ON THE INTERNET NOBODY KNOWS YOUR’E A DOG. RIGHT?

WHAT GOOGLE KNOWS ABOUT YOU?

Privacy policy:

What does Google think about you?
http://www.google.com/settings/ads/

Privacy check up:
https://myaccount.google.com/privacycheckup

WE KNOW WHERE YOU ARE (THANK GOD)

Police on Thursday suspended the search when the husband spotted her car slumped into a sinkhole in Maple Valley Road involving a week after. (JACOPH TRIBUL, P. PHOTOS)

Found alive after 8 days
Police find Maple Valley driver by tracking cell phone
P投入: September 12, 2017

RANs 10 1200 x 1200

RENTON --- Driven inside a crushed SUV for eight days, her car obscured by trees near the bottom of a hillside, a missing Maple Valley woman was found alive Thursday.

It was a long shot that led to Tanya Rider’s dramatic rescue, “pinging” her cell phone to narrow the search. The technique gave investigators a five-mile radius to look in -- and Rider’s loved ones the miracle they’d been waiting on.
... AND WHAT YOU LIKE
(BETTER THAN YOU DO)

... AND WHO YOU VOTED FOR
(OR YOU DID NOT)

OUR FACE
AND WHETHER YOU’RE PREGNANT...

“IT’S REALLY IMPORTANT THAT PEOPLE UNDERSTAND THAT THERE ARE COMPUTATIONAL TECHNIQUES THAT WILL REVEAL ALL KINDS OF INFORMATION ABOUT YOU THAT YOU’RE NOT AWARE THAT YOU’RE SHARING.”

JENNIFER GOLBECK, MIT

AND WHAT’S YOUR SEXUAL ORIENTATION

SCIENCE

GAYDAR ALGORITHM OUTS FACEBOOK USERS

By Susannah F. Locke  September 21, 2009

... AND WHO YOU ARE (UNFORTUNATELY)
EXAMPLE SCENARIO

You work for a health insurance company. The database you have helped implement contains name, zip, DOB, and health condition. The company does “predictive analytics” on this data and wants to decide if it can share this data with all kinds of researchers without revealing what someone’s sensitive medical condition is. If they replace the identifying information with a random number and retain the rest, they could release it to the public. They ask you, the DB expert, to do it: should you?

Q: Can people be identified from anonymous data?

THE “INTERSECTION ATTACK”

IN THE 90’S

Classical Latanya Sweeney attack

Dr. Latanya Sweeney's Home Page

As Professor of Government and Technology in Residence at Harvard University, my mission is create and use technology to assess and solve societal, political...

Policy and Law: Identifiability of de-identified data - Latanya Sweeney

Scientific Influence and Impact: Dr. Sweeney's earliest work was discussed and cited as reasons for approaches taken in the HIPAA Privacy Rule (Gellman, ...)

Latanya Sweeney - Wikipedia, the free encyclopedia

Latanya Sweeney is a Professor of Government and Technology in Residence at Harvard University and the Director of the Data Privacy Lab in the ... (Voter list)

Latanya Sweeney (@LatanyaSweeney) | Twitter

The latest Tweets from Latanya Sweeney (@LatanyaSweeney). I create and use technology to assess and solve societal, political and governance problems.

Discrimination in Online Ad Delivery by Latanya Sweeney :: SSRN

ssrn.com/abstract=2289240 - Social Science Research Network

by L. Sweeney - 2013 - Cited by #6 - Related articles

Jan 29, 2013 - Latanya Sweeney. Harvard University January 29, 2013. Abstract: A Google search for a person's name, such as "Trevon Jones", may yield a ...
IDENTIFYING PERSONAL GENOMES BY SURNAME INFERENCES

HOW UNIQUE ARE YOU?
08904 (pop. 13982)
Male

Birthdate 7/19/1983 Easily identifiable by birthdate (about 1)
Birth Year 1983 Lots with your birth year (about 110)
Range 1983 to 1987 Lots in the same age range as you (about 553)

Copyright © 2013. President and Fellows Harvard University. I QSS I Data Privacy Lab

WHAT HAPPENED TO OUR PRIVACY?
We gave it away!

Why?
• Examples:

They took (or sometimes stole) it

How?
• Examples:

Zip, DOB and Gender are enough!

Latanya Sweeney requested a copy of the data and went to work on her "reidentification" quest. It didn't prove difficult. Law professor Paul Ohm describes Sweeney's work:

At the time GIC released the data, William Weld, then Governor of Massachusetts, assured the public that GIC had protected patient privacy by deleting certain. In response, then-graduate student Sweeney started hunting for the Governor's hospital records in the GIC data. She knew that Governor Weld resided in Cambridge, a city of 54,000 residents and seven ZIP codes. For twenty dollars, she purchased the complete voter rolls from the city of Cambridge, a database containing, among other things, the name, address, ZIP code, birth date, and sex of every voter. By combining this data with the GIC data, Sweeney found Governor Weld with ease. Only six people in Cambridge shared his birth date, only three of them men, and of them, only he lived in his ZIP code. In a final twist, Dr. Sweeney sent the Governor's health records (which included diagnoses and prescriptions) to his office.

Boom! But it was only an early mile marker in Sweeney's career; in 2000, she reported that 87 percent of all Americans could be uniquely identified using only three bits of information: ZIP code, birthdate, and sex.
 TRACKING LOCATION

COOKIES AND BEHAVIORAL TRACKING

What are cookies?
Who sends you cookies?
Are cookies good or bad?
What are third party cookies?

COOKIES

Cookie: value set by Web server, automatically sent by the browser on subsequent requests to same origin
Link two sessions at same site
Link sessions between different sites (third-party cookies)
Can be combined with user-identifying information

BEHAVIOR TRACKING

Advertisers track your browsing behavior for the purpose of targeted ads and analytics.
Third-Party Web Tracking allows advertisers to link your visits between sites, even if you never click on the ads.
There are different tracking technologies beyond 3rd party cookies.
You can disable 3rd party cookies
HISTORY SNIFFING
How can a webpage figure out which sites you visited previously?

Color of links
- CSS :visited property
- getComputedStyle()
WHAT IS GDPR?

Read:
https://tinyurl.com/y6vv5vo3,
https://tinyurl.com/yberwzef

What is GDPR?
What counts as personal data?
How does it impact you?

YOUR SOLUTIONS?