NEW HORIZONS
School of Social Sciences

The Social Sciences and Industry 4.0

• NEWS
  - Our new faculty and achievements
  - SSS Convocation 2018
  - Shining the spotlight on inequality in Singapore

• PEOPLE
  - Taking on the mantle of Dean of CoHASS
  - Science at the heart of it all
  - Bridging interdisciplinarity with STS
  - When passion and work come together

• PUBLICATIONS
  - Books
  - Book Chapters
  - Journal Articles
3 Chair’s Message

NEWS
4 Our new faculty and achievements
4 Asst Prof Andy Ho receives ADEC academic educator award
4 Assoc Prof Md Saidul Islam receives Outstanding Scientist Award
5 Pursue not just success but also significance: SSS Convocation 2018
5 Shining the spotlight on inequality in Singapore
6 Assoc Prof Kamaludeen Nasir on hip-hop Islam
6 Regional cooperation of East Asia in the era of the Fourth Industrial Revolution: EAUI Summer School 2018

FEATURE
7 Futuertalks: A conference in the Arctic
7 Psychology postgrad student bags internship at BSI
7 Psychology undergrad presents at APA Convention 2018
8 4th annual BrainSTIM held in Singapore
8 “What are eye blinks good for” symposium in Europe
9 NTU Behavioural and Experimental Economics workshop

RESEARCH GRANTS
14 MOE academic research grant awards
14 External grants

PEOPLE
15 Taking on the mantle of Dean of CoHASS
16 Science at the heart of it all
16 Bridging interdisciplinarity with Science, Technology and Society
17 When passion and work come together

PUBLICATIONS
18 Books
19 Book Chapters
19 Journal Articles

SCHOOL MANAGEMENT COMMITTEE

Chair
Prof Liu Hong
Assoc Prof Yohanes Eko Riyanto

Associate Chair, Academic / Acting Head, Public Policy and Global Affairs
Assoc Prof Ringo Ho
Assoc Prof James Ang
Assoc Prof Wan Ching Catherine
Dr Tan Joo Ean
Prof Euston Quah
Assoc Prof Joyce Pang Shu Min
Assoc Prof Teo You Yenn

EDITORIAL TEAM

Advisor
Dr Tan Joo Ean

Editor
Ms Lissa Johari

Members
Ms Christina Teu, Ms Janice Goh

Contributors
Ms Assel Mussagulova, Ms Violet Koh,
Mr Muhammad Haziq bin Mohd Rashid,
Mr Ice Asher Chew, Ms Nur Atiqah Binte Azhari

Contact Us
School of Social Sciences
Nanyang Technological University
48 Nanyang Avenue Singapore 639818
www.sss.ntu.edu.sg

ntusocialsciences ntu_sss
Dear Colleagues, Students, Alumni and Friends,

Welcome to the second issue of NEW HORIZONS. For the past few months we have witnessed several exciting developments in NTU and the School of Social Sciences (SSS).

In his speech at University Town Hall in August, NTU President Subra Suresh announced specific plans and “moonshot” projects over the next five years. One of these projects include targets and pathways focused on attracting top talent—faculty, postdoctoral fellows, staff—and students to the University. In line with President Suresh’s vision, we are delighted to welcome several new SSS faculty members who have joined us over the last few months. They are experts in their respective fields with strong professional and academic credentials, one of them is a recipient of the prestigious Nanyang Assistant Professorship (NAP) scheme. We would like to extend a warm welcome to Professor Joseph Liow, the new Dean of the College of Humanities, Arts, and Social Sciences, who is also an internationally renowned scholar of international relations and comparative politics. In this issue, we feature an interview with Professor Liow.

Professor Suresh also announced the launch of the Accelerating Creativity and Excellence (ACE) Programme to encourage greater interdisciplinary collaboration among the various schools and colleges in NTU. SSS has much to contribute to interdisciplinary research and education. Interdisciplinary research and education is crucial in solving the complex problem to the 21st century. This also drives our mission to ensure our students are equipped to face challenges in today’s changing landscape and to establish the new minor, Science, Technology and Society (STS), offered under College of Humanities, Arts, and Social Sciences. STS will give our students greater insights into the intellectual bridge between the social sciences, natural science and engineering, and encourage them to think deeply about the complex relationship between society and technology.

As we stand at the cusp of technological innovations, it is befitting that the feature article in this issue looks at the Fourth Industrial Revolution from the social sciences perspective. Technological advances have the power to be agents for good, but can also be manipulated for undesirable purposes. We are heartened that the social sciences are an integral part of the discussion in the development and application of new technologies, evidenced by the setting-up the NTU Institute of Science and Technology for Humanity (NISTH) earlier this year.

Thank you for your continued support, and I hope you will enjoy this issue of NEW HORIZONS!
A warm welcome to our new faculty to the School of Social Sciences, and our heartfelt congratulations to the faculty and staff for their outstanding contributions to the School!

NEW FACULTY

<table>
<thead>
<tr>
<th>Economics</th>
<th>Psychology</th>
<th>Public Policy and Global Affairs</th>
<th>Sociology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asst Prof Wang Wenjie</td>
<td>Asst Prof Victoria Leong</td>
<td>Asst Prof Nilay Saiya</td>
<td>Asst Prof Jung Hong Hyun</td>
</tr>
<tr>
<td>Assoc Prof Jonathan Tan</td>
<td>Assoc Prof Chin Hong</td>
<td>Asst Prof Azusa Katagiri</td>
<td>Nanyang Asst Prof Ian McGonigle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asst Prof Walid Jumblatt Abdullah</td>
<td>Asst Prof Monamie Bhadra Haines</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asst Prof Lee Hyo Jung</td>
</tr>
</tbody>
</table>

FACULTY TENURE AND PROMOTIONS

Faculty Granted Tenure
- Economics
  Assoc Prof James Ang

Promotion to Associate Professor with Tenure
- Public Policy and Global Affairs
  Assoc Prof Chen Chung-An

FACULTY AWARDS

Nanyang Education Award (University)
- Silver, Sociology
  Assoc Prof Patrick Williams

Nanyang Education Award (School)
- Public Policy and Global Affairs
  Assoc Prof Kei Koga

Nanyang Award – Research (Young Investigator)
- Psychology
  Asst Prof Suzy Styles

MANAGEMENT AND SUPPORT OFFICERS (MSO) AWARDS 2018

Best Customer Service
Ms Ma Jiaying

Best Leadership Award
Ms Ng Yanjia

Best Teamwork Award
- Faculty Affairs / HR Team
  Ms Constance Yong and Ms Chelsea Yeo

MSO PROMOTIONS

Assistant Manager
Ms Janice Goh

Senior Assistant Manager
Ms Ng Yanjia

ASST PROF ANDY HO RECEIVES ADEC ACADEMIC EDUCATOR AWARD

Assistant Professor Andy Ho from Psychology was conferred the Academic Educator Award from the Association for Death Education and Counseling (ADEC) at the 40th Annual Conference of the Association for Death and Counseling in April 2018. He is the first Asian recipient of this prestigious award, which is given to individuals who possess expertise in the field of dying, death and other bereavement.

Awardees of this award must also have Excellence in Academic Teaching in Thanatology as demonstrated by judgement of peers, development of teaching materials, new courses and student evaluations; Scholarly Abilities as demonstrated by publication records and membership on editorial boards of academic and professional journals; as well as Continuing Growth as demonstrated by keeping abreast of changes and being at the cutting edge of developing ideas for the field.

ASSOC PROF MD SAIDUL ISLAM RECEIVES OUTSTANDING SCIENTIST AWARD

Dr Md Saidul Islam, Associate Professor of Sociology, received the Outstanding Scientist Award 2017 (for Publication Excellence) from the i-Proclaim, Malaysia. The Award was given on 31 December 2017 in the i-Proclaim’s annual meeting held in the Mini Auditorium, International Islamic University Malaysia (IIUM), Kuala Lumpur.

The i-Proclaim Annual Research Awards (ARA) is “a prestigious Research Awards program organized by ABC Malaysia [that] seeks to recognize and reward the outstanding performance, talent and effort of the best research contributors, PhD holders and agencies dealt with research and publication in the Asia and global context.”

He’s currently working on, among other projects, “Climate change and food security in the Asia-Pacific: Response and Resilience”, a tier-1 project supported by a financial grant from the Ministry of Education, Singapore.
The convocation ceremony is one of the biggest milestones in an NTU student’s life. For the 412 graduates of the School of Social Sciences, it was a day of celebration as it marked the end of one journey, and the start of another in their young lives.

Mr Desmond Lee, Minister for Social and Family Development (MSF), graced the event as the guest speaker for SSS’ convocation ceremony. In his speech, he outlined MSF’s initiatives to boost coordination and data-sharing between the ministry and agencies in the social service sector in order to help needy families more effectively. He shared that while government spending in the social services has more than doubled over the years, stronger integrated communities of care was also critical to better assist families and individuals in crisis. He further emphasized the important roles local communities and neighbours play in providing support to such vulnerable groups of people.

Nonetheless, Mr Lee, said he was heartened that some SSS graduates have made volunteering a way of life. He commended Sociology graduate, Mr Jonathan Ang, for his voluntary work in youth and disability sectors, and hoped that more graduates will join as community partners to support voluntary organisations and agencies.

Similarly, SSS valedictorian and Economics graduate, Ms Jodyn Lim, called upon her peers to harness their “unique skills and talents to engage in good work and pursue not just success, but also significance.” As she and her peers now faced a new phase of challenges in “adulting”, they should keep their “faces towards the sunshine” and use life’s lessons to help themselves grow and mature.

In an interview with Ethos Books, she said: “Ultimately the book also poses this question: what can we do about our current state of inequality? I have some answers—about thinking through policy principles, about looking to empirical data, about asking the right questions, about getting over our biases and blindspots, about setting goals for ourselves to do better.”

Associate Professor Teo also contributes commentaries on the issue of inequality in Singapore to local newspaper, The Straits Times, as an extension of her book. This Is What Inequality Looks Like and articles are also often mentioned or referred to by other commentators on the subject.

This Is What Inequality Looks Like has been on the non-fiction weekly bestseller list of Books Kinokuniya since January this year, and is currently the Number One Bestseller. It has sold 13,000 copies in seven months.


ASSOCIATE PROFESSOR TEO YOU YENN’S LATEST PUBLICATION, THIS IS WHAT INEQUALITY LOOKS LIKE, HAS GENERATED MUCH DISCUSSION AMONG POLITICAL LEADERS, ACADEMICS AND THE GENERAL PUBLIC IN SINGAPORE.

The book, which is a series of essays, looks at inequality in Singapore. The idea of the book came about in 2013, from research Associate Professor Teo began as what she thought of as “experiences of low-income persons in Singapore”. In the book, she peeks into the systems of Singapore’s education, labour, care and welfare, and demonstrates how class inequalities are entrenched in them. She further illustrates how within these systems, some people have more options than others. The essays have been arranged to be read as a totality and in sequence.

In an interview with Ethos Books, she said: "Ultimately the book also poses this question: what can we do about our current state of inequality? I have some answers—about thinking through policy principles, about looking to empirical data, about asking the right questions, about getting over our biases and blindspots, about setting goals for ourselves to do better."

Associate Professor Teo also contributes commentaries on the issue of inequality in Singapore to local newspaper, The Straits Times, as an extension of her book. This Is What Inequality Looks Like and articles are also often mentioned or referred to by other commentators on the subject.

This Is What Inequality Looks Like has been on the non-fiction weekly bestseller list of Books Kinokuniya since January this year, and is currently the Number One Bestseller. It has sold 13,000 copies in seven months.

Pursue Not Just Success But Also Significance:

SSS Convocation 2018

Mr. Desmond Lee, Minister of Social and Family Development (MSF), graced the event as the guest speaker for SSS’ convocation ceremony. In his speech, he outlined MSF’s initiatives to boost coordination and data-sharing between the ministry and agencies in the social service sector in order to help needy families more effectively. He shared that while government spending in the social services has more than doubled over the years, stronger integrated communities of care was also critical to better assist families and individuals in crisis. He further emphasized the important roles local communities and neighbours play in providing support to such vulnerable groups of people.

Nonetheless, Mr Lee said he was heartened that some SSS graduates have made volunteering a way of life. He commended Sociology graduate, Mr. Jonathan Ang, for his voluntary work in youth and disability sectors, and hoped that more graduates will join as community partners to support voluntary organizations and agencies.

Similarly, SSS valedictorian and Economics graduate, Ms. Jodyn Lim, called upon her peers to harness their “unique skills and talents to engage in good work and pursue not just success, but also significance.” As she and her peers now faced a new phase of challenges in “adulting”, they should keep their “faces towards the sunshine” and use life’s lessons to help themselves grow and mature.

In an interview with Ethos Books, she said: “Ultimately the book also poses this question: what can we do about our current state of inequality? I have some answers—about thinking through policy principles, about looking to empirical data, about asking the right questions, about getting over our biases and blindspots, about setting goals for ourselves to do better.”

Associate Professor Teo also contributes commentaries on the issue of inequality in Singapore to local newspaper, The Straits Times, as an extension of her book. This Is What Inequality Looks Like and articles are also often mentioned or referred to by other commentators on the subject.

This Is What Inequality Looks Like has been on the non-fiction weekly bestseller list of Books Kinokuniya since January this year, and is currently the Number One Bestseller. It has sold 13,000 copies in seven months.
ASSOC PROF KAMALUDEEN NASIR ON HIP-HOP ISLAM

Associate Professor Kamaludeen Nasir from Sociology went on a three-month Fulbright stint at University of California, Los Angeles (UCLA) earlier this year. He was awarded the Singapore Fulbright Research Award in 2017.

Associate Professor Kamaludeen was at UCLA from 5 February to 30 April, and during his time there he gave a few lectures on hip-hop and perceptions of the United States overseas. He also participated in dialogues at RAND Corporation, an American non-profit global policy think tank. In addition, he engaged in conversations with the local community for Black Awareness Month and took the opportunity to visit homeless shelters as well as volunteered as a family at a food bank.

A highlight of his stint was being invited to give a lecture at Georgetown University in Washington. He gave a talk called Hip-Hop Islam: Commodification, Cooption and Confrontation in Southeast Asia, which is based on his upcoming book—it is currently under contract with Indiana University Press. The article on his lecture will be published in the Journal of Religious and Political Practice in October 2018. His lecture examines the evolution of hip-hop culture in Southeast Asia, especially among young Muslims in Indonesia, Malaysia and Singapore.

REGIONAL COOPERATION OF EAST ASIA IN THE ERA OF THE FOURTH INDUSTRIAL REVOLUTION: EAUI SUMMER SCHOOL 2018

This year’s East Asian University Institute (EAUI) Summer School took place at Korea University in Seoul from 30 July to 4 August. More than 40 participants from five partner universities, including NTU, attended the lectures, presentations and a one-day symposium on the theme of “Regional Cooperation of East Asia in the Era of the Fourth Industrial Revolution”.

Lectures conducted by the faculty from the participating universities covered some aspects, which will be important for effective regional cooperation in East Asia in the wake of the Fourth Industrial Revolution. Students were also given an opportunity to present their perspectives on regional cooperation in East Asia across a number of topics in the form of group presentations that has further contributed to forging friendships and professional networks between the five partner universities. In the international symposium, leading scholars from the five partner universities presented research in their respective fields and implications of the Fourth Industrial Revolution covering a range of issues such as migration, technology, disaster risk management, human rights and others.

The EAUI Program is a joint education programme run by Korea University, Nanyang Technological University, Thammasat University, Peking University, and Waseda University. The next summer school will be hosted by Waseda University in Japan.
FUTURETALKS: A CONFERENCE IN THE ARCTIC

Sociology undergraduate Mr Muhammad Haziq bin Mohd Rashid was invited to be part of the 100 founding members of Futuretalks, a conference/expedition in the Arctic. Futuretalks was started in 2017 by Silje Vallesstad and Camelia H Sørli.

The conference/expedition was from 24 to 28 August and held in Svalbard onboard a veteran ship with no WiFi or cellular coverage, allowing for deep discussions. The topic for discussion revolved around building an empathetic society, with 15 core questions that were deliberated regarding ethics, sustainability, and the future.

Building an empathetic society also involved developing empathy with nature—climate change had inevitably been one of the main topics discussed at the conference/expedition. Mr Muhammad, a Year3 student, observed the tangible effects of climate change firsthand at the Arctic as the ship brought the delegates deep into the Monaco glacier. “It was possible this time only because the glaciers have retreated 4km inwards within just a year,” he shared.

PSYCHOLOGY POSTGRAD STUDENT BAGS INTERNSHIP AT BSI

Postgraduate student Ms Nur Atiqah Binte Azhari was selected for a scholarship to attend an internship programme at the prestigious RIKEN Brain Science Institute (BSI) in Tokyo, Japan. The BSI Summer Programme is a highly competitive course that accepts around 45 international students each year. Students will have the opportunity to collaborate with renowned scientists on specialized topics in the neuroscience field. The internship was from June to August 2018.

Ms Nur Atiqah, whose research supervisor is Assistant Professor Gianluca Esposito—an alumnus of the RIKEN BSI programme— is the first NTU student to be accepted into the programme. She will be working under the tutelage of Dr Kumi Kuroda, Team Lead of the Institute. The research project Ms Nur Atiqah has proposed is entitled, ‘Uncovering the Core Behavioural and Physiological Events Contributing to Positive Mother-Infant Dyadic Interactions.’

“During the summer internship in RIKEN-Japan, I plan on learning and conducting extensive statistical analysis of these processed data and the results produced will be discussed in reference to the marmoset version of the BSR (Brief Separation and Reunion), to elucidate the similarities and differences between human and non-human primate mother-infant interactions,” said Ms Nur Atiqah.

PSYCHOLOGY UNDERGRAD PRESENTS AT APA CONVENTION 2018

Year 3 Psychology undergraduate Mr Ice Asher Chew bagged an opportunity to present at the American Psychological Association Annual Convention 2018 (APA 2018) together with his mentor, Dr Eunae Cho, Assistant Professor in School of Social Sciences’ Psychology programme. The conference was held in San Francisco from 9 to 12 August.

Mr Chew, who is also a Nanyang President Research Scholar, presented research he worked with Assistant Professor Cho, which is about work-life interface among self-initiated expatriates (SIEs). The aim of their study was to advance their understanding of work-life issues among SIEs, a growing but understudied population. Mr Chew discussed how SIEs resemble the more well-known company assigned expatriates as foreign professionals yet in many ways resemble a local (e.g. holding domestic contracts). He was presented with an ‘Honorable Mention: Region of Asia’ award for his poster presentation under the International Psychology division—an applied field which focuses on the worldwide investigations of global issues and phenomena from a psychological point of view.

Mr Ice Asher Chew (left) receiving an ‘Honorable Mention’ for his poster presentation.
The fourth annual Brain Stimulation and Imaging Meeting (BrainSTIM) was held at Lee Kong Chian School of Medicine (LKCMedicine) from 15 to 16 June 2018. BrainSTIM is an official satellite meeting of the Organization for Human Brain Mapping, highlighting research focusing on the combination of brain imaging and neurostimulation. Professor Vincent Clark from University of New Mexico and Professor Annabel Chen from NTU’s psychology programme served as the conference chair and conference co-chair respectively.

Nanyang Assistant Professor Gerrit Maus from Psychology recently organised a symposium as part of the 41st European Conference on Visual Perception (ECVP). Held from 26 to 30 August in Trieste, Italy, the symposium – “What are eye blinks good for? Perceptual, oculomotor, and cognitive effects of eye blinks” – included five speakers from France, Israel, Japan, Singapore, and the United States.

The symposium focused on the consequences of blinks for neural processing, perception, eye movements, and higher cognitive processes. Each contribution in the symposium also presented recent findings on the functions and consequences of eye blinks.

The symposium featured research findings by Dr Tai Goran from University of New York, Dr Yoram Bonneh from Bar-Ilan University, Israel; Marianne Duyck, Thérèse Collins and Mark Wexler from Université Paris Descartes France; and Associate Professor Tamami Nakano from Osaka University, Japan.

Assistant Professor Maus also presented his own research, “Blinks reset gaze control and attention”. According to the abstract of his paper, blinks completely disrupt the stream of inputs from the retina and introduce instabilities in gaze direction. However, perception remains continuous throughout spontaneous blinks. To help maintain stability, blink-related eye movements anticipate and correct for cumulative gaze position errors across blinks.

His research showed some behavioural evidence that blinks may cause an attentional reset. In rapid serial visual presentation tasks that require identification of a target in a rapid stream of distractors, it was also found a boost in identification performance time-locked to the last blink.
The Economic Growth Centre (EGC), School of Social Sciences’ research cluster for Economics, organized the ‘NTU Behavioural and Experimental Economics Workshop’. The workshop, which took place from 16 August to 17 August, presented the latest research on Behavioural and Experimental Economics while promoting the research in this field.

The programme consisted of five sessions, a keynote lecture, welcome remarks by Associate Professor Yohanes Eko Riyanto—Associate Chair (Academic) of School of Social Sciences, and closing remarks by Associate Professor James Ang on behalf of the EGC. Presenters included professors from NTU, National University of Singapore (NUS) and other top institutions in Asia Pacific such as University of Melbourne, University of New South Wales, University of Technology Sydney, City University of Hong Kong and Sun Yat-Sen University. Among the participants of the workshop were doctoral students in Economics as well as faculty members from Nanyang Business School (NBS) of NTU Singapore, NUS, and Singapore University of Technology and Design (SUTD).

Professor Peter Bossaerts from University of Melbourne gave the keynote lecture on “Asset Pricing under Computational Complexity”. He is one of the pioneers and founders in the field of experimental finance and neuroeconomics.

The first session, themed Bounded Rationality and Market Behaviour, was chaired by Dr Nilanjan Roy, Assistant Professor in Economics and Finance from City University of Hong Kong. It featured three talks: “Planar Beauty Contest” by Professor Valentyn Panchenko, from University of New South Wales; “Rebate Schemes and the Sunk Cost Fallacy: A Field Experiment” by Dr Zhang Xing from ETH Zürich; and “Consumption Smoothing and Asset Prices: An Experiment” by Dr Roy.

The next session, Decision Theory I, was chaired by Assistant Professor Yan Juby from NTU’s Economics programme. Assistant Professor Georgios Christopoulos from NBS gave a talk entitled “The importance of context: the impact of culture and physical environment on decision making”. This was followed by NTU Economics’ Assistant Professor He Taissen’s talk, “Pronoun use and loss aversion: Experimental Evidence” and Assistant Professor Yan’s: “Risk Aversion: The Need for Behavioral Explanations”.

Chaired by Dr Edward Halim from NTU Economics, the third session, Market Experiments I, had two talks. “The Value of Real Estate is Not Real: Home Value Misestimation and Consumption among Chinese Urban Households” was presented by Professor Liang Pinghan from Sun Yat-Sen University; and “CEO Incentives and Stock Price Dynamics: An Experimental Approach” by Dr Halim.

Meanwhile, the fourth session, Finance, was chaired by Assistant Professor Bao Te from NTU Economics. It had two talks: “Fee Structure and Mutual Fund Choice: An Experiment” by Professor Mikhail Anufriev from University of Technology Sydney; and “Price Change and Trading Volume: Heterogeneous Beliefs in Stock Market” by graduate student Mr Li Changtai from NTU.

The fifth and final session, Decision Theory II, was chaired by NTU Economics’ Assistant Professor Au Pak Hung and consisted of two talks. Associate Professor Zhong Songfa from NUS presented “Putting Preference for Randomization to Work” while Assistant Professor Au presented his paper on “Bayesian persuasion and reciprocity: Theory and experiment.”
The Fourth Industrial Revolution, or Industry 4.0, is the evolution of new technologies that fuse the physical, digital, biological, and social realms. The previous three industrial revolutions were centred around early automation and intra-national connections in the late 18th century, mass production and productive connectivity of the late 19th century, and the rise of the digital age in the 1960s. What drives the Fourth Industrial Revolution are extreme automation and extreme connectivity as well as breakthroughs in several fields such as blockchain, artificial intelligence, robotics, 3D printing, biotechnology, nanotechnology and the Internet of Things.
The technological innovations of Industry 4.0 are on the verge of spurring significant changes throughout the global economy, bringing about considerable benefits and challenges. Given its novelty, it is hard to predict its long-term consequences. However, we should acknowledge that “technologies shape people, and people shape technologies”1. How we choose to wield technology will affect how they are deployed and developed – this is where the social sciences play a critical role.

As Professor Klaus Schwab, founder and executive chairman of the World Economic Forum says in his book, The Fourth Industrial Revolution: “The Fourth Industrial Revolution, finally, will change not only what we do but also who we are. It will affect our identity and all the issues associated with it: our sense of privacy, our notions of ownership, our consumption patterns, the time we devote to work and leisure, and how we develop our careers, cultivate our skills, meet people, and nurture relationships.”

INDUSTRY 4.0 – CHANGES FOR THE BETTER OR WORSE?

The world seems to get smaller the more connected we become. With smartphone ownership becoming more ubiquitous around the world, Industry 4.0 has led to interconnectedness never imagined before. People are now able to communicate across vast distances; communities are easily formed across borders; and businesses are now operating on a global scale, irrespective of how large they are or where they are based. The lives of billions of people—especially those in developing countries—have improved as they now have better access to education and information. The social media revolution, epitomised by the likes of Facebook, Instagram and Twitter, has not only facilitated mass communication but has also given almost everyone a voice, and close-to instant communication to all parts of the world. According to Statista, the number of smartphone users in 2016 was forecasted to reach 2.1 billion, and is expected to increase to around 2.5 billion in 2019.

The “fusion of technologies” of the fourth industrial revolution, as described by Schwab, has also improved our quality of life. With advances in biotechnology, people now live longer and lead healthier and more fulfilling lives. New technologies have also produced ground-breaking solutions in preserving the planet and extending energy for everyone everywhere. Developments in machines and automation have boosted productivity and transformed the world of work.

But while we laud the benefits new technologies has brought, we should also reflect on how they have the potential to bring about undesirable outcomes. As Industry 4.0 progresses, we can expect relentless risks to digital rights through the interconnectedness of technologies – from data protection, and algorithmic bias to privacy risks. New technologies adopted by media, businesses, humanitarian organisations or governments may reveal lack of standards or guidelines for collecting and using sensitive data.

And even with such technological advances and unsurpassed connectivity, it does not necessarily mean society is more open, diverse and inclusive. New technologies, while they have raised global incomes and quality of life around the world, have also exacerbated inequality. The economic benefits of this industrial revolution are becoming more concentrated among a small group of global citizens. According to Shaping the Fourth Industrial Revolution by Schwab and Nicholas Davis, at least 600 million people live on smallholder farms without access to any mechanization; around 2.4 billion people lack clean drinking water and safe sanitation; and 1.2 billion people have no electricity. And while more than 3 billion people now have access to the Internet, more than 4 billion people still have yet to enjoy the benefits of the digital age from the third industrial revolution. This increasing inequality can further heighten political polarization, aggravate social fragmentation, and worsen public trust in institution.

1From Values, Ethics and Innovation: Rethinking Technological Development in the Fourth Industrial Revolution, World Economic Forum
There is much discourse about education for the future, which is mostly concentrated on STEM (Science, Technology, Engineering and Mathematics) learning. In the face of technological advances, the growing focus on STEM is valid and necessary, but we cannot ignore the importance of education in the social sciences as well. Human society has been rapidly transformed by technology so the human experience in Industry 4.0 should also be investigated and not overlooked.

Technology, by itself, does not determine what is good or bad for humankind—it has no understanding of the human condition. It cannot tell us about the impact of technology on society, or how we are growing increasingly dependent on it and what the outcome would be. It needs human ethics and values to guide its purpose and intent. To belittle or dismiss the social sciences as merely playing a supportive role to STEM would be perilous. The pervasive impact Industry 4.0 has on society should be a clear indication on the central role the social sciences play in the development and application of technology.

“You need equal attention to the social and economic dimensions, the political dimensions, and not just technology.”

– Assistant Professor Monamie Bhadra Haines

The use of technology is not simply a means to solve inconveniences—there are many human-related issues to consider. “You need equal attention to the social and economic...”
dimensions, the political dimensions, and not just technology.” Dr Monamie Bhadra Haines, Assistant Professor from NTU’s School of Social Sciences pointed out. Furthermore, fields of study within the social sciences—like economics, political science, psychology and society—help society to analyse the implications of technological changes while providing insight as to how to wield technology responsibly.

This means that everyone has a stake in Industry 4.0—from the anxious workers who are concerned they would be replaced by machines, consumers who want to buy products that are aligned with their personal and community values, to businesses developing corporate reputations based on values and ethics, and governments defining national strategies to combat fake news to safeguard their respective sovereignty and security.

The complexity of new technologies in the 21st century requires interdisciplinary skills and understanding. To master and survive this new epoch of technology, we need both STEM and the social sciences to ensure a more human-centric approach in meaningful application of new technologies.

**ADAPTING TO AN EVER CHANGING WORLD**

Despite being a university known for its strength in science and technology in education and research, Nanyang Technological University Singapore (NTU) also recognises the critical role the social sciences plays in contributing to the discussion that surrounds new technologies. Intertwining social sciences subjects such as economics, political sciences, psychology and sociology with STEM subjects leads to a richer understanding of Industry 4.0.

Early this year, NTU established the NTU Institute of Science and Technology for Humanity (NISTH), an interdisciplinary centre of excellence that seeks to make sense of how technological advances affect societies, cultures and human behaviour. The Institute aims to establish NTU and Singapore as a centre of excellence in the Science, Technology and Society arena. Through NISTH, NTU’s objective is to take the lead in mobilizing the power of technology for the benefit of society. This requires close collaboration between the arts and science, engineering and medicine, local government and international partnership.

Supplementing the efforts of NISTH is the offering of a new interdisciplinary minor by NTU’s College of Humanities, Arts, and Social Sciences: Science, Technology and Society (STS). This new minor draws on history, sociology, anthropology, philosophy, media and communication studies as well as other fields to introduce undergraduates to ways of thinking about science and technology from a range of social and humanist perspectives.

Two new faculty hires from the School of Social Sciences—each with their unique research specialities—are part of a team of professors supporting this new minor. One of them is Nanyang Assistant Professor Ian McGonigle, whose interests lie in genetic science in the Middle East. “My ongoing project will circle around biology and identity—and those identities include ethnic identity, national identity, racial identity and others,” he shared. Assistant Professor McGonigle has also expressed his interest in getting more involved with the GenomeAsia100k project to “bring a crucial anthological perspective”.

The other faculty member is Assistant Professor Haines, whose current area of research and expertise is the political and cultural implications of energy transitions in the developing world, specifically a variety of contexts in Asia. One reason why she joined NTU was the university’s stance on STS. She added that the “link that the humanities and social sciences are critical for critiquing and improving science and technology is not shared everywhere”.

“To belittle or dismiss the social sciences as merely playing a supportive role to STEM would be perilous. The pervasive impact Industry 4.0 has on society should be a clear indication on the central role the social sciences play in the development and application of technology.”
# RESEARCH GRANTS

## MOE TIER 1 GRANTS

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>Associate Professor Chia Wai Mun</td>
<td>Capital Flows and Instability in Foreign Exchange Market</td>
</tr>
<tr>
<td>Economics</td>
<td>Assistant Professor Kang Minwook</td>
<td>Three ways to overcome present bias under the hyperbolic consumption model</td>
</tr>
<tr>
<td>Psychology</td>
<td>Assistant Professor Charles Or</td>
<td>Understanding Human Face Detection: Behavioural and Electrophysiological Investigations</td>
</tr>
<tr>
<td>Psychology</td>
<td>Nanyang Assistant Professor Gianluca Esposito</td>
<td>Predicting Infant Neurophysiological Emotional Regulation: Elucidating the Roles of the Mother-Infant Synchrony, Family Environment &amp; Genetic Predisposition</td>
</tr>
<tr>
<td>Public Policy and Global Affairs</td>
<td>Assistant Professor Christopher Holman</td>
<td>Democracy and Comparative Political Theory: Imaginative Encounters in the History of Political Thought</td>
</tr>
<tr>
<td>Sociology</td>
<td>Associate Professor Md Saidul Islam</td>
<td>The Rise of the &quot;Green&quot; Movement in the Global Environment Politics</td>
</tr>
</tbody>
</table>

## MOE TIER 2 GRANTS

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>Associate Professor James Ang</td>
<td>Cultural orientations and long-term comparative economic development</td>
</tr>
</tbody>
</table>

## EXTERNAL GRANTS

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>FUNDING AGENCY/GRANT TYPE</th>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>National Research Foundation Singapore (NRF) – Science of Learning</td>
<td>Nanyang Assistant Professor Suzy Styles</td>
<td>How language mixes contribute to effective bilingualism and effective biliteracy in Singapore</td>
</tr>
<tr>
<td>Psychology</td>
<td>Singapore Millennium Foundation (SMF)</td>
<td>Assistant Professor Andy Ho Hau Yan</td>
<td>Development and Evaluation of a novel Narrative E-Writing Intervention (NeW-I) for Parents of Children with Life-Limiting Illness: A Pilot Randomized Controlled Trial for Advancing Holistic Palliative Care and Parental Bereavement Support</td>
</tr>
<tr>
<td>Psychology</td>
<td>National Arts Council (NAC)</td>
<td>Assistant Professor Xu Hong</td>
<td>Project ARTISAN: Fostering Aspiration and Resilience through Intergenerational Storytelling &amp; Art-Based Narrative</td>
</tr>
<tr>
<td></td>
<td>Host Institution of project: Singapore ETH Centre (SEC) / Future Cities Laboratory (FCL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Transport Council (PTC)</td>
<td></td>
<td>Ways to improve commuters’ emotions and perceptions toward train disruptions through better train disruption management methods</td>
</tr>
</tbody>
</table>
Professor Joseph Liow is the new Dean of College of Humanities, Arts, and Social Sciences (CoHASS), a mantle he has taken on since 1 July this year. He is also a professor of Comparative and International Politics, and Dean of the S Rajaratnam School of International Studies (RSIS). He takes over Professor Alan Chan, who has been Dean of CoHASS for the last nine years. Professor Liow will be serving as Dean of RSIS until 31 December 2018.

Being a Dean of two institutions simultaneously is a daunting task few can imagine, let alone undertake. But the challenge of managing CoHASS and RSIS is something Professor Liow takes in his stride. He comments that it is a challenge leading the two entities at the same time. However, “therein too, lies the reward”—to be able to push and extend himself beyond his comfort zone. The arrangement, furthermore, is temporary as a new Dean will be appointed to RSIS soon.

The unique position he is in has presented him the opportunity to synergize what CoHASS and RSIS each has to offer to add value to the University. He is also able to broaden his horizons as he would have to delve deeper into disciplines and areas—both academic and administrative—he had not previously been involved in. But what is most important is that the experience allows him to learn something new every day.

He dedicates a lot of time tending to faculty-related matters—from contract renewals and promotion prospects to publication choices and personal issues, to budgetary and financial matters. It is time-consuming, but asserts that it is also a crucial aspect of the job.

“Any college or school is only as good as the faculty and staff they have, so as Dean I see engagement with the people in the institution as a key priority in my job scope,” he says. Having good, motivated, and enthusiastic faculty and staff is absolutely essential to the quality of education we provide to our students, he adds. Therefore, it is vital that he pays attention to these issues. “But before I tackle all these issues though, I hit the gym...to psyche me up for the day!”

Turning to his vision for the College, he believes the humanities, arts, and social sciences are even more critical, especially in the age of the Fourth Industrial Revolution. “As a College in what is essentially a STEM (Science, Technology, Engineering, Mathematics) oriented university, we are often viewed as ancillary to the ‘hard sciences’,” he says. “This view is not only unfortunate; it is terribly misplaced and fundamentally misguided.” He quotes Jeff Goldblum’s character, Dr Ian Malcolm, from Jurassic Park (1993): “Your scientists were so preoccupied with whether or not they could that they didn’t stop to think if they should.” This emphasises his point that the onus is on us, as humanity, “to ask ourselves some very fundamental questions about ourselves, the answers for which will not be found in engineering labs, mathematical equations, or microchips, but in the humanities, arts, and social sciences.”
A recipient of the prestigious Nanyang Assistant Professorship (NAP) scheme, Assistant Professor Ian McGonigle shares his plan for the generous research grant – to foster interdisciplinary research and break down disciplinary divides. Specifically, research pertaining to global science, technology and society (STS). He hopes to use the social sciences to bring a different perspective to the developments of technological advancements and implications that cutting-edge research may have on society.

Born in North Carolina, United States, Assistant Professor Monamie Bhadra Haines comes from a highly diverse academic background. She started off as a pre-med student at the University of Michigan (U-M), but then decided medicine was not for her when she could not bring herself to kill and dissect a frog. Thereafter, before switching to geology, the Assistant Professor dabbled in astrophysics and astronomy. She eventually graduated with a double degree in both Geological Science and English—in which she qualified for a Minor in Physics as well.

The Irish scholar has Ph.D.s in Biochemistry (University of Cambridge) and Middle Eastern Studies and Anthropology (Harvard University). He recounts that it was in doing experimental lab work with the Chinese traditional medicine Ginkgo Biloba that first piqued his interest in science, culture and philosophy. This drew the Assistant Professor to anthropology.

His research interests later on developed to the areas of science and technology, philosophical anthropology, and genetics and identity. These interests led to him spending a year doing ethnographic research in Israel at the National Laboratory for the Genetics of Israeli Populations, and making multiple research trips to Doha, Qatar, where he studied the Qatar Genome Project. He was also a postdoctorate fellow at Harvard Kennedy School’s Science, Technology, Society Program. These multidisciplinary experiences and qualifications have given him a unique position of having the identity and credentials of a scientist, as well as the sophisticated mindset of a cultural anthropologist, in which he engages with critical, philosophical and cultural questions through an STS lens.

His shift from the biosciences to social sciences, and consequently, merging of the two, is one of surprise “that science came back into the centre of it all”.

“I thought that I was leaving the sciences to do social anthropology, so it was somewhat surprising that I came back to science with anthropological questions. But I think that’s the innovative contribution I’m trying to bring here,” he elaborates. Assistant Professor McGonigle sees the main contribution of STS as not taking for granted the normative assumptions of science and technology, but one that looks at the broader social life of science and technology. Hence, he shares a highlight of his academic life as having co-organized symposia at Harvard to discuss the relationship between science and social identities. He hopes to have such an interdisciplinary conversation in NTU as well.

Recent research by Assistant Professor McGonigle includes a study on genetic research being used to identify ancient grape varietals used to make wine in Biblical times in Israel/Palestine; he delved into an entanglement of complex factors involving genetics, biblical prophecy and social values. He looks forward to learning more about the GenomeAsia100K project, teaching seminars and exploring areas of study to do with identity in relation to biosciences.

Born in North Carolina, United States, Assistant Professor Monamie Bhadra Haines comes from a highly diverse academic background. She started off as a pre-med student at the University of Michigan (U-M), but then decided medicine was not for her when she could not bring herself to kill and dissect a frog. Thereafter, before switching to geology, the Assistant Professor dabbled in astrophysics and astronomy. She eventually graduated with a double degree in both Geological Science and English—in which she qualified for a Minor in Physics as well.

Assistant Professor Haines shares her encounter with the field of science, technology and society (STS) as one of serendipity, chancing upon the area of study through a conversation with a neighbour who was a postdoctorate fellow at U-M. She became keen in STS for its interdisciplinary nature, leading her to earn both a master’s and Ph.D. in Human & Social Dimensions of Science and Technology from Arizona State University. STS demonstrated to be a good fit for the Assistant Professor.

“I’m interested in so many things and STS was a way to bring it all together,” she says. She elaborates that it was in doing benchwork and laboratory work where in realising how science involved a lot of judgment and interpretations that she “wanted to know more about a more critical perspective of science. “[N]ot to say that it was anti science, but how could we do things better,” she adds.
When Passion and Work Come Together

By Ms Violet Koh

Assistant Professor Walid grew up in a home where politics was regularly discussed at the dinner table and family gatherings. Gradually, politics came to be a hobby of his even as he studied Economics at the undergraduate level in the National University of Singapore (NUS). The defining moment that spurred him to pursue further studies in his hobby was when he took an elective about governance and politics of Singapore, taught by political scientist Hussin Mutalib.
DEAR CHINA: EMMIGRANT LETTERS AND REMITTANCES, 1820-1980, UNIVERSITY OF CALIFORNIA PRESS
Gregor Benton and Professor Liu Hong (Public Policy and Global Affairs Programme)

Dear China is the first book-length study in English of qiaopi and of the origins, structure, and operations of the qiaopi trade. The authors explore the characteristics and transformations of qiaopi, showing how such institutionalized and cross-national mechanisms helped sustain families separated by distance and state frontiers and contributed to the sending regions’ socioeconomic development. Dear China contributes substantially to our understanding of modern Chinese history and to the comparative study of global migration.

THE QIAOPI TRADE AND TRANSNATIONAL NETWORKS IN THE CHINESE DIASPORA, ROUTLEDGE
Gregor Benton and Professor Liu Hong (Public Policy and Global Affairs Programme) and Huimei Zhang

This book seeks to examine the qiaopi from two interconnected perspectives. One views qiaopi from a political and institutional angle, the other from a financial and social angle. Bringing together the extensive research of a group of international scholars, this multi-authored volume sheds light on the larger significance of the qiaopi for modern China. As one of the first books in English on the qiaopi trade and its significance, this book will appeal to students and scholars of Chinese history and Chinese migration, as well in Migration Studies and Diaspora Studies more generally.

BORDER CAPITALISM, DISRUPTED, PRECARITY AND STRUGGLE IN A SOUTHEAST ASIAN INDUSTRIAL ZONE, CORNELL UNIVERSITY PRESS
Assistant Professor Stephen Campbell (Sociology)

Border Capitalism, Disrupted presents an insightful ethnography of migrant labor regulation at the Mae Sot Special Border Economic Zone on the Myanmar border in northwest Thailand. By bringing a new deployment of workerist and autonomist theory to bear on his fieldwork, Stephen Campbell highlights the ways in which workers’ struggles have catalyzed transformations in labor regulation at the frontiers of capital in the global south.

SUSTAINABILITY THROUGH THE LENS OF ENVIRONMENTAL SOCIOLOGY, MDPI
Edited by Associate Professor Md Saidul Islam (Sociology)

This Special Issue of Sustainability will provide an environmental sociology approach to understanding and achieving the widely used notion of “Sustainability.” The Special Issue will focus on, among other topics, the inherent discursive formations of environmental sociology, conceptual tools and paradoxes, competing theories and practices, and their complex implications on our society at large.

THE EVOLUTION OF THE ASIAN DEVELOPMENTAL STATE: HONG KONG AND SINGAPORE, ROUTLEDGE
Assistant Professor Woo Jun Jie (Public Policy and Global Affairs)

Many East Asian states have undergone profound economic transformations over the last two decades. Singapore and Hong Kong especially have adapted to shifting economic and technological conditions by transforming themselves into ‘smart developmental states’. In these cities, the proliferation of digital technologies has given rise to new growth sectors and opened up new areas of political contestation within these early proponents of the developmental state model.

THE SOCIOTECHNICAL CONSTITUTION OF RESILIENCE: A NEW PERSPECTIVE ON GOVERNING RISK AND DISASTER, PALGRAVE MACMILLAN
Edited by Associate Professor Sulfikar Amir (Sociology)

This book considers the concept of resilience in a global society where coping with the consequence and long term impact of crisis and disaster challenges the capacity of communities to bounce back in the event of severe disruption. Drawing on the concept of sociotechnical resilience, it closely examines a range of events North America, Asia, Australia, and Europe.

THIS IS WHAT INEQUALITY LOOKS LIKE, ETHOS BOOKS
Associate Professor Teo You Yenn (Sociology)

This book—an ethnography of inequality—addresses these questions. Formed by a series of essays, they are written to be read individually, but have been arranged to be read as a totality and in sequence. Each aims to accomplish two things: first, to introduce a key aspect of the experience of being low-income in contemporary Singapore. Second, to illustrate how people’s experiences are linked to structural conditions of inequality.