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New NTU institute to study technology's impact on society and address human anxieties

(From left) Professor Vanessa Evers, professor of computer science at the University of Twente's Human Media Interaction group in The Netherlands, Professor Subra Suresh, president of Nanyang Technological University (NTU), Deputy Prime Minister Tharman Shanmugaratnam and Mr Peter Ho, chair of the NTU Institute of Science and Technology for Humanity (NISTH) international advisory board at the launch of NISTH on March 11, 2019. ST PHOTO: DESMOND WEE

Tiffany Fumiko Tay

SINGAPORE - What does it mean to be human in the 21st century, and how does humanity prevent the rapid development of technology and artificial intelligence (AI) from doing it more harm than good?

These were among the questions raised at the launch of a new institute to study technology's impact on society and address anxieties on issues such as job replacement and data protection, at Nanyang Technological University (NTU) on Monday (March 11).

The NTU Institute of Science and Technology for Humanity will bring together academics and researchers from diverse fields - such as robotics, linguistics, neuroscience and design - as well as members of government and industry to guide the development of technology for the betterment of humanity, rather than for its own sake.

The institute will begin by focussing on three areas: ethical implications of innovations; the governance of technology use and issues around leadership; and how technology is transforming the urban landscape in Asia.

Deputy Prime Minister Tharman Shanmugaratnam said in a keynote address at its launch that while the benefits of technological innovation have been tremendous, more thought must be put into potential downsides.

"We have to think about the ethical implications of innovations in science and technology upfront, and build it into the design of our solutions," he told an audience of about 900 faculty members, students and guests.

"Too much of the focus on ethics in technology today is a focus that happens after the event, after a problem has arisen," said Mr Tharman, who brought up the example of the Chinese scientist who made headlines last November (2018) for having created the world's first genetically edited babies.

The scientist, who was found later to have acted illegally, had cited compliance with loosely defined US guidelines, said Mr Tharman, who is also Coordinating Minister for Economic and Social Policies.

This illustrates the importance of having guidelines that are not overly vague, he added, as "when they are vague, scientists will push the envelope, because the thrill of innovation is a very powerful motivation for individuals and institutions".

In his speech, Mr Tharman also noted that two basic issues need to be addressed, both of which concern "the quality of our societies".

One is the evolution of social relationships.

Over centuries, these have evolved based on proximity and regular interactions, at work and in the community. But in a tech-rich environment, these are giving way to relationships comprising fleeting encounters across large distances, he said.

"That's life on the Internet," he added.

The other troubling and more immediate issue is about the quality of democracies, he said.

Mr Tharman noted that technology has given rise to a new way in which information is being created and circulated. "The escalating and energetic circulation of information is already having an impact on the type and quality of democracies all over the world".

These issues address questions of what it means to be a human being in the 21 century, which is the overarching theme of the new institute, he noted.

NTU president Subra Suresh said in his speech that the accelerating pace of technological progress will continue to propel rapid societal change in the coming decades.

While many of the changes will have positive outcomes, Prof Suresh said there are also potential concerns, challenges and questions on ethical dilemmas, regulations and work force disruption, for example.

"A human-centric and ethical approach to science and technology is therefore necessary," he added.

Mr Tharman said the impact of technological disruption is "probably overstated in the short term... but very likely understated over the next 10 to 15 years".

'We're likely to see very significant technological disruption in the world of work across a whole range of sectors," he said, adding that beyond job displacement, there is a risk of societal divisions between those who can master technologies and those who cannot.

Ensuring a job-rich future, in which technology augments rather than replace humans, will require job redesign and the inculcation of certain skills from a young age, said Mr Tharman.

Coding, for example, is a "basic language of the future" that may be as important as the natural languages, he said. "The question then is how early do you start teaching children the basics of thinking in algorithmic terms and coding."

The new institute will be headed by Professor Vanessa Evers, who is renowned for her work in the field of socially intelligent computing and human-computer interaction. She is now a professor of computer science at the University of Twente's Human Media Interaction group in The Netherlands, and will join NTU on Aug 1 (2019).

Earlier in the day, 30 leaders in government, industry and academia from Singapore as well as across the globe met to develop a statement on AI ethics and governance for the institute.

Sharing the consensus of the discussion, Prof Evers said the institute aims to "be the voice of the common person, the person who's afraid to lose their job or privacy," and to ensure that all can reap the benefits of AI equally.

"We must be people-centred and not technology-centred. We should ask ourselves: What does humanity look like in the 21st century, and what does humanity want and need?"

Source: https://www.straitstimes.com/singapore/new-ntu-institute-to-study-technologys-impact-on-society-and-address-human-anxieties