

LIS-3353

More Privacy Theory

# A framework for digital privacy?

The Constitution thinks of privacy in terms of your stuff –

- but what changes when  
everything is recorded,  
by someone who ain't you?

## 3 components:

- 1) Secrecy. (encryption + today)
- 2) Anonymity (next week)
- 3) The cultural belief and legal reinforcement of 1 and 2.

# We have technical privacy

(if we're careful)

(really, really careful)

# Legal “privacy”

No explicit right to privacy in the Constitution  
–but..

1<sup>st</sup>, 4<sup>th</sup>, 5<sup>th</sup>, amendment, and others

# Two big legal cases

Kyllo v. U.S.

- (Thermal imaging case)

Katz v. U.S

- (Wiretapping)

Pre-Internet!

## Traditional (misconceptions of) privacy

The one deep dark secret that you would be mortified if the world knew....?



# The P.I.s best friend



# Specifically...

YOUR RECEIPT  
THANK YOU  
CALL AGAIN

REG 10-10-2007 13:25  
FERNANDO MC #01 000036

1 BEER	·5.00
1 CALAMARI	·6.00
1 CRAB SOUP	·5.00
1 TOP SIRLOIN	·11.00
1 BOILED CRAB	·23.00
TOTAL	·50.00
CASH	·50.00

Even better (for them)



# Not much wrong here, right?

Can a store legally record your purchasing?

- (sure, why not?)

Why might they?

- Inventory
- Advertising, etc

Legal protection/acknowledgment:

**TRADE SECRET**

Suddenly, online!



**amazon.com**<sup>®</sup>

But, maybe you **don't** keep it a  
trade secret..after all:

If CVS sees: Pregnancy tests

..then that's interesting, kind of.

If Amazon ALSO sees: “What to expect when you're expecting”

...perhaps valuable info for CVS? Vice-versa?

And again, all legal: Gathered legally, traded or sold legally – little, marginal steps.

# Don't forget

...the security cameras

..the bank records

..the credit scores

..the phone records

AND THIS IS ONLY WHAT WAS GIVEN UP  
“ON ACCIDENT...”



# Info brokers:

- Choicepoint
- Acxiom ,etc.

Then, there's the VOLUNTARY side

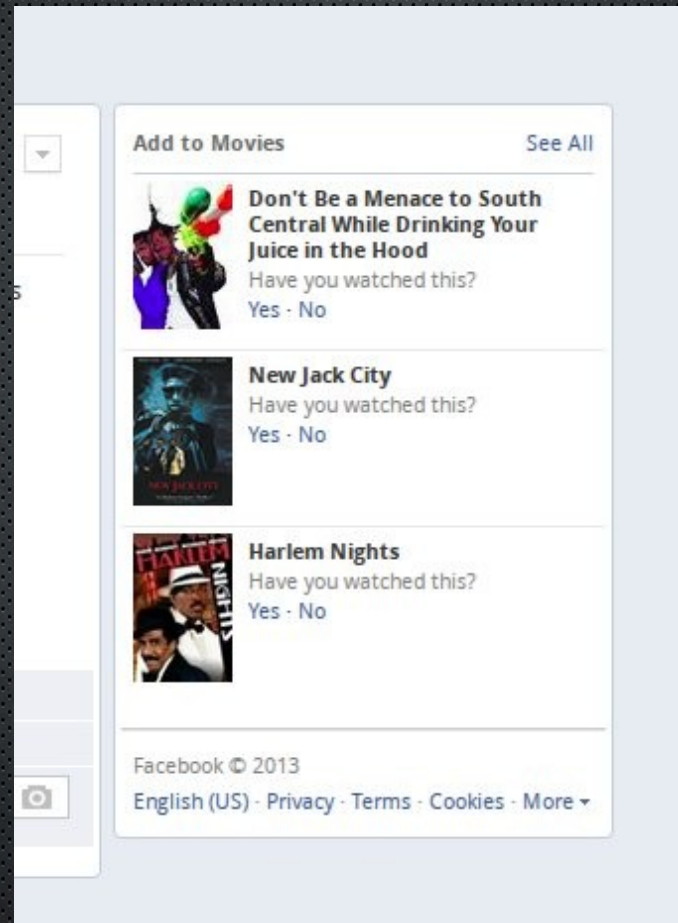
Facebook, et al

...but you guys know all about this, right?

“but hey, it's just advertising”

Inference: Figuring out things about people

# True story: the first time Facebook asked me about my movies...



# Inference

Credit scores

“Google Killed *Me*”

Target and pregnancy

And Graph Search...(wow, they're really that oblivious?)

# If companies can sell, who's buying

Other companies? Yep?

Law enforcement? Yep.

(but what about the 4<sup>th</sup> amendment?)

# Interesting question:

- Why should the gov't / law enforcement directly surveill AT ALL?

This allows you to get around them pesky Constitutional rules...

But, as we know, they did.  
(he wasn't the first...)

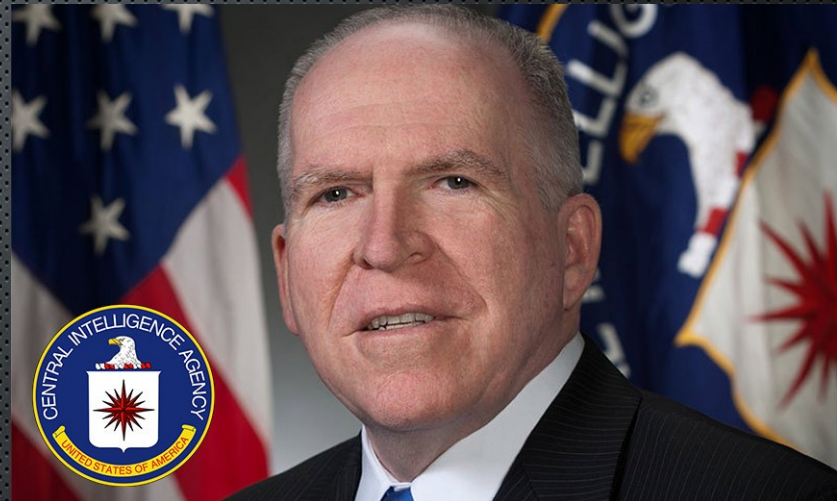




# NSA: PRISM (among others)

- Roughly: everything.
- “Collect it all now, perhaps analyze later”

Do they even understand this  
stuff?



# Justification: Terrorism?

Perhaps, but not a great strategy.

Why an “automatic terrorism detector” will pretty much never work...

# The False Positive Paradox (Gatorbola!)

New disease; Unspeakable consequences.

Incidence rate: 1/10,000 people have it

Yikes!

But – we have a “99% accurate” test...

Specifically:

For tests coming out negative – 100% accurate

For tests coming out positive – 99% accurate

But...uh-oh: you get tested and...

The test is positive!

What are the odds that you have **Gatorbola**?

# Do the math:

99% right = 1% wrong.

So, if you test 10,000 people:

**100** out of 10,000 people will have a + test

But..

**1** out of 10,000 people will actually HAVE it.

# Whoa, what?

Even for a test that's 99% accurate, there's still only a 1/100 chance that you have it.

Now, consider a “terrorism” test? e.g.

How many terrorists are there? And

How accurate could a terrorism test possibly be?

# Why NOT surveil? (in this way)

What exactly is wrong with ubiquitous surveillance?

AKA, the “What do you have to hide” question.



# Silver Linings?

# The end of shame?

If everybody knows everybody's business,  
can this reduce shame/embarrassment?

# Little Brother

As opposed to “Big Brother”

Yes, cameras are everywhere – but “we” control quite a few of them.

Perhaps that's a good question to turn around

*“Does the NSA collect any type of data at all on millions or hundreds of millions of Americans?”*

*“No sir ... not wittingly.”* – James Clapper

# The question of “Cybersecurity”

Important issue, but, what's the threat?

Malicious Hackers

vs.

The Corporations

(who may not have your best interests in mind)

Or worse; both:

Malicious hackers aided by the bad decisions  
of Corporations

- e.g. password leaks or deliberate backdoors

# The Role of “Mobile”

Attach a device to your child that tracks nearly everything she does, and sends most of that information to a third party who won't give you access to most of it.

# Collusion:

All the big companies are doing it to some extent, but some are at least appearing to try to fight it.



What NEEDS to be centralized?

# What NEEDS to be centralized?

Search. (Google, et al)

What else?

(re: things you and I use, I literally cannot think of anything else, can you?)

# What NEEDS to be centralized?

- Facebook? Nope
- Twitter? Nope
- Google Docs? Nope
- Dropbox?

(I literally can't think of any more of them that **must** be centralized)

Almost final thought:

“I'm not too worried about privacy because I have nothing to hide...”

Almost final thought:

“I'm not too worried about free speech because I have nothing to say...”