

Australia's AI future is at risk without greater senior technical leadership

Australian companies risk falling behind their global competitors in harnessing the benefits of AI unless they urgently bring more tech professionals into senior management roles, a new paper published by the Actuaries Institute today says.

The Dialogue Paper*, *Where Are Australia's Data Science Leaders? The Case for Technical Career Pathways*, recommends companies that want to transform will need to have leadership teams with a deep understanding of what AI can – and cannot – achieve to be able to fully embed AI into their organisation.

The paper's author, actuary Victor Bajanov, said Australian companies need to develop career pathways for employees with deep technical skills in AI and data science to help them take on senior leadership roles so critical decisions taken in the boardroom truly understand the AI frontier.

"AI is coming, whether it's in banking, insurance, healthcare or retail. AI will prevail in those industries, and I want Australia to be at the crest of that wave surfing down it not paddling madly after it," Mr Bajanov said.

"Companies need to take full advantage of the AI revolution and need people in the C-suite with backgrounds and knowhow in coding, building machine learning models, and managing hybrid teams that include people and AI agents – and the battle scars from doing that. Deep understanding comes from active practice.

"This will help companies across multiple sectors face the increasing challenge of developing proprietary solutions rather than relying solely on buying standardised AI tools."

Mr Bajanov's paper highlights how many Australian organisations are focused on implementing existing AI and data science solutions rather than driving genuine technical innovation.

Only 18 per cent (approximately A\$650 million) of Australia's total AI investment is allocated to infrastructure and foundational capabilities, compared to competitor nations like Canada and Singapore which are investing A\$2.7 billion and A\$5 billion, respectively, in AI development and adoption.

The paper argues that a technically led organisation could achieve with 10 people what traditionally requires 100, while improving both quality and speed.

Mr Bajanov said although Australia has a wealth of talented tech professionals, a lack of career pathways into leadership often results in them moving overseas to be at the cutting edge of innovation.

"Australia has a history of incredibly strong technical innovation with groundbreaking inventions such as the multi-channel cochlear implant, polymer banknotes and black box flight recorder. But I fear that's going to flip, which would be very sad to see," he said.

"What tends to happen in Australia is that after about seven to 10 years of professional experience, many tech professionals face a critical decision point. They can either deepen their expertise in a technical individual contributor role or transition into management to advance their career with limited opportunities to maintain technical development."

The paper warns that while many Australian companies are adopting today's AI capabilities, leading global organisations like Google, OpenAI and Anthropic are inventing tomorrow's.

"The global competition for markets, talent and innovation is increasingly won by those who can effectively blend human expertise with AI capabilities. If Australian organisations don't catch up — and quickly — we risk our entire nation being left behind in the global economy."

Victor Bajanov is available for interview.

Access the Actuaries Institute's paper, [here](#).

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