Monamie joined NTU in July 2018, prior to which she was the American Council of Learned Societies’ Postdoctoral Fellow in Global Science and Technology Studies. In June, she will be moving to Denmark to join the Technical University of Denmark (DTU). In the three years here, Monamie has contributed significantly to NTU STS as well as more broadly to Singapore’s sewage-based surveillance for rapid outbreak detection and intervention, during the pandemic.

In the classroom, Monamie connects all learning to contemporary issues to make it more relevant and interesting for the students. Her mantra, ‘the personal is deeply political’ underlines all her teaching and research. Her personal anecdotes make conversations easy and keep her connected to her students. Being the creative person she is, Monamie dabbles in many hobbies: from making art and painting to origami and sourdough baking. She enjoys the outdoors and is excited to being in the woods and hiking in Denmark. She is also a voracious reader, with science-fiction being her favorite genre. If she weren’t a researcher she would have become a writer! One of the big regrets in her life is not doing her Masters in Fine Arts. Writing creatively is a big outlet for her, especially creative non-fiction.

"The personal is deeply political."

On what she will miss most about NTU and Singapore?

"At NTU I’m really going to miss my colleagues, I’ve formed pretty good and close relationships with my colleagues in History, Sociology, Public Policy and Global Governance. I am going to miss the warm working relationship that I have here. I am sure and I am hopeful that I will also have that in Denmark but I am certainly going to miss that here”.

About Singapore generally I am going to miss the food. I love how I can go to hawker centres and get any kind of cuisine that I want and I think that’s going to be challenge in Denmark. On a more political level, I am going to miss the multiculturalism here. In Denmark one of the things they say is that, ‘we may be in a multiracial society but we are not a multicultural society’. There is an expectation that we all integrate into Danish culture. And that is actually something I appreciate about Singapore – the fact that there is multiculturalism. One can critique about how it’s done, there is a lot of talk right now about racial issues in Singapore but I do think that on the whole this is preferable to integrate into one culture. So I am interested to see how that’s going to play out, in Denmark. But there is a lot of things to look forward to there as well. In short, I am going to miss in Singapore: my friends, the great community here, the food and politics of Singapore in some way."
Monamie specializes in a field called ‘Science and Technology Studies’. It’s a relatively new field that explores social, political and cultural dimensions of anything related to science, technology and knowledge production. Her particular focus in this, has been looking at the energy transitions in low- and middle-income countries. For her dissertation and the book that she is working on now, focuses on investigating anti-nuclear activism in India and the relationship between science and democracy there. During her time in Singapore, she has developed a second focus with the pandemic, which is her interest in surveillance technology. She has also been interested in the acceleration of different kinds of surveillance technologies for contact tracing and other purposes, especially around the implications of data collection and usage.

You draw your research interests from a very unique background: Bachelor of Science in Geology, Bachelor of Arts in English and PhD in Human and Social Dimensions of Science and Technology. What brought you to this confluence of science directions?

I think all my life I have been intellectually omnivorous. I love to read from different disciplines, and I think the boundaries between humanities, natural sciences and social sciences are artificial. So currently, with my research on energy, I look at not only the technical aspects, something gleamed from my geology background, but also the narratives associated with it: what do people value when they think about renewable energy, sustainable energy? How does it actually look like? What is the politics of it? So here with all of the different degrees I have (Humanities, Social Sciences, Natural sciences and Science and Technology Studies) which are extremely interdisciplinary I can really bring them all together in very interesting ways to think about the politics of energy and now of surveillance.

Would you please tell us more about your current research?

So my current research is two-fold: The first project is to look at surveillance technologies and how the foreign migrant purpose-built dormitories in Singapore, that have a lot of low-income South-Asian migrants living there have become a place where surveillance technology is being tested out. A lot of technologies that we see in the rest of Singapore have often been trialled there. It is necessary to understand what this means for migration and immigration policies that are co-evolving alongside surveillance policies. And, fundamentally, what does it mean for smart nation and smart citizenship that Singapore is building.

The second project is related to energy research and understanding of do-gooders (people who want to do well, and right by other people) and social entrepreneurs in how they are building solar technologies and testing them out again in refugee camps. How these people are turned into market actors and what it means in thinking about the renewable transition that we are going to need and to ensure that it’s equitable for everyone involved.

The Smart Nation needs to have room for not only coders and geeks but also drivers, mothers, retirees, teachers, cooks, artists, cleaners and gardeners.

You mentioned that you are moving to Technical University of Denmark (DTU). What are the research directions you are planning to pursue there?

In DTU one of the things that I want to do is to look at the energy integration and refugee integration together. As we’ve seen with the pandemic, equitable infrastructure is extremely important to make sure that everyone can weather all kinds of disturbances in a way that helps people survive and thrive. I want to think about how energy integration is also simultaneously a problem of social integration. This means looking at how refugees are being brought to Denmark and other places that is causing some strive internally and to think about that in terms of the kinds of energy services and the kinds of housing that they are allowed - all of these things are not just social and cultural problems but also technical problems too. So I want to study them as a whole (all together).
How do you draw your inspiration for research?

I think that the personal is deeply political. In every single research question that I investigate I am interested in people who want to do good, to make a difference in the world, because I am someone who wants to make a difference in the world and I am really invested in understanding what motivates them, what the implications of their work are. I really do believe all the choices we make in the kinds of research projects that we are interested in pursuing are simultaneously intellectual, emotional and ethical endeavours. We have to reflect on what we have done, what we are doing personally and ethically. The difference that I want to make in the world and the research projects I choose are not just interesting conceptual puzzles that I want to solve but they are also ways of me working out myself, my role in the world, what kind of difference I make, how do I interact with my interlocutors that are research subjects, people I interview, how do I create better relationships with them and how do I become a scholar who is not just extractive, but also helping them achieve the kinds of goals they want to achieve too. So, I really think that for me inspiration is trying to become a better person through the research that I pursue.

You currently teach the Sociology core class, Contemporary Social Theory, as well as Terraformations: Technology, Culture and Nature in a Globalizing World. Besides, you are also teaching Gender, Race and Technology in 2021. Do you have a special methodology (trick) that keeps your students engaged in the classroom?

Well, we all are looking for those tricks of how to keep students engaged. The tricks that I have or my pedagogy is, that I try to connect everything that they are learning to contemporary problems, to contemporary issues. When I am talking about social theorists who’ve died long time ago, I try to bring that to life through contemporary examples that often means I have to do a lot of research and read papers and get inspiration of what’s going on in the world in order to bring that to the classroom through slides.

The other thing that I do in the classroom is that I tell personal stories, I try to again practice this idea of, ‘the personal is political’ and especially in Race, Gender and Technology, I try to talk about my own experiences of being a woman, a minority woman in Singapore, around science and tech to try to give some depth and rawness to these experiences to my students. So I do talk about myself and I don’t believe in this sort of hierarchy between who a professor is and who a student is. I think I have as much to learn from students. Yes, maybe I know a little bit more, I do have a PhD, but I try to meet them half way all the time and to bring myself into the picture and not think of myself as someone who stands above them in the classroom.

I try to engage the students with a lot of technology. Last year, when I taught Contemporary Social Theory I was really nervous about teaching this through Zoom, because I had over a hundred students. But, what I saw is that over chat, people were really engaged in a way that I didn’t really see in the classroom. People were asking questions; they could be freer under the guise of anonymity and I saw that more women actually were asking questions. And I think that was sort of a useful by-product of the Zoom format that was really hard to create in in-person classroom. Not that I would say in-person classroom should be done away with – absolutely not! I think there is energy that one brings to the classroom but I think that having these kinds of methods where shy students can also ask questions and interact with the professor through programmes like Mentimeter or the Zoom chat are really important.

"Broad based knowledge gives you a larger appreciation for how things are inter-connected and to be kind of transactional about it is probably good in the job market."

What advice would you give to young undergraduates who are about to choose their academic path?

So, that’s a great question for an uncertain time right now. There is a lot of focus on STEM (Science, Technology, Engineering and Mathematics), and that’s great, we certainly do need those fields in our world but there is such an over-emphasis on STEM at the expense of all other things that make us thoughtful, critical and human. That’s the Arts, the Humanities, the Social sciences. STEM is nothing without the kind of orientation, the kind of questions that social scientists and artists and humanity scholars ask about the larger meanings and the cultural shifts that are happening around STEM. So, what I want to tell undergrads is that, don’t be afraid of interdisciplinarity, don’t be afraid of taking subjects that are completely different, don’t be afraid of learning to code which is really important today and as well as reading literature to gain this kind of broad based knowledge gives you a larger appreciation for how things are inter-connected and to be kind of transactional about it is probably good in the job market. You are obviously going to have to focus on particular disciplines but the kind of depth that you can bring by engaging in different kinds of disciplines is really valuable for you personally and also likely in the employment that you seek. So be open to it!

NISTH wishes
Asst Prof Monamie Bhadra Haines
much success at DTU

June 2021
NISTH Colloquy

AI and Ethics: The Key to a Successful Human-AI Relation!
- 14 April 2021

The webinar on ‘AI and Ethics: The Key to a Successful Human-AI Relation’, presented by SGInnovate, Netherlands Innovation Network, Netherlands AI Coalition and NISTH, in support of Deep Tech for Good, touched upon the role of ethics in AI development and deployment, how to assess whether AI tools are hitting the mark and what the most common pitfalls are. It was moderated by Prof Vanessa Evers, (Director, NISTH) and included Prof Peter-Paul Verbeek, (Distinguished Professor of Philosophy of Technology and Co- Director of the DesignLab, University of Twente and Global Partnership on Artificial Intelligence (GPAI) Expert), Dr Chong Yoke Sin, (Managing Partner, iGlobe Partners and Chairperson, AI Ethics & Governance Steering Committee of Singapore), Dr David Hardoon, (Senior Advisor for Data and Artificial Intelligence, UnionBank Philippines) and Mr Marcus Bartley Johns, (Asia Regional Director, Government Affairs and Public Policy, Microsoft).

Watch it: HERE

Smart Citizenship in and beyond Singapore - 12 May 2021

The panel on ‘Data Privacy, Security and Collaboration’, was part of the Smart Citizenship in and beyond Singapore, event organised by the Singapore Research Nexus from the NUS Faculty of Arts and Social Sciences.

The panel was chaired by Asst Prof Ozan Kuru, NUS Communications & New Media (NCNM). The panellists included Assoc Prof Hallam Stevens, NTU History and NISTH Associate Director, Asst Prof Kokil Jaidka, NCNM and Senior Lecturer Natalie Pang, NCNM. Their discussion covered data privacy concerns among university students, its purpose and emerging notions of citizenry (citizen in a smart city) and of people being ‘denizens of the data-fied city’. The audience posed questions on facial recognition and PDPA. The conversation was light hearted yet informative.

Watch the full event at: https://www.youtube.com/watch?v=6VxtJWkgsTI

June 2021
WKWSCI Seminar: Tensions in the Adoption of AI - 14 June 2021

The Wee Kim Wee School of Communication and Information (WKWSCI) Seminar was presented by WKWSCI’s Social + Mobile Media (SAM) Research Cluster & the Asian Communication Research Center (ACRC). The ACRC is a new initiative of WKWSCI, co-directed by Gerard Goggin and Vivian Chen. It featured Prof Rich Ling, a Shaw Foundation Professor of Media Technology. He was joined by Prof Leopoldina Fortunati, Professor of Sociology of Communication and Culture at the University of Udine and Prof Vanessa Evers, Professor of Socially Intelligent Systems and the Director of NISTH. The discussion gave fascinating insights into human vs mechanical and rationalisation vs social cohesion.

Upcoming NISTH Event

NISTH ThinkOut: Citizen Participation for Smart City Governance - 5 July 2021

Governments base many of their decisions on scientific advice and scientific research. This does not always result in an adequate representation of the concerns of citizens, as the protests against COVID-19 policies in some countries have shown. To engage citizens more explicitly in policy-making, therefore, citizen science could play an important role. This ‘bottom up’ type of research, in which citizens are actively involved in scientific research, makes sure that citizens are not only represented in the politicians they elect, but also in the research on which politicians base their decisions. This panel will investigate how citizen science and policy-making could come together. How to develop such ecosystems? What are conditions and enablers? And how to learn from inter-cultural differences?

This debate is jointly organised by NISTH and the DesignLab from the University of Twente (UT), Netherlands. Two UT experts Prof Peter-Paul Verbeek and Dr Sabine E. Wildevuur, will share the stage with Dr Natalie Pang and Assoc Prof Hallam Stevens. Prof Verbeek and Dr Wildevuur will bring the Netherlands perspective while Dr Pang and Prof Stevens share their views from the Singapore standpoint. The panel will be moderated by NISTH Director, Prof Vanessa Evers.

The Panellists:

Peter-Paul Verbeek
Distinguished Professor,
University of Twente

Sabine E. Wildevuur
Director, DesignLab,
University of Twente

Natalie Pang
Senior Lecturer,
NUS

Hallam Stevens
Associate Professor,
NTU Singapore

Vanessa Evers
Professor,
NTU Singapore

The Moderator:

To get more details on the event and registration, visit: https://blogs.ntu.edu.sg/nisth/2021/06/15/citizen-science/
The 5th ACE Call was a special thematic call funded by both the Alliance to End Plastic Waste (AEPW) and NTU that aims to promote interdisciplinary collaborations among faculty at NTU schools and colleges to catalyse bold and unconventional research in the widespread challenge of eradicating global plastic waste in the environment.

As the projects share similar bearing as the thematic clusters in NISTH (NTU Institute of Science and Technology for Humanity) and therefore will benefit by being embedded within NISTH. Embedding this ACE project within NISTH will facilitate vibrant interdisciplinary networking as well as further develop this important area.

The ACE project funding is intended to seed innovative and interdisciplinary ideas that will lead to competitive proposals. After due evaluation by all the AEPW and NTU, the following proposals were selected to be funded:

1. **Engineering Solutions Inspired by Plastics-eating Worms to End Plastic Waste**  
   *Research Team:*  
   Cao Bin (CEE) - PI  
   Liang Zhao-Xun (SBS) - Co-PI  
   Chen Ming-Hsu (SCBE) - Co-PI  
   She Qianhong (CEE) - Co-PI

2. **From Unsorted Plastic Waste to Value-Added Products**  
   *Research Team:*  
   Li Hong (MAE) - PI  
   Yan Zhou (NEWRI) - Co-PI  
   Yulan Wang (LKCMed) - Co-PI  
   Ovi Lian Ding (ERI@N) - Co-PI

3. **Developing a Public-Private Partnership by Crowdfunding to Create Sustainable Plastics Upcycling Technologies**  
   *Research Team:*  
   Soo Han Sen (SPMS) - PI  
   Chang Xin (NBS) - Co-PI  
   Md Saidul Islam (SSS) - Co-PI  
   Quah Teong Ewe (SSS) - Co-PI

4. **Deep sea degradation of polymer-packaging litter – a new way to assess new materials**  
   *Research Team:*  
   Janelle Thompson (ASE) - PI  
   Fei Xunchang (CEE) - Co-PI  
   Jamie Hinks (SCELSE) - Co-PI

   *Research Team:*  
   Shirley Ho (WKWSCI) - PI  
   Benjamin Li Junting (WKWSCI) - Co-PI  
   Grzegorz Lisak (CEE) - Co-PI  
   Shanti Divaharan (NIE) - Co-PI

The grant funding will include but is not limited to:
- Developing, deploying and evaluating a novel technology-based intervention;
- Studying the impact of a technology in a particular domain;

Applications were considered for funding in the range of $10,000 to $50,000 over a period of 1 year, or for longitudinal studies, 2 years. More information on the details of the project proposals can be found on the NISTH website at:  
**AI for Social Good Research Grant** is co-funded by Artificial Intelligence Research Institute (AI.R) and NTU Institute of Science and Technology for Humanity (NISTH) at Nanyang Technological University. It seeks interdisciplinary teams to work on AI applied for “social good”. This could include novel applications of AI tools to new domains of humanitarian or social importance, the investigations that promote the ethical, fair, accountable, or responsible, or research that aims to better understand how AI systems may be regulated, governed, or deployed in “socially responsible” ways.

The applications were evaluated on Impact, Feasibility, Interdisciplinarity and Social Value. After rigorous evaluation the following proposals were awarded:

1. **Study to engender safe and socially responsible use of antibiotics through ethical uptake of AI**
   *Research Team:*
   - Hannah YeeFen Lim (NBS) - PI
   - Shirley Sun (SSS) - Co-PI
   - Angela CHOW Li Ping (LKCMed) - Co-PI

2. **Public Trust in Artificial Intelligence and Its Macro-Societal Impacts**
   *Research Team:*
   - Poong Oh (WKWSCI) - PI
   - Dino Accoto (MAE) - Co-PI
   - Younbo Jung (WKWSCI) - Co-PI

3. **AI Technologies in Autonomous Vehicles: Investigating Perceptions of the Elderly, the Disabled and Parents of Young Children in Singapore**
   *Research Team:*
   - Shirley Ho Soo Yee (WKWSCI) - PI
   - Niels de Boer (ERI@N) - Co-PI

4. **Investigating perceptions of biased AI and biased humans when collaborating to address social dilemmas**
   *Research Team:*
   - Andrew Prahl (WKWSCI) - PI
   - Zinovi Rabinovich (SCSE) - Co-PI

5. **Mapping Artificial Intelligence Practices in Educational Setting through Federated Learning Application: An Interdisciplinary Multifaceted Project**
   *Research Team:*
   - Ibrahim Halil Yeter (NIE) - PI
   - Dusit (Tao) Niyato (SCSE) - Co-PI

   *Research Team:*
   - Nu Ri Kim (WKWSCI) - PI
   - Svetlana Obraztsova (SCSE) - Co-PI
   - Poong Oh (WKWSCI) - Co-PI
   - Zinovi Rabinovich (SCSE) - Co-PI

More information on the details of the proposals can be found the NISTH webpage:
https://www.ntu.edu.sg/nisth/the-nisth-story/research-projects/ai-r-nisth-ai-for-social-good-research-grant
HAPPENINGS: Get Involved!

NISTH Think Out: 5 July 2021
Citizen Participation & Smart City Governance

This debate is jointly organised by NISTH and the DesignLab, University of Twente (UT), Netherlands. Two UT experts Prof Peter-Paul Verbeek and Dr Sabine E. Wildevuur, will share the stage with Dr Natalie Pang and Assoc Prof Hallam Stevens. Prof Verbeek and Dr Wildevuur will bring the Netherlands perspective while Dr Pang and Assoc Prof Stevens will share their views from the Singapore standpoint.

Register at: https://blogs.ntu.edu.sg/nisth/2021/06/15/citizen-science/

Falling Walls 2021 - 10 September 2021
Deadline for applications: 25 July 2021

The Falling Walls Lab Singapore is hosted and co-organised by Nanyang Technological University (NTU) and National University of Singapore (NUS) and supported by the Embassy of Germany, Singapore, DAAD and EURAXESS. It is a platform to pitch innovative ideas in just 3 minutes, showcasing breakthrough that creates a positive impact on science and society. Open to all students, entrepreneurs, early-career researchers & academics of all disciplines.

More info at: www.falling-walls.com/lab/apply/singapore

AI.R-NISTH AI for Social Good Grant Call Outcome

This grant received more than 35 applications and proposals. The 6 teams that were awarded funding based on Impact, Feasibility, Interdisciplinarity and Social Value. To get more details on the awarded projects, the team, their proposals and the future application, can be found on the website at:

https://www.ntu.edu.sg/nisth/the-nisth-story/research-projects/ai.r-nisth-ai-for-social-good-research-grant

NISTH Social Media

Each week NISTH Social Media focuses on an interdisciplinary topic that our Fellows are working in. We showcase the topic, the relevant fellows, their publications and any latest finding in the topic area. Recent topics have been: Robotics, Techno-ethics, Artificial Intelligence, EdTech, AgriTech and Food Science, Blue Economy, Water Research and Smart Cities. We also highlight the achievements of our Fellows and key finding in interdisciplinary research done at NTU. Follow us to keep in the know!