Workshop #2: Big Data Privacy
Exploring the Future Role of Technology in Protecting Privacy

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Date: **Wednesday June 19 2013**
8:30am to 6:00pm ET

Location: **Massachusetts Institute of Technology**
Media Lab, Bartos Theatre, E15-070 [8:30am-3:00pm]
Cambridge, MA

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*"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.

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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

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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**

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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

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