Dupont Summit 2016

Science, Technology, and Environmental Policy

December 2, Historic Whittemore House, Washington, DC

Panel
"Big Data Analytics: Ethical, Legal, and Social Issues"

This panel will address big data analytics relative to the legal, ethical, and social contexts in which they are engaged and applied. Related issues will be explored in terms of institutional frameworks, governance conditions, and system dynamics. Big data analytics are enabled by technical advances in data storage capacities, computational speeds, and the near real-time availability of massive data sets. The ability to integrate and analyze data sets from disparate sources, each of which may be subject to its own set of syntactic rules and semantic frames, and generate new (and often unexpected) kinds of knowledge can be beneficial, but also can constitute legal, ethical, and social dilemmas. Moreover, related outcomes and implications lie at the nexus of debates on the proper use of big data analytics, pointing to a formidable and complex question: How can big data be used to advance the common good without abridging the individual's rights to ontological integrity and privacy? As a corollary, are there acceptable trade-offs between the common weal and individual wellbeing, and, if so, how do we determine their thresholds? The panel shall address such questions to provide directions for future discourse and research and as bases for future big data policy formulations and implementations.

Organizer
Connie L. McNeely, *George Mason University*

Moderator
Ester Sztein, *National Academy of Sciences*

Panelists
Heng, Xu, *Pennsylvania State University*
Penelope M. Early, *George Mason University*
Erik W. Kuiler, *George Mason University*
Nan Zhang, *George Washington University/ U.S. National Science Foundation*