The Dark Web

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What is the Dark Web?

* Sometimes confused or referred to as the “Deep Web”
* Made up of overlay networks
* Requires.

How to Access Safely and Navigate

* Software
  + TOR browser
  + VPN
  + Tails (OS)
* Browsing
  + The Hidden Wiki
  + Onion.link
* Dark Web uses .onion (rather then .com)

How Safe is it to Access?

* All three tools (TOR, VPN, Tails) are encrypted
* TOR and Tails have notoriously good encryption.

Encrypted? Must be Safe

* Most VPN’s have “military grade” encryption
* Weak and Strong encryption exists
* Locked Door vs Open Window
* Rainbow Tables for Weak

What are Rainbow Tables?

* A rainbow table is a precomputed table for reversing.

Rainbow Table

* Wikipedia -> ao4kd

Nothing is Perfect

* The FBI in 2016 found a “weakness” in TOR
* TOR hasn’t been “hacked” since and fixed the bug.
* Wasn’t publicly discussed.
* 8,700 computers were hacked by the FBI across 120 countries.
* Seized the website “Playpen”
* FBI seized Playpen and deployed malware to its users.
* Theory that FBI didn’t hack it, a TOR developer works for FBI
* Controlled enough nodes.
* Carnegie Mellon & FBI

How Does Tor Work?

* Alice >> Step 1: Alice’s Tor client obtains a list.
* Alice >> Step 2:

Is the Dark Web for Me?

* Has a reputation for anonymity?
* Offers things ranging from secret information to illegal products/services
* Takes a level.

What Can You Find?

* Drug (Experimental – Illegal)
  + Dissociatives (Ketamine), Deliriants, Psychedelics (LSD)
* Services (Prostitution – Hitmen)
* Illegal Images
* Experiments (Human – Government)
* Hacker Group

Ethicacy of Dark Web

* Legal to access
* Using TOR is not illegal
* Steubenville Protest 2013
* Steubenville Rape Trial
  + Rapists served 1 year
  + Hacker served 2 years
* Safe haven for journalists and information sharing

Questions for Class

* Should the Government hold TOR accountable for Dark Web access?