Hackers:

Who, what, why, how?

Iain Dickson
@wan0net
icd@wan0.net

What will I be covering?

- What is a hacker?

- Who are hackers?

- Why do they hack?

- How do they hack?

What's my experience with Cyber?

- 8 years in Cyber Security, 11 (inclusive) in IT

- Previous Positions
    - Cyber Security Researcher
    - Cyber Security Research Engineer
    - Assistant Director Cyber Threat Intelligence Technical Capability
    - Security Operations Centre Lead

- Relevant Qualifications:
    - GIAC Certified Industrial Control Systems Professional (GICSP)
    - GIAC Certified Penetration Tester (GPEN)
    - GIAC Certified Continuous Monitoring Analyst (GMON)

- ComfyCon AU Founder

What is a hacker?
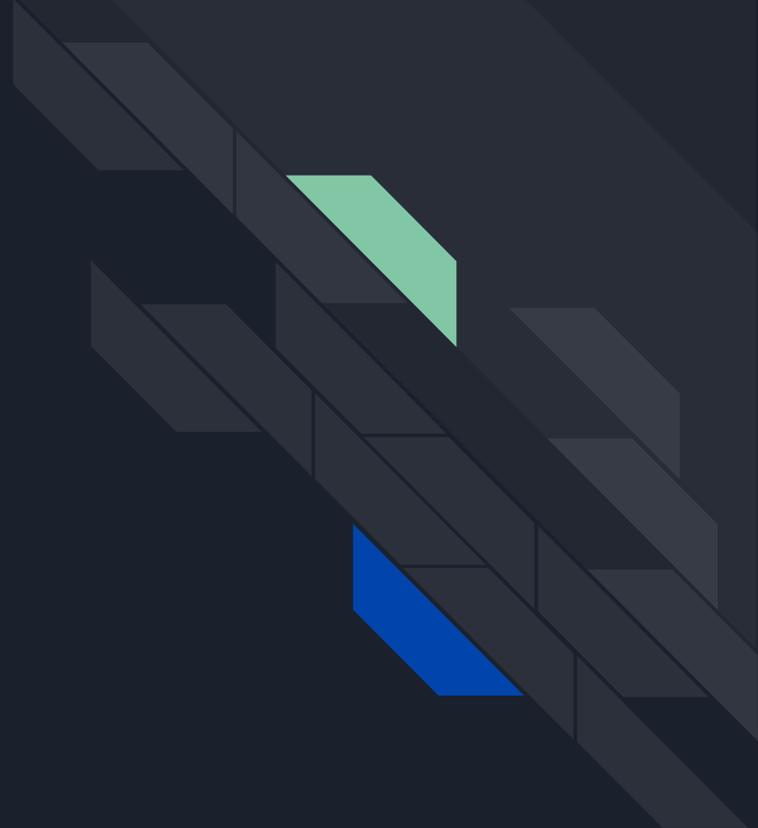
Onorato, Joseph and Mark Schupack. 2002. *Tech Model Railroad Club of MIT: The First Fifty Years*. Cambridge MA: TRMC. Pp. 42-7, 66-8.

The Tech Model Railroad Club at MIT

Just as Disney's Railroad and Monorail spoke moral agendas to the world, the TRMC railroad also spoke in anticipatory transposition. There was a real world visible to viewers, faithfully represented in historical detail, and below there was an abstract world of electronic control—The System literally and metaphorically underneath the baseboard. The process of The System's evolution was via a series of innovations called "hacks." The Signals and Power people called themselves "hackers."

HACK:… an unconventional or unorthodox application of technology.

HACKER: one who hacks, or makes them. A hacker avoids the standard solution. The hack is the basic concept; the hacker is defined in terms of it.

The Hacker Manifesto

"This is our world now... the world of the electron and the switch, the beauty of the baud. We make use of a service already existing without paying for what could be dirt-cheap if it wasn't run by profiteering gluttons, and you call us criminals. We explore... and you call us criminals. We seek after knowledge... and you call us criminals... You build atomic bombs, you wage wars, you murder, cheat, and lie to us and try to make us believe it's for our own good, yet we're the criminals...

"Yes, I am a criminal. My crime is that of curiosity... My crime is that of outsmarting you...

"I am a hacker, and this is my manifesto. You may stop this individual, but you can't stop us all."
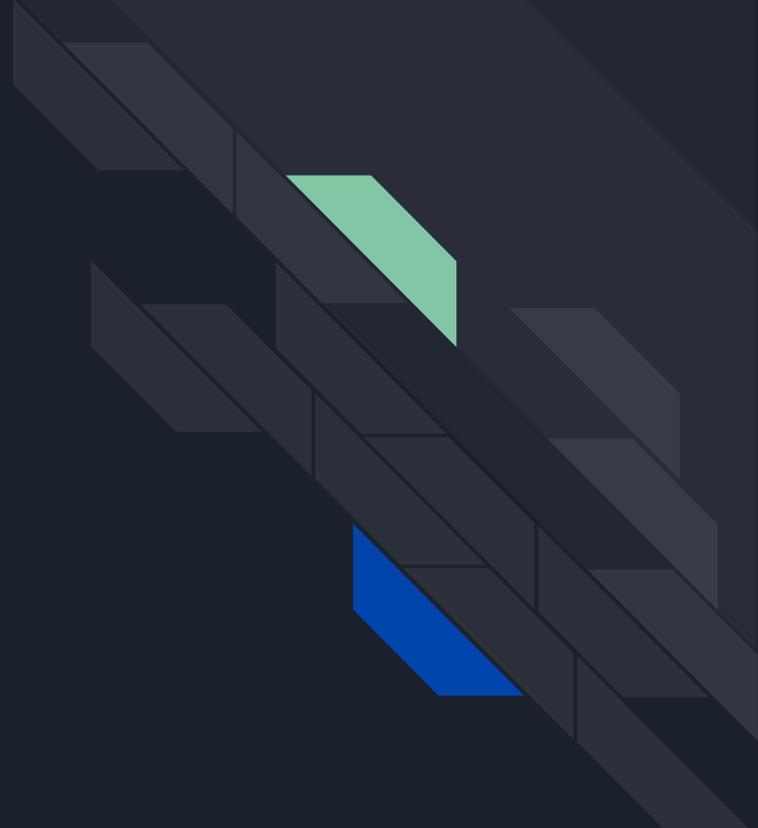
Dictionary

Search for a word 🔍
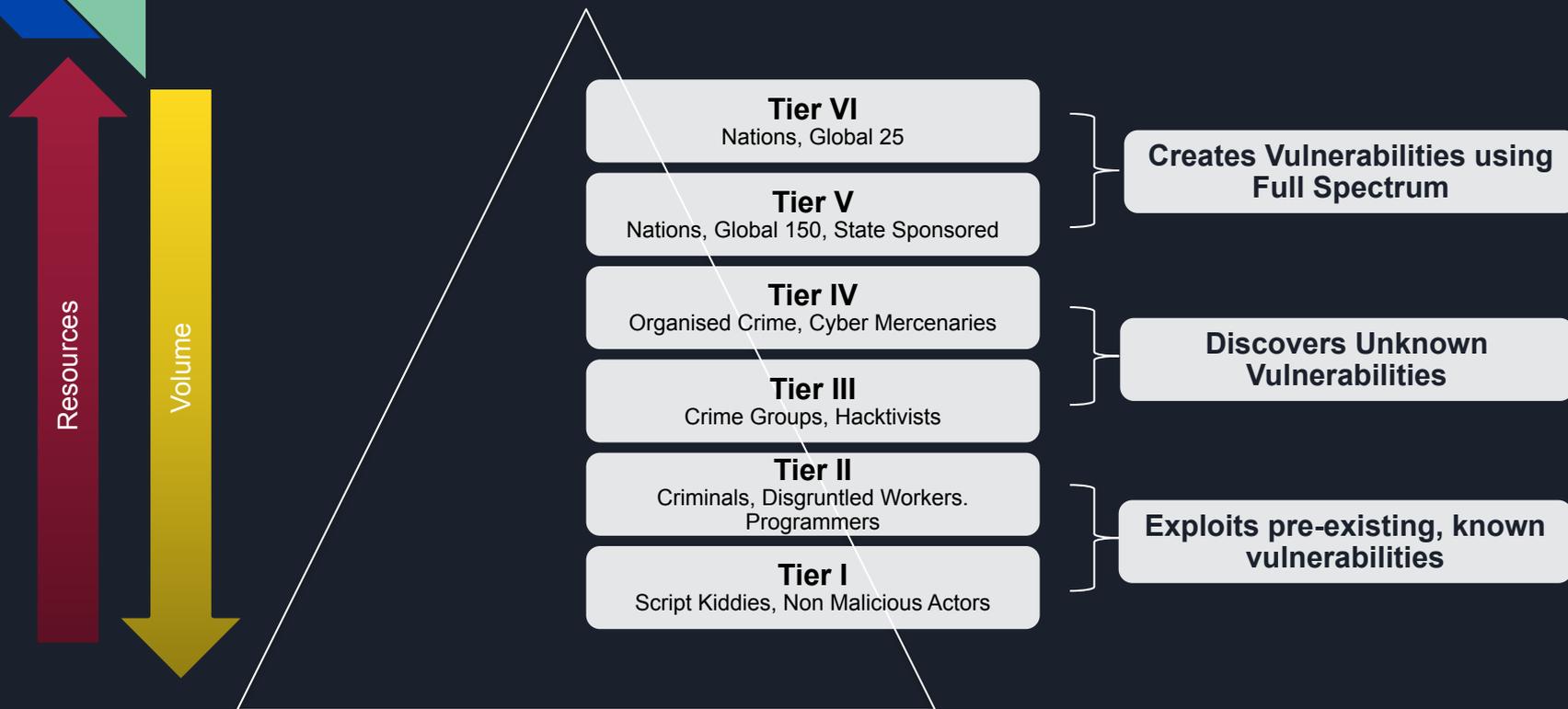
🔊 **hacker**

/ˈhakə/

noun

1. a person who uses computers to gain unauthorized access to data.
2. ~~a person or thing that hacks or cuts roughly.~~

I CONFIDENTIALITY

INFORMATION SECURITY

2 INTEGRITY

3 AVAILABILITY

Who are hackers?

Threat Actor Tiers

Resources (arrow, red, pointing up)

Volume (arrow, yellow, pointing down)

Tier	Description
Tier VI	Nations, Global 25
Tier V	Nations, Global 150, State Sponsored
Tier IV	Organised Crime, Cyber Mercenaries
Tier III	Crime Groups, Hacktivists
Tier II	Criminals, Disgruntled Workers. Programmers
Tier I	Script Kiddies, Non Malicious Actors

Creates Vulnerabilities using Full Spectrum (Tier VI, Tier V)

Discovers Unknown Vulnerabilities (Tier IV, Tier III)

Exploits pre-existing, known vulnerabilities (Tier II, Tier I)

THIS GUY

IS THE REASON YOU CAN'T GO TO A PARK
FULL OF AWESOME DINOSAURS

When you put 'password' in the password field and it works.

HACKERMAN
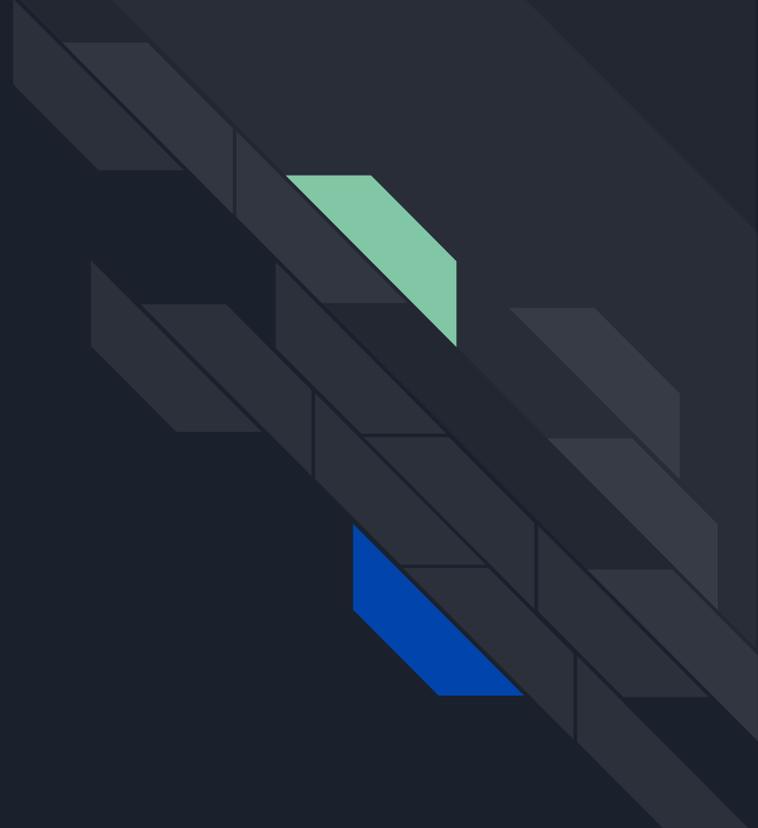
Why do they hack?

Capability, Intent, Opportunity

Threat ⊗ **Vulnerability** ➡ **Risk**

Capability

The ability of an adversary to successfully achieve a desired effect

+

Intent

The goal of the adversary

+

Opportunity

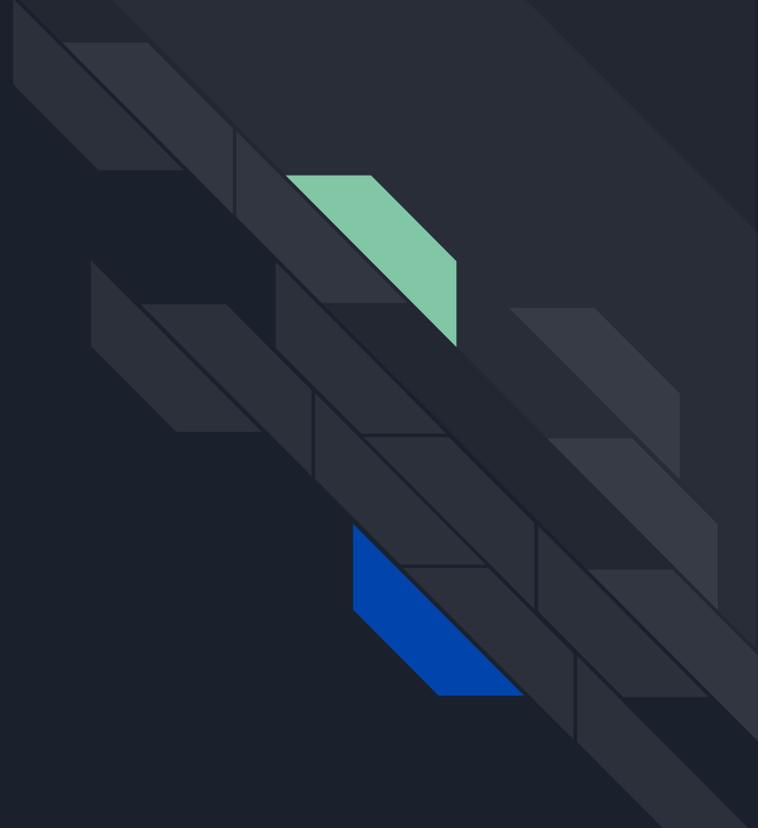Timing and knowledge of the target space
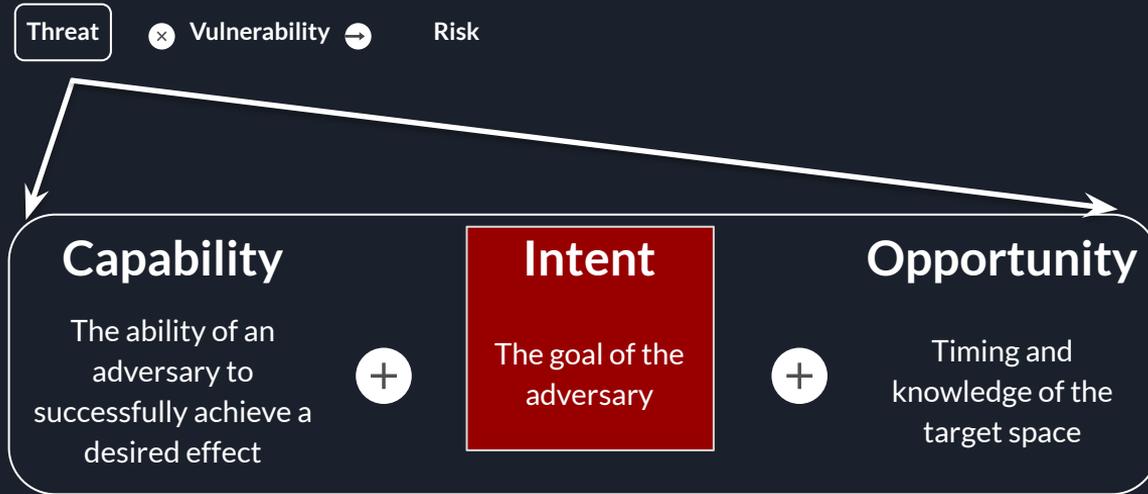
Intents

- Financial gain or reputation enhancement
- Seek revenge
- Espionage, political, economic, or military
- Political, social, or ideological
- Propaganda

How do they hack?

Cyber Kill Chain

Reconnaisance → Weaponisation → Delivery → Exploitation → Installation → Command and Control → Action on Objectives