UNDERSTANDING THE COMPUTER FRAUD & ABUSE ACT

@ CircleCityCon 2017

INTRODUCTION

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This is not legal advice
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OUTLINE

I: Cybercrime Law 101

- Scope
- Legal System Basics
- Introducing the CFAA
  - History
  - Statutory Language & Definitions
  - Key Cases & Theories

II: Practical Aspects

- Practical Results
  - How It Unfolds
  - What You Can Do
  - Where We’re Going

III: Hands-On Exercise

SCOPE:

What We’re Talking About:

- The Computer Fraud and Abuse Act, 18 U.S.C. 1030 *et seq.*

What We’re Not Talking About:

- Unlawful Access to Stored Communications, 18 U.S.C. 2701
- Wiretap Act, 18 U.S.C. 2510 *et seq*.
- Unlawful Access Device Use, 18 U.S.C. 1029 *et seq.*
- (any number of other countries’ laws)
- The 4th, 5th, 9th, or Nth Amendment’s Legal Ramifications for Tech, Privacy, or Hacking

LEGAL SYSTEM BASICS

- Dual System: State and Federal
- Generally three levels:
  - Trial Courts
  - Appellate Courts
  - Supreme Court(s)
- Civil and Criminal Law

A FEW MORE LEGAL CONCEPTS

- *mens rea* and *actus reus*
- Claims, charges, and indictment
- *stare decisis*
- Constitutional Avoidance, Political Question, and Standing

THE C.F.A.A.

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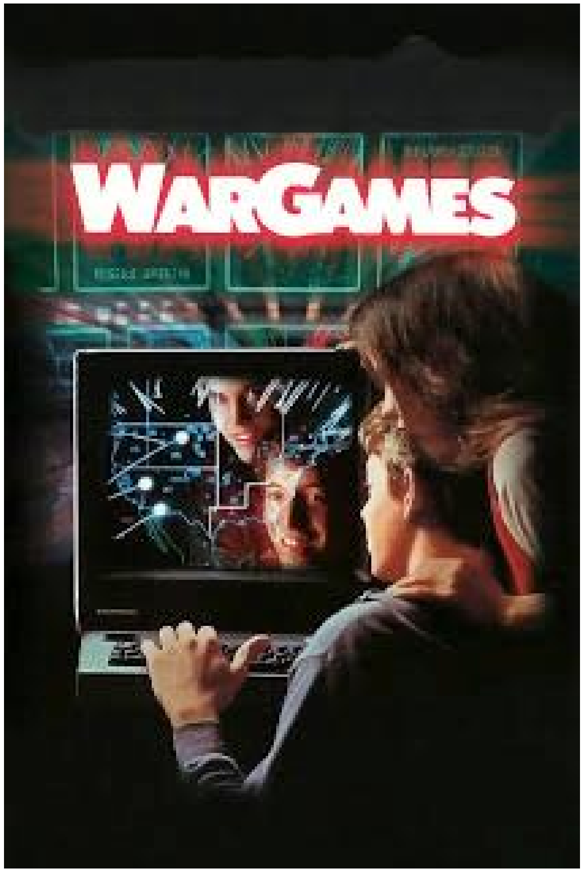
- First U.S. law to specifically target computer crime
- Followed the first wave of “hacker hysteria” in media
- Yes, in part inspired by the film War Games
- Also by concerns over former employees stealing financial data, and awareness of rise of networked computers



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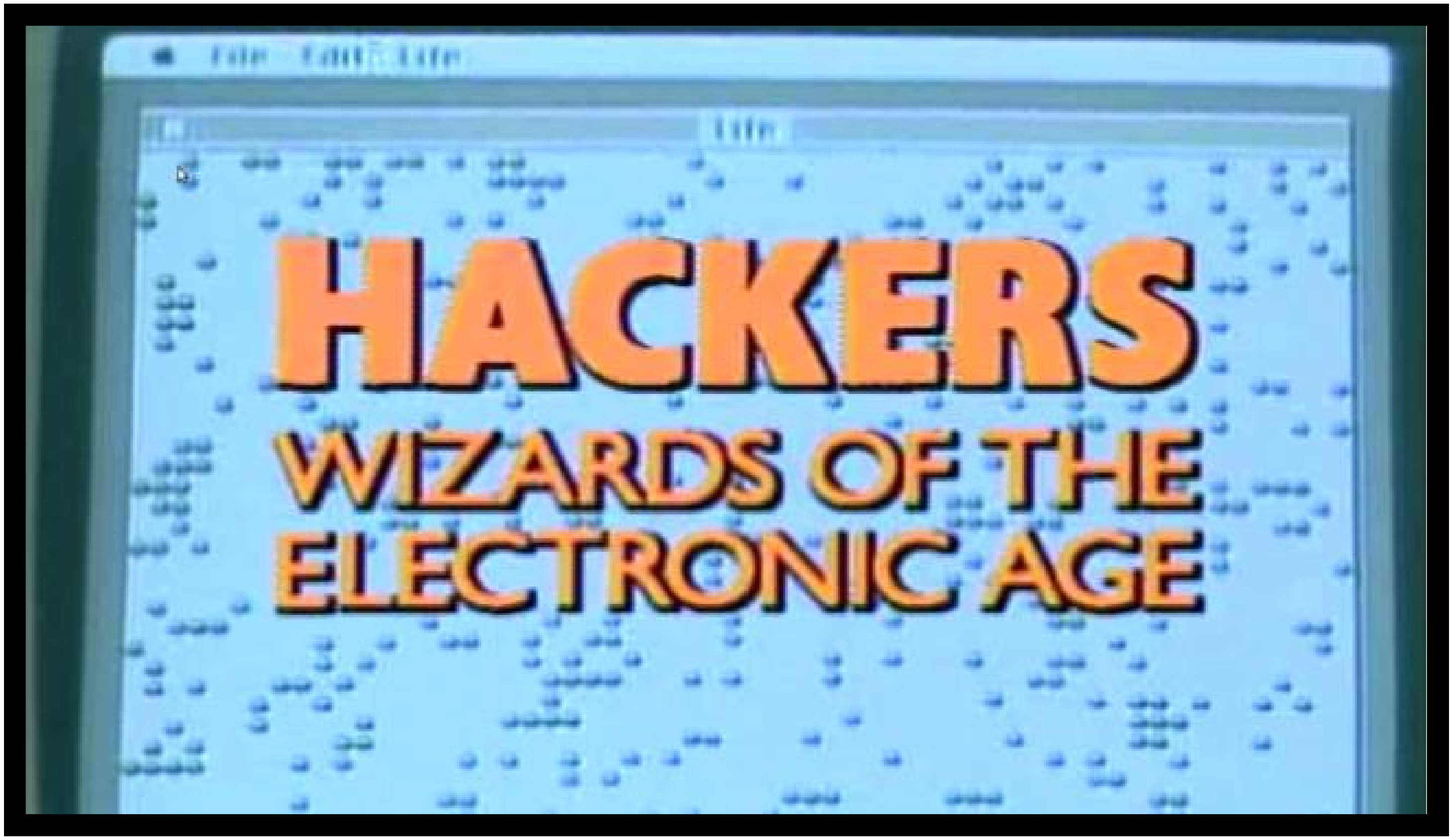

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Offenses

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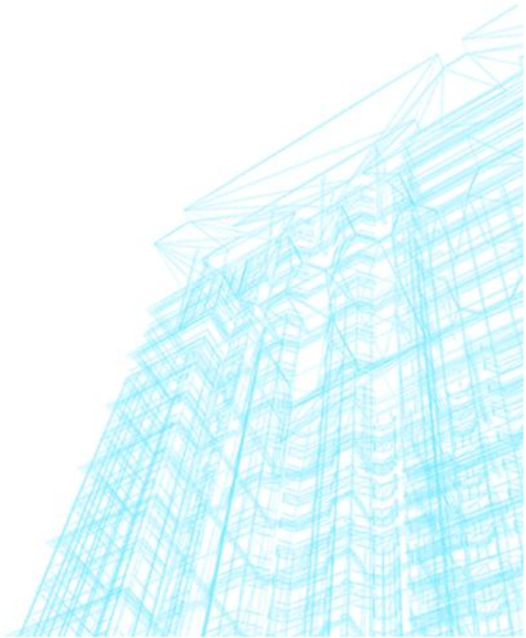

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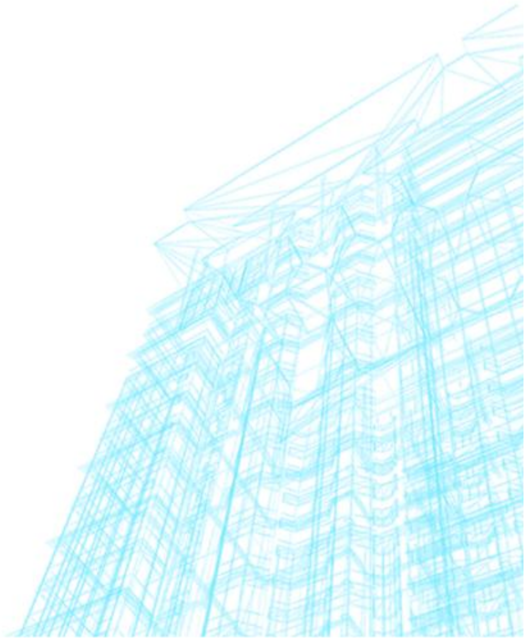

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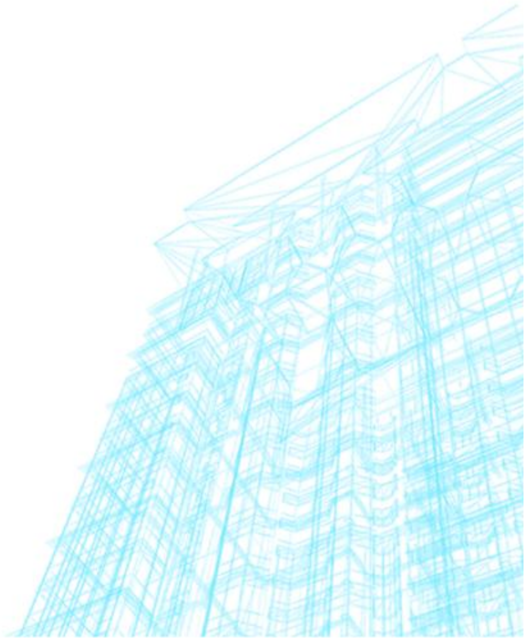

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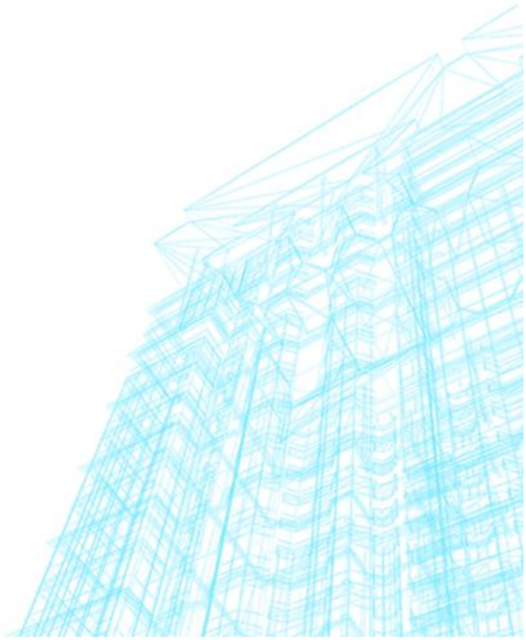

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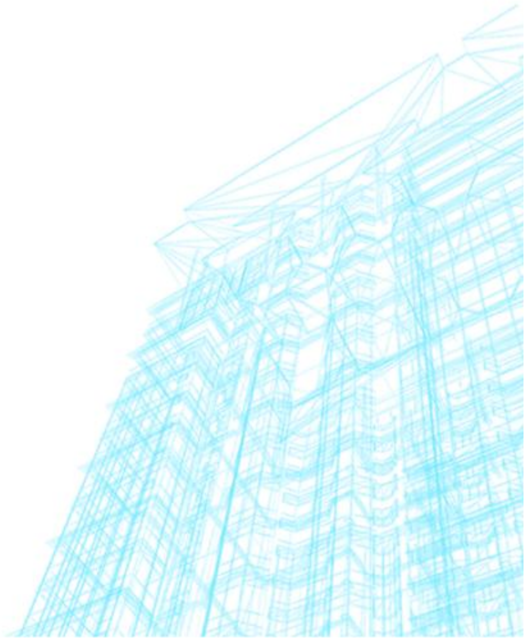

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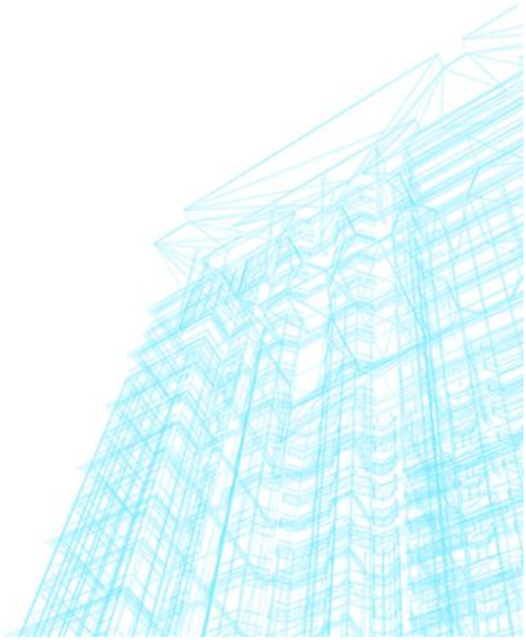

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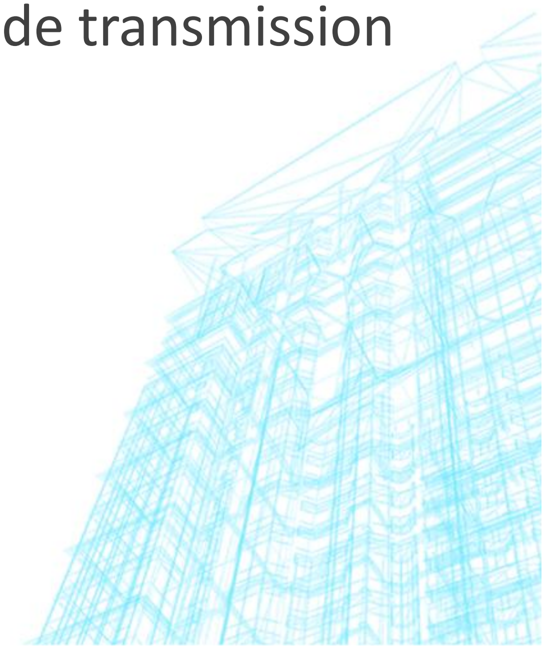

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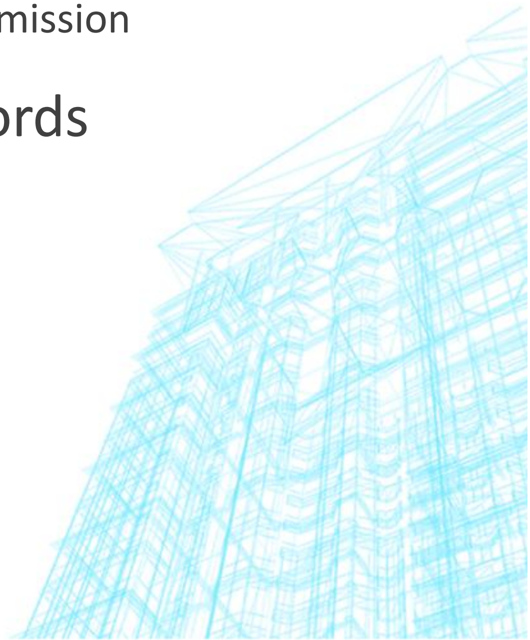

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(7) extortion and threat

SUBSECTIONS (b - e):

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(b) Conspiracy

SUBSECTIONS (b - e):

(c) Punishments

SUBSECTIONS (b - e):

(d) Authority to Investigate

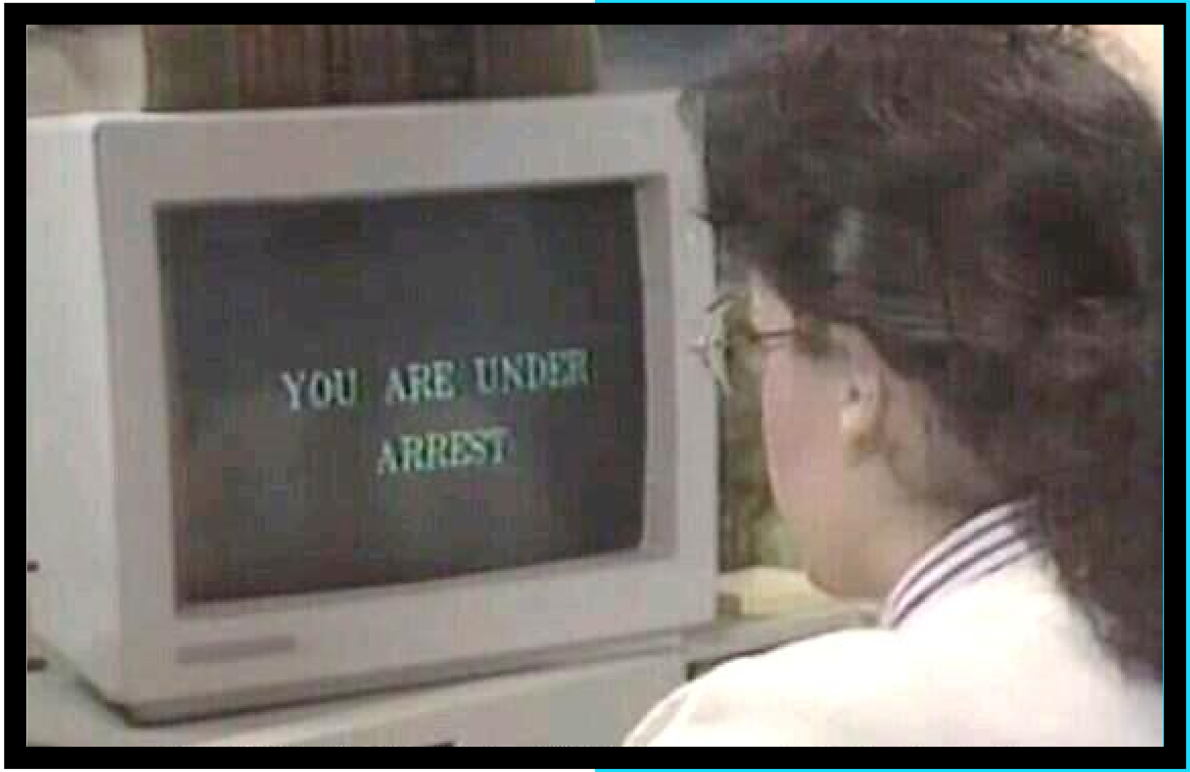
SUBSECTIONS (b - e):

(e) Definitions

SUBSECTIONS (b - ~~e~~ f):

(f) It’s Okay if The Gov Does it.

SIMPLE



RIGHT?

“Authorization” & “Exceeding Authorized Access”

- Extremely unclear how the legislature intended to define these.

- Different courts have spun different theories over the years,
  - But no clear “majority rule.”

- Several Different Theories, and Many Cases “between theories” or using “hybrid” theories.

“Authorization” & “Exceeding Authorized Access”

- Most used theories include:
  - Agency Theory
  - Contract Theory
  - Intended Use Theory
  - Technical Barrier Theory
  - Hybrid & “Because We Say So” Theories

Facebook v. Power Ventures

- 9th Circuit, 2016
- Scraping case, essentially.
- Court held that explicit revocation of authority to access was sufficient for CFAA claim.
- Not JUST a Terms of Service violation, but left unclear what more was sufficient.

LVRC Holdings, LLC v. Brekka

- 9th Circuit, 2009
- Rejecting Agency Theory because it would render "exceeding authorization" language meaningless

U.S. v. Phillips

- 5th Circuit, 2007
- Intended Use Theory, Kinda.
- Student breaks into Uni’s admin page.
  Writes a script to pull tons of personal and private info (SSNs, etc.)
- Even though “authorized” to access the site,
  not authorized to access the admin page.

EF Cultural Travel v. Explorica

- 1st Circuit, 2001
- Contract Theory.
- Another scraping case, between competing travel booking sites.
- Ex-Employee subject to confidentiality agreement was closely involved with the scraping.

U.S. v. Drew

- C.D.Ca., 2009
- “MySpace Suicide” case, lots of press at the time
- Ultimately rejecting the Contract Theory, found that Terms of Service violation not sufficient for finding criminal liability.

Int’l Airport Centers v. Citrin

- 7th Circuit, 2006
- (Imminently ex-)Employee deleting data before returning a work laptop.
- Raises an interesting issue:

  Is “authorization to access” distinct from authorization to damage?
- Unsettled question. Statute’s language arguable supports a distinction.

U.S. v. Valle

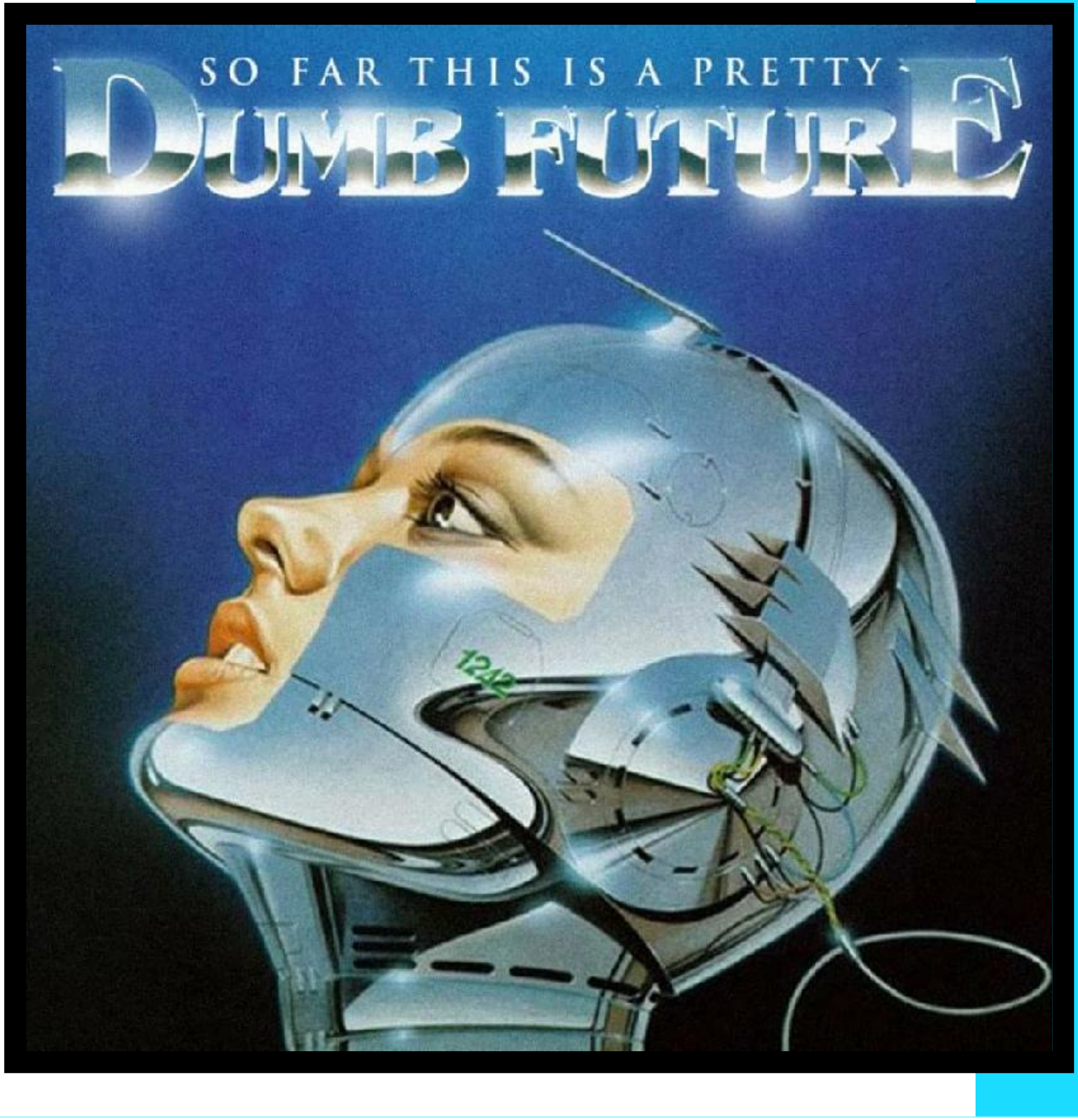
- 2nd Circuit, 2015
- “Cannibal Cop” case.
- Ultimately, Court found no unauthorized access. Rejects Agency Theory on Rule of Lenity grounds.
- Finds that misuse of authorized access != unauthorized access

“Nosal I”

- 9th Circuit, 2012
- Employee violates computer-use policy of employer, and violates a non-compete/non-solicit agreement on the way to form a competing company.
- Court rejects Agency Theory, citing *Drew*, finding that contract terms shouldn’t determine criminal culpability.

“Nosal II”

- 9th Circuit, 2016
- Same Nosal as before. Case was remanded to lower court.
- Here, the issue was password sharing.
  Currently employees allowing Nosal to use their logins.
- Court says “authorization” is an
  “unambiguous, non-technical term that, given its plain and ordinary meaning means accessing… without permission”



TL;DR,

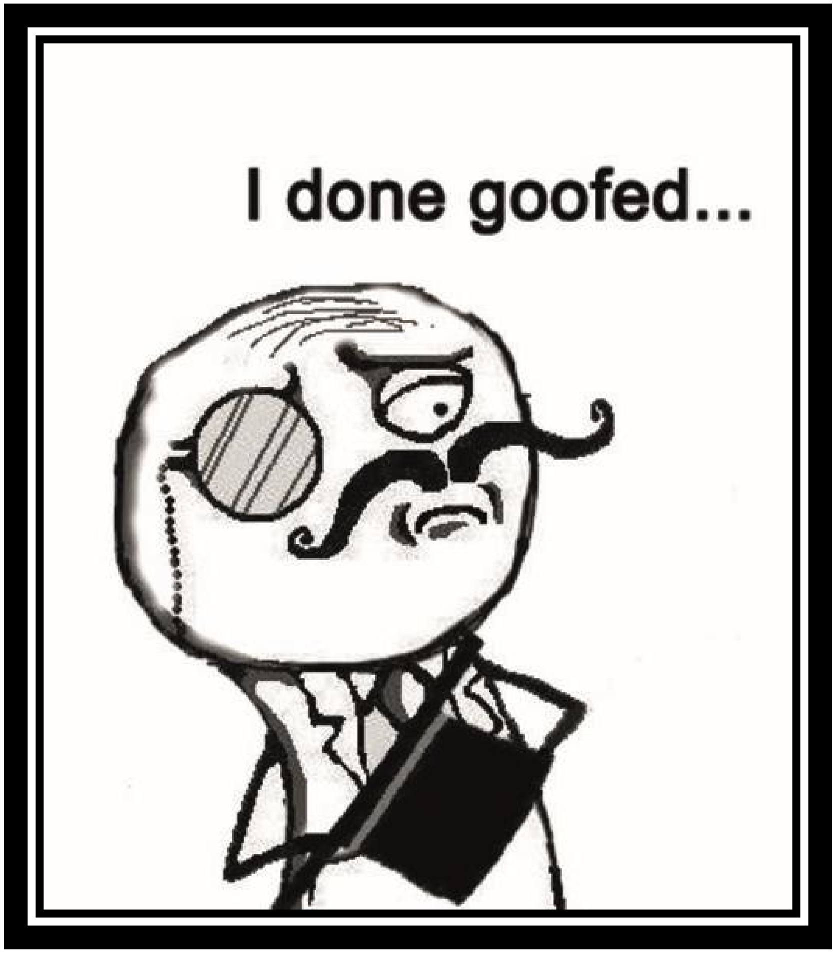
It’s a mess.

Prosecutorial discretion & the new hacker hysteria

How It Plays Out

- Isn’t attribution hard?
- What about encryption?
- So You Used a VPN.
- Nobody here keeps logs, do they?

- Attribution gets easier with physical device seizure & subpoenaed records
- Encryption fails, or, more often, the user fails to implement it thoroughly
- VPNs tattle (or the user fails to implement it thoroughly)
- Assume Everybody Logs.



How It Plays Out

- Who gets targeted
- What gets grabbed
- Who are the witnesses
- What does a trial look like

What You Can Do

- ➢ Prevention == Several Tons of Cure
- ➢ Contract Clarity May Help
- ➢ Ask Questions, Talk to Lawyers
- ➢ S. T. F. U.

網上虛擬 交心不宜
Don't Trust people in the Cyber World
網上騙
哪會個個
鳴謝：
香港新晉繪本作者Pius
舉報罪案 請致電 999 www.police

What Else You Can Do

CFAA REFORM

https://act.eff.org/action/reform-computer-crime-law

CFAA Defense Fund

(and shameless plug)

http://torekeland.com/donations

Call Your Reps!

http://whoismyrepresentative.com/

POLICY EXERCISE