Two new research centres for data privacy preservation unveiled

They will focus on designing and developing privacy technologies and training skilled manpower.

The National Research Foundation Singapore (NRF) set up two new research centres focused on developing privacy-preserving technologies in an effort to support Singapore's privacy-aware smart nation initiative, an announcement revealed.

The National University of Singapore (NUS) Centre for Research in Privacy Technologies (N-CRiPT) will be located at the NUS School of Computing and affiliated with the NUS Smart Systems Institute, NRF noted. The facility, which will be led by NUS School of Computing's dean Mohan Kankanhalli, aims to develop new privacy-preserving solutions for structured and unstructured data, as well as solutions to protect data throughout its life cycle.

“One technique that N-CRiPT will look into is the generation of synthetic data that mirrors the proportion of the original data sets,” NRF highlighted. “Whilst the primary goal of N-CRiPT is to help prevent privacy leaks, the centre will also look into privacy risk management which includes quantifying the practical risk and potential costs involved in the case of data leakages.”


N-CRiPT also aims to bring together faculty members from NUS' faculties of Engineering and its business school, as well as collaborate with government agencies and companies in a bid to strengthen and maximise the potential use of its technologies.

Meanwhile, the Strategic Centre for Research in Privacy-Preserving Technologies & Systems (SCRIPTS) will be based in the Nanyang Technological University Singapore (NTU). It will focus on ensuring the privacy of individual data whilst still allowing useful analyses through mathematical and proven theoretical models. It will be led by NTU Graduate College's secure community programme chair Lam Kwok Yan.

“NTU scientists at SCRIPTS have demonstrated that it is possible to collate data such as financial statements and combine them in several stages by adding in random data,” NRF added. “Known as differential privacy (DP), this statistical technique can be used to address the issue of how to collect data and perform computing and analysis of user-generated data whilst maintaining the privacy of individual users.”

The timely launch of the centres comes after escalating concerns over data privacy following SingHealth's data breach which saw the data of around 1.5 million patients, including that of prime minister Lee Hsien Loong, stolen. Investigations after the incident which is considered as Singapore’s largest cyberattack resulted in two Integrated Health Information Systems (IHiS) employees being fired and financial penalties on its senior management team.

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