

## Vast & Varied - Big Data at DHS

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**Abstract:** From securing the U.S. borders (while also facilitating trade) to enabling community resilience in the face of natural disasters and innumerable other critical duties, the mission space of the Department of Homeland Security (DHS) is vast and varied. Critical to carrying out these many tasks is processing and analyzing large amounts of complex data from multiple sources. The Apex Data Analytics Engine at the DHS Science and Technology Directorate (S&T) supports the Department, as well as first responders and other DHS partners nationwide, with big data solutions and by supporting research in data analytics. This talk will provide an overview of the kinds of challenges faced by DHS, starting with the scale and diversity of data that needs analyzed. The talk will also consider the policy challenges faced in addressing DHS data analytics problems such as respecting privacy and civil rights, the analytic maturity of partner organizations, and the complex competing needs and constraints facing policy-makers.

The talk will conclude with a discussion of the AAAS Science and Technology Policy Fellowship, which allows scientists and engineers to serve in the U.S. government and share their expertise while obtaining direct experience with the policy-making process.

**Bio:** *Aaron Mannes* is the Senior Policy Advisor at the Apex Data Analytics Engine of the DHS Science and Technology Directorate, where he has written extensively on technology governance issues, as well as collaborated with a range of DHS partners on various data analytics issues. Dr. Mannes initially joined DHS as an AAAS Fellow. Prior to joining DHS, Dr. Mannes worked for more than a decade at the University of Maryland Institute for Advanced Computer Studies, serving as the subject matter specialist in terrorism and international affairs on interdisciplinary teams modeling terrorist group behavior. Dr. Mannes earned his Ph.D. in Public Policy at the University of Maryland College Park, where his dissertation examined the national security role of the vice president. Dr. Mannes is the author or co-author of four books and numerous scholarly and popular articles, which have appeared in various publications including The Wall Street Journal, Foreign Policy, and The Guardian.

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