Dragoman

Technological Opportunity and a moment of strategic vulnerability   Nick Warner AO PSM

You can be excused for missing its publication, but the release to the US Congress in March of the National Security Commission on Artificial Intelligence's report will likely be seen in years to come as a turning point in US thinking, action on the technology revolution and the relationship with China. The report also has important implications for Australia's own relationship with Beijing and for our intelligence agencies and defence forces.

More than 750 pages long, two-years in the making, by a who's who of US tech heavy-weights and loaded with recommendations, the report argues that the "magnitude of technological opportunity" presented by Artificial Intelligence "coincides with a moment of strategic vulnerability" – a rising China. "China is a competitor possessing the might, talent and ambition to challenge America's technological leadership, military superiority and its broader position in the world." And to be clear, China hasn't hidden its ambition: in a series of speeches in recent years President Xi Jinping has set out his aim of Chinese AI supremacy by 2030.

The report argues that the US is not prepared to defend or to compete in the AI era and needs to act now or it will lose its AI leadership position to China over the next decade. "China's plans, resources and progress should concern all Americans. It is an AI peer in many areas and an AI leader in some applications." Unless the US wins the broader technology competition it will lose its military-technical superiority "and become vulnerable to a spectrum of AI-enabled threats from a host of state and non-state actors".

AI is seen as being at the heart of the technological revolution, "transforming virtually every aspect of our existence" and "sitting at the centre of the constellation of emerging technologies" –quantum computing, synthetic biology, 5G, facial recognition, additive manufacturing and others. In trying to identify an historical reference that captures the impact of AI on national security, the report settles on what Thomas Edison said about electricity: "It is a field of fields … it holds the secrets which will reorganise the life of the world". (Russian President Vladimir Putin put it less prosaically a few years ago when he said that whoever leads in AI "will become ruler of the world".)

To confront this challenge the report makes a series of significant recommendations:

- Harking back to times in the past when the US has been challenged, the report recommends a comprehensive, whole-of-nation approach, tightly aligning government, private sector and academic efforts, coupled with tens of billions of dollars of new funding for AI research and development ($US40 billion) and micro-chip fabrication ($US35 billion).
- The establishment of a Technology Competitiveness Council, chaired by the Vice President.
- Steps to "win the international talent competition" and to accelerate AI innovation in the US.
- Steps to defend against emerging AI-enabled threats and to prepare for future warfare, including managing the risk associated with AI-enabled and autonomous weapons, and to "transform" national intelligence. ("We fear AI tools will be weapons of first resort in future conflicts. We will not be able to defend against AI-enabled threats without ubiquitous AI capabilities and new war fighting paradigms.")
- And building a favourable international technology order.

President Biden seems to have got the message. In his speech to Congress in late April, as well as calling out China, he emphasised that the US had to "develop and dominate the products and technologies of the future". And as part of his recently released $US2 trillion infrastructure investment plan, he said the Administration would invest $US180 billion in R&D and industries of the future, including quantum computing and semiconductors.

All of the recommendations are important, but to me two stand out for Australia.

First, the comment that the US "can't act alone", and the recommendation to establish an Emerging Technology Coalition (ETC) of allies and partners to compete with and counter China's state directed AI advances. For the past six months or so, a debate has swirled around in the US about the idea of "uniting the techno-democracies" and of "tech decoupling" to try and prevent China's dominance of global technology. This is not the route the Commission has gone down, arguing that "dramatic steps to sever ties could be costly for Americans and reverberate across the world". Rather the Commission recommends a "targeted disentanglement by sectors" "to help build US technological resilience and to protect national security-critical sectors".

The Commission sees the ETC as a grouping of the like-minded, and either as part of a large democracy summit or as a stand-alone grouping. Given the expressed nervousness of some European and Asian allies about joining some sort of explicit alliance of "techno-democracies", it seems more likely that the Biden Administration will try and operate through existing structure rather than forming a new grouping – the G7, the Quad etc. Australia most certainly needs to be part of whatever grouping the Administration finally settles on, but in doing so we will – again – antagonise our biggest trading partner.

Secondly, the report talks about enhancing existing Five-Eyes AI-related intelligence and defence efforts: "If the US wants to fight with AI, it will need allies and partners with AI-enabled militaries and intelligence agencies. Uneven adoption of AI will threaten interoperability and the political cohesion and resiliency of US alliances". So, there are important implications for Australia's intelligence agencies and our defence forces.

The report states bluntly that "Intelligence will benefit from rapid adoption of AI-enabled technologies more than any other national security mission. AI will help intelligence professionals find needles in haystacks, connect the dots and disrupt dangerous plots by discovering trends and discovering previously hidden or masked indicators and warnings". I have no doubt that is true. Intelligence agencies that don't keep up with technological change will fail. But for Australia's already resource-stretched agencies, where will the sizeable required funding come from? Re-prioritisation is not an option.

For both the ADF and our intelligence agencies there will be the challenge of driving change in large bureaucracies and finding the large numbers of new staff with the technology talent. And for defence there are big questions about the utility of some of our major capability purchases in a future where autonomous weapons systems driven by AI will dominate the battlefield.

If the US is not AI-ready, nor are we.

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Nick Warner AO PSM most recently served as the Director-General of the Office of National Intelligence (ONI) – Australia's peak intelligence agency which reports directly to the Prime Minister. Before his time at the ONI, Nick served as the Director-General of the Australian Secret Intelligence Service (2009-2017), the Secretary of the Department of Defence (2006-2009) and Senior Adviser (International) to the PM (2005- 2006). In his career as a diplomat, Nick served in roles including Australian Ambassador to Iran (1994-1997), High Commissioner to Papua New Guinea (1999-2003) and Special Coordinator of the Regional Assistance Mission to the Solomon Islands.