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New A*STAR-SMU centre combines high-powered computing and behavioural sciences to study people-centric issues

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MEDIA RELEASE FOR IMMEDIATE RELEASE

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NEW A*STAR-SMU CENTRE COMBINES HIGH-POWERED COMPUTING AND BEHAVIOURAL SCIENCES TO STUDY PEOPLE-CENTRIC ISSUES

Singapore, 18 June 2014 – The Agency for Science, Technology and Research (A*STAR) and the Singapore Management University (SMU) will establish a Centre for Technology and Social-Behavioural Insights (CTSBI) to tap on high performance computing technology, big data analytics and behavioural sciences to study people-centric issues and human behaviour including how people think, feel and act in different settings. Such information can be used to enhance planning and address issues in different areas such as retail, logistics, urban planning, education and community development.

About the Centre for Technology and Social-Behavioural Insights (CTSBI)

The new centre will conduct studies and develop technologies to better understand human behaviour such as relationships or interactions between consumers and businesses, employees and employers, or citizens and public service providers. These social and behavioural insights will be examined and applied in specific social and economic contexts to identify critical issues more accurately and propose more effective solutions.

The technologies and research findings could be useful in giving a more accurate and real time understanding of people's attitudes and behaviours such as consumer preferences and purchasing patterns to help improve businesses and customer experiences. For example, it would be possible to trawl millions of websites online to find out popular fashion trends or customers' affinity for certain designs, and analyse and filter this information in real-time to allow retailers to customise their marketing strategies accordingly. The Centre could also be used to study crowd movements to facilitate urban planning or feedback to enhance the delivery of public services.

The Centre leverages the advanced computational modelling and data analytics expertise of A*STAR's Institute of High Performance Computing (IHPC), the integrative information technology capabilities of A*STAR's Institute for Infocomm Research (I²R) and the in-depth scientific expertise on human behaviours of SMU's Behavioural Sciences Institute (BSI).

The Centre, which will be officially operational from 1 July 2014, is funded by A*STAR's Joint Council Office (JCO), which supports R&D that brings together multidisciplinary capabilities. SMU will also contribute manpower and other research resources. The Centre will be helmed by two co-directors, Dr Victor Tong from A*STAR and Professor David Chan from SMU.

Dr Victor Tong, who is Director of the Social & Cognitive Computing Department at A*STAR's IHPC, said, "In today's connected world, everyone can express views and offer information about events in real time and at a rapid pace. This creates a large volume of dynamic data that is potentially very useful, but it is often difficult to figure out the critical ideas embedded in the data. One of the goals of our collaboration is to develop better ways to extract meaning and value from the large amounts of data collected from social software such as internet forums and blogs, and their related technologies. This can be effectively accomplished by bringing together the relevant top expertise in both social computing and behavioural sciences."

Professor David Chan, Lee Kuan Yew Fellow and Professor of Psychology and Director of SMU's BSI, said, "There has been increasing interest in academia, government and businesses to use big data and behavioural sciences to address important economic and social issues. Our approach in this new centre will combine the data-driven sense-making methods in social technologies with the hypothesis-driven approaches in behavioural sciences. To do this, we will integrate the diverse but complementary expertise from the institutes in A*STAR, SMU and other existing resources in Singapore. The research findings from this integrative approach will generate people-centric solutions that can better address critical issues in Singapore and elsewhere."

Professor Raj Thampuran, Managing Director of A*STAR, said, "This initiative will bring together information technology and social sciences to help businesses and other organisations gain deep insight of consumer sentiments. This will raise service delivery levels and is a competitive advantage for companies."

Professor Arnoud De Meyer. President of SMU, said, "SMU is very glad with and fully committed to this research partnership with A*STAR. The CTSBI can make important positive differences to the Singapore economy and society. This partnership is an exemplar of bringing together complementary research capabilities, from not only different disciplines but also different institutes in Singapore, to address practical issues relevant to both business and societal needs."

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About the Institute of High Performance Computing (IHPC) at A*STAR

A*STAR's Institute of High Performance Computing (IHPC) was established in April 1998 to provide leadership in high performance computing as a strategic resource for scientific inquiry and industry development. It seeks to power discoveries through advanced methodologies, techniques and new tools in modelling, simulation and visualisation. Its core research areas are in the realm of complex-coupled systems, mechanics and fluid dynamics, large-scale systems, digital modelling, adaptive and collaborative computing, data mining and analysis, computational electronics and electromagnetics, computational materials science and chemistry. For more information about IHPC, please visit www.ihpc.a-star.edu.sg.

About the Institute for Infocomm Research (I²R) at A*STAR

Singapore's largest ICT research institute, I²R (pronounced as i-squared-r) is a member of the A*STAR family. Established in 2002, our vision is to power a vibrant and strong infocomm ecosystem in Singapore. I²R focuses on

conducting mission oriented research to address key challenges faced locally. At I²R, intelligence, communications and media (ICM) form our 3 strategic thrusts. Our research capabilities are in information technology, wireless and optical communication networks, interactive and digital media, sensors, signal processing and computing. We perform R&D in ICM technologies to develop holistic solutions across the ICM value chain and we believe that the greatest impact is created when research outcomes are translated into technologies our partners can readily deploy at a competitive advantage. For more information about I²R, please visit www.i2r.a-star.edu.sg.

About A*STAR Joint Council (A*JC)

The A*STAR Joint Council (A*JC) was formed in late 2007 to promote and strategically support interdisciplinary research programs that span the fields of biomedical sciences and physical sciences & engineering. As the bridge between the biomedical and physical sciences, A*JC aims to provide researchers with an interaction platform and resources to catalyse and explore new scientific opportunities and technologies. Also important is the collaboration with our international partners. A*JC aims to foster collaboration with international scientific agencies to enhance A*STAR's research capabilities through knowledge exchange, as well as strengthen bilateral relations with partner countries in science and technology.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector agency that fosters world-class scientific research and talent to drive economic growth and transform Singapore into a vibrant knowledge-based and innovation driven economy.

In line with its mission-oriented mandate, A*STAR spearheads research and development in fields that are essential to growing Singapore's manufacturing sector and catalysing new growth industries. A*STAR supports these economic clusters by providing intellectual, human and industrial capital to its partners in industry.

A*STAR oversees 18 biomedical sciences and physical sciences and engineering research entities, located in Biopolis and Fusionopolis, as well as their vicinity. These two R&D hubs house a bustling and diverse community of local and international research scientists and engineers from A*STAR's research entities as well as a growing number of corporate laboratories. For more information on A*STAR, please visit www.a-star.edu.sg.

About the Singapore Management University (SMU)

A premier university in Asia, the Singapore Management University (SMU) is internationally recognised for its world-class research and distinguished teaching. Established in 2000, SMU's mission is to generate leading-edge research with global impact and produce broad-based, creative and entrepreneurial leaders for the knowledge-based economy. It is known for its interactive and technologically enabled pedagogy of seminar-style teaching in small class sizes. Home to over 8,300 undergraduate and postgraduate students, SMU comprises six schools: School of Accountancy, Lee Kong Chian School of Business, School of Economics, School of Information Systems, School of Law and School of Social Sciences, offering a wide range of bachelors', masters' and PhD degree programmes in various disciplines. With an emphasis on generating rigorous, high-impact, multi-disciplinary research that addresses Asian issues of global relevance, SMU faculty members collaborate with leading international researchers and universities from USA, Europe, China and India as well as with partners in the business community and public sector through its research institutes and centres. SMU's city campus is a state-of-the art facility located in the heart of downtown Singapore, fostering strategic linkages with the business and wider community. For more information, please visit www.mu.edu.sg.

About the Behavioural Sciences Institute (BSI) at SMU

The Behavioural Sciences Institute (BSI) is a multi-disciplinary research institute for creating, disseminating and applying scientific knowledge about human behaviours in various social, organisational and cultural settings. The BSI operates in a collaborative manner by bringing academia, business and government to work together to better understand human behaviours. The purpose is to promote the adoption of evidence-based approaches to develop effective organisational practices and public policies with the view to enhancing performance, adaptability and well-being at the individual, organisational and societal levels. For more information about BSI, please visit bsi@smu.edu.sq.