



At the 2018 International Joint Conference on Artificial Intelligence in Stockholm, technology leaders such as Elon Musk of Tesla and Demis Hassabis of Google's DeepMind called upon governments to "create a future with strong international norms, regulations and laws against lethal autonomous weapons". PHOTO: AFP

AI for good – Growing role of corporates in the tech world

Companies such as Facebook, Microsoft and Tesla have increasingly emerged as an important voice in the debates on managing the challenges and technological developments of the digital age. **BY C RAJA MOHAN AND CHAN JIA HAO**

LAST week, more than 2,600 scientists and entrepreneurs, including Elon Musk of Tesla and Demis Hassabis of Google's DeepMind, issued a pledge promising not to join any effort that develops killer robots. Although the campaign against the so-called "lethal autonomous weapons", based on Artificial Intelligence (AI), has been gaining ground in recent years, this is the first time that some tech leaders have individually undertaken to abstain from such work.

In a statement issued in Stockholm at the 2018 International Joint Conference on Artificial Intelligence (IJCAI), the tech leaders called upon governments to "create a future with strong international norms, regulations and laws against lethal autonomous weapons". Noting that such norms do not exist at the moment, they decided to hold themselves to a high standard: "We will neither participate in nor support the development, manufacture, trade or use of lethal autonomous weapons. We ask that technology companies and organisations, as well as leaders, policymakers and other individuals join us in this pledge."

The declaration followed open protests in May this year from Google employees objecting to the company's work for the US Defence Department. But not everyone believes that voluntary restraint on the part of individuals and corporations can stop turning new knowledge into weapons. After all, the story of the link between swords and plowshares is as old as man.

There certainly have been instances where such initiatives from the scientific community have helped. Consider for example the so-called Asilomar principles. They were first articulated in 1975 by a group of top bio-scientists calling for restraint and strict safety measures to limit the potential harm from genetic research. Now as advances in biotechnology over the years have led to inventions and new technologies, such as those for editing genes and cloning life forms, the debate on reinforcing the Asilomar principles has resumed.

This debate on limiting technological development that is harmful for life on the planet, does not, however, take place in a political vacuum. There certainly have been instances when science leaders called for the development of

new weapons. Back in 1939, just before World War II began, Albert Einstein put his name to a letter to then US President Franklin Roosevelt, pointing to the dangerous possibility of building atomic weapons and referred to the work that was going on in Nazi Germany. Thus started the US Project Manhattan that produced the world's first atomic bombs.

As the Nazi threat to the world passed in the summer of 1945, a small group of scientists involved in Project Manhattan asked for restraint. Led by James Franck, the group asked America to avoid using the atomic weapons against Japan and warned of the potential dangers of a nuclear arms race. Although they could not prevent the use of the first atomic weapons, scientists became a leading voice in shaping the politics of controlling and regulating nuclear weapons nationally and through agreements among nations.

The arguments on limiting destructive technologies didn't come only from scientists and governments. Peace movements worldwide repeatedly demanded a ban on nuclear weapons. More than seven decades later in 2017, the United Nations approved a formal nuke ban treaty, but the nuclear weapon powers are not ready to sign on.

GREATER SAY

Civil society groups also helped to promote a treaty banning landmines that came into force in 1999. While an overwhelming majority of nations became party to the convention, a number of major countries like the United States, China, Russia and India are not parties. The imperatives of state security, quite clearly, are not easily overcome.

Coming back to the corporates, they have emerged as an important voice in the debates on managing the challenges of the digital age. Unlike in the earlier decades when government agencies dominated the development of atomic and space technologies, much of the new technological development and innovation is coming out of the private sector.

As their salience in the modern economy and society rose rapidly, tech companies like Facebook, Alphabet, Amazon, Apple and Microsoft are being pitchforked into the political arena. Two recent controversies illustrate this – the role of Facebook in the 2016 US elections and the contestation between Apple and the US Federal Bureau of In-

vestigation on the encryption of iPhones to protect the privacy of customers.

Corporations are also demanding a say in the way global agreements on technology are constructed. As the question of Internet governance came to the fore in recent years, corporates and civil society groups promoted the idea of "multi-stakeholderism" rather than the principle of "multilateralism" that is rooted in inter-governmental negotiations.

In a major initiative, more than 40 leading companies have signed a Cybersecurity Tech Accord to promote "security, stability and resilience of cyber space" that is under growing attack from state and non-state actors. In an ambitious objective, the accord declares that the companies "strive to protect all our users and customers from cyber attacks – whether an individual, organisation or government – irrespective of their technical acumen, culture or location, or the motives of the attacker, whether criminal or geopolitical".

Voluntary restraint among a few individuals and corporations may not be enough. The inherently competitive nature of the commercial sector means there will always be companies that will be interested in doing the kind of work that Mr Musk and Google's DeepMind say they will not.

Advances by an adversary, as in the case of Einstein and the atomic bomb, will generate arguments for deterrence through technological development. Therefore, amid renewed great power rivalry – especially between the US on the one hand and Russia and China on the other – it might be increasingly hard to prevent the militarisation of AI.

Authoritarian states like China and Russia exercise total dominance over their corporations. But in the free world, governments, corporates and civil society groups have no choice but to work together on finding the best ways to address the challenges posed by AI to international security and the future of humanity. While campaigns like those of Google, Microsoft and Tesla might not prevent the militarisation of AI, they might help us regulate and control the new competition for AI weapons.

■ C Raja Mohan is the director and Chan Jia Hao, a research assistant, at the Institute of South Asian Studies (ISAS), National University of Singapore.