Opinion **Artificial intelligence**

What the cold war space race can teach us on AI

International agreement could curb the fight for supremacy in today's most ambitious technology

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John F Kennedy's speech to the UN in 1963, which spoke of co-operation with the Soviets on regulation and exploration, laid the groundwork for the UN Outer Space Treaty of 1967 © AP

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Nasa chief Bill Nelson thinks the world is in a new "space race." Much of the national security establishment as well as many technology leaders think we're also in an "AI arms race". The combination seems daunting — the cold war spectre of the former certainly haunts true believers in the latter. But in drawing lessons from that era, we should not dwell on the innovation that put a man on the Moon but rather on the international legal and diplomatic achievements that ensured it did not become an act of war.

President John F Kennedy's bold vision for space exploration began as a propaganda ploy, designed to display American might. But chastened by the Cuban Missile Crisis, Kennedy the cold war hawk eventually channelled his ambitions into statesmanship.

Just weeks before his death, in a remarkable speech to the UN, he proclaimed "new room for co-operation" with the Soviet Union, citing opportunities "for further joint efforts" in regulation and even "a joint expedition to the Moon." The door was open to "explore whether the scientists and astronauts of our two countries — indeed all of the world — cannot work together in the conquest of space, sending some day in this decade to the Moon not the representatives of a single nation but the representatives of all of our countries."

The about-face was explained by his adviser, the historian Arthur Schlesinger Jr. It was a tangible offer to the Soviets, and — crucially — showed the world that Kennedy was committed to peace. It won him support that made possible, two months later, the unanimous adoption of nine legal principles establishing a set of norms that laid the groundwork for the UN Outer Space Treaty of 1967. This declared space "the province of all mankind".

Meeting in San Francisco last year, US and Chinese presidents Joe Biden and Xi Jinping failed to make significant progress on AI co-operation — even its most extreme aspects. Weaponisation of AI is already here, developed and deployed by nation states and private companies; facial recognition and autonomous drones, once theoretical, have been used in Ukraine. Without safeguards we could see lethal autonomous weapons continue to spread.

If both political and technology leaders continue to believe that there is strategic advantage in maintaining the "arms-race" narrative, what likelihood is there that the worst excesses of science will be mitigated and managed?

The UN Outer Space Treaty suggests that co-operation, however slight, is a way forward. It was imperfect — it did not, for example, anticipate a future where private individuals could own and operate rocket companies. Space remains militarised to a degree. But the success of the treaty lies in its very existence. Agreed during the height of geopolitical tension, it is filled with duties to consult and consider other nations. It explicitly links science with the global project of humankind, stating that innovation in space must be for the benefit of all, and creates the conditions for peace in space without hampering innovation.

As a result, governments have been able to pursue co-operative efforts in telecommunications, in climate science, in shared sensors and in the International Space Station. The intentions set down in 1967, while in no way comprehensive or complete, continue to this day. Dr Bleddyn Bowen, a global expert in space policy and international relations, called it "one of the most successful treaties ever created".

AI, like space in the mid 20th-century, is a new frontier; it's a blank sheet for global norms. As in the early days of the space race it has become a proxy for opportunistic politicians, excitable scientists, and canny private companies, all eager to use it to further their own agenda. The majority of AI development is now based in private companies, and the UN is less powerful than it was. But this should not prevent us imagining — and demanding — a future for the technology that is at least as inspiring and uplifting as the achievements of those who took us to the Moon.

Even without the recent export controls, the US already has a vast advantage when it comes to AI talent, investment and development. What its political leaders choose to do with that advantage will be decisive. Restrictions, even outright bans, on certain types of weapons have always been necessary. In the case of AI-based weaponry, world leaders should not wait for a disaster. The meeting in the heart of Silicon Valley was a missed opportunity. We should all hope both Biden and Xi learn from their cold war predecessors, and don't let another chance pass them by.