HEY!

WHAT IF...

PACKED WITH AUGMENTED REALITY CONTENT
WATCH ANIMATIONS POP UP
SEE PEOPLE STEP OUT OF THE PAGE
BE THRILLED BY PAGES COMING ALIVE

CLIMATE CHANGE SPECIAL

… IT SNOWED IN NTU?
… THE SEA LEVEL ROSE?

VOL. 43 ~ OCT - DEC ’19

SCAN THIS PAGE
Tell us how many Lyons you can find to win a prize.
See pg 14
NEW SHOWS TO CATCH THIS OCT / NOV

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**THE NTU HEY! AR GUIDE**

Open the app and scan items on the pages to watch videos seamlessly and bring 3D objects to life.

**WATCH PHOTOS COME TO LIFE**
See the page morph into a video.

**HAVE A 360° VIEW OF 3D OBJECTS**
Put a new spin on objects that are anchored to pages.

**PLACE 3D ELEMENTS IN YOUR ENVIRONMENT**

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**CHASING SUNSETS**

NTU’s garden campus, named among the world’s most beautiful universities, is known for its lush greenery. It’s also a great place to catch the last magical rays of the sun. Here are some of the best spots for those Instagram-worthy golden hour shots.
As a result, water flows away from the poles towards the equator instead.

In his National Day Rally speech in August, Singapore’s Prime Minister, Mr Lee Hsien Loong, prepared the country for the grave threat of a 1m sea level rise by the turn of the century.

If tropical storms at sea bring surging waters while a heavy rain inland brings rainwater that cannot be drained, the sea level could rise to almost 4m above the mean sea level. This means that if The Hive was located at mean sea level, you may have to swim your way around the building.

“If the entire ice sheet in Antarctica collapses, Singapore will be flooded, and this country will cease to exist. And that’s just one example. Climate change is the biggest challenge that society faces,” says Prof Horton.

We will have to act on this climate calamity, come hell or high water – the longer we wait to implement solutions, the more it will cost, warns NTU coastal hazards expert Assoc Prof Adam Switzer.

“We really only have two options: we can adapt, or we can retreat. And in Southeast Asia, there’s no doubt, we will have to do both,” he said at the World Economic Forum in August.
We should be getting hot and bothered – the world is 1°C warmer than pre-industrial levels in the 19th century, no thanks to record-breaking levels of atmospheric carbon dioxide since some four million years ago. Humans are the only culprits – most of the emissions come from us powering our modern life.

There is no time to waste – we are well on our way to crossing the 1.5°C mark if we don’t dramatically reduce our carbon footprint. We have 11 years to toe the line, says the Intergovernmental Panel on Climate Change in a 2018 report.

Otherwise, expect to live through more hot days, a higher prevalence of insect-borne diseases such as dengue fever, more expensive food as crop yields shrink, and water shortage as rivers dry up. Across the globe, tens of millions more people could be exposed to life-threatening heat waves and coastal flooding.

Our country will then have to spend more money on infrastructure and less on other services to try to protect Singapore from these problems, predicts Prof Horton.

“Climate change is one of those aspects with a social inequality to it. So the poor, infirm, young and elderly will suffer first.”

Universities should take the lead, NTU Earth scientist Prof Simon Redfern points out. “Everyone coming through NTU will be a leader, a decision maker, a thought generator of the future. They are the ones who will live with the consequences of climate change, so it’s important that they are agents of change for a better future.”

Last year, NTU banned the giving out of free plastic bags on campus, a move that could save nearly 10 million plastic bags a year. Littered on the campus are also recycling bins for various types of waste, including electronic and food waste.

Beyond integrating eco-friendly habits in your daily routine, there needs to be a sea change in our mindsets – the recognition that humans are just one of the millions of species sharing the planet, says Prof Horton, who recently co-authored a paper on the topic.

This means developing sustainability can no longer be about learning how to better exploit and control nature, he says.

And it’s only when we live in harmony with nature that we can let it take its own course.
preservatives. These are some of the fruits of labour that come from converting food waste into something useful and help mitigate our growing food waste problem. In 2017, only 16 per cent of more than 800,000 tonnes of food waste here was recycled.

DURIAN SEEDS, SOY BEAN RESIDUE AND SPENT BREWERY GRAINS – THESE DISCARDS ARE PUT TO USEFUL BY-PRODUCTS USING A CLEANER AND MORE EFFICIENT METHOD.

NTU President Prof Subra Suresh describes the NTU Smart Campus as a place where we have a big role to play in creating new knowledge that will help Singapore and the world better anticipate and manage the effects of climate change for our future generations.

The precious metals in your used lithium-ion batteries could be extracted and converted for use in new batteries. NTU is looking to better manage, recover and recycle electronic waste. Such recycling and repurposing of electronic waste is essential for the growing mountain of e-waste as Singapore goes digital.

"From extracting value from trash collected on campus, to harnessing technology on the NTU Smart Campus to develop clean energy and eco-friendly solutions, the University is making sure nothing goes to waste. As a public university, we have a big role to play in creating new knowledge that will help Singapore and the world better anticipate and manage the effects of climate change for our future generations."

Prof Subra Suresh
NTU President

Cut Down on Consumerism

Did you know that the total greenhouse gas emissions from textile production is more than that generated by all international flights and maritime shipping combined? Save garments from the landfill production is more than that generated by all international flights and maritime shipping combined? Save garments from the landfill production is more than that generated by all international flights and maritime shipping combined? Save garments from the landfill production is more than that generated by all international flights and maritime shipping combined?

In Singapore, private cars make up the largest share of emissions by the transport sector at 35 per cent. Carpool or take public transport to reduce CO2 emissions, or clock your 10,000 steps daily by walking to your nearer destinations.

Green your commute

Make Old Goods New Again

See if unwanted items can be repaired or upcycled. With a fresh coat of paint, you could turn tin cans into cute herb planters, or an old t-shirt into a tote bag for your grocery shopping. So think before you trash.
The carbon footprint of a cheeseburger works out to that of six sets of fish and chips. This makes eating less red meat one of the most significant ways of reducing your carbon footprint. Ease into a plant-rich diet, one less burger at a time.

Fly Less

Youth activists are embracing the cause of saving the planet in their own ways – from simply cleaning out single-use plastics from their lives, to setting up thrift stores for pre-loved clothing.

Take a leaf out of Cheryl Choo’s book. Conscious of the carbon footprint that red meat leaves behind, the third-year NTU humanities student goes meatless at least once a day and uses her trusty lunch kit at the lunchbox-friendly stalls on campus.

"Such individual action may be small and insignificant compared to industry- or national-level efforts, but I believe the hype generated on the ground from such actions can motivate corporations to change," she says.

Cheryl says: "I do sometimes remind my friends to be eco-conscious, but not too forcefully. When they also refuse straws or plastic bags, that’s a start."

NTU humanities students Jean Leong and Zinc Tan, founders of thrift store Aesth.Ethically, hope to do their part by promoting the idea of pre-loved clothing.

The campus-based pop-up store collects and sells pre-loved items to give them a second lease of life. The proceeds are then donated to charity.

There are many other ways to care for our planet, but it all starts with education to understand why we urgently need to go green, says Prof Horton.

"Once NTU students are educated about how the climate crisis is a life-or-death difference in the next few decades on this fast-warming planet, they want to talk about it to their peers, family, and friends. They will want more information."

A trip to Bangkok’s Talad Rod Fai Night Market two years ago led brothers Bryan and Daryn Tan to see sustainable fashion in a brand new light.

They were pleasantly surprised by the wide variety of pre-loved apparel and accessories at the market’s vintage street, where they bought their first pieces of vintage streetwear at $16 a pop.

The experience inspired Bryan, 22, and Daryn, 25, to start their first online vintage store in May. Called KaranguniBoyz, it pays homage to the neighbourhood rag-and-bone man here.

Thrifty is definitely in, with a new wave of youth-owned vintage and pre-loved clothing stores entering the retail scene here.

Bryan and Daryn want to dispel the myth that vintage pieces are old hat. In fact, buying a well-chosen, decades-old item may be a better investment that lasts longer in your wardrobe, says Bryan, a second-year NTU communication student.

Most of what we wear is churned out by what is arguably the world’s second-most polluting industry.

"Nothing in this world is free. Someone out there is paying the price. If your clothes are dirt cheap, it has to be a product of exploitation," says Jean Leong, a third-year NTU English student.

For this reason, Jean banded together with third-year NTU sociology student Zinc Tan in February to set up Aesth. Ethically, the first ever thrift pop-up store on campus. It sells donated pre-loved clothing and donates the proceeds to charity. Those who donate their clothing for the thrift sale get to redeem other pieces for free.

In two of its pop-up events held in NTU and UnPackt, a zero-waste store in Singapore, the duo raised $1,200, which was donated to a beach clean-up waste community.

"Some of them even offered to do the cleaning," says Zinc, 22.

"So many people messaged us on Instagram asking about our next thrift sale," says Jean. "Some of them even offered to help out for the next event!"

KaranguniBoyz has also inspired many of its followers, like 26-year-old Mohammaed Aqiil Mohd Mislam, to try their hand at sustainable shopping. "Buying vintage pieces certainly contributes to the revival of these vintage styles as well as gives them a new cycle of life," says the NTU biological sciences graduate.

Bryan and Daryn hope that more will rethink their love affair with fast fashion before their next shopping haul. The sooner you switch to sustainable shopping, the sooner we can get the fashion industry to clean up its act.

As the proverbial saying goes, a stitch in time saves nine.

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As the proverbial saying goes, a stitch in time saves nine.
It’s coming up to the time of year when exchange students from Sweden and Canada are as warm on the inside as they are on the outside. They’re happy because their classmates back home are feeling the freeze as the first snow falls in Jönköping and Quebec. These exchange students have come to NTU for the leafy green campus, the word-class education, facilities and networking, of course. But mostly to get away from the snow.

Yet snow makes everything beautiful. It cocoons the landscape in soft silence, and re-imagines the world in the simple purity of black-and-white.

**So what would happen if it snowed in NTU?**

The campus would transform into a magical winter wonderland, with sparkling icicles festooning every tree and glittering ice ferns on every window. Laughing students throw snowballs and break into song as they playfully ask: “Do you want to build a snowman?”

The first change is almost as beautiful as the snowfall itself. Students stop wearing singlets, sports shorts and sandals. Fashions transform and keeping warm is a priority. The NTU hoodie suddenly becomes a hot item. But the old red-and-blue NTU windbreaker is still shunned by humanities students who say they would rather be cold than uncool.

Suitably togged up against the cold, students evolve to survive: They turn the aircon in their hall rooms from 21 degrees all the way up to 23. Extreme times call for extreme measures.

Other changes follow. The Inter-Hall Games adapt as hockey becomes ice hockey, swimming becomes skating and softball becomes really, really hard ball.

Hall 3 maintains its illustrious sporting heritage by prising its water polo team out of the ice with a crowbar (such commitment to their sport!), defrosting them on a barbecue pit and repurposing them as a human Carrom team on Nanyang Lake. Adding to the challenge, players must avoid the bumps in the ice – turtles who were too slow to get out before the big freeze.

Art students find it hard to resist the temptation to ski down the roof of ADM; but not as hard as the stop at the bottom.

Campus security stands a 24-hour guard around The Wave, but not as hard as the temptation to ski down the roof of ADM; but not as hard as the stop at the bottom. New rules allow students to arrive 15 minutes late for class because of the snow. Professors don’t notice much difference.

Hunting parties from Hall 15 cross the frozen drainage ditch to chase wild boars in the jungle, before being driven back by the SAF, who were planning BBQ baby-back pork ribs for dinner.

The wheels on those strangely small GrabFood delivery bikes can’t handle the deep snowdrifts. Carl’s Jr can’t get through. Students and professors both really notice the difference.

Art students find it hard to resist the temptation to ski down the roof of ADM; but not as hard as the stop at the bottom.

Some things don’t change, however. The secret nuclear power reactor in the “PUB reservoir”, which the University has always said doesn’t exist, still doesn’t exist. But there is a suspicious area on the hill behind Hall 8 where the snow doesn’t settle, palm trees flourish, and the cries of velociraptors can be heard.

And what about our Canadian and Swedish exchange students? They roll up their sleeves, get a canned drink from the fridge and fan themselves with copies of HEY! The cold never bothered them anyway.
FYI

FIND LYON ON THE AUGMENTED REALITY COVER OF THIS ISSUE, AND WIN!

There’s nowhere like home. Using the NTU HEY! AR app, uncover Lyon at The Hive, which has been reimagined as a winter wonderland on our cover. Once you’re sure you’ve found every Lyon there is (hint: there are more than 3 Lyons!), tap the “ENTER CONTEST” button on your phone screen, fill in the contest entry form and tap “Send”. You could be among the lucky winners of $50 with the National University of Singapore. Following this, NTU broke into the top 50 of the US News and World Report’s list of top universities for the first time last October. And earlier this year, Quacquarelli Symonds ranked NTU 11th in the world, and the highest placed university in the Asia-Pacific jointly with the National University of Singapore. Following this, NTU made the top 50 list in the UK-based Times Higher Education world rankings, placing 48th. From the Asian perspective, the upward trend is similar. In ShanghaiRanking’s latest varsity rankings, NTU climbed 23 places to the 73rd spot.

In the last year, NTU has climbed to its highest position in every major international ranking of universities. NTU broke into the top 50 of the US News and World Report’s list of top universities for the first time last October. And earlier this year, Quacquarelli Symonds ranked NTU 11th in the world, and the highest placed university in the Asia-Pacific jointly with the National University of Singapore. Following this, NTU made the top 50 list in the UK-based Times Higher Education world rankings, placing 48th. From the Asian perspective, the upward trend is similar. In ShanghaiRanking’s latest varsity rankings, NTU climbed 23 places to the 73rd spot.

Join NTU’s strong showing in the annual Global Undergraduate Awards, four grads from the Class of 2019 were named among the latest 25 winners, picked from over 3,400 submissions worldwide. The quartet, Seet Al Ning, Win Ee Chun, Kon Wen Yu and Toh Ying Li, took the plaudits in Business, Psychology, Mathematics & Physics, and Visual Arts respectively and will travel to Dublin in November to present their research to academics and industry representatives from around the world.

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HEY! AR
SCAN THIS VISUAL to see NTU’s leaps through the ranks around the world

FANTASTIC FOUR
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In engineering, the ladies hack it as well as the men. In September, more than 100 students took part in an all-female hackathon, the first of its kind in NTU. Jointly organised by Women@NTU and American technology company Xilinx, and supported by Garage@ EEE, the young programmers were given just under 24 hours to find solutions for issues in the healthcare industry under the guidance of Xilinx engineers. The winning team of NTU students – Sika Padiyar, Vineetha Nandakumar and Divya Krishnan – were in the running for internships with Xilinx as part of their prize.

NEVER TOO LATE TO GAIN FROM EXERCISING
Want to live a long, fruitful life? You’ve got to get moving for it. A study by NTU alumnus Alexander Mok, now a PhD candidate at University of Cambridge, shows that middle aged and older people could increase their lifespan by becoming more physically active. This includes those who previously led languid lives as well as those with cardiovascular disease and cancer.

GIVING WINGS TO NEEDY STUDENTS
Supporting students with grants, scholarships, bursaries and internships, NTU’s financial aid programme can provide financial assistance to students facing various situations.

ONE FOR THE LADIES
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SCENE + HEARD
“While climate change and El Nino effects are far beyond our control, what exacerbates coral degradation in Okinawa are issues like unsustainable tourism, coastal developments and overfishing. It is precisely in these areas that some Okinawans have taken it into their own hands to conserve rare coral species and restore reefs in coral transplant sites.”

Bambby Cheuk, a final-year communication student who was in Okinawa for Go-Far August, 14 students supported by Garage@ NTU HEY! AR app to watch the timelapses of the rooms being done up.

Another embedded video I liked was the note-taking one, which featured my senior. It was cool to see how she drew anatomy diagrams. I think the augmented reality elements make the stories more interactive and easier to understand.”

– Medicine freshman Kah Zhihuan, won a 6D5N trip for two to Australia in the HEY! survey lucky draw. More than 200 prizes were given out to HEY! readers for sharing their thoughts on the newly revamped magazine with AR features.

“Keep up with the editorial style of HEY! I really like it as it captures my attention and makes me want to read more. I always watch home design videos on YouTube but I never expected that it would be possible to do the same for my hall room. The hall room makeover article gave me lots of ideas on how to decorate my room, which is great since I spend so much time in it. I especially enjoyed using the NTU HEY! AR app to watch the timelapses of the rooms being done up.

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It’s got tech, it’s got style, it’s the new HEY! magazine, revamped for the smartphone age.

NTU President Prof Subra Suresh launched HEY! at the Freshmen Welcome Ceremony with the help of a Tyrannosaurus rex that popped out of a page in HEY! into the auditorium.

“It was super cool to see the dinosaur look as if it was right beside us. I had fun playing with it on my phone too,” says Samantha Lee from the Nanyang Business School.

Final-year engineering student Kelvin Kaung was surprised at how much he enjoyed playing with the AR features: “Seeing the first AR-enabled magazine in a university definitely reinforces how technologically advanced NTU is. Having seen the magazine come to life, I don’t ever want to read normal magazines again.”

Students who downloaded the NTU HEY! AR app had a good time posing with the dinosaur and interacting with the pages that came to life before their eyes. With AR comes a whole new way of taking part in contests and giveaways. For example, students got to win home décor items featured in a HEY! story on upcycling by submitting photos of 3D models of the objects creatively placed in their own rooms.

The NTU HEY! AR app, available on the App Store and Google Play, trended number one on both platforms under the education category in Singapore at its launch.

The fun did not end there. Three weeks of outreach events brought the excitement of discovering a whole new way of reading a magazine to even more students on the NTU campus and also at junior colleges and polytechnics.

“It’s cool that you can see photos ‘jump out’ of the pages as 3D animation and watch videos seamlessly as you’re flipping through the magazine. It is important in this digital age for content to go beyond just print, which is why the 3D pop-ups and videos will definitely engage us more,” says Marcus Tan from the School of Computer Science & Engineering.

And if you find this too long a read, take a cue from second-year student Zheng Zhenkai, who says: “Now you can listen to the magazine instead of reading it.”

Go on, whip out your phone and scan this page with the app now.
In our last issue, we asked you to show us how you would display these home décor items in your own hall rooms or bedrooms using the NTU HEY! AR app. These readers took home these prizes for their creativity and clever placements. Congratulations!

**HEY! GIVEAWAYS**

Chrystal Chan

**THEY SCANNED AND WON...**

First-year business student Pearl Lyn Goh and final-year Renaissance Engineering Programme senior Pavatharani Kumar use Telegram for many things, including HTH (heart-to-heart) chats about university life. Chrystal Chan takes a screenshot.

Hey Pava, quick question. How do you juggle all your commitments and studying?

I'm having a hard time now coz I'm in the main committee for my school's orientation camp, and the business club. I'm also involved in the Union Orientation camp AND I play waterpolo LOL

Yikes, that sounds so crazy! 😳

Yeah it is :/ I'm falling behind...

I did many things in my second year too. I was in the Shell Eco-marathon and joined the REP group called Humanitarian Engineers and Leaders, where we make things that benefit people who are off-grid in Cambodia.

Wow, how did you cope?

It's all really about time management. I'm glad that at REP, we get the flexibility of watching many recorded lectures in our own time, so if I'm feeling really productive I can watch two or three a day and make time for other things.

I also have this really useful to-do list. Want to see it?
Yes please! 😊

So I list all the lectures I need to watch under each module I’m doing this sem. As you can see, I still have two lectures to go and all these tutorials to tackle. 3:16 PM

OMG this is so useful! Thanks for sharing! 3:17 PM

No problem! Every time I miss a lecture I add it to this list. I try not to make a habit of missing lectures, but at least this means I have the flexibility to catch up on a lecture later when I’m not so swamped. 3:18 PM

This is what works for me, but you need to be disciplined enough not to push back too much or you’ll fall off the wagon 3:19 PM

Oh man, I’m not that disciplined... 3:20 PM

Also, always, always go for your tutorials 3:21 PM

I’ve not missed one so far! 3:21 PM

Good! 😊 Tutorials are important because you get more face time. It’s also easier to ask questions as you’re in a smaller and cosier setting 3:26 PM

Haha I will! By the way, did you guys have to learn coding? What did you think of it? 3:26 PM

Yeah, we have to learn it. It’s an essential module in REP 3:27 PM

TBH, I was resistant at first, but it is actually really fun and a good life skill. You know, in today’s context, it is very advantageous for us to know it. 3:28 PM

Eh, I’m not sure. Coding looks complicated... 3:28 PM

I think we have to learn programming in our statistics module tho 3:29 PM

That’s what I learnt too! You know what, when I was doing my internship, knowing coding came in surprisingly handy. All my colleagues were impressed when I created buttons on Excel. 3:27 PM

Haha, it’s a good way to wow! 3:33 PM

Also, I think all the big banks now require their management associates to know coding. I wanted to apply for the DBS associate programme and the very first test was a coding challenge. 3:34 PM

You know, it’s crazy but all my friends are already talking about internships. 3:35 PM

You think your position as vice-president of the REP club helped you get your internship? 3:51 PM

That’s so cool! 😎 3:52 PM

Do you think you’re going to find a company now? 😊 3:51 PM

I think since you’re in your first year, you don’t need to stress about it yet. 3:45 PM

In my first year, I did a summer programme during the term break. I would definitely recommend you do that as you can take care of some AUs and still have fun. 3:46 PM

I chose to do all my difficult modules at Imperial College London as all you have to do is pass them. The grades you get won’t be reflected in your NTU transcript. 3:46 PM

Yeah, my seniors did that. But I have to do my mandatory internship next semester so I’m trying to find a company now. 3:51 PM

How many internships did you do? 3:51 PM

Two, both with Dyson. One in London and one in Singapore 😊 3:51 PM

That’s so cool! 😎 3:52 PM

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That’s so cool! 😎 3:52 PM

But that’s not something I can prepare for 4:03 PM

Yeah you can’t, but you can show the passion you have for the job you want to be hired for. Don’t try to fake it because it shows. Don’t go for an engineering interview if you’re interested in IS business. 4:03 PM

You should also read up on the job and the company. Know what the company’s priorities are and how they align with yours, what you’re interested in, how you can contribute to the company...that sort of thing 😊 4:08 PM

Omg I feel stressed now 😥 4:09 PM

Yes! It was the most awkward thing ever but of course now I know better haha. Where are you planning on applying to? 😊 4:14 PM

I’m hoping to intern in an American company like Apple or Google 😊 4:15 PM

Cool! You should definitely go for it. I remember seeing a fair share of job advertisements for Google and Apple in Singapore. 😊 4:15 PM

You should just try. I think you may get lucky if you show enthusiasm and effort. Companies love interns 😊 4:16 PM

I will, thank you!! 🙏 4:16 PM

Don’t worry too much! I think faking it at interviews helps you to do better for the next one. I remember how I bombed my scholarship interview in poly. When I was asked who I wanted to meet if I could travel back in time, I actually said I wanted to see myself being born.
OUR CAMPUS, OUR CANVAS

The NTU campus is a showroom of sustainable art. Derek Rodriguez takes you on a tour of some of the highlights from the Campus Art Trail.

1. THE BUTTERFLY EFFECT
Math and art are a match made at The Arc. Loop, the newest sculptural installation on campus, features 1,200 pink and magenta butterflies fluttering in a Möbius strip, one of the most curious shapes in mathematics. Loop captures the beauty of the butterflies commonly found on our campus. The butterflies flutter with the slightest wind, creating a self-sustained and dynamic visual display.

2. LEAF ON A HIGH
Rest your feet and recharge your smartphone’s battery at Fern, the 12-seater wooden bench overlooking the North Spine Plaza. The photovoltaic panels installed on the three largest “leaves” harvest energy from the sun, which is directed to two charging stations for electrical devices.

3. SECOND LIFE FOR TREES
Trees felled to make way for new buildings on campus were not discarded but given a new lease of life as useable art. From these trees, over 50 items, including chairs and tables, were created. The art pieces are displayed all over the campus, including at the medical and humanities and social sciences buildings.

4. WHERE YOU AND AI COLLIDE
With the development of technologies like artificial intelligence, we need to consider their impact on us. This is expressed through the Third Paradise, three large connecting circles made of the red sessile joyweed plant on the grass roof of the School of Art, Design & Media building. The smaller circles represent the natural and manmade worlds, while the largest one in the middle symbolises a harmonious balance between both.

5. LEADING LIGHT
As the first sustainable art installation created by the NTU community, Dandelion lighted the way for the others that followed. The solar-powered art installation stands outside the entrance of the School of Art, Design & Media unassumingly until nightfall, when all 59 seeds light up independently and flicker when the wind blows.

NTU’s Novena campus is symbolically linked with the main campus through Bloom, a wall mural art installation of 18 flowers inspired by the Chinese honeysuckle or Rangoon creeper, at the Clinical Sciences Building. Powered by solar panels on top of the building, the flowers bloom in random sequence. The accompanying LED lights go from white to pink to deep red in response to changing weather conditions on the main NTU campus.
WARNING: HOT CLASS AHEAD

What’s causing such a stir at the culinaire kitchen on campus? The flavour of the month: Korean japchae

Korean japchae, anyone?
By the looks of it, many NTU hall residents are saying “aye”. Three nights a week, the culinaire kitchen in Tanjong Hall is sizzling with activity.

“Put a little more oil in the pan” and “Those need to be julienned more finely,” says professional culinary instructor Priscill Koh as she shuttles between students.

Inside the glass-walled cooking studio, apron-clad students are hard at work. A group of four are busy slicing green, red and yellow capsicums into thin strips. Clustered around an adjacent table are three girls stir-frying onions and shimeji mushrooms.

On today’s menu is japchae, a Korean stir-fry noodle dish. Chef Priscill is teaching these 18 students from Hall 8 how to make a simplified healthy version of the one-dish meal, so that they can easily recreate it in their hall pantries.

“I’ve made it easier to cook this with minimal tools. For example, students can fry the japchae ingredients using a pair of chopsticks instead of a spatula,” she says.

Chef Priscill shops for the ingredients before each class, so students don’t have to go on a grocery run and can simply show up with an appetite to learn.

“I had so much fun in this two-hour class and I’m glad that more of us can get a chance to learn cooking.”

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“I had so much fun in this two-hour class and I’m glad that more of us can get a chance to learn cooking.”

This culinary class is part of the upgraded Residential Education programme that hall residents can enjoy. Cooking sessions held here have become such a hot ticket item that classes now take place every Tuesday, Wednesday and Thursday, with slots allocated to one hall per week.

The cuisine that is taught changes every two weeks, and the classes have covered Spanish paella, Indian tandoori chicken and naan, and Thai tom yum kung.

This is the first time cooking lessons are run centrally and open to students of all NTU halls. This means they can attend them if their own halls do not organise such classes. Each free two-hour session can accommodate up to 18 students on a first-come-first-served basis, and unsurprisingly, the Korean cooking classes fill up the fastest.

“Ever since I picked up cooking while I was on exchange, I’ve found myself enjoying it, and felt hungry for more. I had so much fun in this two-hour class and I’m glad that more of us can get a chance to learn cooking,” says third-year communication student Belynda Hoi, tucking into her plate of freshly tossed glass noodles as her classmates Insta-story their colourful creations.

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“Mum would be pleased.”
For He ChongQing (above), coffee had never been his cup of tea.
It was not until an accidental stint as a barista during his polytechnic days – he was just looking for a part-time gig then – that left his love for coffee brewing.

Today, the final-year NTU economics student is the co-owner of Connect71, a new café at the Innovation Centre. As its name suggests, the café at the Innovation Centre.
owner of Connect71, a new

ChongQing explains the concept behind the café: "We did a bit of market research and realised that most eateries or cafés in NTU feel very fast-paced, and don’t invite you to sit down for too long. There wasn’t really a place here that’s cosy and welcoming, making it conducive to long, slow conversations over coffee. That’s how ideas are generated."

The result is a warm and lit, Japanese minimalist interior dotted with vases of eucalyptus stalks and sprigs of lavender.

On the menu are three Japanese rice bowls and a dry soba dish that are quick to assemble without compromising on the taste. Before you write off Connect71 as a place for coffee snobs, ChongQing says the café uses beans with a taste reminiscent of the Nanyang kopi found in coffee shops – a deliberate choice to help the kopis drinkers bridge the gap between traditional coffee and specialty coffee.

The result is a cup of coffee that is full-bodied, highlighted with earthy undertones and a smooth finish, with a hint of burnt caramel. This tinge of bitterness that lingers on the palette is what people refer to as the ‘coffee taste’.

Setting up the café was a serendipitous affair, says ChongQing, who recalls how it all started with NTUlive’s call in April for business proposals for a café. As the University’s innovation and enterprise company, NTUlive helps to build an ecosystem that fosters entrepreneurship.

After his six-month polytechnic internship at a bank, he knew he would never grind away behind a desk upon graduation.
So when the opportunity to be an entrepreneur came along, he immediately roped in a friend and got cracking on a proposal.

"It was quite timely. My friend, Raymond Tan, who used to run two western food hawkers stalls, was available. Both of us are interested in the food and beverage industry. So we thought, why not?” says ChongQing with a shrug, adding that his interest in food started growing as well during his barista stint.

With knowledge acquired from previous business management electives in NTU, he quickly put together a business proposal for the café within a week.

"I was ecstatic when our proposal was selected a month later. It was like the beginning of a new phase of life, and gave me a platform to put my knowledge and skills to good use,” says ChongQing. "I couldn’t believe how fast things moved."

The business proposal was merely the tip of the iceberg. The backend work, from accounting and licensing, to sourcing for furniture and equipment and interior works, proved to be overwhelming.

"I asked my parents for a little help here and there since they are entrepreneurs themselves. They run a company in the marine engineering sector. But I didn’t want to rely on them too much. This is my own company after all,” says the second youngest of six children in the family.

ChongQing with a shrug, adding that his interest in food industry, long hours is something you can’t run away from. Every job comes with its own difficulties, and F&B happens to be more labour-intensive,” he acknowledges.

Aside from the two co-owners, the café is run by two other full-timers, including NTU alumna Priscilla Tay, who helps out with the café’s front-end operations and business development. Six NTU students have been hired as part-timers, and ChongQing hopes they will be inspired the same way he was as a barista.

Running a café requires being hands-on, right down to the washing of dishes, but ChongQing sees this as a rite of passage for any F&B venture.

"If you want to pursue your passion in this industry, long hours is something you can’t run away from. Every job comes with its own difficulties, and F&B happens to be more labour-intensive,” he acknowledges.

Other than some teething issues such as longer waiting times during peak periods, it seems the café is off to a good start. In its first week of operation, the café earned positive reviews for its specialty coffee and grain bowls, including from popular food blogs DanielFoodDiary.

"Starting out on your own is definitely tougher than working for somebody. But it all becomes worth it when people say that the food is good, or that they like the coffee," says ChongQing. A latte, anyone?

PERKS OF BEING A CAMPUS STARTUP
One perk of dabbling in entrepreneurship on university grounds is that help is always at hand.
ChongQing says: “NTUlive provided a lot of guidance and mentorship. For instance, they got someone on board to advise us. Along the way, we started to learn things like what kind of lights we should buy, how to install tables, and the intricacies of piping works. I think we became construction experts during this period.”

“Through this experience, I realised NTU actually has ample resources and a supportive ecosystem for students who want to strike out on their own.”

ChongQing is now giving the new venture his best shot, devoting his time to the café between 9am and 9pm, except when he shuttles off for classes. He works on school projects or assignments only after he wraps up at the café.

“Cliché as it sounds, starting Connect71 has actually helped bring theories I’ve learnt in economics to life,” he says.

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COLOUR ME SURPRISED

How do we perceive colour? Which hues help us work better or boost our creativity, and which colour soothes us on stressful days?

"But loving him was red, was dark grey, all alone…"

Colour is really all in the mind. Many people saw its colour so crack that assignment in a blue room but loving him was red like I'd never known, missing him was dark grey, all alone…" said Taylor Swift in her song "Red." Not surprisingly, this is why we might think a blue flame is not as hot as a bright orange flame, but as chemistry lessons have taught us, blue flames are as hot as or even hotter than orange ones.

What science can tell us is that colour is a subjective experience created by our brains. Colour is simply light of different wavelengths. However, what you perceive as red or green is also affected by the environment in which the colour appears. "Green might look red in one context and yellow in another. When you see colour, your brain is trying to determine whether you are seeing the object's own hue or a combination of that and the amount of light that has fallen on it," explains Assoc Prof Gerrit Maus, a cognitive scientist from NTU's School of Social Sciences.

It is still entirely possible for your brain to play tricks on you - who can forget the viral white and gold (no, black and blue!) dress in 2015 that set off a whirlwind of scientific theorising? Scientists are still unable to explain why so many people saw its colour so differently, but this much is clear: Colour is really all in the mind.

It also gets colder. As such, blue and grey tend to seem colder than orange and red, says Assoc Prof Ng Woon Lam from the School of Art, Design & Media. "There's no conclusive answer to that, however, can colour actually influence mood?"

"Perhaps," says Assoc Prof Ng Woon Lam from the School of Art, Design & Media. "There's no conclusive answer to that, even though much scientific research was done on it about 100 years ago at Bauhaus, a German art school."

Colour associations have prevailed, largely due to our shared experiences, says Assoc Prof Ng. "For example, when the sun is shining strongly outside, we can see brighter colours like yellow, orange and red better. However, when it is overcast, these bright hues lose their chroma, or intensity, and the world somehow looks duller. It also gets colder. As such, blue and grey tend to seem colder than orange and red." Not surprisingly, this is why we might think a blue flame is not as hot as a bright orange flame, but as chemistry lessons have taught us, blue flames are as hot as or even hotter than orange ones.

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THE GAME IS ON FOR E-SPORTS

Playing video games competitively for work may sound like a dream job, but two NTU e-sports players say it’s not all fun and games.

On stage, two groups of people sit hunched in front of their computers with furrowed brows, moving nary an inch except for their darting eyes and furiously clicking fingers.

Down in the audience, spectators sit at the edge of their seats as they watch the two teams battle it out on huge television monitors broadcasting the players’ onscreen actions. They are not just gunning for victory, but also a livelihood and a possible ticket to sponsorship and stardom.

Welcome to the world of competitive live video gaming – also known as e-sports – where players from all over the world go on the international stage. Most recently, gaming hardware giant Razer committed $10 million to develop the local industry, which now has over 400 players specialising in several different video games, from action-strategy games in fantasy battle arenas to multi-player online football games.

Yet e-sports continues to be laced with stigma, with some brushing it off as excessive gaming, says Clement Tan, a former professional Dota 2 player and a third-year sociology student at NTU.

The 23-year-old, who goes by the moniker InsidiousC, recalls: “Initially, most of my family treated it like a hobby that was getting out of hand whenever I was on the game for long hours.”

No child’s play, e-sports actually requires discipline to adhere to the strict and structured training schedule – not unlike training for a traditional sport.

A typical “work day” for Clement is spent at an office setup like a gaming shop, where players engage in practice matches or review videos of their games, with every minor detail in gameplay scrutinised and assessed.

All that is in preparation for game day, when their game is actually shown on huge screens, and any mistake could tarnish a player’s reputation or cost him his stab at the prize pool.

Clement trains up to 10 hours a day during his varsity breaks. Most professional players spend much more time than that, he says.

Amraan Gani (right), a fourth-year NTU maritime studies student who juggles his studies with semi-professional involvement in e-sports, says the rigorous training schedule means he has to sacrifice his social life.

Clement agrees: “In a gaming setting, it is just the five of us. We get to bond with the players a lot, but I guess we do not get to bond as much with other people.”

Despite all that, e-sports is still not seen as a game worth the candle.

Clement explains: “Some people say you are wasting your time. Some people do not even regard it as a profession.”

An e-sports player at the top of his game could make millions from prize money.

Amraan, in his short three-year stint as an e-sports player, already has had a taste of success – he is ranked sixth among the e-sports players in Singapore by a website that tracks the earnings of e-sports players in Singapore.

He was part of a three-man team to take home US$108,000 ($142,000) after winning the largest international tournament for the Fifa Online 3 game.

But if Amraan decides to commit to e-sports full-time, he must be prepared for a monthly salary lower than what he would be able to earn in his field of study.

He concedes: “It is not a stable career, and my parents would want me to get a full-time job based on what I studied.”

For now, the adrenaline rush and the passion for the game is going at full throttle.
Drones. Everyone – from your neighbour’s children to your aunt – is flying one. With a drone, you too could take once unreachably aerial shots like this bird’s eye snap (left). Some drones are so simple to pilot, you can get them from a heartland supermarket, pull them out of the box and begin flying in no time.

However, with drones in the news these days, such as the drone incursions at Changi Airport, how do you know if you’re flying into trouble? Your best bet, says NTU’s resident drone expert Prof Low Kin Huat, is to head to the Civil Aviation Authority of Singapore (CAAS) website to learn the dos and don’ts of drone flying before taking your maiden flight.

As a gesture of goodwill, most drone retailers will point new fliers to the relevant websites to learn the basics of flying a drone. It is most important to note where the no-flying zones are. In short, don’t fly your drone in a manner that poses a risk to aviation and public safety. So far, one company has been fined $9,000, while two individuals have been taken to court for flying within 5km of the Paya Lebar Air Base. If found guilty, they could face a fine of up to $20,000. Likewise, NTU falls within the 5km confines of a no-fly zone and anyone hoping to pilot a drone on campus should have a permit.

Ready? Let’s get flying.

Drones range from cheap, remote-controlled quadcopters available at toy shops and even NTUC FairPrice, to recreational and professional flying machines, say drone enthusiasts. For example, the Mavic by drone-maker DJI falls into the recreational category. It’s mostly used for leisure, such as aerial photography and videography.

In the professional range are those like the DJI Inspire, which is used by filmmakers as the video quality is of a higher resolution. Commercial drones carry heavier payloads such as higher-end cameras, and may come with thermal imaging and other sensors. They are also used by security agencies.

New drone pilots should get their hands wet with “toy” drones that are cheaper, weigh less than 200g and cost not more than $20, as it’s not uncommon for beginner fliers to crash their drone or lose it in a tree.

Choose your drone
5 WAYS TO USE YOUR LUNCH HOUR WELL

Rule number one: Your lunch hour needn’t be a lunch break. Break out of your usual midday routine with these tips that could even boost your productivity.

SWEAT IT OUT

Avoid the midday slump with a high-intensity interval training workout. Held at the North Hill Gym every Friday, the invigorating hour-long classes work every part of your body in short bursts.

STRETCH

If you’re in your hall room and don’t feel like stepping out, try desk yoga—a series of stretches you can do either seated at, or standing near your desk. Or do some dips or desk push-ups. Either way, you’ll get your blood flowing and may even be perked up enough to skip that afternoon cuppa.

DAZE OUT, TAKE A BREAK

Sweat over a midterm or a lab report due next week? Put these stressors aside for a moment. Instead, take a break and let your mind wander. You are more likely to approach your to-dos with a fresher mind. You’ll find that your better quality work and grades.

WATCH A PERFORMANCE

Look out for regular lunchtime concerts by classical maestros or jazz greats at LTIFA. The healing power of music has been proven by science. Now and then, you can also catch hall jam bands live or toe-tapping dance routines by student groups at Canopy K or the performance area outside One Stop@SAC.

JOYCE GAO

Joyce loves an adventure, such as cycling 18km from her home in the west to Starbucks at East Coast Park for a morning cuppa. She hopes to travel to see as much as she can.

GAME OF DRONES

Third-year aerospace engineering student Faheem Bin Fawzi (right) was only 10 when he started flying remote control helicopters. He then changed gear to pilot remote control fixed-wing planes, eventually leveling up to compete in Malaysia, says the shy pilot who is the chief flight instructor at the NTU Aerospace Society.

His most recent flight challenge was at the Singapore Amazing Flying Machine Competition organised by DSO National Laboratories, where the nintipav lidorw raceh h was a actual pilot in the mini machines. So, relative to the view, the obstacles are huge, he shares. “The toughest part is keeping the drones in the air while trying to go as fast as possible.”

FPV, or first-person view, drone racing is the new kid on the competitive sports block and looks set to become a multi-million-dollar mainstream sport.

There are two race components, explains Faheem. “Try to clock the fastest lap and complete the most number of laps in a designated time. Of course, if you crash out on an obstacle or collide with another drone, you’re most likely out of the game. In fact, one small mistake and you are usually out of the running. The expert racers are so fast that you won’t be able to catch up.”

Racing drones isn’t purely for the joy of the chase, he admits. Racers tend to be engineering aficionados who custom build their minute racers. Each tiny racer is essentially a computer board with rotors and a camera, Faheem explains. His experience from building his own drones and remote control planes and helicopters has given him a leg-up in his studies. “Many of the abstract concepts related to pitch, yaw and roll, and even PID (proportional integral derivative) controllers, I had already known before the prof even spoke about them in my aerospace classes. And it’s all thanks to years of practical flight time.”

Faheem doesn’t yet have his derma, and not likely to catch that afternoon cuppa.

3 WAYS TO USE YOUR LUNCH HOUR WELL

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JOYCE GAO

Joyce loves an adventure, such as cycling 18km from her home in the west to Starbucks at East Coast Park for a morning cuppa. She hopes to travel to see as much as she can.
An ant could turn out to be one of life’s best teachers, as P A Annamarie learns from Singapore’s Ant Man Zat Low, one of the speakers at the TEDxNTU event on campus.

Do not belittle anything. Even something as small as an ant could teach us huge lessons in life, says Zat Low, who is known as Singapore’s Ant Man.

Ants were the very thing that taught him about hope, humility and even humanity. Getting to know ants helps us understand ourselves better and inspires an awe for nature’s wonders, says Zat, who spoke at the TEDxNTU event on campus with one of his ants, the Dinomyrmex gigas, in tow.

An artist by day, the 35-year-old hunts for ants at night – much like Pokémon Go players, he quips. He then rears them – he has almost 100 colonies now – and even builds them “luxury homes”, some of which he sells. These formicariums, or ant’s nests, are the bee’s knees – the elaborate ones are adorned with crystals. One even has a music box inside.

The unlikely friendship between Zat and these Lilliputian creatures blossomed three years ago, the lowest point in his life. He became depressed, partly because he had lost friends who had taken their own lives. His relationships with his family and closest friends suffered.

“For years, I saw myself as a pest to society,” the former gang member says quietly.

But watching the ants fight for their survival helped him to get his life back on track. It was also through watching the spirit of perseverance in ants that led him out of that season of desolation.

For instance, the wee workers carry on their backs food morsels that are much bigger than them. This is also why Zat chooses to look past qualifications, and instead zoom in on attitude, when looking for people to join his team, which organises events about ants to raise awareness and dispel myths about them. To him, one’s credentials, age and background are not the only indicators of one’s ability, just as how an ant’s size does not show the amount of weight it can carry on its back.

Zat has no qualifications in caring for ants. “I’m not a myrmecologist. I’m an ant-keeper,” he says. But the Ant Man is an expert in his own right – fun facts about ants roll off his tongue effortlessly.

He also single-handedly grew the local ant-keeping community from around 10 members to the current membership of about 2,500, and sees great value in being a positive force.

“I really don’t like my past, but in order to help others who have been in my shoes or who face difficulties and doubt themselves, I can share my story and hobby so that they can find hope,” he says.
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