

# (Digital) Footprint, Profiling, and Surveillance

(數位) 足跡、剖繪、與監控

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# Concepts

- Surveillance 監察、監視、監控
- Persistent Identifiers 持續指稱符號 ( 固定識別碼 )
- Profiling 剖析、描繪
- Footprint / Trace 足跡
  
- Resources
  - Wikipedia!
  - TAHR, Taiwan Association for Human Rights
    - 隱私權專題 <https://www.tahr.org.tw/issues/privacy>
    - TAHR PAS 2014 春季號：數位時代公民權 <https://www.tahr.org.tw/publication/1369>
  - EFF, Electronic Frontier Foundation <https://www.eff.org/>
  - Course materials for *Mass Surveillance and Personal Data Protection* (co-teach with Wentsong Chiou and Ching-Yi Liu), National Taiwan University, Fall 2014  
<https://www.iis.sinica.edu.tw/~trc/public/courses/MassSurveillance2014F/>

# Surveillance 監察、監視、監控

- Time **duration**, spatial **extent**, sizable **population**, fine **resolution**, long-term **archive**, on-demand **analysis**
- Surveillance can be on a group, on a target, or on an unknown
- Surveillance is done by governments, corporations, and individuals
- Surveillance can be mutual, e.g. use of Amazon Ring in a community
- Cross-breeding, e.g. Amazon Ring and police departments
- “Collect it all, do it now, and keep it forever!”
- Power asymmetric in surveillance
- Surveillance leads to behavior change and coercion

# Persistent Identifiers (PIDs)

- PIDs link together multiple entities, cross-reference various attributes
- PIDs of things: phones (IMSI/IMEI), IP addresses, MAC addresses, car license plate numbers, e-payment card numbers ( “anonymous” or not)
- PIDs relating to people: national IDs, credit cards, bank accounts, etc.
- PIDs relating to people: login names, social media handles, nicknames
- PIDs of activities: transaction records, series numbers, etc.
- PIDs are machine readable and embedded in daily activities

# Profiling 剖析、描繪

- Profiling on a group, on a target, or on **an unknown**
  - What can be known and inferred about a subject based on the data already collected about him/her/them?
  - How can these profiles be used for profits (or against the subjects)?
- Profiling based on data collected from shopping and consumption behaviors, social media and interactions, transportation habits, etc.
- (conceptual) comprehensive surveillance vs. fragmentary profiling
- (pragmatic) PIDs interlink various profiles from multiple sources

# Digital Footprint 數位足跡

- Digital footprints are embedded with PIDs
- Interlinked PIDs leads to accurate profiling
- Large-scale accurate profiling is surveillance