

■ COMMENTARY

The transformative powers of AI over small states

By Josh Lee Kok Thong

ARTIFICIAL intelligence (AI) is particularly transformative for small nations. While AI will have profound effects on all states in all aspects of human life within the next few decades, it will have a disproportionate effect on small nations, which are defined by the Forum of Small States as countries with populations fewer than 10 million people.

For a phenomenon to be “transformative”, it must be big, and bold. Being big means that the phenomenon impacts large numbers of people, and social, political and economic models.

Being bold means that the phenomenon involves a definitively high level of intensity and degree of change.

Small nations face particular common realities. These include dependence on strategic imports (such as food and energy), limited natural and manpower resources, military capability limited by available manpower and a general inability to set global agendas. AI will affect these realities in the following ways:

■ First, it will transform the job markets of small nations. In the next 30 years, as jobs get replaced by AI, there is likely to be growing technological unemployment.

For example, autonomous vehicles will be able to displace most transportation workers. The effect of technological inequality will be especially pronounced in small nations lacking diverse industries and where the majority of jobs involve fairly routine work.

AI will also widen existing societal inequality, by first replacing routine jobs performed by less-educated persons. These effects are likely to result in people being forced into areas that are harder to replace by AI, such as creativity- or service-based jobs, and countries may be forced to adopt a form of universal basic income.

The freeing of people from jobs can also reduce manpower shortages, allowing small nations to restructure their economy and re-assess their key industries.

■ Second, AI will revolutionise the military power of small nations. AI will transform military power by minimising the role of humans in warfare, and by improving coordination so that force is applied when and where it matters.

For example, combat roles will be performed by autonomous weapons, without risk to humans. These autonomous weapons will operate in swarms, so that an overwhelming force can be concentrated and dispersed quickly.

These AI capabilities will render the numerical limits of small nations’ armies less relevant. As the military equation changes, geo-political calculations and realities will also change – forcing small nations to re-evaluate their opportunities, threats and geo-political alliances.

■ Third, AI will impact the cyber security landscape of small nations. This impact will be particularly pronounced in developed small nations, as well as in small nations looking to utilise AI systems as their competitive advantage.

AI-enabled technologies will be susceptible to hacking by hostile forces. Linking AI systems with the sharing of data could potentially increase the systemic risks and extent of damage in the event of any data breach.

However, small nations may not be able to deal with such threats, as they may not have sufficient resources to address cyber threats, or have limited control over their citizens’ data (such as where the data is stored in overseas servers) and how their AI-enabled systems work. Larger and more sophisticated nations are likely to face the same issues raised above, as well as the impact of AI on other sectors.

For example, large, space-faring countries will see AI improve their space exploration capabilities in the form of vastly more capable probes. AI will also impact other sectors in large countries such as transportation, energy, healthcare and financial markets. However, small nations are still likely to feel the impact of AI more disproportionately given their small size, and vulnerability to global changes. Small nations are also likely to be nimbler, allowing them to adapt to the impacts of AI more quickly.

The predictions above, however, take into account only the transformative potential of AI on small nations, and do not reflect the actual likelihood of the AI impact. The actual impact of AI on small nations will ultimately depend on a range of factors, such as technology adoption, the state of the economy and developmental stage of each small nation.

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