UTS

WHEN UNI MEETS THE REAL WORLD
Unpacking the benefits of authentic assessment

FAIR AND SQUARE
Academic integrity explained

4 WAYS TO BUILD DATA CURIOSITY
Become more data literate today

ASK THE EXEC

Shirley Alexander

deputy vice-chancellor (education and students)

This year is UTS's 30th anniversary. What is your fondest memory of UTS?

My fondest memories all involve people – the friendship, collegiality, great sense of teamwork, and a shared belief in social justice that is the hallmark of working at UTS.

One humorous memory I have is from many years ago, when we had the old lift system. Some students conducted a very clever campaign to highlight the slow speed of the lifts by holding theatre performances in there. So the lift doors would open to reveal students inside standing on milk crates acting out Shakespeare! It made for a very enjoyable lift journey!

What are your favourite reads or Netflix series?

I read my Twitter feed every day – it keeps me in touch with higher education around the world. I'm also an avid novel reader. I recently read *Exit West* by Mohsin Hamid and *Eleanor Oliphant is Completely Fine* by Gail Honeyman and would recommend both. But, I am probably one of the last people to start watching *Suits* on Netflix!

What drives you to turn up to work at UTS every day?

Education is one of the most important industries there is – I have personal experience of its life-changing nature for individuals, and for society in general, and believe we absolutely must have a strong education system to prepare for the future.

I came from a low-SES background and education was a lifechanger for me.

In my job, I'm also privileged to meet students, all the time, who have very difficult home lives. Sometimes they're carers who travel long hours to come to university and have to work at least part-time, yet they still volunteer to help other students. I find that extraordinary and it makes me want to come to work every day.

Digital literacy is critical in a rapidly changing workforce. What digital skill have you tackled this year?

I've always been an early adopter of technologies but it's a constant learning process. I used to use Yammer as an online collaboration tool but this year have moved to Microsoft Teams in Office365 for enhanced group communication.

What are the three biggest challenges facing learning and teaching?

First, there is the challenge of ensuring we are preparing graduates for entry to the workforce, not only in terms of skills and knowledge, but also in terms of landing a job to begin with. Disappearing rapidly is the era of simply preparing an application and attending an interview. Now there is production of personal videos, online testing and participation in group problem solving exercises to prepare for as well.

Second, is the evolving nature of the labour market and the shift to more casualised employment. We need to be sure we are preparing students for this emerging environment.

Third, is the changing nature of learning – there are still those who believe students need only listen (to lectures) and read in order to achieve intended learning outcomes. Our learning.futures strategy promotes additional active and authentic learning activities to ensure the best possible outcomes for students

What are you most excited about in the year ahead?

I'm almost at the end of a project on the 'Future of Work' and what it means for the curriculum. I have a lot of recommendations for ways in which we can adapt to prepare students for the future of work. But you'll have to wait a little bit longer to find out exactly what they are.

Photographer: Jesse Taylor

Articles

Next issue

The next issue will be released on **Monday 3 September 2018**

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Learning and Teaching Special Issue

Unpacking fake news

The cry of 'fake news' is all too regular today. But just how well are students able to interrogate the numbers spouted as fact? A unique undergraduate subject is ensuring graduates not only have a statistical curiosity for the world around them, but can confidently interrogate arguments too.

The assertion of being either a 'numbers person' or a 'words person' no longer flies in today's 'datafied' society.

"Many students learn how to 'do' maths, but all students need additional practice at 'using' maths, statistics and probability in the context of real events and decision making," says Senior Lecturer in the School of Mathematical and Physical Sciences Dr Mary Coupland.

"We often resort to our intuitions when risk and probability are involved. Knowing the maths, and practising communicating with and about facts and figures, helps us make better decisions and helps us to unpack 'fake news'."

That's why Mary worked with staff from the Institute for Interactive Media and Learning to create Arguments, Evidence and Intuition (AEI) — a subject aimed at making our students more data literate. Its point of difference, though, is bringing statistical literacy together with critical thinking.

"Our senior executives want all UTS graduates to be numerate, and this means different things in different faculties. However, as society depends more and more on data, it's essential that all our graduates need confidence in dealing with numbers," Mary explains.

AEI is designed to build the skills necessary to follow and critique the numerical and statistical arguments presented in the media and online. Students learn to make their own arguments based on facts and figures, choosing a contentious issue and analysing cases put forward by people on both sides. Popular issues in recent sessions include gun control, Sydney's lockout laws, drug testing at music events and driverless cars.

Dr Simon Knight is a Lecturer in the Faculty of Transdisciplinary Innovation and was the AEI subject coordinator for Autumn session. He says while AEI is partly about building numeracy or statistical literacy, it's also about building statistical curiosity.

"We need students to be critical consumers of information around them," says Simon. "Students are increasingly exposed to a myriad of different perspectives, and there are two horns to this dilemma. We want students to pay attention to multiple perspectives and try to have empathy for different stakeholder groups; that's a really big part of this subject.

"But we also need them to be critical of those views and of the evidence they use and try to come to some sort of understanding of what the truth is," adds Simon. "Getting them to deal with the uncertainty and ambiguity inherent in that is something AEI focuses on."
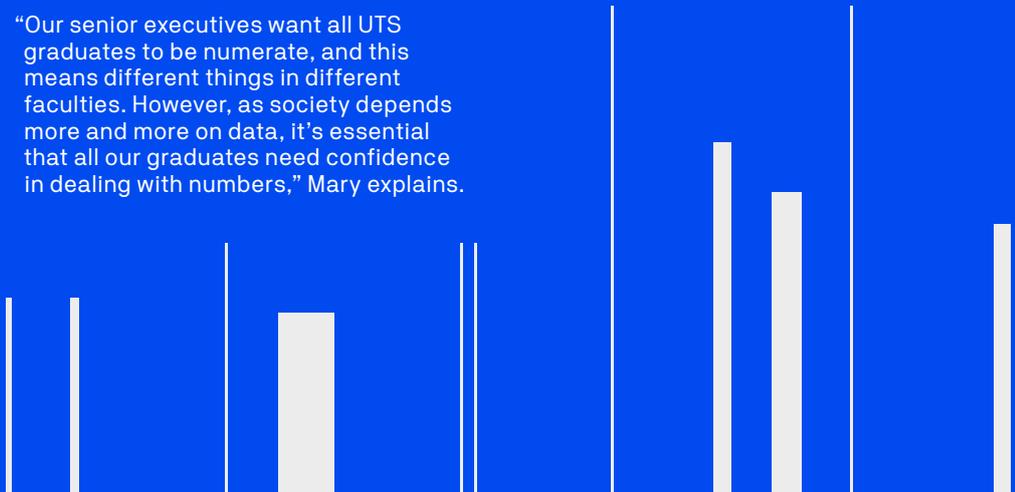
"People are omitting data that's actually relevant to the problems they're talking about."

The importance of finding accurate data sources when forming an argument has stayed with final-year communication student Daniel Isidro. He studied AEI over the last Summer session and says, "It's easy to find stats but there is a lot of conflicting evidence out there. The hard part is trying to find the most relevant and most unbiased form of evidence in a sea of numbers.

"AEI is the real application of actually arguing and using statistical evidence in your everyday work. Coming from a comms background, a lot of the things we look at, including articles and news, deal with data.

"This subject really does teach you how to be able to use that data, utilise it as your argument and substantiate the evidence that you present depending on the story you want to tell."

Though AEI is administered by the Faculty of Science, it's available as an elective to students across all faculties and has typically attracted students from engineering and communication. Simon says while many students are familiar with the idea of using statistics, challenges arise when they begin thinking about why the numbers are important and how to reconcile competing views around them. For Simon, whose background is in psychology and philosophy, thinking through these cognitive biases is important.

"People are omitting data that's actually relevant to the problems they're talking about," he says. "For example, politicians making claims about the economic impacts of things. They're making appeals to intuition or to popular belief

Students learn how to unpack data sets for storytelling

rather than actually using the evidence. This subject tries to get the students to engage with real-world examples. We use a lot of newspaper articles and real data sets to explore those issues.

"One of the big ones we've looked at this session is international coal consumption — obviously a very important topic in the climate change context. In Australia, it's particularly salient at the moment with Adani and mining in Australia.

"What many people may not realise is there's an assumption that, say, China and parts of America are the biggest consumers of coal in the world, which in absolute terms is true. But actually, Australia per capita is by far the biggest consumer. So, we look at that data set to explore the normalisation and what that means for climate change policy."

The subject has benefited from interdisciplinary perspectives in its development, including welcoming guest lecturers from different faculties who bring their own passions and expertise.

Senior Lecturer in journalism Jenna Price has been one of these guest lecturers. "I went into journalism because I love writing. But one of the things I discovered is that making numerical errors can cause real problems for your audience and for yourself.

"This subject teaches students how to tell stories, which we need in any job we have. Whether it's an engineering job, or a public relations job, we are now storytellers. Our most compelling stories are ones where we can see numbers change and see the impact those numbers have on our lives."

Want to know more? Turn to page 6 to uncover '4 ways to build data curiosity'.

KATIA SANFILIPPO
Marketing and Communication Unit

Photographer (students): Shane Lo
Photographer (phone): Rob Hampson
via unsplash.com

4 ways to build data curiosity

Data is increasingly around us, in how we understand our elections, meet our partners, engage with our students and are evaluated in our jobs. Data, and the information it can provide to inform decisions, is a key characteristic of 21st century life. But what does it mean to be data literate? And why is it important?

Your Student Feedback Survey results are in. You scored an average value of 3.9 on the question, 'This subject has developed my ability to think critically'. But, what does this average value actually tell you?

You're keen to evaluate whether the changes you made improved students' critical thinking; but does your score help you to work out how effective they were? It's up from 3.7 in the previous session, so it's all good right? Perhaps not.

Taking an average value from a set of Likert responses like this is controversial, and hard to interpret. What's the distribution that lies behind this number? Is the way it changed significant? How do the two cohorts differ? A data literate person is curious enough to dig deeper, questioning what lies beneath simple reports.

The reality is data permeates our everyday lives, with data literacy — the ability to interrogate, manipulate, and analyse data — increasingly important for every person's civic participation and their employment prospects.

Unfortunately, for many people, working with numbers triggers a default anxiety causing them to immediately switch off. Instead of questioning data, examining it, exploring it and using it to tell an underlying data story, people often shut down claiming, 'I'm no good at numbers' or 'I haven't done any maths since school'.

How then to overcome our fear? Can we find a way to develop statistical curiosity as we encounter data? Yes.

We think that emphasising the 'why' of numbers and statistics, not just the 'how' of using statistical methods, is crucial. But it takes practice. Here are four ways you can start building data literacy now:

1. **Link to real stories**
   Focusing on the why of statistics means exploring how the numbers help us understand the world, and how misusing or omitting them can lead to problems. By tying the stats to different kinds of real stories, we can explore real-world problems. For example, by analysing the UK's recent open data on companies' gender pay gaps the *Financial Times* uncovered an implausible claim: 16 companies reported a pay gap of zero on two different indicators (the mean and median), which is highly unlikely. Sharing and discussing real-world examples of how we go from data to story, highlights why data is important for understanding these real-world issues.

2. Use real data

Real stories encourage us to step away from using inauthentic simplified data. Instead, we can focus on using real data, ask why we might want to explore it further, and how we might do that. For example, did you know that despite a focus on America and China being the biggest consumers of coal, Australia is actually the biggest consumer of coal per capita in the world? Exploring nuance like 'per capita data' is harder. When you look at real-world contexts, datasets are often bigger, and come with missing data and mistakes. But it gives you a better picture of the real issues. Real data also gives people a choice of topical issues to explore, ones that are meaningful to them.

3. Communicate with and about data

Importantly, it isn't enough to just do the analysis (and maybe describe it), you need to be able to interpret it; to show why it matters. By getting people to communicate with the data — face-to-face and through their written work — we can catch a lack of interpretation and any misconceptions about the data.

For example, what's more dramatic? Spending $6 million on an intervention in NSW schools or $2.86 per NSW school student (and how would you check those figures)? Problems like this can help students understand the challenges of communicating big numbers. Getting them to play a spin doctor, retelling a data story that focuses on the cost of a school intervention either overall or on a per-student basis is an even more effective learning device. By giving examples of data stories, and data presentations, we can model how data can be used and abused in communicating different stories.

Simon Knight and Kirsty Kitto

4. Don't forget the human

Getting people to communicate about real data is also important because it can expose students to varied datasets on the same issue, and legitimate differences of interpretation. We use data for a reason, and exploring what the impacts of data — and missing data — are for stakeholders is crucial for civic participation.

For example, in 2016, the BBC asked 'Is there a sexist data crisis?'; using the example of Uganda who shifted their labour survey to include 'secondary occupation' in addition to 'primary'. The results showed a huge rise in employment figures (from 6.5 million to 7.2 million) and most of these 'new employees' were women. Can you work out why? It's because although many women did undertake some paid employment, the survey considered the primary occupation to be domestic duties.

Missing data has an impact on society, making it hard to allocate resources properly, understand inequalities and represent people in media and political decision making.

Even individually, the way we select and interpret data can be influenced by our beliefs and the groups we belong to.

Whether we like it or not, data is increasingly entering all of our lives. We can all benefit from remembering the social and personal aspects of data, from using it more carefully, and by considering what is not there with as much interest as what is there.

Skill up and improve your data literacy with our online courses at open.uts.edu.au

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Photographer: Shane Lo

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Fair and square

Academic integrity is much more than 'not cheating'. It's an ethos for how we behave honestly, respectfully, ethically and professionally in every aspect of academic life. That's why we're flipping the conversation, helping students and staff understand what it means to work with academic integrity and better explaining what the repercussions of student misconduct are.

One subject. 350 students. 55 caught cheating. This is the real-life scenario accounting Lecturer Amanda White encountered last spring in the Assurance Services and Audit subject's simulated video interview assessment.

"While we were marking, we noticed some students were stumbling over similar phrases and phrases that were incorrect," explains Amanda. After typing a transcript of every student's assessment and running them through text analysis software, Amanda identified 55 students whose work was not their own.

"I'm an accountant. I have ethical standards. I believe in the assessment. So I went forward and reported my findings to the misconduct and appeals team," Amanda explains. When questioned by the team, many of the students revealed they didn't realise what they'd done was actually cheating.

Not to be defeated, Amanda decided to turn the "devastating" discovery into a suite of new teaching materials, including The Academic Integrity Board Game, which has all but wiped out misconduct in the class. But more on this later.

Maryanne Dever is the Associate Dean (Teaching & Learning) in the Faculty of Arts and Social Sciences and the chair of the university's Academic Integrity Working Party.

Though she says cases of academic misconduct like Amanda experienced are rare, Maryanne admits, "We can do much, much more to engage students in understanding what academic integrity is."

This year, she's leading a working party to recommend a formal, university-level strategy around academic integrity. Maryanne and her team are also working to understand how effective our current processes are (including where the pain points for academics occur) and how we can strengthen our culture of academic integrity.

"In the past," says Maryanne, "we've tended to approach academic integrity through a kind of disciplinary lens, so we've focused on plagiarism, cheating and addressing infringements and misconduct."

That approach, however, deals with only "an absolute minority of students". What we want to do now is define the culture and practices we actively endorse as a university.

"It's becoming increasingly important that the community can look to universities and know that the knowledge we produce has integrity, that the degrees that we offer have integrity, the graduates we graduate have integrity," Maryanne says.

And, the reality is, "If we haven't been talking the language of academic integrity to students, they're probably not as aware as they should be.

"We have to educate students in what we expect of them if we're really going to build a culture where academic integrity is understood and is aspired to."

Amanda agrees. "Sometimes students don't even realise that something could be classed as academic misconduct." That's where The Academic Integrity Board Game comes in.

Last year, using a Learner Experience grant, Amanda enlisted the help of Bachelor of Creative Intelligence and Innovation graduates Tyler Key and Emma Gogolewski to create the game.

They spent three months researching real-life examples of misconduct, creating a board game prototype, testing it and incorporating player feedback. Amanda launched the board game with 400 of her third-year students in Autumn session this year.

"The main thing this game had to do was to teach students, in an engaging way, what exactly academic integrity is and what it's not," explains Emma. "Then, with a little bit of fun with spinners and cards and tokens, they could start to understand what it would feel like to cheat. And that there are repercussions."

The Academic Integrity Board Game, created by UTS students
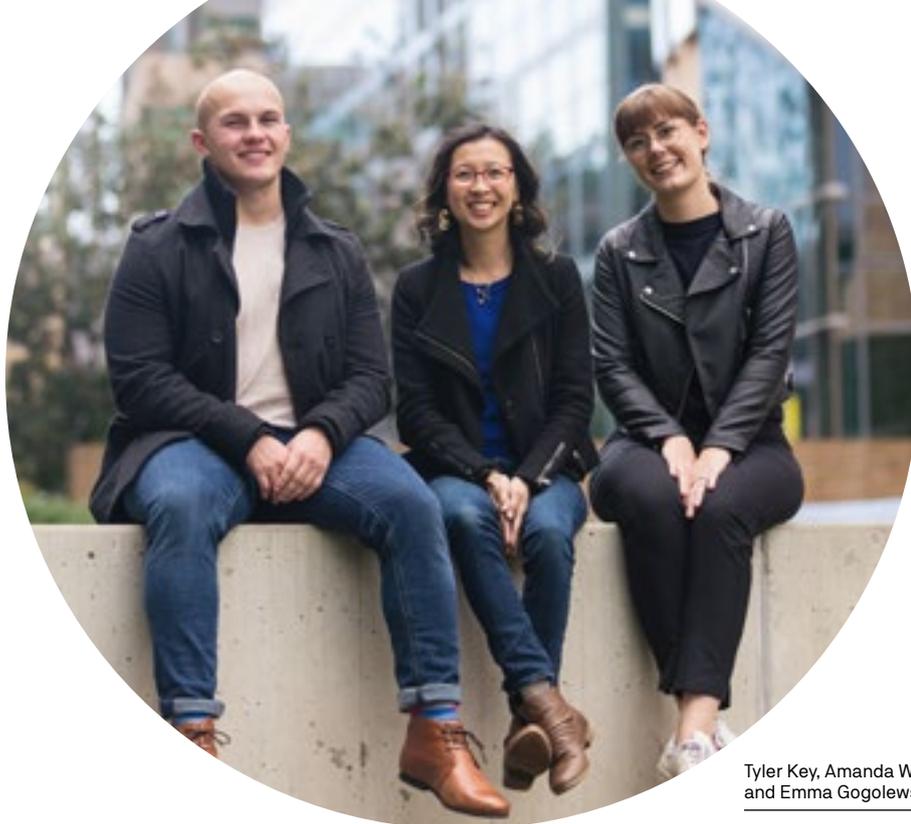
Tyler Key, Amanda White
and Emma Gogolewski

"It's a scenario," adds Tyler. "So, basically, the scenario might be your friend asks you for some notes and then it's like what do you do? You spin the spinner, pick up a card and it's a 50/50 chance whether you act with integrity or not. If you get a 'thumbs down' it might be you gave them your notes and your tutor comes to you saying you've received a fail because that person has now distributed your notes. If you get a 'graduation cap', the scenario explains how you can help your friend make their own notes."

Amanda smiles. "The feedback from students has been really good."

"My favourite thing," adds Emma, "is that people actually learned. I love their reaction in a group where they go, 'Oh my gosh! I didn't know that was cheating!' and it's kind of like they all laugh about it or they get really upset!"

While Amanda admits the experience hasn't been easy, she says she wouldn't have handled it any differently. "My Student Feedback Survey results were clearly bi-modal – students who loved the course and thought it was fantastic and then a whole lot of students who rated me as a one. I'm sure they would have given me a zero if they could have!"

On the flip side though, "I actually had a really nice letter, an actual piece of physical mail in my mail box, from Attila that said, 'I want to congratulate you on the outstanding leadership you've shown through your unswerving commitment to maintaining academic integrity at UTS'. He didn't have to send that."

For Amanda, the next step, is to roll out the board game to the UTS Business School's 1600 first-year students. At the same time, she's continuing to work with Emma and Tyler to create a customisable, open-source version of the board game for all UTS academics to use.

It will form part of a suite of academic integrity teaching materials that includes the library's online avoiding plagiarism quiz and videos like the new nine-minute *A Christmas Carol*-esque film, *The Carnival of Consequence*.

The Carnival of Consequence is a film by playwright, producer and Learning Futures Project Officer George Catsi. It was created together with Amanda, Senior Lecturer in journalism Jenna Price, Senior Advisor in the Governance Support Unit Andrea Thompson and with support from Deputy Vice-Chancellor (Education and Students) Shirley Alexander and the Institute for Interactive Media and Learning.

Amanda uses it in class to really "ram home" the lessons students learn playing The Academic Integrity Board Game.

"We have to educate students in what we expect of them if we're really going to build a culture where academic integrity is understood."

Emma and Tyler agree interactive activities like these are key to helping students understand which actions are and are not acceptable. "It's not a chunk of text that you then have to interpret and try desperately to remember," says Emma. "It's a real-life scenario that will pop up later in your life and you can remember and think, 'Oh that's right'."

"It's really important," adds Amanda. "We understand students are under pressure and so sometimes they might think a shortcut may seem attractive in the short-term. But, your word is your bond; your reputation for doing the job. And doing the job right is what's going to carry you a long way in the business world. So let's start with doing that as a student!"

You can share your experiences and ideas with the Academic Integrity Working Group by emailing Maryanne.Dever@uts.edu.au or find out more about The Academic Integrity Board Game (or suggest a more catchy name!) by emailing Amanda.White@uts.edu.au

Watch *The Carnival of Consequence* video, and then use it in your class, at uts.ac/carnivalofconsequence

FIONA LIVY
Marketing and Communication Unit

Photographer (board game): Amanda White
Photographer (A White, T Key, E Gogolewski): Shane Lo
The Carnival of Consequence film still: George Catsi

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When uni meets the real world

Inside Happydays arcade

You've heard the term 'authentic assessment', but do you actually know what it means? We're breaking down the jargon to explain what authentic assessments are, why they're important and how three academics have come up with creative ways to incorporate them into their classes today.

What would you do: Take a first-year nursing student to treat a critically ill patient in a real-life hospital emergency room? Ask them to write an essay to explain, theoretically, how they'd go about treating said patient? Or, have them demonstrate, on a simulation manikin in the UTS nursing labs, how they'd go about taking a patient's vitals upon arrival at hospital?

If you selected option three, then you selected the best option for an authentic assessment.

An authentic assessment is a task that builds and gives feedback on the skills and knowledge students need once they get a job, in a form that's similar to some work they might do. It doesn't need to include every aspect of a full-scale problem they might face in their profession, but it should enable the student to show what they can 'do' with what they've learned, rather than which facts they've memorised.

Authentic assessments are also a great way for academics to see how students use higher-level thinking skills to solve complex problems and how far students have developed their faculty's graduate attributes — those broad capabilities (like communication skills, Indigenous proficiency and critical thinking) which students should have acquired before graduation.

It's all part of UTS's learning.futures strategy, which aims to produce job-ready graduates who are prepared for the realities of the workforce today and into the future.

Exactly what authentic assessments look like, however, depends on the faculty, school and subject you're teaching. For example, law students might be required to respond to a brief from a client, journalism students to write articles that cover live events or architecture students to design an outdoor kitchen for a community group, just to name a few.

But, as the precinct around us develops and we roll out newer technologies, there's even more opportunity to develop real, interactive and engaging assessments for your classes.

Here are three creative ways academics are using authentic assessments in their classes today:

In the arcade—Happydays exam

Hundreds of screens and students. Blue light flooding the room. Curling piles of red tickets. Is it anarchy, arcade or assessment? Could you take a test in a games arcade?

Interaction Design students do. Every year, in Autumn and Spring session, these students complete an examination at Happydays Arcade, Ultimo. The assessment, which focuses on the practical aspects of interactive design, asks students to play with and analyse a number of arcade games in a two-and-a-half hour session.

"We have to be creative in finding ways to support student learning and this may involve slightly non-traditional approaches," says Interaction Design Program Coordinator and creator of the assessment Associate Professor Tuck Leong.

He adds, "This style of assessment provides students with a hands-on, real-life opportunity to test their understanding of the subject's theories by engaging with actual technologies and observing others engaging with the technologies too.

"To pass the exam," adds Tuck, "students have to be able to identify, describe and critique how particular design and usability principles they've learned in the subject are used to guide players of the games without a lot of instructions. Or how designers of games purposely ignore them so as to make the games more interesting and engaging."

Though the assessment is now par-for-the-course, Tuck says he initially found it challenging to get the exam off the ground. Not only were there difficulties in securing a location large enough to accommodate all the students, but he had to convince the faculty that this atypical program had educational merit.

Ultimately, says Tuck, it was his passion to "find ways that can best inspire and infect the students with this passion for designing for a better future" that motivated him to pursue the authentic model.

"I'm really encouraged when students have that 'aha' moment; when the pin drops and they start to see how what they learn connects palpably to everyday technologies," enthuses Tuck.

Sandra Brand, an Interaction Design student who undertook the arcade exam last session, agrees. "In a nutshell, it's fun! It barely felt like an exam and much more like an excursion.

"I thought it would be chaos as students ran around to play different games.

A student undertaking the arcade assessment

"I've never been to an arcade before so I didn't know which games would be the most popular, and we weren't told which ones we'd be analysing.

And, she adds, "I was terrified that I wouldn't get my turn to analyse a game due to its popularity." But her fears never eventuated.

In fact, Sandra says, "The exam gave me a new way of thinking — the ability to analyse interactions and cues that I come into contact with as I go through my daily routine.

"It's also helped me design websites and prototypes for other subjects. While I design, I ask questions about my target user group and their experiences, catering to what they would think is natural and easy to use.

"I believe it makes me employable," adds Sandra. "As interactions with technology are becoming increasingly important, this subject lays a strong foundation for analysing and understanding how to design technologies to cater to the users' requirements and experiences in the best possible way."

Students during the arcade assessment
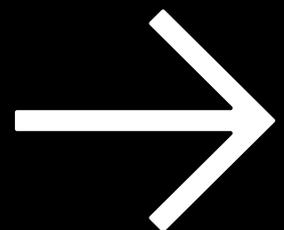
Face-to-face
— Industry panel assessment

Have you ever been anxious during a job interview? Or worried because you can't find the right words to explain your new idea?

For many journalism students these were feelings they could relate to. Until Senior Lecturer in journalism Jenna Price stepped in. "I had some feedback from UTS Careers when we were first talking about designing this subject that our students were not very good at talking about themselves, which surprised me because they're communicators."

So, Jenna created the Industry Panel Assessment, called 'the vivas', for the final-year Industry Portfolio subject. It's a task where students are interviewed about a portfolio of their work and marked on their ability to explain their work in context and talk about their progress as journalists.

Jenna says, "What I tried to do was put together an assessment that would teach students how to talk about themselves; get them to actually talk about their work and prepare them for job interviews all in one go.

"The assessment takes place at the end of session after the student has had a chance to develop a portfolio of original journalism work for the subject. It's a panel of three – and over 15 minutes, each panellist has the opportunity to quiz individual students about their portfolio and themselves."

Eurydice Aroney and Jenna Price

Each panel consists of an industry professional, a journalism academic from another university, and a UTS staff member from another faculty who represents the public.

Subject Coordinator Eurydice Aroney says the assessment, which was first introduced to the subject 10 years ago, continues to evolve and remain relevant.

"This sort of assessment is not an easy fit into our schedule. It's a lot of extra work not just for us but for the external people. They watch, listen or read hours of students work in preparation for the panel while expecting nothing in return. They really do go out of their way to be generous with their time and overall we feel it really pays off for us and the students and that's why we keep persisting with it."

Final-year journalism and Bachelor of Creative Intelligence and Innovation student Caitlin Bloor agrees. She says that while it might seem like an intimidating process, the assessment really pushes you into presenting the best version of yourself to a new audience.

"It's just what a job interview is like," enthuses Caitlin. "They're not mean or horrible. They talk to you like you're a human. It's nothing to be scared about and it really gives you a lot of confidence that a panel of strangers takes you seriously."

Caitlin started journalism in 2015 and while she has learned a lot in three years about writing stories, she's never experienced 'selling' them.

"One thing I wasn't confident with was pitching story ideas. I had no skill or experience in this really. But this assessment makes you really sell your story. You're talking to journalists who are short on time, so you have to answer the questions directly."

And though she hasn't yet begun looking for a journalism job, she's not worried. "It is good to know how to answer the tricky questions. Just being able to sell yourself and having that self-assurance to back yourself means everything."

"The future of work is changing … the focus now is what value humans can provide — our creative thinking, our problem solving skills, and our empathy."
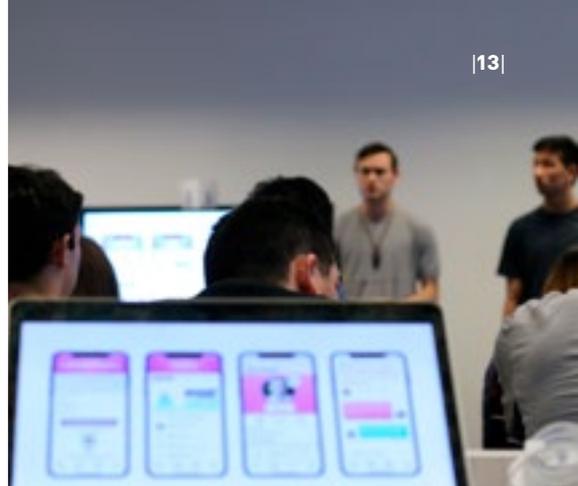
Hayley Tulich, Jacqueline Melvold and Jake Harley

Complex problem solving — Antimicrobial resistance

"We don't run classes as lectures, everything is experienced based," explains Jacqueline Melvold, Co-Acting Course Director for the Bachelor of Technology and Innovation (BTi) and the academic in charge of the second-year subject Project: Global Grand Challenges.

In this subject, Jacqueline says, "Students focus on real challenges facing society today and tackle those really complex problems."

In the first Global Grand Challenges subject, held this year, students have been handed one of the biggest problems facing the medical world today: antimicrobial resistance.

Second-year student Jake Harley says, "I'm so much more engaged with this type of learning. I retain so much more.

"I have ADD, so essays are terrible for me," adds Jake. "Rote learning is not my strongest suit; I'm a far more hands-on and practical kind of person. Which is why I have found the assessments in this course so fantastic. I went from getting passes and low credits at Notre Dame to now getting Ds and HDs."

So, how does the subject work?

Students are divided into different groups that play a role in the challenge, like the media, pharmaceutical industry or general public. They meet with stakeholders relevant to their group (including those from the media, government, and pharmaceutical, health and agricultural industries), understand the technicalities of the system that the problem exists within, and then identify points for intervention to make change. Finally, they present their recommendations to a real industry partner.

Jacqueline says, the assessment is all about putting students into the thick of complex, networked problems and rewiring the rigid thinking they learned in high school to create the agile and creative thinkers that industry crave.

"We live in an extreme, dynamic and uncertain world in which technology is driving a lot of change," explains Jacqueline. "The BTi equips students with technological knowledge, skills, perspectives and strategies to address the open, complex and networked problems, challenges and opportunities in today's world."

This subject, she adds, enables students to "use the potentials of technologies to provide a modest but meaningful response to a real global challenge in a local setting, building an understanding of human emotions and values to design a meaningful experience that adds value to people's lives."

Though second-year student Hayley Tulich confesses, "I'm no scientist," she admits she is enthralled by the subject's challenge.

"The different ways they have taught us to think about a problem, to consider stakeholder mapping and make connections, it's amazing. You pretty much see how big the whole system is.

Students presenting during the Project: Global Grand Challenges assessment

"I used to think you could only be valuable to an industry or problem if you were an expert in that field," adds Hayley. "But this type of learning allows you to see the value a unique perspective can have.

"The future of work is changing — there will be jobs that won't be around in the future because there will be technology to do it for us. So the focus now is what value humans can provide, our creative thinking, our problem solving skills, and our empathy."

For more information about how you can create authentic assessments in your class, visit the Futures blog at futures.uts.edu.au and look out for authentic assessment events in the LX.lab.

ELYSE POPPLEWELL
Bachelor of Communication (Journalism)

KIEN LE BOARD
Bachelor of Communication (Journalism)
Bachelor of Laws

JAMEE NEWLAND
Bachelor of Communication (Journalism)

Photographer (Project: Global Grand Challenges assessment): Allison Glavin
Photographer (Happydays): Aaron Liu
Photographer (other images): Shane Lo

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ACADEMIC DEVELOPMENT
LX.LAB | FASS

News from the AiR

Ilaria Vanni spends a lot of time talking about 'place',
like the Instagram-perfect tourist place Burano, Italy

**In less than one year, the
Institute for Interactive Media
and Learning's LX.lab has
changed the way academics
access learning and teaching
support at UTS. Now, thanks to its
newest initiative, the Academic
in Residence (AiR) program, the
LX.lab is shaking up how we
unearth and share specialist
knowledge too. Inaugural AiR
Ilaria Vanni, explains how she's
using the program to develop a
community of practice, expand
our understanding of 'place' and
create new resources for students.**

In any given year, says Associate
Professor Ilaria Vanni, an In-Country
Study student "might be doing a
project on sushi restaurants in a town
in North Italy, or somebody might look
at sustainability in music festivals.
Place is the organising concept that
drives most of my students' projects –
not all, but most of them – and those
projects can take different directions."

As a researcher working on
transdisciplinary projects, and
coordinator of the Italy Major in the
School of International Studies, Ilaria
spends a lot of time talking about,
writing about and conceptualising
the idea of 'place' – meaningful sites

with multiple identities and histories
that are continuously emerging
through relations, social and cultural
practices and interactions.

Place is an important theoretical
framework for her research and
teaching practice, as well as an
anchoring concept for her students'
major projects. To support students and
other academics engaging with ideas
of place in their teaching, Ilaria has
created a set of resources, including
podcasts, critical introductions to
methodologies, comprehensive
discussions of methods, and practical
how-to guides. "The practicalities
of how to organise one's work," she

"Knowledge should be shared and open, so all these resources will be available to colleagues and students at UTS."

says, "are often taken for granted. But practical details are crucial to make sure that a project goes smoothly."

That's why, throughout her six-month term as the LX.lab's AiR, Ilaria is developing resources on methodologies to study place. Already, she's drawn on the expertise of other academics who explore place in their work to create a series of podcasts and, in July, she held a forum too.

"I interviewed 12 people from around UTS plus colleagues from other institutions who are working on place. The project owes much to their contribution, it's not just my contribution."

For Ilaria, it's important to socialise her work. "Knowledge should be shared and open, so all these resources will be available to colleagues and students at UTS."

Podcasts in particular, adds Ilaria, "are a relatively easy and not time-consuming way to present multiple voices and perspectives. Podcast series on concepts that circulate in different disciplines – for instance 'sustainability' or 'ethnography' – and the way people go about thinking and researching them could be a way to develop research-integrated learning resources across several faculties."

In terms of the residence itself, Ilaria says, "It's been a great experience to work at the lab. I work with an amazing team, including a project manager, event manager, website designer, podcast producer, research assistant and editor, and librarians.

"I have amazing support. I feel very spoilt and privileged and every time I work with the team I think this is the ideal situation for an academic."

And for Ilaria, it's just the beginning. "I think that as a model this could be applied to other topics. There are concepts that traverse different faculties, probably not all faculties, but several different faculties and I think gathering academics together around one specific concept is quite a productive way of working."

You can read more about Ilaria's project and the AiR program at futures.uts.edu.au

RHIANNON HALL
Institute for Interactive Media and Learning

Photographs supplied by: Illaria Vanni

Ilaria Vanni (third from right) with students during a site visit

Ilaria Vanni (front right) and students undertaking fieldwork

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Free range engineering

In February this year, 165 students took part in Summer Studio A. It's a new six-week intensive engineering subject that sees students tackle a range of real-life design problems — from a global aerospace challenge, to a possible Vivid light installation for the Tower and 3D print technology for assistive living. What's even more unique is that four of the 13 challenges, or 'studios' as they're known, are led by experienced student facilitators. We take a look at the new offering from three perspectives: the coordinators, student facilitator and student.

Professor Roger Hadgraft and Justine Lawson — the coordinators

Summer Studio A was not the faculty's first stab at studio learning. It was, however, a way to bring studio learning — group-based projects free of lectures — to a broader cohort. We were part of a team of more than 20 who established the studios, a task that took about eight months from initial concept development.

The studios are about taking learning.futures to another level — creating active and authentic learning where students find the resources they need and work collaboratively. Too much of design in engineering is focused on the production of a technical artefact — a piece of road, a bridge, a circuit board — and it's assumed that someone else is identifying the real problem.

We wanted to expose students to the complete design experience — identifying what needs to be solved, right through to producing a simple prototype at the end. It gives students the opportunity to look at the whole problem, not just the technical part, and that's what industry wants.

Rob Jarman's vision, as Associate Dean (Teaching & Learning) in FEIT, was to create Summer Studios that offered such a great experience that students would want all their learning to be like that. But they're not without their challenges, particularly for those students who had never experienced design-thinking before.

Traditional curricula can make students feel like caged hens. Students are force-fed information and then told to deliver a '60 gram egg', for example, a solution to a textbook problem. But in doing that, they become dependent on external stimuli (the teacher) to perform. The studios were designed to be more 'free range', to give students the independence to explore problems as they would in the real-world.

At the end of the first week some students came to us: 'Can you just tell us what you want? What's the answer?'. But they were encouraged to persevere, using a design-thinking approach, which eventually led to them developing a range of ideas before prototyping one of them. This type of learning will become more common as the faculty implements studios in all of its programs.

As for the next round, we'd do it again in a heartbeat! We really saw students come alive in these projects.

Students experience 360 degree videos of Nepal in The UTS Data Arena
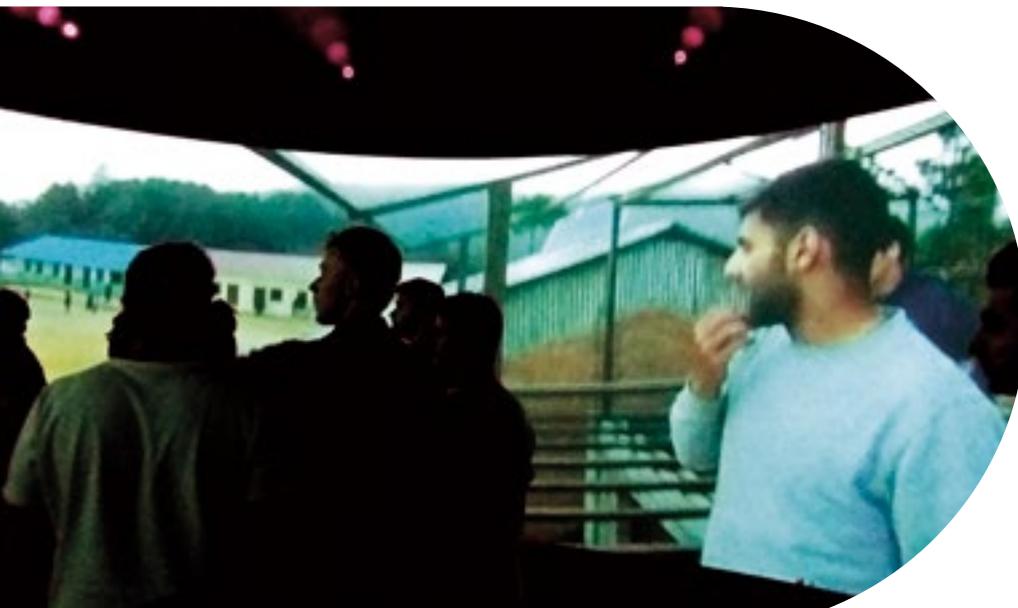
Scott McKeon
— the student facilitator

I've been involved in From the Ground Up, a not-for-profit in Nepal, since 2016. It grew out of a building initiative to provide homes to some of the half a million families left homeless after the Nepalese earthquake of 2015. They now run a series of projects to empower the local community — building schools, hospitals and co-ordinating construction apprenticeships.

I was approached by the learning and teaching team in FEIT to see if I was interested in bringing the challenges our not-for-profit was facing to UTS students. I thought, why not?!?

As a student facilitator, my role was to set the context for the humanitarian studio and organise industry partners for weekly visits and to take part in a panel at the end of the session. More than 20 industry partners took part.

To prepare for the role, FEIT skilled us up by running in-studio and problem-based learning workshops. We learned that as a facilitator you're not meant to have all the answers. Instead, you guide the group.

Having Roger and the team on-hand for advice was amazing. He's highly experienced in project-based learning and is passionate about students having the chance to work on valuable real-life projects. He had a lot of trust in us as facilitators and didn't dictate what the subject was going to be about. Rather the coordinators set the context, explained what they wanted students to get out of it at the end, and that's perfect for my working style.

Nat Peden developing her irrigation prototype

Roger Hadgraft, Justine Lawson and Scott McKeon

As a group, my studio participants decided to break into three smaller working groups. One team focused on irrigation, another on the design of a transportable concrete mixer, and the last on waste management and the use of organic waste in agriculture.

When they would come to me with questions about their proposed solutions, I could say, look you have the capacity to make a judgement, and through the design-thinking process, you've the tools to address it. So let's try what you think is the best solution, you can then iterate, reflect and repeat as needed. And that's a really useful process for engineering students to learn.

To give students a better sense of the spaces they were working with, I used video I'd taken while I was in Nepal to run a 360 video experience in the UTS Data Arena, complete with VR headsets.

One of the first tasks for the group was to go away and research Nepal, to understand the culture and context of our projects. One of my students, Nat, came back to class and I could see she was just really engaged. Her passion for the project was infectious!

Natalie (Nat) Peden — the student

I chose the subject because of the range of projects on offer and because they seemed 'real-world'. I'm a third-year engineering student so I really wanted to gain an insight into different areas of engineering before I graduate. I settled on Scott's humanitarian studio because I wanted see how engineering could be applied in a socially responsible way.

My team took on the irrigation challenge. We needed an economically viable system that could provide Nepalese farmers with water during their dry season.

The studio was a change from the traditional learning I'd been exposed to — it was a way more holistic approach to solving problems. We would talk through our ideas as a group; dissect the problem to explore new ways of looking at it. Over the six weeks, we'd present irrigation solution ideas to Scott in class and via online chats with charity representatives in Nepal, who had a lot of experience with the actual agriculture. They'd provide advice on the viability of our solutions at each phase.

This was the first time I'd had a student facilitator. It was very different. Classes were more discussion-based and to hear from Scott, who'd been to Nepal, was super insightful. He was more of a peer — a good 'go between' — and as a student he helped us with our reflections.

I'd definitely encourage other students curious about the studios to try them out. What we worked on wasn't some theoretical problem, the solutions we proposed could actually positively impact someone else. That's so exciting! To talk to someone about their problem, get their feedback and hopefully give them a solution — that gave me a real sense of accomplishment.

Something I've learned is that Nepal is such a complex area and the way to give charitably isn't just about going and saying, 'Look I know what's best'. It's about looking at the community, learning from them and best utilising the strengths they have to help themselves.

Summer Studio will run again in Summer 2019. Students can email FEIT.SummerStudios@uts.edu.au for enrolment details.

Photograph (UTS Data Arena) supplied by: Scott McKeon
Photographer (R Hadgraft, J Lawson, S McKeon): Shane Lo
Photographer (Nat Peden): Aaron Liu

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OPINION
POSTGRADUATE

Hybrid learning

Natasha Sutevski, Peter Scott and Michelle Hrlec in the studio

The future of work is changing. For those students starting out in the new world of work today, their career is likely to switch track many times and they will be expected to seamlessly adapt to new technologies, techniques and professions as tasks are automated or just vanish.

Postgraduate study, now, must be so much more than just an extra qualification for your resume; it's an important part of that 'life-of-learning'. And, as an education institution, we know we can do better!

Over the past few years, increasingly sophisticated, international and online alternatives to traditional studies have been flooding the higher education market, government funding has been in turmoil and many of our competitors have changed their postgraduate coursework degrees. As a result, some of the students who might have once studied with us are looking elsewhere.

But that doesn't mean we've lost them.

Prospective postgrads tell us they most value the industry-facing culture of UTS and the high quality of our research-inspired learning. And because they have busy, complex lives, flexibility is essential. That's where hybrid learning experiences come in.

To improve our postgraduate experience, we need to listen and change. Already we've begun to increase flexible study options, by:

1. 'Turning up the dial' on the on-campus/online mix of subjects. Where students need the face-to-face practical interactions and collaborations we create in our campus spaces, then that UTS experience should be first-class. Over the past 10 years, we've invested $1 billion-plus in developing a vibrant and engaging education precinct and we're putting that to good use.

However, if there are learning outcomes that can be achieved online, we must make that option available. The ideal postgraduate learning experience is likely to be a hybrid of on-campus and online, to fit the student's learning and life needs.

2. Supporting academics to create those 'uniquely UTS' learning experiences, in the things we do well, that others cannot easily copy: connected to work, entrepreneurship, our signature research strengths and industry partners. That's why we opened the LX.lab last year. It's a place where academics can meet up with each other, and our learning specialists, to find inspiration and create experiences 'by design' that meet student learning objectives.

Of course, online study requires some different tools and skills to achieve the same quality outcomes as a good on-campus session. To help create new high-quality experiences, we have added to our specialist skills in learning design for postgrad. For some, this is pretty new stuff, but they're not alone.

The newest members of the team are Senior Learning Designer Michelle Hrlec and Assistant Learning Designer Natasha Sutevski. Michelle is currently working on new developments in the Faculty of Health, while Natasha is working pan-faculty to develop a new set of 'online interactive' modules with all faculties.

In the health subject Communicating and Collaborating for Optimal Person Centred Care, for example, Michelle is working with the academic team to create a virtual community — an Australian town with case studies, videos and realistic images to immerse students in the community and engage in authentic assessment.

Most of these students are registered healthcare professionals. They're not only time-poor, but tend to keep irregular hours due to shift work, making it even more important to scaffold, sign-post, and carefully guide them through their learning.

3. Showcasing our expertise to the world in a way that we have never done before. As our graduates move through their careers, they'll need to re-skill or up-skill, not necessarily by completing new degrees, but by gaining the knowledge and proficiency they need at that time.

That's where UTS, and UTS Open, comes in. UTS Open is our public-facing course platform launched in March. It offers 'a taste of UTS' with free, bite-size (three- to five-hour) mini-courses. The latest of our 11 offerings include, 'What does Facebook know about you?' and 'Podcasting Matters', and there are more on the way. In fact, our faculties are now working on a range of 'for-fee', larger mini-courses that will allow busy, lifelong learners to access UTS in new ways, even before they are ready to commit to a full degree journey with us.

If you haven't yet tried 'a taste of UTS' for yourself, visit open.uts.edu.au

PETER SCOTT
Pro-Vice-Chancellor (Education)

Photographer: Shane Lo

ACADEMIC SUPPORT
IML | LIB

Teaching support on tap

New to teaching at UTS? Or maybe you're just looking for some inspiration?

We've unearthed some of the services available to all teaching staff.

FUTURES BLOG

Access how-to resources, blog posts by academic colleagues, and learning and teaching inspiration online. It's also home to 'live chat support' between 10am and 4pm if you have a quick question about LX.lab events, learning technologies or anything to do with teaching at UTS.

futures.uts.edu.au

LX.LAB
(LEARNER EXPERIENCE LAB)

A space for academics to seek advice and share ideas. Access one-on-one learning design support, join a community of practice, and pick from a selection of daily workshops and skill-up sessions. Some upcoming sessions include:

Tuesday 21 August
Digital Capabilities and the Growth Mindset workshop

Thursday 23 August
CIC Showcase: Educational Data Science and what it means for UTS

Monday 27 August
Teaching Linguistically Diverse classes

LX.lab | Building 6, level 4

The LX.lab in building 6

LEARNING AND TEACHING SUPPORT

The Institute for Interactive Media and Learning (IML) are on-hand to work with faculties on learning and teaching, curriculum and assessment design. They also offer learning modules and a graduate certificate for teaching learning. futures.

Academic Language and Learning
The Academic Language and Learning Group works collaboratively with discipline academics to embed academic language and learning across the UTS curriculum.

The Institute for Interactive Media and Learning | Building 1, level 27

UTS LIBRARY

Chat to a librarian or head online to get support with referencing, literature, searching, subject readings, digital and data literacy. The team also hosts a suite of online training materials for academic staff and students via Lynda.com and HeadsUp.

lib.uts.edu.au/help/ask-librarian

ONLINE LEARNING

Looking to skill-up? Try your hand at one of our free, bite-sized mini courses at UTS Open.

UTS staff and students can also access a vast online library of Lynda.com courses and instructional videos in technology, and creative and business skills, thanks to the UTS Library. Using your webmail login you can upskill in Microsoft Office, Adobe Creative Suite, project management, and much more.

lynda.com
open.uts.edu.au
help.online.uts.edu.au

Photographer: Alec Bruce — Mason Photography

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Imagine. Invent. Innovate.

Nestled below ground in building 7, the newly opened ProtoSpace spans 900 square meters and includes Australia's largest collection of additive manufacturing technologies. In the future, these technologies, which have the potential to reshape our manufacturing industry, could be used to create everything from human organs to entire homes. Right now, students are already using them to produce furniture and custom-made car parts.

Staff and students can check out ProtoSpace in person in building 7, level 1 (across the hall from the Super Lab), or find out more information at protospace.uts.edu.au

Photographer: Anna Zhu