

新加坡南大成立新研究中心探讨科技对人类社会影响

2019年03月12日 * 153 | 检举

使用新科技时

应及早考虑到

科技创新的道德影响

并形成相应的社会规范

才能将科技带来的未来机遇最大化

新加坡副总理兼经济及社会政策统筹部长尚达曼昨天在南洋理工大学科技与人类社会研究中心 (NTU Institute of Science and Technology for Humanity , 简称NISTH) 推介仪式上致辞时指出 , 社会对科技创新的道德讨论往往在问题发生之后 。 若不想落入亡羊补牢的被动状态 , 就须及早思考这些道德考量 , 并在解决方案中体现出来 。 要做到这点 , 必须拥有良好的治理框架 。 尚达曼举例 , 中国科学家贺建奎去年11月宣布成功培育全球首对基因编辑婴儿 , 引起全球哗然 , 在在说明管制条例不可太宽泛 。



The NTU Institute of Science and Technology for Humanity (NISTH) will be officially launched today by Mr Tharman Shanmugaratnam, Deputy Prime Minister and Coordinating Minister for Economic and Social Policies, at Nanyang Technological University, Singapore (NTU Singapore).

NISTH is established by NTU to study the impact of technology on human society, and to bring industry, government and academia together to find ways to enhance the use of technology for the betterment of humanity. DPM Tharman will deliver a keynote address on the impact of technology on society.

NTU President, Professor Subra Suresh, said: "The global society will continue to undergo rapid changes over the coming decades in response to the accelerating pace of technological progress catalysed by the Fourth Industrial Revolution. While many of these changes will have positive outcomes for individual citizens, organisations, governments, and society, there are also potential concerns, challenges and questions surrounding ethical dilemmas, inequality, work force retraining, policies, regulations, sustainability, and the impact of technology on the lives and livelihoods of people. A human-centric and ethical approach to science and technology is therefore imperative. With its unique and diverse intellectual strengths, the NTU community of highly talented people is well-positioned to play a leading role in fostering activities that bring together global thinkers to identify ways to maximise the benefits of technologies while minimising technology's possible negative effects and unintended consequences for individuals and societies.

"As an interdisciplinary institute, NISTH will tap into NTU's multidisciplinary strengths to foster research on the impact of science and technology on humanity. The establishment of NISTH is significant as Singapore embarks on the Smart Nation initiative in its next phase of development, where technology will empower people to lead meaningful and fulfilled lives. As one of the world's top universities, NTU is well positioned to not only create new science and technologies, but also pathways to roll out those technologies for the benefit of Singapore, the region and the world, with a particular focus on implications for humanity."

治理框架也不应只包含条规 , 还应涵盖社会、企业 and 专业规范 , 这些规范能为行为提供指导 。 形成这样的规范并非易事 , 不过尚达曼强调 , 若要在通往未来的道路上继续前行 , 就不能忽视良治的重要 。

Founding director of NISTH

NISTH will be helmed by **Professor Vanessa Evers** who joins NTU on 1 August 2019, following the unanimous recommendation of an international search advisory committee comprising NTU faculty. She is renowned for her work in the field of socially intelligent computing and human-computer interaction, and has guided teams to create real societal impact through science. She is presently Professor of Computer Science at the University of Twente's Human Media Interaction group in the Netherlands, and also serves as the vice dean of the Faculty of Electrical Engineering, Mathematics and Computer Science, and Scientific Director of the university's DesignLab.

She had previously taught at the University of Amsterdam, served as a visiting researcher at Stanford University and Tsinghua University, and worked for the Boston Consulting Group in London. Prof Evers has also played a number of advisory roles in industry.

On her appointment, Professor Vanessa Evers said that she strongly believes in an institute dedicated to pursuing scientific and technological achievements for the benefit of humanity.

"With Industry 4.0 developments taking place across the globe, the transformations to the way we live, work and play will require us to identify the difficult questions that need solving. It requires us to work together across the many differences that tend to divide us, to solve those questions so that humanity on our vulnerable planet can prosper," said Prof Evers.

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“我们必须提前关注风险和利益之间的平衡，减缓和尽可能规避风险，扩大利益。”

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Focus of NISTH

NISTH will adopt a thematic approach that cuts across various broad subject areas such as in the areas of science, technology, business, medicine, the humanities, arts and social sciences. It will focus for a start on three key areas:

- 1. Responsible Innovation:** This theme will seek to address ethical implications of innovations – such as nanotechnology, personalised medicine, unmanned ground and aerial vehicles, and bioengineering – that will have a wide impact on society.
- 2. Governance and Leadership in the Era of the Fourth Industrial Revolution:** This theme will look at issues of governance of technology use, the kind of leadership that is required to steer the world safely through this period of transformative change, and how new technologies, such as big data, impact leadership and policy decisions. The speed and influence of technological change have a significant impact on society, and there is a critical need to examine how they can be properly managed and regulated in the interest of human well-being.
- 3. New Urban Asia:** This theme looks at the impact of technology and how it is transforming the urban landscape in Asia, and how it is affecting the lives of people in the world's most populous continent.

NISTH will have strategic international collaborations with leading institutions to further its mission. One early example of such interaction is the NISTH Visiting Fellow programme that will sponsor faculty supported by France's Sorbonne University in Paris for semester-long visits to NTU Singapore to collaborate with faculty and contribute to NISTH activities.

另一个应及早关注的课题，是如何确保在新科技涌现的形势下，劳动队伍能维持高生产力和高薪金，并继续享有就业机会。

NISTH Ideas Challenge

To mark the launch of NISTH, NTU had organised the inaugural **NISTH Ideas Challenge**, a university-wide competition that aimed to involve the University's campus community in mapping out the fundamental issues and principles that would help guide the development of AI for the benefit of society and humanity.

Emmanuel Tan, an educational development specialist and facilitator of team-based learning at NTU's Lee Kong Chian School of Medicine wins the top prize for his proposal on an online mediation system for AI to resolve conflict in AI-related disputes, such as human-robot conflict.

The second prize goes to School of Computer Science and Engineering and School of Physical and Mathematical Sciences students Bisakha Das, Mohit Prashant and Poorvi Ashok, who raised the issue of discriminatory profiling with AI.

Humanities research fellow Dr Kadek Ratih Dwi Oktarini and Dr I Made Riko, senior research fellow at the Asian School of the Environment have clinched the third prize for their proposal on an intelligent Internet chatbot system (AI Companion) that interconnects with various medical facilities. Three other teams of contestants will also receive commendation awards.

This afternoon, a Round Table session involving 30 global and Singapore leaders from government, industry and academia will discuss and develop a NISTH Statement on Artificial Intelligence (AI) Ethics and Governance.

理想的状态

是让科技来扩增人类技能

劳动队伍须掌握机器不能胜任

但能与机器工作相辅相成的技能

这方面的准备工作势在必行

新加坡副总理兼经济及社会政策统筹部长尚达曼说：“我们必须从小就为国人培训某些技能和特质。我们也需要适当的基础设施和方法，帮助成年人不断发展和扩增技能。而这讲求工作的重新设计……我们不能等到人们丢了饭碗、社会分歧加深之后才来思考这些问题，而是要尽早以能够把机遇最大化的方法，想好怎么设计科技，制定技能培训项目，反思工厂的组织方式。”

其他须迫切关注的科技与人文相关课题，还包括如何利用科技治病，及提高国人的生活质量。新科技也可把人的潜能最大化，如开发创意和不同年龄学习方式的相关研究。

NISTH是南大为研究科技对人类社会的影响而设立的中心。该中心由荷兰特温特大学 (University of Twente) 人类媒体互动研究小组的电脑学教授埃弗斯 (Vanessa Evers) 领导。



中心采用专题研究的形式，在起步阶段将重点展开三个领域的研究，包括创新科技的道德问题，第四次工业革命中的治理和领导，及科技对亚洲城市景观和人民生活的影响。



南大校长苏布拉·苏雷什教授在仪式上致辞时指出，在新的科技趋势下，采用以人为本的方式、从道德视角研究科技和科学更重要，NISTH也将弥合科学、科技、医学，及人文、艺术、社会科学和商学的鸿沟，为社会带来深远影响。

社会对科技创新的道德讨论往往在问题发生之后。若不想落入亡羊补牢被动状态，就须及早思考道德考量。

——尚达曼