

NTU Institute of Science and
Technology for Humanity (NISTH)

NISTH NEWSLETTER

The latest news, views, and announcements from NISTH

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NISTH Director, recounts...



Professor Vanessa EVERS

Vanessa Evers, is a Professor of Computer Science at the School of Computer Science and Engineering at NTU. She is the Director of the NTU Institute of Science and Technology for Humanity (NISTH).

Her work exists at the intersection of Computer Science, Psychology, Design Philosophy and Electrical Engineering. Her research focuses on Human Interaction with Autonomous Agents such as robots or machine learning systems and cultural aspects of Human Computer Interaction.

Dear Fellows and Friends of NISTH,

This year's end is bittersweet. We booked many successes in realizing research across the STEM and SHAPE disciplines with societal impact and coming out of the COVID-19 pandemic our international activities have started to ramp up, but it is also my time to leave NISTH as inaugural director and make way for the next director.

As I tell everybody that wants to hear it: This is truly the best job ever. It has been such an honour to have been given the opportunity to build the Institute of Science and Technology for Humanity at NTU. The original visions of Provost Ling San and President Subra Suresh for NISTH combined the stimulation of interdisciplinary team research across Engineering and Science on the one hand and Arts, Humanities, Social Science, Education and Business on the other, with the aim to increase the impact of NTU research and work on societal challenges. Prof. Alan Chan initiated NISTH and gave it a foundation.

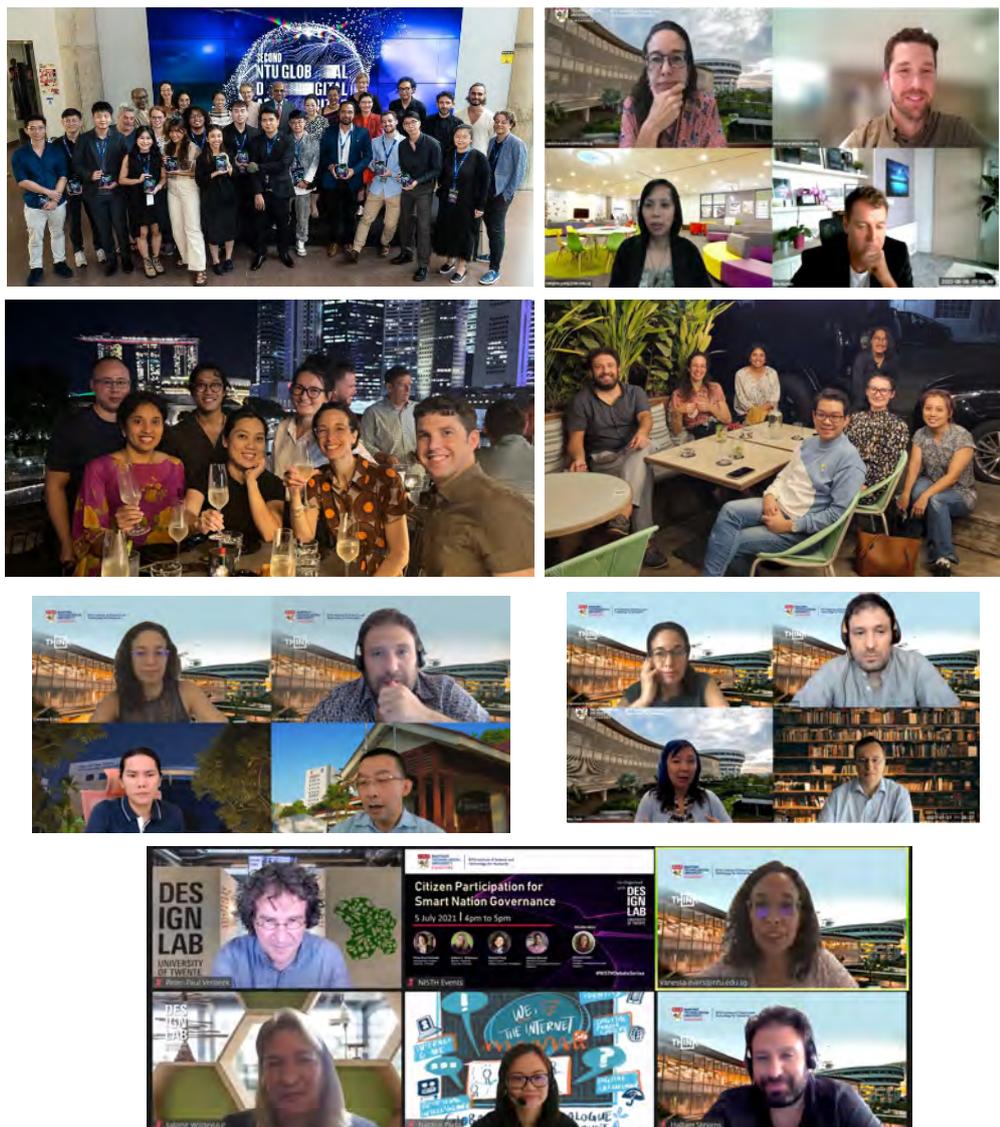
Through NISTH we established the bi-annual NTU Global Digital Arts Prize, The NISTH Societal Impact Fellows Network, The NISTH Interdisciplinary Seed Grants, NISTH's Global Report series, NISTH ThinkOut podcast series, NISTH Distinguished Lecture series, our contributions to education and Lifelong Learning, the NISTH NTU Expert Finder and more. We are happy to have spurred, funded or otherwise supported exciting new interdisciplinary research that contributes to solving various societal challenges such as the consequences of the fourth industrial revolution, climate change and an ageing society.

Of course, there are goals we have not achieved yet and we remain active. Among them a bespoke NTU measure of the societal impact of research and the creation of a citizen science platform where academic researchers facilitate citizen researchers.

Now that we are coming out of the COVID pandemic international exchanges such as round tables and summits are becoming possible again there is still a need to consider alternative ways of academic collaboration. Since we can simply not go back to flying all over the world because of the polluting nature of air travel, we keep seeking creative and new ways for knowledge exchange and talent development to happen.

There are countless people to thank, Prof Hallam Stevens was my co-director for 3 years and he provided moral and ethical guidance for all NISTH's initiatives. Asst Prof Andy Prahll joined us this last year and has proven himself to be unmissable already. The current and previous researchers of NISTH Iuna Tsurylneva, Teo Tian Leng Marcus and Hydar Saharudin (current), Alim Yakub and Rabindra (Robby) Ratan (previous), are outstanding. They tirelessly supported grant development for NTU researchers, prepared large reports such as the NTU Carbon Footprint Measure and carried out original research into measuring the societal impact of research, how universities fared during COVID and responsible AI.

Most importantly, I would like to thank current and previous NISTH Staff: Shiran Yee and Maitri Bobba (current), Rachel Tan and Hedren Sum (previous). They are without a doubt the dream team, incredibly professional, capable, efficient, collaborative, and kind. NTU can count itself lucky to have these dedicated and promising people among its ranks. And then there have been our NTU colleagues, from whom, we have learned and continue to learn so much and we hope to be able to serve your interdisciplinary research collaborations toward solving society's challenges for a long time to come.



Global Digital Art Prize 2022



The Global Digital Art Prize has come a long way since it started in 2019. This Art Prize is the first of its kind in Singapore and the region to recognise artists and technologists with exceptional creativity in digitally mediated art, design and cultural heritage.

This year's Art Prize submissions were put through a rigorous selection process involving two rounds of judging by a highly esteemed jury comprising local and international experts, academics, and artists. The entries were judged on their artistic excellence, integration of digital media, relevance to theme and the artist's innovation and creativity.

18 shortlisted works from the first round of judging were showcased at the ADM Gallery. These creative art works embody a collective desire to seek solutions to some of the world's most thorny issues. The artists behind these works seek to invoke questions about earth and the deep and wide-ranging environmental impact of our actions.

The theme for this year's symposium is "Humanity, Sustainable – Sustainable People, Inspiring Change."

Recent advances in science and technology

have profoundly benefited humanity, helping to lift much of the human population out of poverty, and improving living standards across the globe. But these advances have also resulted in unintended consequences, such as an exponential increase in the use of precious finite global resources.

The COVID-19 pandemic over the past three years has also intensified the multiple challenges that we are facing globally, such as socioeconomic and digital inequality, poverty, and domestic violence. It is therefore imperative that we focus on building more sustainable economies, and improve equality and inclusivity in our respective societies, even as we continue to work on addressing other pressing global challenges.

The transformation brought about by the digital age has transformed the nature and substance of art itself – from how it is made, to where it is shown and who can view it.

Through the presentations and discussions moderated by the faculty from NTU's School of Art, Design and Media, the symposiums enabled participants to see how artists utilise digital tools to create art of the 21st century, transforming the invisible into

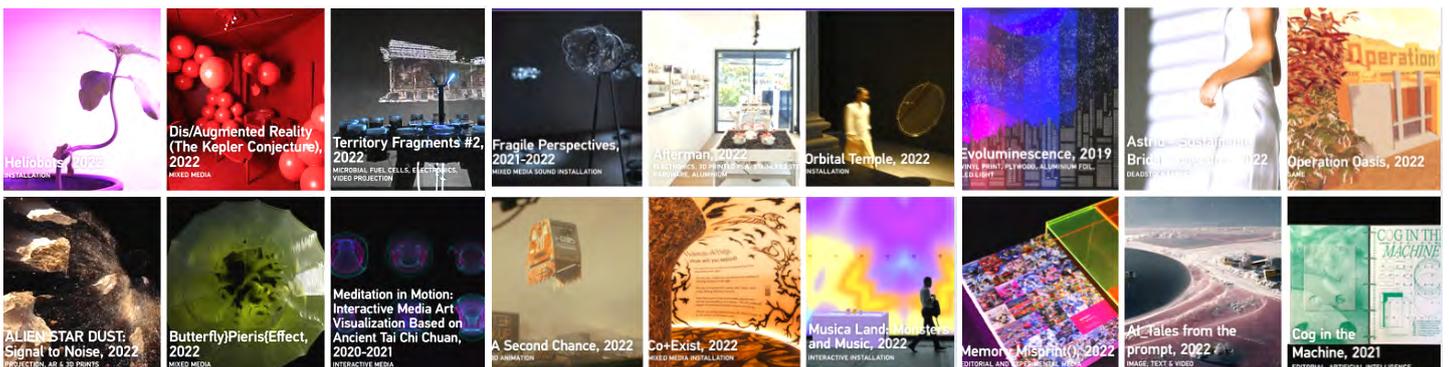
the visible, and helping us to better understand this volatile, uncertain, complex and ambiguous world.

Through these NTU Global Digital Art Prize Symposium, we were reminded of how critical sustainability is – not just for the Earth and the delicate balance of its systems, but also for humankind. The exhibition highlighted how artists and scientists can collaborate more closely to create a more just and sustainable world of peace and progress and helping to bridge the divide.

The exhibition will run all the way till **27 January 2023**, so do take the opportunity to view these exceptional works.

Out of the 250 entries received this year, 18 shortlisted artworks were in the running to win a total of \$50,000 in prize money!

The NTU GDAP 2022, awarded a top prize and commendation awards for two categories, International Professionals and Students, for excellence, creativity and innovation. The prizes were presented by NTU President, Prof Subra Suresh and our Guest of Honor, Ms Lakshmi Mohanbabu, who is the 1st Singaporean Artist whose sculpture was sent to the Moon on the Moon Mars Mission - ESA 2022.



NTU GDAP 2022 Winners

International Professionals Category Winners

Winner **Harpreet Sareen** took home the top prize of SGD 25,000, for his work, *'Heliobots'*. These are robots that live on a sunflower plant. These robots were designed to move on the stem of a plant and preprogrammed light patterns, to control the shape of their growth. Light and gravity are commonly known factors governing the morphological growth of a plant. Using the capability of plants, they demonstrated controlled shapes using robots.



(From left to right): Prof Subra Suresh, President, NTU; Abshar Platisza; Harpreet Sareen; Prof Ina Conradi (accepted the prize for Victoria Vesna) and Ms Lakshmi Mohanbabu, Guest of Honor

The commendation prize went to **Victoria Vesna** for her work *'Alien Star Dust: Signal to Noise'*. Star dust is 1/10th of the width of a human hair and 70-100 tons of this extra-terrestrial dust falls on earth every single day. These invisible micrometeorites hold the mystery of our cosmic roots that evade us while mixing with the various anthropogenic dust pollutants. Layers of surround sound and particle animations of meteorites falling apart emphasise that DUST knows NO BORDERS.

The special Honorary mention this year was presented to **Abshar Platisza** for his work *'Territory Fragments #2,2022'*, an audiovisual Installation using a Microbial Fuel Cell as the 'heart' of the work that utilises the process of the transformation of organic matter to electricity from microbial fuel cells as biodata.

Student Category Winners

Melodie Edith James won the top prize of SGD 10,000 for her work *'Cog in the Machine 2021'*, an experimental graphic novel that takes a posthuman approach to narrativity and design. It features narrative and visuals produced in collaboration with open-source artificial intelligence models such as Generative Pre-trained Transformer V2 (GPT-2) by OpenAI and Attentional Generative Adversarial Network (AttnGAN) by Microsoft Deep Learning Technology Centre. Inspired by recent developments in biotechnology in Singapore such as stem cell meat cultures and genome editing on animals, the novel aims to encourage collaboration between the worlds of visual arts and technology.



Prof Subra Suresh, President, NTU and Ms Lakshmi Mohanbabu, Guest of Honor, presenting the winners with the trophy and plaque.

(From top left clockwise): Melodie Edith James, Guo Minghao, Alicia Ng and Roger Ng Wei Lun

Roger Ng Wei Lun, won the commendation prize for *'Musica Land: Monsters and Music, 2022'*, a public interactive music installation that uses computer vision technology to generate music and real-time audio-reactive visuals. Kids can create various kinds of music by trying out different combinations! Each monster has its unique icon and can also be used as a stamp. Kids can stamp on paper to record the music and share it with others. Musica Land is designed to be installed at community centres to allow better accessibility for every kid to play. With Musica Land, we can make making communities more equal, inclusive, and sustainable through shared ownership and collective connection to the installation.

Guo Minghao, accepted the commendation prize for Mirage Studio for *'Operation Oasis 2022'*, a 3D strategy simulation game that provides the players with an immersive experience of fighting against desertification, by growing desert plants and developing technologies. It showcases what changes people can make to improve sustainability. The real challenges of afforestation in the desert are reflected in the gameplay, translated into our unique gameplay features such as Desertification Index, Water Flow, Soil Salinity and Natural Disasters. The game is available in both English and Chinese, and our team aims to release it on Steam by 2023.

Alicia Ng won the commendation prize for *'Memory Misprint(),2022'*, an experimental media that explores the fallible nature of human memory. A re-imagination of my childhood memories, the work utilises artificial intelligence to visualise memory distortion. The outcome mixes reality with the imagined, creating visuals that speak about the strangeness of human memory, curated through editorial and digital media. *Memory Misprint()*; encourages viewers to indulge in a fictional mental space while reflecting on the reliability of their recollections. I aim to make memories physical through visual communication and experimental media, exploring the disjunct between an actual experience, its photographic representation, and digital manipulation by AI.

ECR Meets Again...



On 29 September 2022, NISTH researchers hosted an inter-university group of Early Career Researchers (ECRs) for the network's second networking event. The event was a success as 17 ECRs from NTU, NUS, SUTD, and SMU congregated for half a day of interdisciplinary brainstorming and fun activities.

The event kicked off with icebreakers, where in a tutorial room in the Arc the ECRs got acquainted. Then, participants played a card game designed by NISTH: Cards FOR Humanity, a positive and optimistic twist on the game Cards Against Humanity. The game asked participants to offer a range of interdisciplinary solutions (feasible, fun or too costly to implement) to global challenges. According to the obtained feedback, this exercise helped researchers acquire different view angles at the importance of collaborative interdisciplinary approach to addressing pressing needs of a society. Researchers came up with extraordinary ideas, a selection of which could be seen on your right.

Following this, the event progressed into a guided networking session, where ECRs were encouraged to strike up conversations with each other relating to their work and to prospect for potential collaborations. The event ended with dinner and a foot tour around NTU's beautiful campus.

The ECR Network began on 31 March 2022, when researchers from SMU's Centre for AI and Data Governance (CAIDG) hosted its inaugural networking event towards the goal of empowering and uplifting ECRs. They invited researchers from Singapore universities to share their challenge in developing interdisciplinary projects.

More information about the event can be found [HERE](#)

At the end of the CAIDG event, the ECRs kept in close contact and discussions for more events took off. NISTH then ran an NTU-based mini-event in May 2022 to expand the NTU arm of the ECR network, and in September 2022 the second cross-university networking event concluded successfully.

The ECR network maintains its goal to empower and uplift ECRs as they navigate careers as junior academics. In doing so, young researchers represent not just the younger generation as bastions of progress, but also the future of intellectual innovation as more challenges arise. Indeed, progress in globalisation, tied with rising threats of global interest, call to the fore a necessity for solidarity within the youth of academia to innovate effective solutions to unprecedented amounts of issues and challenges. The network also prizes at its core interdisciplinary collaboration, which arises from an understanding that issues of interest can no longer be solved in intellectual silos; the power of knowledge is best harnessed at the intersectionalities of empirical, theoretical, and applied research.

The Researchers of Tomorrow

Given current and upcoming trends in research and global issues, NISTH likewise positions itself as a centre of interdisciplinary excellence dedicated to catalysing meaningful research and innovation. NISTH's support of the ECR network serves as a salient testimony to such a position. NISTH's investment into the youth of academia acknowledges a new generation of researchers that are savvy and interconnected while possessing the virtues that define academia: rationality, critical thinking, curiosity, and a desire for improvement, just to name a few.

As NISTH continues to position itself to support the youth of academia in the new year, ECRs can look forward to a host of exciting research opportunities intended specifically for ECRs. NISTH encourages interested ECRs to reach out to Dr. Iuna Tsyurulneva or Mr. Marcus Teo at Luna.tsyurulneva@ntu.edu.sg and tianlengmarcus.teo@ntu.edu.sg respectively if they are interested in what the ECR Network can offer them. As an interdisciplinary and inter-university collective of researchers, the ECR network is in good stead to continue growing, offering new opportunities and collaborative relationships along the way.



Bright Beauty

Problem: Lack of accessible healthcare in impoverished countries

Solution: Alternative/indigenous medicine and Risk modelling. To reduce the reliance on costly imported medicine and technology, governments in impoverished countries can instead invest in research into alternative medicine (herbal treatments indigenous to their country). However, this suggestion is likely to face backlash from scientific communities local and abroad and be put down easily. To counter this, risk modelling can be applied in collaboration with various stakeholders to each proposed solution to identify areas in which indigenous medicine can be a good alternative to Western medicine (e.g. promoted to the public to treat common ailments like the cold, but not for more chronic diseases that require medical attention).



Exceptional Eagles

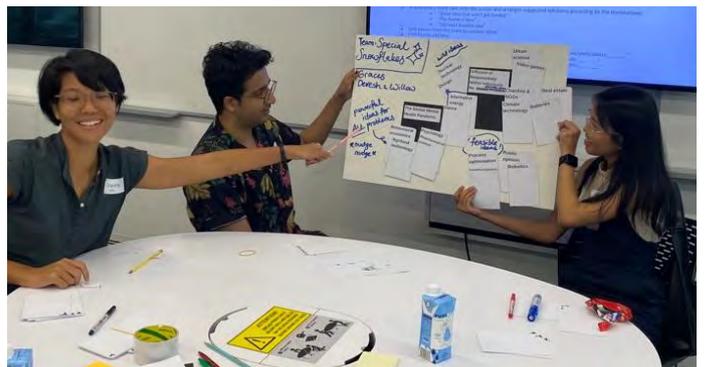
Problem: Inaccessibility of remote learning in lower-income communities

Solution: Human augmentation (never worry again about not having enough devices to learn from when you can be a cyborg - BE the device!) + banking and finance (definitely an expensive matter)

Special Snowflakes

Problem: The global mental health problem

Solution: Communications & Process optimisation. Improve public communications about the need to optimise processes in workplaces, education, healthcare, agriculture, transportation, and even government elections. We must use our limited resources wisely to focus our time on priority issues such as human wellbeing and planetary sustainability!



Team

Problem: Anthropogenic loss of wildlife

Solution: Communication & social media. Acknowledging that humans are the ones in a position to effect change, the public's awareness and perception of the biodiversity loss is important. Personification (i.e.. adopting human characteristics) of wildlife can help to encourage the public's empathy towards wildlife and consequently the issue of loss of habitats. Social media accounts of wildlife species can be created to document how they live day by day with human language quips or subtitles e.g.. "I'm really thirsty now." Through such communication, the public hopefully will become aware that animals and humans have a lot in common (Man and Nature are not separate) and will want to support biodiversity.



Anime Series from EOS engages with youth to be part of the solution

- In conversation with EOS Project Writer/Director, Liz Courtney

The Earth Observatory of Singapore (EOS) created the anime series “Earth Girl”, in collaboration with the School of Art, Design and Media (ADM) at Nanyang Technological University Singapore (NTU), and I as writer and director. It was an amazing experience that brought together science educators and artists to engage the youth of Southeast Asia.

Working with EOS on this anime series was a great opportunity to pursue my passion for storytelling which started in 2015 when I was asked to create an Imax film that would engage youth and give them a voice at COP15 in Paris. I was part of a team that took a group of teenagers from 5 different countries to Greenland to produce a short film called Youth4planet. There, we helped them share their voice and vision for a better future for all people. One of the young people said: “we are the first generation to be impacted by climate change and we will be the last generation to do something about it”.

This experience with EOS also reignited my passion to bring youth to the table and help them to find ways they could be part of the solution. NTU students are very inspirational and have a strong desire to make this world a better place. This interaction reminded me of my voyage to Antarctica in 2010 with 40 teenagers from around the world. They were part of a UN Youth Climate Conference led by Prof Robert Swan OBE. Both of these experiences showed me the power film and digital content can bring in building awareness and education to drive action.

As a parent, I observed my children and their love of the cartoon style anime. I realised that this artform has the ability to translate across all cultural boundaries, landscape, topography, style and language, and deliver powerful, thoughtful messages. Through collaborative meetings with EOS and ADM, the seeds of an idea formed to take the original Earth Girl, a video game character used to teach children how to respond to disasters such as tsunamis and volcanic eruptions, and to reimagine her into a series of short anime style films. EOS wanted to build awareness on climate change and encourage youth engagement and action. We wanted young people to know they could be part of the solution.



So, inspired by the original Earth Girl, I worked with EOS and ADM to conceptualise the direction of the anime style series. This project took me into uncharted waters, a new form of storytelling which demanded a different approach to scripting, conceptualizing, and storyboarding.

Anime, as an artform, has a universal style, ostensibly a universal language, that translates across regional and global cultural differences and is popular with youth and adults alike. With so many rich and diverse cultures in Southeast Asia, I strongly believed this would break-down barriers.

“the anime artform allows for a greater emphasis on natural sounds, simpler story narratives, and strong emotive messages about the role nature plays in our world which young people respond to, seeded with a call to action to be part of the solution”.

The vision for Earth Girl was to demonstrate how to lead by example and inspire youth to be part of the climate solution as seen through the eyes of an 11-year-old girl on a mission to learn more about how and why the earth and nature are changing. Our collaborative team was also conscious of climate anxiety that is often expressed by youth. We wanted to show them some solutions, and actions they could participate in to give them a pathway to share and work together.

Earth Girl also sets an example for youth to engage in outdoor living, hiking, walking in the park, exploring mangrove forests, and engaging with beach and ocean activities.

“Young people need to know they can be part of the solution for their future, and programs like Earth Girl-Earth Mission promote positive messages around community orientated actions in which we can all take part in, whilst encouraging youth to share their ideas, and create new solutions”.

The anime process started with the script development which I worked on for two weeks, in consultation with EOS scientists, to simplify the message and introduce a teacher into the story narrative through the voice of an animal. In Earth Girl Ocean, she meets a dolphin and in Earth Girl Nature a barn owl. This pivot allowed us to create a playful dialogue using animals in nature as a teacher to build Earth Girl’s knowledge; from swimming through coral reefs with the dolphin to leapfrogging across water lilies in wetlands with the owl, all was designed to drive awareness into action.

To cross between the anime world and the real world, we introduced a bridge, pulling through the storylines captured as pictures on her mobile phone to a webpage where photos and hashtags come to life with ideas to do at



home, at school, or in the community which can all make a difference – supporting the message we can all be part of the solution.

The first episode **Earth Girl Ocean** focuses on the important role the ocean plays in supporting a healthy planet, and the impact of our actions that are currently causing scientists to be alarmed. Plastic pollution, a warming ocean, and bleaching of coral reef systems are themes covered in this episode, as Earth Girl walks the beach at sunrise. A friendly dolphin who attracts her attention plays the role of the educator, and brings her in a lively adventure through a colourful reef system brimming with life.

The second episode **Earth Girl Nature**, focuses on the important role nature plays in providing interconnected systems to support climate impacts including mangrove forests, wetlands, waterways and green zones in city landscapes that provide cool shaded areas. A wise barn owl hoots hello as Earth Girl enters a local parkland to go on a nature walk and plays the educator role in this episode, taking her on a nature track across waterways, wetlands, and through mangrove forests and green shaded parklands in the city.

This series engaged five ADM student animators, and two supervisor's – ex-students from ADM who were part of the team that created the original Earth Girl. We are grateful and would like to thank the amazing animation team from ADM: Lemon, Ryan, Sansan, LingXiao, and Jessica for their creative, diligent and wonderful team spirit that supported this project; and Henry and Harry Zhuang for supervising this project. We would also like to thank Prof Gray Hodgkinson and Prof Ross Williams from ADM for all their support and behind the scenes mentoring.

This wonderful initiative by the Earth Observatory of Singapore is representative of all the engagement work they do in Singapore and across Southeast Asia to raise awareness of natural hazards and climate change. As Professor Benjamin Horton, Director of the Earth Observatory of Singapore, says “the new Earth Girl Earth Mission series is part of a wider range of communication tools we are creating to engage communities in building awareness and action around climate change. Other projects include documentaries, community outreach programmes, and engagements with local schools, which are all built around the knowledge our scientists are accruing across multiple disciplines.”

Link to the episodes: [HERE](#)

Earth Girl Ocean
Earth Girl Nature

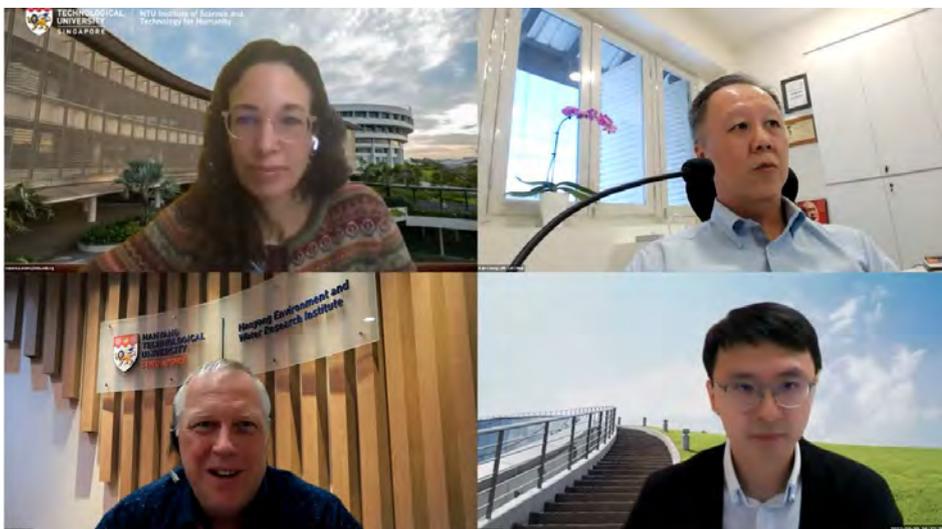
HAPPENINGS:

Past Events

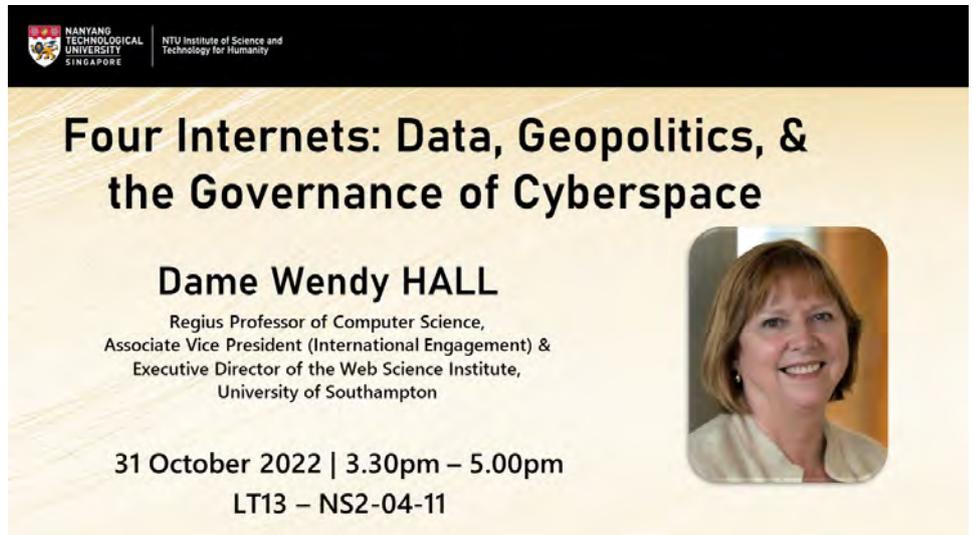
NISTH ThinkOut: Microplastics and Human Health: Do we know enough? - 20 October 2022

The poster features a dark blue background with a green, textured pattern resembling water or a forest floor. At the top left, it reads 'NTU INSTITUTE OF SCIENCE AND TECHNOLOGY FOR HUMANITY' and 'THINKOUT'. Below this is the tagline: 'A series of discussions between leading researchers from across disciplines on globally relevant topics'. The event details are '20 October 2022, 4:00pm to 5:00pm [Online]'. A red 'REGISTER' button is prominent. The title 'Microplastics & Human Health: Do we know enough?' is centered. Below the title are two circular portraits of the speakers, Shane Snyder and Sunny Hei Wong, with their names and titles listed underneath. The hashtag #NISTHDebateSeries is at the bottom right.

Microplastics are fragments of any type of plastic less than 5 mm in length. They cause pollution by entering natural ecosystems from a variety of sources, including cosmetics, clothing, food packaging, and industrial processes. The inaugural Medical ThinkOut, delved into the field of Microplastics and how it is affecting our health, directly or indirectly and what kind of technology is being developed to help with the adverse effects. Prof Shane Snyder, Professor of Civil & Environmental Engineering and is the Executive Director of the Nanyang Environment & Water Research Institute (NEWRI) provided key insights into the technological aspects of controlling the influx of pollutants into the environment, while Prof Sunny Wong, clinician-scientist and an Associate Professor at the Lee Kong Chian School of Medicine (LKCM), NTU, highlighted the medical impacts of microplastics on human health. The session was moderated by Prof Lim Kah Leong, Professor and Vice Dean (Research) and President's Chair in Translational Neuroscience at LKCM, NTU and Prof Vanessa Evers, Professor of Computer Science at NTU and the Director of NISTH. The audience were keen to understand how they could get involved in awareness and control measures, to tackle the spread of microplastics into our daily lives.



NISTH Distinguished Lecture: Four Internets: Data, Geopolitics, & the Governance of Cyberspace - 31 October 2022



The poster features the logos of Nanyang Technological University Singapore and NTU Institute of Science and Technology for Humanity at the top left. The title 'Four Internets: Data, Geopolitics, & the Governance of Cyberspace' is prominently displayed in the center. Below the title, the speaker's name 'Dame Wendy HALL' is listed, followed by her titles: 'Regius Professor of Computer Science, Associate Vice President (International Engagement) & Executive Director of the Web Science Institute, University of Southampton'. A portrait of Dame Wendy Hall is on the right. At the bottom, the date and time '31 October 2022 | 3.30pm – 5.00pm' and the location 'LT13 – NS2-04-11' are provided.

There is no doubt that the world is very dependent on the Internet these days. If it wasn't obvious before, we certainly realised our dependency during the Covid-19 pandemic. Also, when the whole world piled onto the Internet in order to do anything during the lockdowns, it stayed up and running which is a huge testament to the foresight of the Internet pioneers in terms of its design and in built resilience and scalability. But the Internet has never been under such threat and it's whole future as a globally interconnected system is in much doubt for many different reasons. Dame Wendy HALL, explored the future of the Internet through the perspective of geopolitics and data governance. She argued that through this lens we see at least four internets, maybe more, rather than just one interconnected ecosystem. She shared insights into what aspects of the governance of cyberspace we must protect the most in order for us to continue to use the technical infrastructure of the Internet that we all rely on to support cloud and data services. The talk was followed by a short dialogue session, moderated by NISTH Fellow, Assoc Prof YeeFen LIM, Hannah. Prof Lim is an internationally recognised legal expert in Technology & Internet law including the policy and regulation of AI and blockchain, Intellectual Property Law, Data Protection and Privacy Law and E-commerce law. The discussion after was very informative and well received by the audience.



Dame Wendy Hall (center) with Hanbin Zheng (first from left), UK Science and Innovation Network British High Commission, Singapore, Prof Hannah Lim (third from left) and the NISTH team.

NISTH ThinkOut: How Movies shape our Acceptance of Robots

- 16 November 2022



Robots have become an integral part of our lives, interacting with us, directly or indirectly. The pandemic has increased our dependence and acceptance of robots in our daily lives. From bringing us to our tables at restaurants to allowing for touch-free elevator buttons, the robotic technology has made some of our activities seamless and less labor intensive. This ThinkOut, highlighted the role of Robots in society and how popular culture, especially the movies, have played a big role in influencing our perception of robots and the technology behind it. Dr Wong Choon Yue, the founder of MAJU Robotics, a start-up spun off from NTU, shared how the technology involved, has been evolving based on expectations and that when creating a robot if it looks like a human, in physical form then the expectation of it to act and react like one is higher. These expectations are greatly influenced by peoples idea and perception of robots from interactive media. Dr Kevin Chew, on the other hand emphasised that the portrayal of Robots in the movies changes perceptions and at times creates social apprehension. The session was moderated by Asst Prof Andrew Prah, from the Wee Kim Wee School of Communication and Information and Prof Vanessa Evers, Professor of Computer Science and Director of NISTH.



Upcoming Events

February 2023



NISTHThinkOut: Being Future Fit: is Gene Editing the answer?

to discuss the bioethics and ongoing arguments on gene editing

Happy Holidays

from our Team to Yours...