National Security Commission on Artificial Intelligence

Initial Report

July 2019

July 31, 2019

The Honorable Nancy Pelosi
United States House of Representatives
H-204, United States Capitol Building
Washington, DC 20515

The Honorable Kevin McCarthy
United States House of Representatives
H-329, United States Capitol Building
Washington, DC 20515

The Honorable Chuck Schumer
United States Senate
322 Hart Senate Office Building
Washington, DC 20510

The Honorable Mitch McConnell
United States Senate
317 Russell Senate Office Building
Washington, DC 20510

Dear Speaker Pelosi, Majority Leader McConnell, Minority Leader McCarthy, and Minority
Leader Schumer:

In accordance with the Fiscal Year 2019 John S. McCain National Defense Authorization Act
(P.L. 115-232), we hereby submit the initial report of the National Security Commission on
Artificial Intelligence.

The mandate given to this independent federal commission presents a significant opportunity "to
consider the methods and means necessary to advance the development of artificial intelligence,
machine learning, and associated technologies by the United States to comprehensively address
the national security and defense needs of the United States."

This initial report, delivered in response to the request in P.L. 115-232, Sec. 1051(c)(1), provides
a summary of the Commission's activities to date and a plan for the next phases of our work. Our
interim report this fall will offer early substantive assessments, and our final report will lay out the
Commission's full findings and recommendations.

We thank you for the honor and opportunity to serve our country on an issue of utmost importance
to the future of U.S. national security and defense.

Respectfully submitted,

Eric Schmidt
Chairman

Robert O. Work
Vice Chairman

NSCAI Update to Congress — July 2019

The National Security Commission on Artificial Intelligence (NSCAI) was established by the *John S. McCain National Defense Authorization Act for Fiscal Year 2019*. In that legislation, Congress requested an initial report from the Commission within 180 days of the NDAA's enactment.[1] The following update responds to that request.

Background

The NSCAI is comprised of fifteen Commissioners, led by Chairman Eric Schmidt and Vice Chairman Robert Work.[2] Commissioners were appointed by Members of Congress and by the Secretaries of Defense and Commerce. The Commission is bipartisan and Commissioners are drawn from across the country. They bring broad and deep expertise in the private sector, academia, and government. The NSCAI mandate is to "consider the methods and means necessary to advance the development of artificial intelligence, machine learning, and associated technologies by the United States to comprehensively address the national security and defense needs of the United States."[3] All Commissioners and Commission staff are committed to collaborating with, and providing timely recommendations to, Congress and the executive branch.

Initial Activities

The Commissioners met and began to work in earnest in March 2019. Most of the Commission staff was appointed by late April. During these early months, the Commissioners and staff have focused on surveying the AI landscape, and have held three plenary meetings:

- Plenary #1: The Commission's first meeting was held on March 11 in Arlington, VA. Senator Martin Heinrich and Representatives Elise Stefanik and Jerry McNerney participated. They laid out their expectations and recommendations for the Commission, and expressed strong support for our mandate. Commissioners received briefings from the Defense and Commerce Departments and from the Intelligence Community.

- Plenary #2: The Commission convened on May 20 in Cupertino, CA. Commissioners were briefed on U.S. Government policies and perspectives, including from the White

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[1] P.L. 115-232, Sec. 1051(c)(1).
[2] Other commissioners include Safra Catz, Steve Chien, Mignon Clyburn, Chris Darby, Ken Ford, José-Marie Griffiths, Eric Horvitz, Andy Jassy, Gilman Louie, William Mark, Jason Matheny, Katharina McFarland, and Andrew Moore.
[3] P.L. 115-232, Sec. 1051(b)(1).

House Office of Science and Technology Policy, the National Security Council, and the Defense Department's Office of Net Assessment.

- Plenary #3: The third meeting on July 11, also held in Cupertino, CA, featured briefings from the Intelligence Community, the Federal Bureau of Investigation, and the National Security Council.

At the first meeting, Commissioners decided to meet in plenary every other month, and organize themselves into four working groups focused on key areas to examine in detail. Each working group meets monthly, and will enumerate objectives, assess current challenges, and develop recommendations for consideration by the entire Commission. The preliminary results of the working group assessments will form the basis of the Commission's Interim Report to Congress in fall 2019.

- Working Group #1   Maintaining U.S. Global Leadership in AI Research. The first group is focused on how the U.S. Government, through policy reforms, incentives, or appropriations, can help accelerate academic research and commercial innovation in AI.

- Working Group #2   Maintaining Global Leadership in AI National Security Applications. The second group is focused on how the U.S. Government can adopt AI applications at speed and scale to protect U.S. national security, including through policy, process, governance, and organizational reforms.

- Working Group #3   Preparing Our Citizens for an AI Future. The third group is focused on how to overcome challenges and develop incentives to build a world-class, AI-ready national security workforce.

- Working Group #4   International Competitiveness and Cooperation in AI. The fourth group is considering ways to enhance U.S. global competitiveness, leverage our alliances, and establish norms that advance U.S. values and interests.

Commissioners have also decided to pursue Special Projects on three cross-cutting issues: 1) harnessing AI through public-private partnerships, 2) pursuing the responsible and ethical use of AI for national security, and 3) managing data to support AI applications.

As of July 11, 2019, the Commission has held nine working group meetings. From March to July, the Commissioners and staff have received over 100 briefings, both unclassified and classified, on a wide range of government, academic, and commercial topics related to AI.

Relationship to Ongoing USG Efforts

The Commission's Chair and Vice Chair held informative initial engagements with House and Senate staff members on June 28, and will seek further opportunities to consult with Congress throughout the course of the Commission's work.

The Commission is also working in close collaboration with the White House, the National Security Council, the Office of Science and Technology Policy, and executive departments and agencies, to ensure that the many ongoing U.S. Government efforts in AI are complementary and reinforcing. Ultimately, these efforts should produce a comprehensive and enduring national approach to maintaining America's AI advantages in the realm of national security. The Commission has enjoyed exceptional cooperation from other U.S. Government offices working on issues relevant to the Commission's work.

Other major U.S. Government efforts include: the February 2019 Executive Order on Maintaining American Leadership in Artificial Intelligence;[4] the National Security Presidential Memorandum on Protecting the United States Advantage in Artificial Intelligence and Related Critical Technologies; the National Science and Technology Council's National Artificial Intelligence Research and Development Strategic Plan 2019 Update;[5] the Department of Defense's 2018 AI Strategy;[6] the Office of the Director of National Intelligence's AIM Initiative;[7] and the Department of Energy's AI initiatives.

Relationship with Industry and Academia

The Commission is committed to understanding a range of perspectives from outside of government. Given the central role of universities, research centers, and private enterprises in AI innovation, the NSCAI will ensure that expertise and insights from these arenas are integrated into the Commission's work. Toward that end, the Commission has held engagements with a wide range of academic and private sector groups, and we have enlisted leading figures in the AI field to serve as advisors or to offer their perspectives to the Commission.

Ethics and Responsible Use

The Commission is firmly committed to integrating ethical considerations into all components of its analysis and research. The Special Project on AI ethics will convene experts across the range

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[4] E.O. 13859, available at https://www.govinfo.gov/content/pkg/FR-2019-02-14/pdf/2019-02544.pdf.

[5] https://www.nitrd.gov/pubs/National-AI-RD-Strategy-2019.pdf.

[6] https://media.defense.gov/2019/feb/12/2002088963/-1/-1/1/summary-of-DoD-AI-Strategy.pdf.

[7] https://www.dni.gov/files/ODNI/documents/AIM-Strategy.pdf.

of ethicists in the private sector, academia, and within government, and is working closely with the Defense Innovation Board's AI Principles Project.

Commission Staff

The Commission is supported by a professional staff of about 20, including direct hires and detailees from the military services and government agencies. The staff is organized into three teams, focused on research and analysis, outreach and engagement, and operations. The staff frames questions, convenes experts, manages day-to-day relations with counterparts in and out of government, and prepares the commissioners for their regular meetings as the NSCAI moves toward its Final Report.

Next Steps

- The Commission will continue to carry out the assessment phase of its work, which should be complete by November 2019. At that time, the Commission will submit an Interim Report to Congress on its initial findings and judgments.
- The delivery of the Interim Report will mark the shift to the Commission's analysis phase, which will take up much of 2020. The analysis phase will be followed by a final phase of work focused on consolidating the Commission's findings and refining its final recommendations.

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