

A Spy's Guide to Understanding Espionage and Protecting Your Organization



Shawnee Delaney
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I used to
STEAL SECRETS
for a living... now I
PROTECT THEM.



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Could You be Recruited as a Spy?

ROBERT PHILIP HANSSSEN
DOB 0-28-41
FILE- 05A-WP-104433

AMER. ALBRECHT HAZEN
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EARL EDWIN PITTS
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Money Ideology Coercion Ego

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Profile of an Insider

Motivations

- COVID-19 insecurity
- Job dissatisfaction
- Revenge
- Altruism
- Career
- Family



Vulnerabilities

- Revenge
- Financial
- Sex
- Ego
- Jealousy
- Power

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Profile of an Insider

Espionage

- Males committed the majority of acts
- Most insiders caught were either an engineer or scientist
- Currently employed
- Citizen
- Non-technical



Motivations

- Financial
- Political
- Addiction issues
- Revenge
- Power

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Case Studies

Targeting

- LinkedIn
- Photos
- Likes
- Travel
- Placement & Access
- Family profiles
- Scientist Recruitment Courses

Motivations

- Political
- Family
- Medical
- Patriotism
- Viagra
- Johnny Walker Black

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You Need an Expert in What?

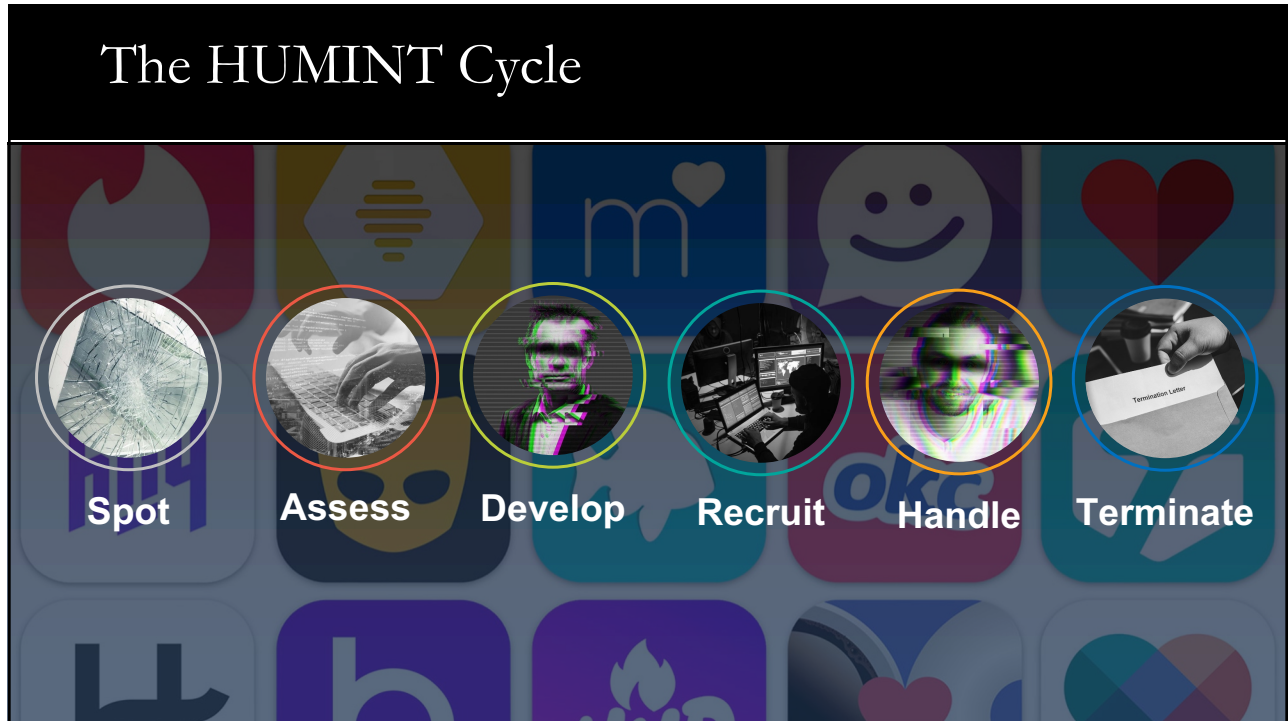
Left Column:

- News articles
- Social Media
- LinkedIn
- Photos
- Likes
- Travel
- Placement & Access
- Family profiles
- Scientist Recruitment Courses

Right Column:

- Political beliefs
- Family
- Medical
- Patriotism
- Revenge
- Disgruntlement
- Viagra
- Johnny Walker Black

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Espionage 101

 <p>Corporate Espionage</p>	 <p>Industrial Espionage</p>
<h2>Why Spy?</h2>	
 <p>Economic Espionage</p>	 <p>Government Espionage</p>

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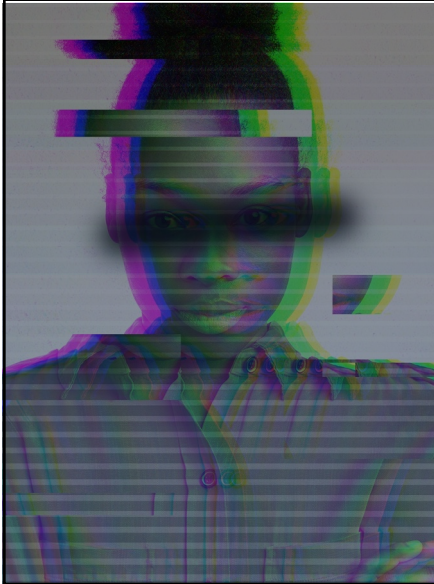
Case study:



The graphic features the word "Stuxnet" in large green letters over a background of binary code. Below it, the word "infected" is written in a smaller font. A hand is shown holding a USB drive. The background is a collage of national flags, including the Iranian flag (with its red emblem), the Israeli flag (with its Star of David), and the European Union flag (with its stars).

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Profile of a Spy: Why did they do it?



Use information at new job in same/similar industry and role

Start a new business

Give to a foreign company or government organization

Known issues / motivation

Disagreement over ownership of intellectual property

88% believed they owned/had rights to the IP because they created it

Financial compensation issues

Relocation issues

Hostile work environment

Mergers & acquisitions

Company attempting to obtain venture capital

Problems with supervisor

Passed over for promotion

Layoffs

Cultural obligation

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What is RF?

- "RF" stands for "Radio Frequency"
- Range of electromagnetic frequencies used for wireless communication and various technologies, including:
 - Radio
 - Television
 - Wireless networks
 - Bluetooth
 - Two-way radios
- Radio waves in this frequency range are utilized for transmitting data, signals, and information wirelessly over the airwaves

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RF and the Internet of Things (IoT)

Technology allows casinos to automate and streamline customers' experience through:

- wearable device gaming
- smart devices/lighting
- cameras
- motion detectors
- consumption tracking technology
- trackable casino chips
- Remote/cell phone check-in/out

- 2018 – unnamed North American casino suffered an attack:
 - Cyber criminals infiltrated the casino's network by exploiting a vulnerability in the smart thermometer of an IoT-connected fish tank

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RF and Espionage

- Nation-states relied on concealed "bugs" operating on less-known frequencies

- Now they use:
 - cellular
 - Bluetooth
 - BLE
 - Wi-Fi

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TRADE SECRET THEFT A Security Challenge Across Industries



Coca-Cola



Raytheon

Genentech

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Intangible Assets

Assets considered to be “knowledge assets” that are created by your organization through discovery, invention, and practice

Important you define what intangible assets your organization possesses

TYPICALLY, YOU CAN FIND
3 CATEGORIES:



Intellectual Property



Protected Information



Trade Secrets

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Trade Secrets

In order to be considered a trade secret some conditions must be met

- The information must have value (real or potential),
- The information must not be known outside the organization
- The organization must protect the trade secret as if it were an asset and show reasonable and appropriate steps to protect it
- The information must be properly controlled through the information lifecycle management

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Case study: Toxic Culture

Joshua Schulte

- former CIA software engineer
- Culture clashes
 - Bullying
 - Violence
 - Retaliation
 - Vandalism
 - Negligent management
- Convicted of leaking classified information
- Motivation



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Stages of Employee Life Cycle



- Talent acquisition
- Pre-employment screening
- Interviews
- Culture fit

- Job orientation and training modules
- Here is your chance to build a security culture

- Performance management
- Training and awareness
- Surveys

- Talent management
- Career development
- Return-to-work or stay-at-work programs and services

- Exit interview and feedback
- Thoughtful

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Manipulation of Human Traits

Trusting

Fear

Friendship

Feeling helpful

Optimism

- Authority
- Reciprocity
- Social pressure
- Scarcity
- Expedience
- Obligation

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Elicitation

▶ Open ended questions	▶ Repetition
▶ Flattery	▶ Ignorance/naivete
▶ Ego up	▶ Criticism
▶ Mirroring	▶ Disbelief/belief
▶ Listening (to venting)	▶ Give to get
▶ False statements	▶ Confidential bait

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Best Practices

Report concerns
Deflect
Don't respond
Lock down your accounts



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Thank you!

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