Digital Privacy Landscape

Vitaly Shmatikov
“Get Over It”
“No One Cares”
“If You’ve Done Nothing Wrong...”
Remember This One?

Google buzz
What They Know

The What They Know Series
The age of computing has created a new economy, in which data on people’s habits, activities and interests is collected, sold and traded, often without their knowledge. The Wall Street Journal’s What They Know series documents new, cutting edge uses of tracking technology and what the rise of ubiquitous surveillance means for consumers and society.

Most Popular In Europe

1. The Return of the Winklevoss Twins
2. Spain Is Wary Of More Cuts
3. Taliban Raid Penetrates Base
Internet Panopticon
OPINIONS ON INTERNET PRIVACY

THE PHILOSOPHER:
"Privacy" is an impractical way to think about data in a digital world so unlike the one in which our society…

THE CRYPTO NUT:
My data is safe behind six layers of symmetric and public-key algorithms.

WHAT DATA IS IT?
Mostly me emailing with people about cryptography.

THE CONSPIRACIST:
These leaks are just the tip of the iceberg. There's a warehouse in Utah where the NSA has the entire iceberg.

I don't know how they got it there.

THE NIHILIST:
Joke's on them, gathering all this data on me as if anything I do means anything.

THE EXHIBITIONIST:
MMM... I sure hope the NSA isn't watching me bite into these juicy strawberries!!

Oops, I dripped some on my shirt! Better take it off. Google, are you there?

Google, this lotion feels sooo good.

THE SAGE:
I don't know or care what data anyone has about me.

Data is imaginary. This burrito is real.
And Then...
Public Perceptions of Privacy

Pew Internet Research Project: “Public Perceptions of Privacy and Security in the Post-Snowden Era”

- 91% of adults in the survey “agree” or “strongly agree” that consumers have lost control over how personal information is collected and used by companies.
- 88% of adults “agree” or “strongly agree” that it would be very difficult to remove inaccurate information about them online.
- 80% of those who use social networking sites say they are concerned about third parties like advertisers or businesses accessing the data they share on these sites.
- 70% of social networking site users say that they are at least somewhat concerned about the government accessing some of the information they share on social networking sites without their knowledge.
Meaning of Privacy?
Meaning of Privacy?
Threats to Privacy

◆ Commercial tracking
◆ Government surveillance
◆ Social attitudes
Solutions?

- Privacy = cryptography
- Privacy = access control
- Privacy = anonymity
Solving the Right Problem

Keeping data secret

vs.

Preventing bad uses of data

vs.

Punishing bad uses of data
Cryptography: Security or Privacy?
The “Crypto Dream”
4th Amendment

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.