AUSTRALIAN INSTITUTE FOR MACHINE LEARNING

Media Release

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Australia falling behind in intelligence race

New analysis shows Australia is losing the global race in artificial intelligence and will miss out on future jobs without major new investment to secure its position as a leading destination for AI research and development.

The University of Adelaide's Australian Institute for Machine Learning released the data while launching its proposal for a National Centre of Excellence in Machine Learning, an innovative hub bringing together the best of Australia's AI research groups and industry to meet the opportunities and challenges of AI technology.

The analysis shows Australia's investment in AI as a proportion of GDP is nowhere near comparable countries like South Korea, Singapore, France, Germany and Japan.

AIML director Professor Anton van den Hengel said other countries are investing billions of dollars in AI research because it is a core driver of innovation, revitalising existing industries and helping create new ones.

"Australia has a strong tradition of high-quality AI research, but cannot sustain its position globally without significant new investment and industry development," he said.



*Does not include top spenders of the US and China, where AI investment is estimated at over US\$7 billion annually. China is expected to surpass the US in AI R&D investment by 2020.

The AIML has proposed direct government investment of \$80 million for the first four years, with an additional \$50 million additional funding from industry and \$20 million from universities, as a foundation for further investment.

The Centre, proposed by the University of Adelaide which has the largest university machine learning group in Australia, would bring together the country's world class research groups in artificial intelligence under one roof.

"The Centre will work to foster the next generation of AI experts, working with TAFE organisations and industry across Australia to build a national curriculum for VET training and create educational modules for high schools," Professor van den Hengel said.

"Without this investment, we will lose jobs to AI technology imported from other countries and miss the opportunity to create Australian jobs from it.

"Facebook, Google and Uber are already making large profits in Australia without employing any significant workforce or paying substantial tax. Jobs can be retained and created here if we actively participate in the new economy.

"Highly sought-after researchers will only stay in Australia if we make AI a national priority."

Australia is also miles behind the competition in terms of institutions dedicated to Al research.

	(CSRAINNINGS.COW)				
	AI	Computer Vision	Machine Learning Theory	Natural Language Processing	Total
USA	1	5	8	6	20
China	7	1	1	2	11
Australia*	1	2		1	4
UK	1			1	2
Germany		1			1

NUMBER OF INSTITUTIONS IN THE GLOBAL TOP TEN

* These Institutions are The University of Adelaide, ANU, University of NSW and Melbourne University

Al lies at the forefront of technological advances in health, agriculture, manufacturing and a wealth of other industries.

It is one of the few technologies with the potential to deliver much better health outcomes per dollar and thus help avoid a health-driven budget crisis.

Al is already making significant breakthroughs in healthcare, with computer vision allowing medical staff to better identify and treat diseases including cancer and heart conditions.

Al-driven technology that can predict crop yield, minimise water use, maximise environmentally sustainable stocking levels and improve quality will also help Australian farmers maintain their global competitiveness and adapt better to climate change.

"We need an urgent injection to stay in this race," said Professor van den Hengel. "Other countries are investing billions of dollars in AI research because they have identified it as a core driver of innovation across the entire economy."

Professor van den Hengel is available for interview.

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