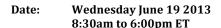
Workshop #2: Big Data Privacy

Exploring the Future Role of Technology in Protecting Privacy



Location: Massachusetts Institute of Technology

Media Lab, Bartos Theatre, E15-070 [8:30am-3:00pm]

Cambridge, MA



"One thing should be clear, even though we live in a world in which we share personal information more freely than in the past, we must reject the conclusion that privacy is an outmoded value. It has been at the heart of our democracy from its inception, and we need it now more than ever"

- President Barak Obama

"Technology in this world is moving faster than government or law can keep up. It's moving faster I would argue than you can keep up. You should be asking the question of what are your rights and who owns your data."

- Gus Hunt, CTO CIA, speaking at GigaOm 2013

*Big Data promises a better world.* A world where data will be used to make better decisions, from how we invest money to how we manage our healthcare to how we educate our children and manage our cities and resources. These changes are enabled by a proliferation of new technologies and tools that have the ability to measure, monitor, record, combine and query all kinds of data about us and the world around us -- but how will that data get used and for what purpose? Who owns the data? How do we assure accountability for misuse?

Just as Big Data lays out many promises, it lays out many questions and challenges when it comes to privacy. We must think carefully about the role of technology and how we design and engineer next generation systems to appropriately protect and manage privacy, in particular within the context of how policy and laws are developed to protect personal privacy. Decisions about how to address privacy in big data systems will impact almost everyone as we push to make more data open and available inside organizations and publicly. Governments around the world are pushing themselves and private companies to make data transparent and accessible. Some of this will be personal data. We will need new tools and technologies for analysis, for anonymizing data, for running queries over encrypted data, for auditing and tracking information, and for managing and sharing our own personal data in the future. Because issues of data privacy will be relevant across so many aspects of our life, including banking, insurance, medical, public health, government, etc, we believe it is important to collectively address major challenges managing data privacy in a big data world.

*The goal of this workshop* is to bring together a select group of thought leaders, from academia, industry and government, to focus on the future of Big Data and some of the unique issues and challenges around data privacy. Our aim is to think longer term (5 years +) and better understand and help define the role of technology in protecting and managing privacy particularly when large and diverse data sets are collected and combined. We will use the workshop to collectively articulate major challenges and begin to layout a roadmap for future research and technology needs.

This workshop is supported by the MIT Big Data Initiative at CSAIL and by a Grant from The Alfred P. Sloan Foundation.





## **AGENDA**

## **Big Data Privacy Workshop**

Location: MIT Media Lab, Bartos Theatre, E15-070

[http://whereis.mit.edu/?go=E15]

8:30am Registration/Breakfast

9:00am Welcome and Workshop Objectives

Elizabeth Bruce, Executive Director Big Data Initiative at CSAIL Professor Sam Madden, Faculty Director Big Data Initiative at CSAIL Daniel Weitzner, Director Decentralized Information Group, MIT CSAIL

Defining "Privacy" in a Big Data World

Keynote Speaker – Professor David Vladeck

Georgetown University Law Center and former Director of the US Federal Trade Commission

**Bureau of Consumer Protection** 

10:00am Session 1: Understanding User Perspectives - the Value of Data and the Issues of Privacy

In this session we will hear perspectives on the value of Big Data and different challenges organizations face in addressing privacy in a variety of domains .

[Finance] Professor Andrew Lo, Sloan School of Management, MIT

[Social Media] Maritza Johnson, PhD., Technical Privacy Manager, Facebook

[Insurance] Dr. Robert Zandoli, SVP and Global Chief Information Security Officer, AIG

[Personal Data] Professor Alex (Sandy) Pentland, Media Lab, MIT

11:20am Roundtable Discussion including all morning speakers -- hosted by Daniel Weitzner, MIT CSAIL

12:00pm Lunch

1:00pm Session 2: Approaches to Managing Data Privacy - Systems, Tools, and Theory

In this session we will hear about different techniques for managing data privacy. We will discuss some of the latest thinking and research aimed at privacy issues surrounding mining, querying, integrating and sharing large data sets with the goal of assessing the applicability of different techniques and an eye toward framing future research directions.

Professor Kobbi Nissim (differential privacy)

Visiting Scholar, Harvard Center for Research on Computation and Society (CRCS), and Faculty at Ben-Gurion University

Professor Ashwin Machanavajjhala (no free lunch and the pufferfish approach to privacy) Duke University

Daniel Weitzner & Lalana Kagal (accountable systems) Distributed Information Group, CSAIL MIT

Shannon Wieland, M.D. PhD. (de-identification methods) Visiting Scholar, MIT



Professor Srini Devadas (private information retrieval using hardware)

MIT, CSAIL

Raluca Ada Popa, PhD candidate (encrypted query processing)

MIT, CSAIL

3:00pm End Talk Sessions

## **Big Data Privacy Workshop - Breakout Discussion Groups**

Location: MIT CSAIL, Stata Center, Bldg 32, 4th floor, Star Conference Room D463 [http://whereis.mit.edu/?go=32]

3:30pm Big Data Privacy Discussion Groups

[location: MIT CSAIL, Stata Center, Star Conference room, Bldg. 32-D463]

5-6:00pm Reception/Networking at R&D pub, Stata Center 4th Floor

