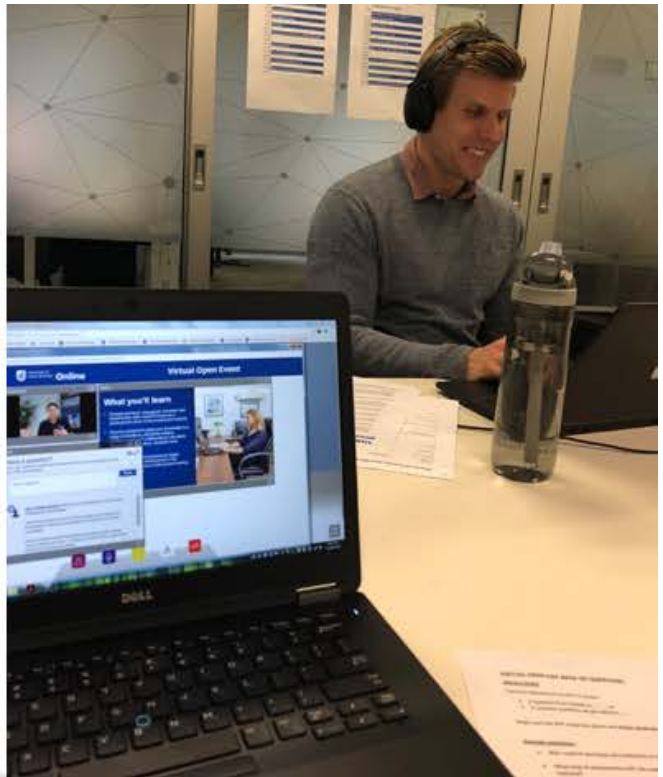
UniSA Online's Virtual Open Event

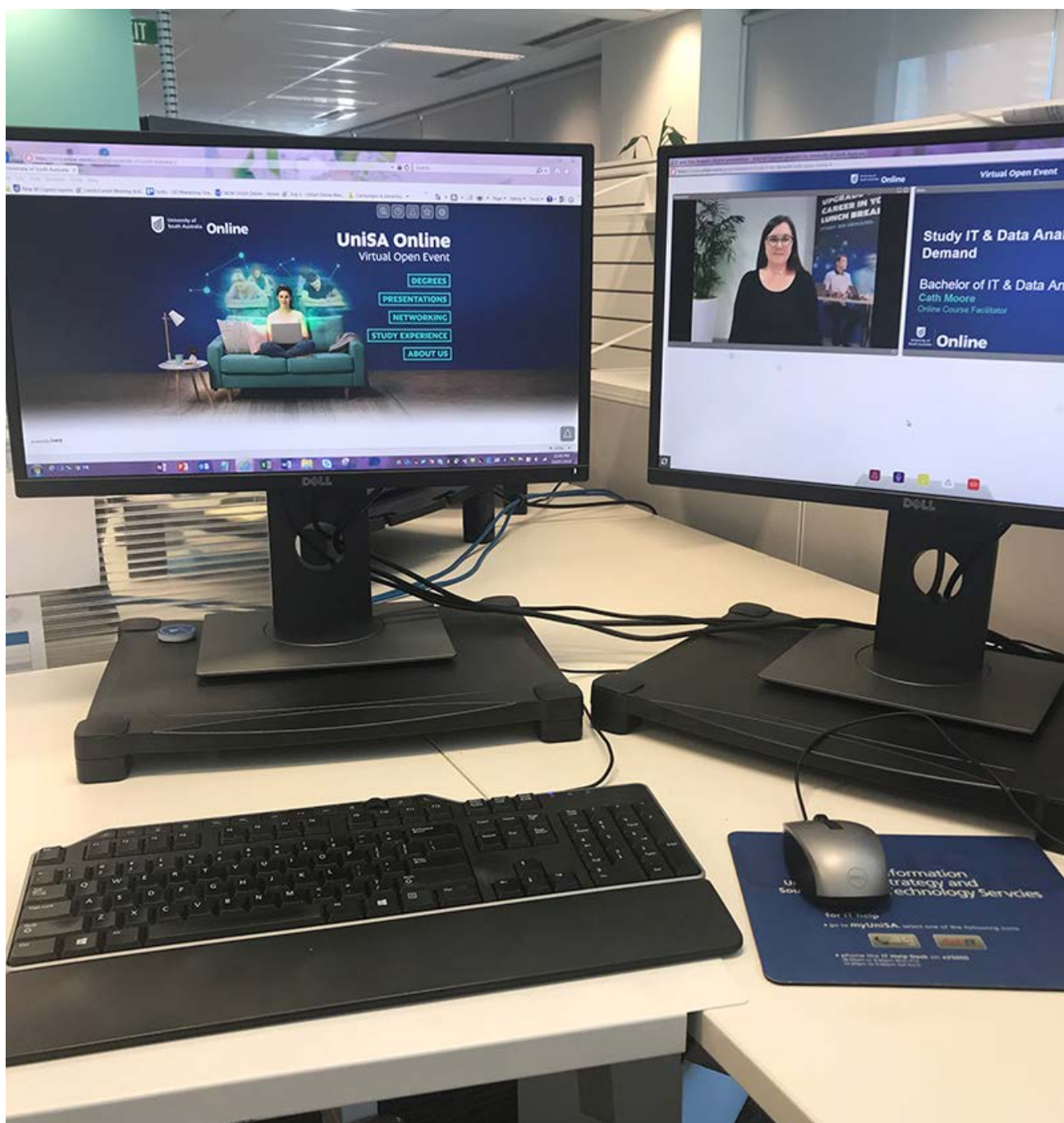
UniSA Online held the online equivalent of an open day in June, [Virtual Open Event](#), giving prospective students the opportunity to learn more about UniSA Online's 100 per cent online degrees, hear about its support services, and get a sneak peek into the online learning environment.

Held across two days, participants were able to access exclusive content, hear from teaching and support staff and chat live with members of the UniSA Online team.









This is what the UniSA Online Virtual Open Event environment looks like.

School of Creative Industries launch

UniSA's new School of Creative Industries was officially launched on 26 June 2018, involving a range of industry partners and stakeholders. Read the full story [here](http://w3.unisa.edu.au/unisanews/2018/July/story15.asp).









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