

China is worried an AI arms race could lead to accidental war

Experts and politicians in China are worried that a rush to integrate artificial intelligence into weapons and military equipment could accidentally lead to war between nations.

According to a new report published by US national security think tank Center for a New American Security (CNAS), Chinese officials increasingly see an “arms race” dynamic in AI as a threat to global peace. As countries scramble to reap the benefits of artificial intelligence in various domains, including the military, the fear is that international norms shaping how countries communicate will become outdated, leading to confusion and potential conflict.

“The specific scenario described to me [by one anonymous Chinese official] is unintentional escalation related to the use of a drone,” Gregory C. Allen, an adjunct senior fellow at CNAS and author of the new report, tells *The Verge*.

As Allen explains, the operation of drones both large and small has become increasingly automated in recent years. In the US, drones are capable of basic autopilot, performing simple tasks like flying in a circle around a target. But China is being “more aggressive about introducing greater levels of autonomy closer to lethal use of force,” he says. One example is the Blowfish A2 drone, which China exports internationally and which, says Allen, is advertised as being capable of “full autonomy all the way up to targeted strikes.”

The US Navy is developing remote combat systems like the

prototype X-47B drone (pictured).

Photo by Mass Communication Specialist 2nd Class Timothy Walter/U.S. Navy via Getty Images

Because drones are controlled remotely, militaries tend to be more cavalier about their use. With no risk of human casualties, they're more willing to shoot them down, but also deploy them into contested airspaces in the first place. This attitude can also be seen in cyberwarfare, where countries will intrude in ways they wouldn't necessarily risk if humans were involved.

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"The point made to me was that it's not clear how either side will interpret certain behaviors [involving autonomous equipment]," says Allen. "The side sending out an autonomous drone will think it's not a big deal because there's no casualty risk, while the other side could shoot it down for the same reason. But there's no agreed framework on what message is being sent by either sides' behavior."

The risks in such a scenario become greater when factoring in advanced autonomy. If a drone or robot fires a warning shot at enemy troops, for example, how will that action be interpreted? Will the troops understand it as an automated response, or will they think it's the decision of a human commander? How would they know in either case?

In essence, says Allen, countries around the world have yet to define "the norms of armed conflict" for autonomous systems. And the longer that continues, the greater the risk for "unintentional escalation."

"I think that's a real and legitimate threat," says Allen.

An important area of competition is the development of specialized AI chips, like Google's TPU (pictured).

Credit: Google

The rest of the CNAS report, titled “Understanding China’s AI Strategy: Clues to Chinese Strategic Thinking on Artificial Intelligence and National Security,” notes a number of other high-level concerns and attitudes in China’s government-led AI strategy.

Chinese officials recognize, for example, that it and America are the only two viable AI superpowers. Both countries have the talent, the funding, and the bustling tech sectors needed to push this technology further, though each nation also has its own particular strengths and weaknesses. China has access to more data, for example, and has the potential to leapfrog Western technology. (Many Chinese citizens went from having no phone to a mobile phone, without getting a landline in between, for example). America, meanwhile, has a significant lead in the development of chip technology – a vital component in processing the huge datasets that power AI applications.

CNAS’s report notes that China is particularly keen to close this important gap. Chinese firms like Baidu, Alibaba, and Huawei have established new projects to develop AI accelerator hardware; government money is pouring into these initiatives; and the industry is trying other methods to get a hold of foreign expertise. These include the recent proposed acquisition of US chip designer Qualcomm by Singapore firm Broadcom, which was blocked by President Trump on national security grounds.

While a certain amount of competition between China and the US is to be expected, Allen says cooperation is also needed – especially when it comes to these military questions.

He notes that while Chinese officials he spoke to had a good grasp of contemporary US thinking on issues like autonomous warfare, American officials tend to be less well-briefed about their Chinese counterparts, partly because many Chinese policy documents are never translated into English. Without properly understanding different nations’ strategies in these domains,

says Allen, the chances of misunderstanding and conflict increase.

“There are definitely pockets of real expertise on this issue [in the US] but there’s not the widespread comprehension there needs to be,” he says.

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