

DEFENSE INNOVATION BOARD
Open Meeting Minutes
October 10, 2018
2:30 PM to 5:00 PM
Johns Hopkins SAIS, Washington, D.C.

The Defense Innovation Board (DIB) is a federal advisory committee within the Department of Defense (DoD) operating pursuant to the Federal Advisory Committee Act of 1972, the Government in Sunshine Act of 1976, and other appropriate federal regulations. The DIB meets quarterly and held its ninth public session on October 10, 2018 from 2:30 PM to 5:00 PM in the auditorium of the Johns Hopkins School of Advanced International Studies, Washington, D.C.

DIB Members (voting) (10)

Dr. Eric Schmidt (Chair)
Dr. Richard Murray
Dr. J. Michael McQuade
Mr. Milo Medin
Ms. Jennifer Pahlka
Ms. Marne Levine
Mr. Adam Grant
Dr. Eric Lander
Mr. Mark Sirangelo
Dr. Mary Cummings

DIB Staff Support (non-voting) (14)

Mr. Joshua Marcuse, Executive Director
Mr. Michael Gable, Designated Federal Officer
Ms. Janet Boehnlein
Captain Christopher Brunett, U.S. Navy
Ms. Bess Dopkeen
Ms. Courtney Greenley
Mr. Aaron Schumacher
Mr. Nicholas Lopez
Mr. Jon Margolick
Major Wess Smith, U.S. Air Force
Ms. Chenny Zhang
Ms. Courtney Barno
Ms. Devon Hardy
Ms. Sandy O'Dea

Guest Presenters (8)

Dr. Heather Roff, Sr. Research Analyst, Johns Hopkins Applied Physics Lab
Dr. Andrew Lohn, RAND Corporation and Professor of Public Policy at the Pardee RAND Graduate School
Mr. Michael Conlin, Chief Data Officer, Department of Defense
Mr. Leo Garcia, Chief Technology Officer, Joint Improvdes-Threat Defeat Organization (JIDO), Defense Threat Reduction Agency (DTRA), DoD
Dr. Amy Henninger, Highly Qualified Expert, Office of the Chief Management Officer, DoD
Ms. Philomena Zimmerman, Deputy Director Engineering Tools and Environments, Office of the Undersecretary for Defense for

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Public Commenters (11)

Mr. Scott Frohman
Mr. Eric Horan
Mr. Leonard Klenner
Mr. Justin Leopold-Cohen
Mr. Roger Misso
Mr. Jared Payne
Mr. Harry Petrey
Mr. Carlton Reeves
Mr. Matthew Rayburn
Mr. Jesse Silverman
Mr. William Theuer

Research and Engineering
Ms. Jane Rathburn, Deputy Director Defense
Business Systems, Office of the Deputy
Assistant Secretary of Defense for C3, DoD
Major Justin Ellsworth, U.S. Air Force,
Congressional Research Service

Public Session Attendees (207)

Livestream Participants (59)

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PUBLIC MEETING SESSION

1430-1435 Opening Remarks

- Administration & Compliance – Designated Federal Officer
- Introduction & Agenda Review – Executive Director
- Opening Remarks – Board Chair

1435-1450 Expert Presentations on AI Principles for Defense

- (1) Dr. Heather Roff, Sr. Research Analyst, John Hopkins University Applied Physics Lab and
- (2) Dr. Andrew Lohn, Engineer, RAND Corporation and Professor of public policy at the Pardee RAND Graduate School

Expert Presentation on Data as a Strategic Asset – Mr. Michael Conlin, Chief Data Officer, Department of Defense

Board Deliberation on Revision of Recommendation 12 - Forge New Approach to Data Collection, Sharing and Analysis

Update on SWAP Study Research Trips and Progress - Ms. Bess Dopkeen, SWAP Study Lead
Expert Presentations on SWAP Study:

1. Subgroup: Infrastructure Subgroup. (CO-LEAD) Jeff Boleng, Special Advisor for Software Acquisition to Undersecretary of Defense, Office of Acquisition and Sustainment, DoD
2. Subgroup: Security and Accreditation. (CO-LEAD) Leo Garciga, Chief Technology Officer, Joint Improvised-Threat Defeat Organization (JIDO), Defense Threat Reduction Agency (DTRA), DoD
3. Subgroup: Testing & Evaluation. (CO-LEAD) Dr. Amy Henninger, Highly Qualified Expert, Office of the Chief Management Officer, Reform Management, DoD
4. Digital Engineering. Philomena Zimmerman, Deputy Director Engineering Tools and Environments, Office of the Undersecretary of Defense for Research and Engineering
5. Subgroup: Appropriations. (LEAD) Jane Rathbun, Deputy Director Defense Business Systems, Office of the Deputy Assistant Secretary of Defense for C3, Cyber, and Business Systems, Acquisition, Technology, and Logistics, DoD
6. Subgroup: Workforce. (LEAD) Major Justin Ellsworth, U.S. Air Force, on detail to Congressional Research Service

Presentation on Implementation by the Department - Mr. Joshua Marcuse, Innovation Advisor to the Chief Management Officer

Public Comments

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PUBLIC COMMENTS

Mr. Scott Frohman said Thank you for having the important dialogue on artificial intelligence principles for defense.

Mr. Eric Horan asked How will Artificial Intelligence be incorporated into DoD Program's of Record? Understandable that Ai has been elevated to OSD level (JAIC), but how will Program Managers be able to leverage Ai in their systems? Recommend that Emerging Technologies such as Ai, Mixed Reality, and Advanced Manufacturing (3D printing) be specifically addressed in Acquisition Strategies & Plans.

Mr. Leonard Klenner asked How should international relations schools engage with technology driven skill-shifts? To what extent does international and strategic education need to center on an understanding of technology, such as artificial intelligence? What lessons has the DIB learned in this context that could be applied to education? Thank you.

Mr. Justin Leopold-Cohen Interested to hear what the DIB has to say about the future balance of authority on Federal cyber security between DOD & DHS

Mr. Roger Misso After more than five years of churn, the Department of Defense is still no closer to solving the various malaises that plague each service's personnel management systems. Much good work has been done on this subject, both here at DiB and through organizations such as the Defense Entrepreneurs Forum and organic, grassroots intra-service reform efforts. How might we marshal our human capital resources to force a whole-of-DoD solution to the problems that "up or out," rigid career timelines, mismanagement of graduate education, and so many other ailments cause? Piecemeal approaches seem doomed to failure; what the services need is a dose of comprehensive reform medicine.

Mr. Jared Payne Respectfully request the Defense Department's position on the OMB instruction for TBM adoption. Technology Business Management (TBM) is a commercially-accepted cost categorization taxonomy providing a common way to communicate the cost and value of innovation and modernization from appropriation to execution to sustainment. In 2016, the independent non-profit TBM Council led the joint public/private Federal Commission on IT Cost, Opportunity, Strategy, and Transparency (IT COST) recommendations for managing federal technology spending resulting in the adoption and instruction across the Federal Government (OMB) adopting the TBM taxonomy.

Mr. Harry Petrey asked the DIB to Please provide examples of catalytic processes that codify the generation and sustainment of near-term innovations within the defense acquisition culture.

Mr. Carlton Reeves asked with the DIB's recommendations for the DoD to leverage AI and ML, how do they plan to address the issue of data availability? Data is the fuel that powers AI and ML and the DoD needs to break the silos down and work to aggregate the data across the

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organization, as necessary, to allow AI and ML to make the connections and provide the descriptive, predictive, and prescriptive analytics that we need to power future innovations.

Mr. Matthew Rayburn How is industry going to address the need for the DoD to balance both sustained materiel and innovative/quick-turn materiel when there is deep incentive for industry to obfuscate data from the DoD/Competitors? I.e. DoD starts to collaborate mission needs early with industry and industry in turn uses IR&D to compete. Then the winner obfuscates data from the DoD to keep the government from competing the modernization and sustainment of that system. This essentially creates a monopoly over the system throughout its lifetime, which is a boon for the winning company and a huge detriment to the losing companies. This high risk, high reward system ultimately stiffens innovation rather than propping it up.

Mr. Jesse Silverman My name is Jesse Silverman. I am a military veteran and recent SAIS alum. Having been both a veteran and a graduate student, I strongly believe that DoD needs a modernized ROTC program targeted directly at graduate students. As of now, the only commissioning opportunities for graduate students are for doctors, nurses, and lawyers. No program exists that would allow graduate students of all specialties an opportunity to earn a commission in the U.S. military in the same way afforded to undergraduates. As more young Americans enter into graduate programs, a standardized pathway to become an officer would help students bear the high cost of graduate school and provide them a second chance to serve their country. In return, the military will get a more mature and educated recruit. I ask the board to consider such an ROTC for graduate students.

Mr. William Theuer said he was Keen on the integration of technology convergence and cyber reconnaissance

Closing Remarks – Board Chair & Designated Federal Officer

Dr. Schmidt made closing comments and Mr. Marcuse concluded the meeting.

END OF PUBLIC SESSION

ADJOURNMENT

Mr. Marcuse, with the concurrence of the ADFO, adjourned the DIB's October 10, 2018 public meeting session at 5:00 PM.

I hereby certify, to the best of my knowledge, the foregoing minutes are accurate and complete.



Eric Schmidt, Ph.D.
Chairman, Defense Innovation Board

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