



National Security Commission on Artificial Intelligence Public Minutes of Commission Meeting

Monday, July 20, 2020 – 1:30pm – 4:00pm EST

Location: Video Teleconference

ATTENDANCE

Commissioners Present:

- Dr. Eric Schmidt, Chairman
- Hon. Robert Work, Vice-Chair
- Ms. Safra Catz
- Dr. Steve Chien
- Hon. Mignon Clyburn
- Mr. Chris Darby
- Dr. José-Marie Griffiths
- Dr. Eric Horvitz
- Mr. Gilman Louie
- Dr. William Mark
- Dr. Jason Matheny
- Hon. Katharina McFarland
- Dr. Andrew Moore

Commissioners Not Present:

- Dr. Ken Ford
- Mr. Andy Jassy

Commission Staff Present:

- Yll Bajraktari, Executive Director
- Michael Gable, Chief of Staff, Committee Management Officer
- Angela Ponmakha, Designated Federal Officer
- Michael Lueptow, General Counsel
- Tara Rigler, Director, Strategy, Communications, and Engagement
- Commission Staff

AGENDA ITEM: CALL TO ORDER AND OPENING REMARKS

Ms. Ponmakha, as the Designated Federal Officer, called the meeting to order.

Mr. Bajraktari, Dr. Schmidt, and Hon. Work gave brief opening remarks.

AGENDA ITEM: LINE OF EFFORT 3 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendations:

Dr. Griffiths gave a presentation of the proposed recommendations from Line of Effort 3.

The first recommendation was to create a National Reserve Digital Corps (NRDC). Dr. Griffiths noted that the U.S. Government needs a better way to tap into the expertise of those who would like to contribute but are unwilling or unable to become full-time government employees or military reservists. While short-term volunteers are not a substitute for full-time employees, they can help improve AI education for both technologists and non-technical leaders, perform data triage at the acquisition level, help guide projects and frame technical solutions, build bridges between the public and private sectors, and other important tasks.

The second recommendation was to expand the Scholarship for Service Programs to cover disciplines such as cybersecurity, AI, network architecture, software engineering, data science, computer science, mathematics, robotics, and others. With more funding, Scholarship for Service programs would increase digital talent in government service.

The third recommendation was to create a U.S. Digital Service Academy (USDSA) to train future public servants in digital skills. The proposed academy would be an accredited degree-granting university that receives government funding. It would provide technical education to students during the school year, and students would participate in government and private-sector internships during the summer. Dr. Griffiths also noted that the recommendation includes a suggested multi-year implementation plan.

Commissioner Discussion:

Hon. Clyburn noted that the Commission should be mindful that talent comes in many forms and from many places. As the Commission thinks about how to implement these measures, it should be inclusive and recognize there is talent in every corner of the nation.

Dr Griffiths responded that although this topic was not included in the Commission's second quarter recommendations, future recommendations will address how to ensure a diverse and inclusive pipeline of talent.

Dr. Schmidt inquired about potential pushback to the recommendations.

A NSCAI staff representative explained that one concern that has been expressed is the startup cost, but also noted that much of these recommendations are about expanding scale and scope, which is complemented by the creation of a digital service academy.

Hon. Clyburn also noted that non-traditional methods apart from classic education models will ensure that the pipeline can be inclusive regardless of the opportunities that individuals have been exposed to in the past.

Hon. Work noted that it is important to increase the digital literacy of federal civilian employees within the broader federal government outside of just the Department of Defense.

Mr. Louie commented that the government faces a large shortage of AI professionals. He noted that these recommendations are a way to more broadly engage young people. He also recognizes the importance of reserve corps to attract talent outside of government.

Dr. Chien noted that the government is not unique in experiencing a shortage of a digitally savvy workforce. He also remarked on the importance of these recommendations as a method for the government to catch up to private tech industries in terms of workforce.

Dr. Griffiths noted that, in addition, Scholarship for Service graduates could potentially transfer into the NRDC after they have completed their service obligations.

Dr. Mark wished to underscore Hon. Clyburn's previous comment that the proposed programs need to be inclusive. He noted that this could also affect the overall shortage of AI professionals that Dr. Chien discussed. He commented that this inclusivity could help to bridge that gap.

At the conclusion of the discussion, Hon. Work called for a voice vote. All proposed LOE 3 recommendations passed unanimously.

AGENDA ITEM: LINE OF EFFORT 4 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendations:

Mr. Louie gave a presentation of the recommendations from Line of Effort 4.

Mr. Louie presented four broad principles which underpin the LOE's approach to export controls and investment screening and which should serve as a guide for future policymaking on technology protection. The four broad principles were:

- First, controls cannot supplant investment and innovation.
- Second, U.S. strategies to promote and protect emerging technologies such as AI must be integrated.
- Third, export controls on widespread and dual-use technologies such as AI must be targeted, strategic, and coordinated with allies.
- And fourth, the United States should pursue a more discerning approach on export controls while broadening investment screening.

Mr. Louie noted that the eight recommendations from LOE 4 can be divided into three broad categories: 1) Enhancing Capacity to Carry Out Effective Technology Protection Policies; 2) Applying Export Controls to AI; and 3) Focusing CFIUS on Preventing the Transfer of Technologies that Create National Security Risks.

The proposed recommendations were as follows:

1. Enhancing Capacity to Carry Out Effective Technology Protection Policies
 - Recommendation 1 is to mandate that the Department of Commerce coordinate new rules with existing technical advisory groups that include outside experts.
 - Recommendation 2 is to designate a network of Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers (UARCs) to serve as a shared technical resource on export controls and help automate review processes.
2. Applying Export Controls to AI
 - Recommendation 3 is to prioritize hardware controls to protect U.S. national security advantages in AI, and consider future controls surrounding data.
 - Recommendation 4 is for the President to expedite key Export Control Reform Act (ECRA) and Foreign Investment Risk Reduction Modernization Act (FIRRMA) regulations by issuing an executive order directing the Department of Commerce to finalize identification of emerging and foundational technologies under ECRA.
 - Recommendation 5 is that the United States should work with the Netherlands and Japan to restrict the export of Extreme Ultraviolet and ArF immersion lithography equipment to China, and take steps to increase demand for such tools among U.S. firms.

- Recommendation 6 is that the Departments of State, Commerce, and Treasury should work with allies on legal reforms to implement unilateral export controls and enhance investment screening.
3. Focusing CFIUS on Preventing the Transfer of Technologies that Create National Security Risks
- Recommendation 7 is to grant the Treasury Department the authority to mandate CFIUS filings for non-controlling investments in AI and other sensitive technologies from China, Russia, and other competitor nations.
 - Recommendation 8 is to Expedite Treasury Department CFIUS exemption standards for allies and partners and create fast tracks for exempting trusted investors.

Commissioner Discussion:

Ms. Catz praised the group for how it created focused recommendations that are actionable. She remarked on the importance of recognizing that protections are not a substitute for investment, noting that we have to continue to be the innovators and the leaders and that capital investment is needed to make that happen. Ultimately, she commended how the recommendations were so carefully thought out.

Mr. Louie agreed that the group focused its effort on targeted export controls rather than broad-based controls. He remarked that the best way to protect is to stay ahead and that the U.S. should put nations that are cooperative and share its values on a much faster track for investment screening than other countries who may be competitors.

Dr. Schmidt inquired if Mr. Louie was satisfied that the recommendations were written precisely enough that they could be translated into a workable policy.

Mr. Louie responded that they are. He stated that it will be crucial to give agencies access to expert talent so they can keep up with rapidly evolving technology. Leveraging FFRDCs and UARCs to grow the government's knowledge base will make these recommendations much more actionable. Mr. Louie also noted that it will be important for the White House to consider adopting LOE 4's draft Executive Order, which makes it more clear which items require extra scrutiny.

Hon. McFarland noted the importance of connecting LOE 4 and LOE 5 efforts.

Dr. Horvitz reinforced the importance of engaging internationally when it comes to AI. He also commented that, especially with broad titles such as "Export Controls on AI," the Commission should be cautious about the unintended consequences of these recommendations and think deeply about tailoring workable safeguards, for example, in certain areas of hardware.

Mr. Louie agreed. He commented that the working group was very specific by focusing on areas around hardware, and potentially data. He explained that they chose to focus less on algorithms because algorithms are often open-source. Mr. Louie noted that changes must be targeted toward technologies that pose a national security risk and should require adjustments based on which countries the technology is going to. He highlighted that industry needs to be able to move quickly through the process, and the U.S. needs the capability to make quick determinations, but he also noted that the recommendations must be targeted and focused on areas of national security.

Ms. Catz noted that there is more work to be done in this area. She commented that while the U.S. should strive to move as quickly as possible with allies, it is also important to consider those allies' intentions and how they may cooperate with strategic competitors of the United States.

Mr. Louie agreed and pointed out that the recommendations also call for U.S. allies to strengthen their export controls and investment screening regimes. In order to receive fast-tracked CFIUS review, allies would need to possess similar protections to ensure that the technologies do not end up in countries that could harm U.S. national security.

Hon. McFarland questioned if there has been any negative feedback on the CFIUS recommendations.

An NSCAI staff representative commented that there has been largely positive feedback. The fast-tracking of allies is universally agreed upon. He also noted that there was debate over the approach to sensitive tech with regard to China and Russia when FIRRMA was being drafted and that much stronger mandatory screening requirements were ultimately not included in the bill. The Commission's recommendations would reassert some of those mandatory requirements in a way that is very tailored to sensitive technologies and certain countries of special concern, which should resolve some of the previous pushback.

Mr. Louie also noted that protections are not a substitute for investments. He stated that there is potential for pushback from industry representatives if the Commission doesn't consider encouraging investments to promote microelectronics.

Another NSCAI staff representative noted that the climate has changed since FIRRMA was first considered. He stated that the staff believes that the timing is right for these recommendations now.

At the conclusion of the discussion, Hon. Work called for a voice vote. All proposed LOE 4 recommendations passed unanimously.

*** After the meeting, Hon. Katharina McFarland changed her vote on Line of Effort 4's Recommendations 7 and 8 from affirm to abstain. Commission staff are noting this change in these NSCAI meeting minutes for the July 20, 2020 public meeting. ***

AGENDA ITEM: LINE OF EFFORT 5 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendations:

Dr. Matheny gave a presentation of the recommendations from Line of Effort 5. The recommendations were as follows:

- Recommendation #1: The Secretary of State should establish a Strategic Innovation and Technology Council composed of the Department's senior leadership.
- Recommendation #2: The Department of State and Congress should expedite efforts to establish the proposed Bureau of Cyberspace Security and Emerging Technology.
- Recommendation #3: The Department of State should enhance its presence in major foreign and U.S. technology hubs and establish a cadre of dedicated technology officers at U.S. embassies and consulates to strengthen diplomatic advocacy, improve technology scouting, and inform policy and foreign assistance choices.
- Recommendation #4: The Department of State should incorporate AI-related technology modules into key Foreign Service Institute training such as the Ambassadorial Seminar, Deputy Chiefs of Mission Course, Political and Economic Tradecraft courses and A-100 orientation training courses. The State Department should also develop a stand-alone course on emerging technologies and foreign policy.
- Recommendation #5: NSCAI recommends that Congress conduct hearings to assess the Department's posture and progress in reorienting to great power and technology competitions.

Commissioner Discussion:

Hon. Work asked if the Department of State seemed receptive of these recommendations.

Dr. Matheny responded that the need for all 5 recommendations is acute within the Department. He noted that the Bureau recommendation was first raised internally within the State Department. He stated that bringing together the expertise needed to lead on technology diplomacy with security dimensions is a key need. Ultimately, he felt that all five recommendations have support within the State Department.

An NSCAI staff representative also noted that there is a core group inside the Department that supports the initiatives. However, the recommendations will require broad support over time. He also noted that in order to ensure that the recommendations are sustained over time, bipartisan Congressional action will be needed.

Mr. Bajraktari read a comment from Peter Brown in the European Parliament Liaison Office that was posted to the Commission's YouTube livestream. "I would commend the latest report from the European Commission's High Level Expert Group, that covers assessment of what constitutes 'trustworthy AI' - it fits very much the spirit of LOE5." Mr. Bajraktari stated that the Commission staff will reach out to Mr. Brown for further conversations on this topic.

Dr. Schmidt expressed his support for these recommendations, noting that it seems that the State Department presumably wants these recommendations and authorities.

Mr. Louie noted that although the Department of State has a focused core group, they will ultimately be under-resourced given that AI expertise lies in many different regions. In order to have an effective and comprehensive program, the State Department needs the additional resources necessary to reach out and have that dialogue.

Dr. Matheny agreed that the State Department currently does not have the resources they need to effectively engage in as many opportunities for diplomacy as the U.S. needs to be pursuing.

Dr. Schmidt inquired if the Commission is planning to sum up how much money is needed for the recommendations.

Mr. Bajraktari responded that the Commission staff is working on a table that will sum up the funding required for each recommendation and that the staff will work with Congress and the Executive Branch to explain the rationale.

Dr. Schmidt suggested presenting the recommendations in a way that ensures that important and relative-low budget changes don't get arbitrarily cut from proposals.

An NSCAI staff representative noted that the proposal to create a Bureau of Cyberspace Security and Emerging Technology would require a reprogramming of State Department funds, which the Department has already proposed. He also noted that time is of the essence. There is an urgency to make these changes and the existing proposal does so in a way that is cost-neutral and effective.

At the conclusion of the discussion, Hon. Work called for a voice vote. All proposed LOE 5 recommendations passed unanimously.

AGENDA ITEM: LINE OF EFFORT 6 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendation:

Dr. Horvitz gave a presentation of the recommendation from Line of Effort 6.

Dr. Horvitz introduced the working group's Key Considerations document as a paradigm for responsible development and fielding of artificial intelligence. The Key Considerations paradigm identifies and explains 5 key disciplinary practice areas that cover the AI lifecycle: 1) Values; 2) Engineering Practices; 3) System Performance; 4) Human-AI Interaction; and 5) Accountability and Governance. The paradigm outlines concrete recommended practices within each disciplinary category that national security agencies should use as they develop, acquire, and field AI.

Dr. Horvitz proposed that the Commission recommend that the heads of departments and agencies implement the Key Considerations as a paradigm for the responsible development and fielding of AI systems. This includes developing processes and programs aimed at adopting the paradigm's recommended practices, monitoring their implementation, and continually refining them as best practices evolve.

Commissioner Discussion:

Hon. Clyburn voiced her appreciation that Dr. Horvitz affirmed how our principles must remain intact. She noted that these principles cannot be abandoned. Hon. Clyburn commented that these conversations are occurring early on in the process. She recognized that this is a really difficult line of effort but one that is extremely necessary before any other substantial Commission work moves forward.

Dr. Schmidt requested further clarification regarding how the document will be implemented. He asked whether agencies will create their own policies or if the Commission is planning to create more specific recommendations.

Dr. Horvitz responded that the current thought is to remain high-level and leave it to the Departments to make their own policies. The Commission's recommended practices are foundational to intentional, coordinated efforts among the national security agencies. However, he noted that the Commission may wish to be more specific in future reports.

Dr. Moore requested further elaboration on the work the Commission is doing with other countries and international organizations on the work of AI ethics.

Dr. Horvitz responded that he hopes that the Key Considerations have the potential to form the foundation for international dialogue on areas of cooperation and collaboration, even with potential adversaries.

Mr. Louie commended the team on the quality of work that has been done in creating these recommended practices. He stated that difficulty exists in implementing these considerations. Mr. Louie commented that the U.S. needs to rethink how it does testing and validation, particularly for big systems with potential emergent behaviors. He noted that the current traditional testing systems are inadequate. More work is needed to establish the ability to determine if the testing and validation systems meet necessary ethical tests.

Dr. Horvitz agreed that collaboration will be needed to align for methods for testing and verifying AI system reliability performance. This includes aligning shared values with allies, such as fairness and privacy. It will also be important for establishing interoperability and trust with partners. He noted that efforts may potentially include dialogues between the US and strategic competitors to reduce chances of inadvertent escalation, especially with the prospect of epicierial machine-learning attacks.

Hon. McFarland noted that it is important to understand the global environment and take the time to establish our goals and premises at the high-level because there is a lot of work to do in the details. As a nation, these values tie to how we care about our values systems. She noted that the LOEs are often cross-cutting and this document creates a good foundation for that work.

Dr. Horvitz agreed. He added that the LOE tried to take the principles to the next level of concreteness. This necessitated thinking through areas of intersection, particularly with research and development.

Dr. Chien commented that AI ethics must be in the context of an operational use and an operational workflow. One of the challenges is to evaluate systems in a specific workflow and clearly describe that workflow so that it is understood that ethicality or lack thereof is only in the context of operations.

Dr. Horvitz agreed.

Mr. Bajraktari read a question that was sent in prior to the meeting from Dr. Michael Klare. “What is the commission doing to ensure that its ethical recommendations are taken seriously?”

Dr. Horvitz responded that as this is a second quarter report, there is more work to do as the Commission refines the details of the content as well as the recommendations themselves

moving forward. Ultimately, he noted, the recommendations will be aimed at working with the Executive Branch and the Commission will be pursuing the right level of engagement to seek assurances. He added that the Commission is already engaging with agencies to socialize the ideas and receive feedback, but they will continue to pursue getting these recs to the Executive Branch.

Hon. Work, as the Vice-Chair, tasked the NSCAI staff with creating possible implementation language to provide to the LOE 6 commissioners for the upcoming quarter so that they could consider if they want to develop more-pointed recommendations or remain at a broader level. He stated his belief that this is an important point because many do not know how to implement ethics into their systems.

At the conclusion of the discussion, Hon. Work called for a voice vote. The proposed LOE 6 recommendation passed unanimously.

AGENDA ITEM: LINE OF EFFORT 1 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendations:

Dr. Moore gave a presentation of the recommendations from Line of Effort 1.

Dr. Moore noted that the 11 proposed recommendations could be organized into 4 overall categories: 1) Equip the enterprise with necessary resources, tools and infrastructure to support AI R&D; 2) Invest in test and evaluation, verification, and validation capabilities to responsibly accelerate development of robust capabilities; 3) Optimize transition of breakthroughs from the laboratories to the field; and, 4) Unlock innovation at the defense laboratories through partnerships.

The proposed recommendations were as follows:

1. Equip the enterprise with necessary resources, tools and infrastructure to support AI R&D:
 - Creating an AI software repository;
 - Promoting Authorization to Operate (ATO) as the default practice;
 - Creating a DoD-wide AI data catalog to enable data discoverability; and,
 - Expanding Section 219 Laboratory Initiated Research Authority funding to support AI infrastructure and software investments at DoD laboratories.
2. Invest in test and evaluation, verification, and validation capabilities to responsibly accelerate development of robust capabilities:
 - Establishing an AI testing framework;

- Expediting the development of tools to create tailored AI test beds supported by both virtual and blended environments; and,
 - Creating test beds to focus on evaluation of market and market-ready AI solutions that could identify and evaluate emerging AI technologies to help serve DoD missions.
3. Optimize transition of breakthroughs from the laboratories to the field:
 - Congress to support the DoD software and digital technologies budget activity pilot and its expansion to include an S&T development effort.
 - Services to adopt AI development models that integrate AI experts, domain experts, acquisition experts, and end users.
 4. Unlock innovation at the defense laboratories through partnerships:
 - Directing the Services to adopt open innovation models through the Service labs.
 - Creating a DoD research and development database to make available a comprehensive view of ongoing AI R&D efforts to promote collaboration among DoD researchers and help manage the portfolio of AI research for future capabilities.

Commissioner Discussion:

Dr. Chien emphasized the need for reducing the time cycle to get updates because AI is such a rapidly evolving technology. He commented on a need to move away from long procurement cycles and into an agile model that allows for the experimentation and enhancement of AI at both the engineering and research levels.

Dr. Schmidt commented that in the private sector, open source libraries such as GitHub are used. There are government restrictions limiting use of that platform. As part of this proposal, there is a way of creating a similar type of repository that makes it faster to access the latest software.

Dr. Moore clarified Dr. Schmidt's comment that the Commission is not recommending opening GitHub for government use, but rather recommending using that type of model.

Mr. Louie stated his belief that there is a world beyond the agile method, based on real-time updates, that is required to do this type of work. He also noted that the agencies need to rethink computation. It is needed on a larger scale and must be sharable. Without the "compute" component, it is going to be difficult to test these new models.

Dr. Moore agreed and emphasized the importance of recognizing the advantage that stems from pooled resources in this area.

Hon. Work inquired if the LOE had considered where this would exist within the Department of Defense. He asked if it would fall under an existing entity or if it would create a new organization.

Dr. Moore responded that they had discussed it going under the CIO's office or through the Secretary of Defense through the JAIC.

An NSCAI staff representative stated that the LOE did evaluate potential placements. Ultimately, the recommendation was structured to leave it to the Department of Defense to determine which entity within the Department would have the responsibility to implement the standardized frameworks and toolsets. She also highlighted a six month time-frame to expedite good work that is already ongoing across the Department.

Dr. Moore added that while the Commission does see a need for a centralized set of expertise, the Commissioners understand that different uses of AI will have different testing and validation needs.

At the conclusion of the discussion, Hon. Work called for a voice vote. The proposed LOE 1 recommendations passed unanimously.

AGENDA ITEM: LINE OF EFFORT 2 RECOMMENDATIONS REVIEW AND DELIBERATION

Presentation of Proposed Recommendations:

Ms. Catz gave a presentation of the recommendations from Line of Effort 2.

Ms. Catz began by expressing her gratitude for the support the Quarter 1 recommendations have received in both the House and Senate during the ongoing National Defense Authorization Act (NDAA) proceedings. She noted that the second quarter recommendations build off of those initial accelerators to ensure the Department has an enduring ability to apply AI for national security and defense. She stated that the recommendations seek to: 1) Establish a strategic approach for identifying, resourcing, and ultimately fielding AI-enabled applications that address clear operational challenges; 2) Create mechanisms for tactical experimentation to ensure technical capabilities meet mission and operator needs; and 3) Provide paths to accelerate adoption of business AI applications essential to institutional agility.

Ms. Catz also highlighted recommendations that directly address the consensus judgment that the U.S. government is not adequately leveraging basic, commercial AI to improve business practices and save taxpayer dollars. She noted that together, LOE 2's recommendations from Quarter 1 and Quarter 2 drive necessary strategic change across the Department of Defense that enables our forces to have enduring access to leading capabilities.

Commissioner Discussion:

Dr. Chien emphasized the need to rapidly evaluate and deploy AI as an enabling technology and to overcome challenges surrounding fielding. He encouraged cross-fertilization across R&D, application, and operations.

Ms. Catz agreed and noted that silos within government or within the Department of Defense are one of the biggest issues that can delay fielding. She stated that, while the first quarter recommendations focused on leadership, the second quarter recommendations focus on leveraging, fielding, and sharing in order to reduce the inertia that builds up.

Mr. Louie emphasized the importance of the LOE's third recommendation. He noted that you cannot develop concepts of operations without putting the technologies (i.e., AI-enabled applications) into the hands of users to validate/invalidate their use. He explained that, until you put the technology into practice it is difficult to understand the capabilities. He also explained that this integration will not happen overnight, but these concepts can only be developed if users implement technologies in these exercises.

Ms. Catz agreed that the full capabilities of these technologies cannot be known until we begin to utilize them. As these AI-enabled applications are rolled into exercises, table tops, and war games, it will change how people think about what is possible. In addition, she noted, we will also learn what is not possible or what does not work well.

Hon. McFarland emphasized that in particular for LOE 2, which addresses national security missions and applications, the National Defense Strategy is a guide post. The tendency is towards programs of record, or large, visible systems. She noted that instead, AI is an enabler that enhances and improves. It is not something you can put your hands around like a commodity. Oftentimes AI gets lost because it enables other capabilities. She stated that the Commission is trying to both promote visibility of AI and elevate its importance.

Dr. Chien noted that increasingly, as we see more competition in algorithmic warfare, AI will be the discriminator, rather than traditional hardware-centric capabilities. He stated that the U.S. needs to recognize the importance of evaluating and using artificial intelligence, even if it may not be the headlining program of record. Dr. Chien also sought to build on Mr. Louie's earlier comment by stating that he wishes to actively encourage incorporating early-stage AI ideas into war games. He stated this early integration and experimentation will reveal unique applications and potential new strategies otherwise not explored. In addition, Dr. Chien noted that even lower-level commanders need to understand how to work with AI because it will have an impact on the nature of conflict.

Dr. Horvitz added that there may also be important benefits gained from red-teaming - not just for AI systems, but also for the human-AI teams implementing the systems - to understand their weaknesses and strengths.

Hon. McFarland noted that the defense system is ultimately built on risk aversion. She noted the importance of changing that risk paradigm to make Department of Defense procurement less prescriptive and systems more resilient.

Mr. Bajraktari noted that Hon. McFarland partially answered a question the Commission received online from ZS Congress: “Wonder what is your most pressing concern when it comes to integrating AI and Defense?” Mr. Bajraktari then invited any other Commissioners wishing to answer the question to do so.

Hon. Work emphasized an issue Mr. Louie discussed that the Department must be able to perform TEVV across different AI application areas that require different expertise. He noted that the Department doesn’t yet have the framework or thought process to do this. He stated that building TEVV expertise at scale is a pressing concern. He also commented on the negative impact that overpromising can have on AI operators. He explained that operators are starting to believe in the technologies and pull them into applications, but the Department must create the appropriate TEVV infrastructure to ensure that these systems can perform the way we say that they can.

Mr. Louie remarked that there is a moment down the road where the United States will need to make a choice between using AI for incremental improvement or for highly disruptive change. Historically, he stated that we tend to use new technologies in a way that doesn’t change the wiring diagram or change the way we think about our mental models of operation. However, he commented that AI can disrupt this paradigm and if we are not willing to disrupt ourselves, we are giving our adversaries the opportunity to disrupt us.

Hon. McFarland commented that due to the ongoing pandemic, there has been an acceleration to use AI to remain productive. She noted that this may be a bit of a silver lining as operators have been forced to start developing some confidence in these tools.

Dr. Moore agreed that for real AI deployment, change management in the organization is also required. He noted that a crisis accelerates these deployments. He also stated his hope that in the future, when there is a quick world crisis, the Department of Defense will have the nimbleness to react, and that it will not still be thinking in terms of 18 month technology cycles.

Ms. Catz emphasized the importance of sharing in these situations [such as the pandemic]. She stated that especially in times of crisis, it is important to look at what has worked and to think

about how that can be leveraged across various groups. She commented that this necessary push to close silos is a critical reason for the Commission's earlier recommendation for the DoD to establish a Tri-chaired Steering Committee and also for the Commission's second quarter recommendation to establish a technology annex to the National Defense Strategy.

At the conclusion of the discussion, Hon. Work called for a voice vote. The proposed LOE 2 recommendations passed unanimously.

In summation, Hon. Work noted that all of the Commission's Second Quarter Recommendations were unanimously approved.

AGENDA ITEM: PUBLIC COMMENT

Mr. Bajraktari read aloud some written comments from the public that the Commission received prior to and during the meeting. He also posed questions from the public to the Commissioners for answers. All received comments are included in Appendix A of these minutes.

AGENDA ITEM: CLOSING REMARKS

Mr. Bajraktari, Dr. Schmidt, and Hon. Work gave closing remarks.

ADJOURNMENT:

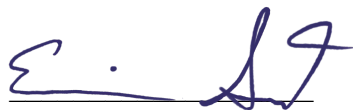
The meeting was adjourned at 3:53PM EST by Ms. Ponmakha, the Designated Federal Officer.

Prepared by: Commission Staff

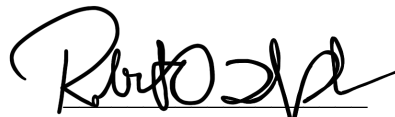
Approved and signed by the Commission's Designated Federal Officer:

Ms. Angela Ponmakha
Designated Federal Officer

Approved and signed by the Commission's Chair and Vice Chair: August 25, 2020:



Dr. Eric Schmidt
Chair



Hon. Robert Work
Vice Chair

Appendix: Public Comments and Questions Received for the July 20, 2020 Meeting:

Comments/Questions received through event registration or email:

Dr. Michael Klare asked “What is the Commission doing to ensure that its ethical recommendations are being taken seriously?”

Mr. Jonathan Rodriguez commented “I recommend increased focus on cybersecurity and supply chain security of AI systems.”

Mr. Jonathan Rodriguez also asked: “In the draft of the Second Quarter Recommendations, it is mentioned on page 101 that “[International collaboration] efforts could potentially include dialogues between the U.S. and strategic competitors on establishing common standards of AI safety and reliability testing to reduce the chances of inadvertent escalation.” I would like to ask whether the Commission has considered the possibility of making this especially important recommendation somewhat stronger in tone, given its high importance to strategic stability and thus to the survival of the human species. Suggesting that strategic stability dialogues about AI “could potentially” be held seems to be a statement that is too mild. I would like to humbly suggest that significantly stronger language should be adopted by the commission, such as:

The Commission recommends that international collaboration efforts should be accelerated or initiated at the track 2, track 1.5, and track 1 levels with America’s strategic competitors to establish mutual understanding of the global catastrophic risk which would be posed if any nation were to field an AI system which is mistakenly built in a way that is strategically destabilizing. The necessary talks should be held at both the diplomatic and technical levels and should involve members of the diplomatic, scientific, mathematics, engineering, and cybersecurity communities to promote mutual comprehension of the technical nuances by which the details of AI system design may impact strategic stability. The Commission recognizes that it is in every nation’s self-interest to ensure that no nation inadvertently fields a system which is destabilizing, and that open dialogue with strategic competitors at the technical level is necessary to avoid catastrophic mistakes in development, deployment, or mathematical theory.”

Dr. Colin Garvey of Stanford University asked “I am concerned the Commission overstates the threat of China, pushing the USA toward a Cold War-style "arms race" that is likely to amplify and accelerate the use of AI for authoritarian and anti-democratic purposes by both sides. Rather than countering an autocratic adversary with new technology, would it not be better to frame the NSCAI mission as promoting and enhancing democracy through AI?”

Jackson Barnett of FedScoop asked “For Dr. Jose-Marie Griffiths, are there certain projects that the reserve corps would work on? Does the reserve corps model lend itself to certain types of work or certain projects the commission will recommend?”

Comments/Questions received during the meeting via YouTube/Twitter

YouTube

Peter Brown commented “I would commend the latest report from the European Commission's High Level Expert Group, that covers assessment of what constitutes "trustworthy AI" - it fits very much the spirit of LOE5”

Roy Garris commented “Eric Schmidt hit the nail on the head. As an AI Lead for Social Security, we need details similar to the FedRAMP, FIPS, and NIST level controls in order to audit our own systems for compliance.”

Peter Brown responded to Roy Garris’ comment. “Roy Garris, agree absolutely. Given the role of international standards here, it's worth noting the work being done on exactly this, how to build AI management systems and ensure compliance with them.”

ZS Congress commented “Wonder what is you most pressing concern when it comes to integrating AI and Defense?”

Tom Creely, Sr provided the following comments:

- “I am working with Wendell Wallach et. al. organizing the 1st International Congress on Governance of AI to take place May 2020 in Prague.”
- “That is May 2021.”
- “For State Department & AI one of the NWC EEMT candidates is a Foreign Service Officer conducting AI research. She would be an excellent resource.”
- “AI and food insecurity/national security has play a significant role in Covid-19.”

Ken Nickerson commented “if ethics --> laws, who is held accountable for breech? are these tools and laws global? or do i setup my ai off-shore?”

Jack Paulson commented “Given DII's focus on deterring China, it is noticeable how little discussion there's been on transfer to the KSA. Should tech workers be confident their work with DoD won't be sold to Saudi Arabia?”

Fab Delgado commented “Data catalogs and repositories are under development under Chief Data Officer constructs as well and align with other FEBPA roles of Statistical Officers and Evaluation Officers... not just "CIO.””

John Davisson asked “Why not urge *Congress* to establish human rights safeguards for AI systems? The Q2 report includes many legislative recs, but for ethical AI, it speaks of "considerations," "best practices," etc. What better way to ensure "an intentional, government-wide, coordinated effort" on ethical AI than having Congress set baseline AI rules?”

Twitter

@Doplick commented “U.S. National Commission on #AI issues draft high-level ethical principles in 5 common areas across federal agencies: values, engineering principles, system performance, human-AI interaction, and accountability and governance. #ethics #ArtificialIntelligence @AiCommission”