

America's Approach to Leveraging AI for National Security: Countering China through Coalitions and Standards

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The Biden Administration's Interim National Security Strategic Guidance (INSSG) [1] of 3 March 2021 recognizes the far-reaching economic, political, and military power potential from Artificial Intelligence and other emerging technologies [2], while also setting out as key priorities the need for the United States to rebuild its alliances, revitalize an international liberal order grounded in democracy and human rights, and pressing China to act responsibly within that international order. At this time, the White House can benefit from a strong degree of bipartisan agreement on the strategic importance of Artificial Intelligence (AI) and from the recent development of a substantial, whole-of-government reflection exercise on AI policy. This bodes well for the United States and her allies in Europe and Asia.

NSCAI Report

The primary source of expertise that the Biden Administration is relying on for analysis and guidance on adopting AI to promote U.S. values and interests is the National Security Commission on Artificial Intelligence (NSCAI)'s Final Report issued March 1 [3] The NSCAI's goal was to present comprehensive, bipartisan advice to the President and Congress to "defend, compete, and win in the AI era" vis-a-vis China as it challenges U.S. leadership of the international order. The NSCAI Final Report concluded that the US Government is not properly organized or resourced to win the technology competition against China nor defend itself effectively against AI-enabled threats, and it called on the U.S. Government to be "AI Ready" by 2025.

Cautioning that the US Government alone cannot win this technology race with China, the NSCAI urged the US Government move quickly to build "a favorable international technology order." These recommendations included restoring alliances and using those alliances to pursue common policies on AI; promoting principles and standards on AI's safe and responsible use in ways that bolster human rights, civil liberties, and democratic values; and defending against malign uses of AI by adversaries and competitors. The Biden Administration has begun to implement a number of the NSCAI recommendations and has brought several NSCAI members into senior Administration positions [4].

A Democracy-Based Technology Alliance to Counterbalance China

In overall foreign policy terms, Secretary of State Tony Blinken has described the US Government's approach to China as "competitive when it should be, collaborative when it can be, and adversarial when it must be" [5]. With respect to AI and related technologies, China is recognized as "a full-spectrum peer competitor of the United States in commercial and national security applications of AI" [6]. China has likely already overtaken the United States in the areas of facial recognition and speech recognition, and its Shenzhen-based manufacturer DJI dominates the global commercial drone market [7]. Chinese researchers now publish more scientific papers in the field of AI than American researchers [8].

The White House has begun talks with allies and partners on how to counterbalance and compete with China on technology development, including via an “Emerging Technology Coalition” [9] as the NSCAI has recommended. President Biden is expected to propose this idea on his mid-June trip to Europe to meet with G-7, EU, and NATO leaders [10].

Such a coalition would become the primary vehicle for U.S., EU, and Asian allies and partners to promote democratic norms and standards on AI and provide commercial technology alternatives to countries currently receiving 5G and surveillance technologies from China via its Digital Silk Road Initiative. Such a coalition will probably need to adopt a multi-stakeholder model that engages the private sector, university and research institutions, civil society, and international organizations to work with democratic governments to develop new applications, norms, standards, and global governance mechanisms for AI in the coming decade.

Before launching this initiative, however, the Biden Administration first will need to find common ground with the European Union on the issues of data protection and AI regulations. The EU’s privacy- and safety-first regulatory approaches offer a persuasive alternative to China’s centralized model of AI development and implementation. On data protection, a US-EU agreement on the free flow of data would give immediate international appeal to an AI coalition. On AI regulations, the EU’s April 21 proposal [11] focusing on regulating “high-risk” AI applications offers a promising basis for a trans-Atlantic AI regulatory ecosystem that could easily scale globally. White House National Security Adviser Jake Sullivan has notably welcomed the EU’s AI initiative [12]. If progress is made on these issues in the coming few months, it would be a clear indicator of readiness to launch a democracy-based technology coalition soon thereafter.

Promoting Global AI Principles, Norms and Standards Based on Democratic Values

As AI and related technologies mature, countries and companies developing these technologies have a valuable “first-mover” advantage in setting global norms and standards for how these technologies should be designed and used. Cognizant of this, the U.S. Government was instrumental in helping the 38 member states of the Organization for Economic Cooperation and Development (OECD) adopt a Statement of AI Principles [13] in May 2019 that emphasized the need to develop AI that is safe, secure, trustworthy, transparent, and aligned with human rights and civil liberties. The G-20 countries, including China, welcomed the OECD’s AI Principles shortly thereafter.

At the same time, however, China has acquired substantial influence in technical discussions on AI at international technical standards-setting bodies like the UN’s International Telecommunications Union (ITU), the International Standards Organization (ISO), and the Institute of Electrical and Electronics Engineers (IEEE), and is actively trying to co-opt leadership and decision-making processes at those bodies to lock in Chinese-friendly standards on AI [14]. In response, the U.S. Administration is starting to press its diplomats and allies to pay greater attention to these bodies and is considering how to involve the US Government more directly in industry-based decision-making processes. The White House is reportedly considering mandating the National Institute of Standards and Technology (NIST) to convene a federal advisory panel including members from the private sector and academia, to develop U.S. positions on AI standards and work with Allies to bring these positions to the ISO and IEEE [15].

Laying the Groundwork for AI Arms Control Agreements

The use of AI-enabled autonomous decision making in advanced weapon systems – including in nuclear weapons and unmanned lethal autonomous weapon systems (LAWS) – may be the most destabilizing

application of AI for national security over the coming decade. Using machine learning algorithms autonomously to assess battlefield conditions and adversary defenses, identify targets, and order the launch of weapons could confer decisive advantages in speed and precision over a human commander pursuing the same sequence of steps. The NSCAI's Report called on the White House to reduce the risks of military AI by (1) Publicly affirming existing U.S. policy that only human beings can authorize use of nuclear weapons and seeking similar commitments from Russia and China; (2) establishing venues to discuss AI's impact on crisis stability with competitors; and (3) developing international standards for the development, testing, and use of AI-enabled and autonomous weapons.

For now, the international community lacks a consensus view on whether, when, and how to regulate the use of AI for military purposes. Since 2014 there has been an ongoing debate under UN auspices in Geneva over LAWS, with at least 28 countries, the International Committee of the Red Cross (ICRC) and dozens of other NGOs demanding a full ban [16]. The United States, China, Russia, and many NATO members oppose a ban, or indeed any technical constraints on autonomous technology development.

Regarding nuclear weapons, however, the White House hinted in the INNSG that it may consider the NSCAI recommendation to pledge that any decision to authorize nuclear weapons use must only be made by humans, not by an AI-enabled or autonomous system. Such a pledge would likely be announced in the Nuclear Posture Review (NPR) expected to be finished this summer [17]. It remains unclear whether the White House will press the other four recognized nuclear weapon states (United Kingdom, France, Russia, and China) to make the same commitment. At some future point, perhaps when the US Government is confronted by adversaries deploying AI-enabled weapon systems, the U.S. Administration may have no choice but to pursue negotiations on a verifiable arms control agreement governing AI-enabled and autonomous weapon systems.

What Comes Next

The Biden Administration's approach to leveraging AI for national security has taken early shape, influenced heavily by the NSCAI report. Among the U.S. Administration's key initial priorities are laying the groundwork for a diplomatic coalition of techno-democracies and promoting global AI standards based on democratic values. These are positive steps. But the real test of the US Government's long-term commitment to secure U.S. leadership on AI lies ahead, and depends in part on these questions: Can the U.S. and EU find common ground on AI regulations? Will AI leadership remain a safely bipartisan issue in Congress? Will Biden's 2022 budget request provide the funds necessary to allow the U.S. Government to adopt AI comprehensively? Will the U.S. seek an international consensus on the use of AI in weapon systems? Perhaps most importantly, over the longer-term will the United States and its allies be able to develop the human talent and fund the AI R&D infrastructure necessary to stay ahead of Chinese AI innovation? The only certainty is that the competition for global AI leadership will reshape geopolitics for decades to come.

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Notes

- [1] “Interim National Security Strategic Guidance” issued March 3, 2021, The White House; <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/03/interim-national-security-strategic-guidance/>
- [2] “whoever shapes the use of emerging technologies like AI, autonomous decision-making, biotechnology, and quantum computing will have an economic, political, and military advantage for decades to come”, *ibid*, p. 4.
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- [4] <https://www.fedscoop.com/white-house-announces-top-tech-adviser-jason-matheny-national-security/>
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