HOW DISINFORMATION AFFECTS ENTERPRISE DECISION-MAKING

David Branscome – Microsoft GPS – Security & Compliance
ABOUT ME

- Cloud Security Architect
- 14+ years at Microsoft
- Ask me about security certifications!!!
- I made a very bad pandemic decision and bought TWO dogs
“A LIE CAN TRAVEL HALFWAY AROUND THE WORLD WHILE THE TRUTH IS STILL LACING UP ITS BOOTS”

Attributed to Mark Twain (but probably it wasn’t him)
THE GROWTH OF DISINFORMATION
MISINFORMATION, DISINFORMATION OR MALINFORMATION?

Misinformation
Unintentional mistakes such as inaccurate photo captions, dates, statistics, translations, or when satire is taken seriously.

Disinformation
Fabricated or deliberately manipulated audio/visual content. Intentionally created conspiracy theories or rumors.

Malinformation
Deliberate publication of private information for personal or corporate rather than public interest, such as revenge pornography. Deliberate change of context, date or time of genuine content.
EXAMPLES OF DISINFORMATION GO BACK TO EARLIEST记录WRITINGS
Disinformation is often referred to as **cognitive hacking**.

Intent is to *change people’s view of reality, leading to*:
- Social discord
- Polarization
- Financial fraud

Compromises your logic, analytical abilities and critical thinking.
TOOLS OF THE TRADE

Online commercial platforms
(4chan, TikTok, Facebook, etc...)

ML and Graphics advancement
(Deepfakes, etc..)

Artificial Intelligence
(Psychological disinformation operations..)
SPOT THE REAL CRISIS RELIEF COORDINATOR

(hint: they’re all fake)

- Fake profiles on LinkedIn becoming more prevalent
- “Recruiters” will try to collect personal and financial information from individuals
- Often used in cryptocurrency scams to lure victims with “flirty strangers”

Glut of Fake LinkedIn Profiles Pits HR Against the Bots – Krebs on Security
Fake CISO Profiles on LinkedIn Target Fortune 500s – Krebs on Security
North Korean fraudsters suspected of copying people’s LinkedIn and Indeed profiles in a bid to land jobs at U.S. crypto firms
How to Tell a Job Offer from an ID Theft Trap – Krebs on Security
WHO’S BEHIND THE LIES?

- **Trolls**: Just getting under your skin
- **Profiteers**: Hoping to capitalize on the disinformation
- **Foreign Flags**: Damage brand, redirect business to “our” country

TROLLS

- Often random actions by individuals or small groups (4Chan is well known for this)
- May have ideological reasons for disinformation
- Could just be entertaining themselves
- **Nevertheless, impact is very real**

- e.g., Starbucks “Dreamer Day”

Companies scramble to combat ‘fake news’ | Financial Times (ft.com), Financial Times
Individuals or organized groups who profit from spread of disinformation

“Prank” website www.channel23news.com allows users to create fake stories that are often shared widely on social media without verification.

Karri Twist, an Indian restaurant in London, received bomb threats and lost half its revenue due to fake story accusing them of selling human meat.

Consequences are real.

Trolls Are Targeting Indian Restaurants With A Create-Your-Own Fake News Site (buzzfeednews.com)
“Black PR” firms, aka “disinformation for hire”

Capabilities of Russian disinformation groups were analyzed by Recorded Future’s Insikt Group

- Threat actors leveraged social media and customized content to corrupt messaging and brand of competing fictional companies
- Filed false accusations against targeted entities with law enforcement

One-month campaign costs only $4,200

- How much financial damage could they have done to a “real organization”?
FOREIGN FLAGS

- Inflict damage on competitor and redirect business to a company in your own country
- ~70 nation states support their own disinformation organizations.
- **Tesla is a favorite target** of Russia’s RT news organization using:
  - Biased info
  - Complete fabrications (“cars blow up”)
  - Elon Musk’s controversial personality
- Not all news orgs in oil-producers reflect same animosity toward Tesla
  - Was this just an economic attack?

*Tesla: Russia's Top Propaganda Target - CleanTechnica*
WHAT CAN YOU DO ABOUT IT?
IDENTIFY THE DISINFORMATION

Why is the information here?
Who stands to benefit?

- What are they saying?
- Identify the information that is being distorted
- What is the disinformation’s objective?
- Attempt to identify origins and motives
- Determine patterns
- Look for commonalities
- Determine the observed impact on your business
Document the impact

- Managers and HR departments
  - Note the sources and attempt identify origins and motives
  - Evaluate impact on employees, partners and customers

- Security/Data science teams:
  - Run A/B tests against data
  - Ensure AI and trained algorithms models are not corrupted or tampered with

- Finance teams:
  - Analyze cost of the disruption, including opportunity costs and liabilities potentially linked to market confidence, revenue loss, growth disruption and operational cost increases
QUANTIFY THE CONSEQUENCES

Examine the outcomes

▪ Estimate the consequences and collateral damage
▪ Assess severity of impact on enterprise operations and reputation
▪ Outcome of evaluation should inform investment in mitigations and controls
What data was impacted?

- Which controls worked? Which didn’t?
- More importantly, how do you KNOW they worked?
- What did this teach you about your data resiliency, hot/cold backups, etc...?
THE ROLE OF EDUCATION
Fifty-two percent of students believed a grainy “ballot stuffing” video. Only 3 out of 3,000 identified it as false.

Two-thirds of students couldn’t tell the difference between a news story and an ad, even when using the words “Sponsored Content” in the ad.

Ninety-six percent of students had trouble identifying why a link between the fossil fuel industry and a climate change website affects website credibility.

If college students at Stanford couldn’t identify fake news.......
FINLAND’S MODEL FOR COMBATTING DISINFORMATION

- **Finland has long been a target of Russian disinformation**
- Finnish children taught early in life how to identify fake news
- Results extend beyond the individual
  - 71% of Finns trust their government
  - 20% of Americans trust their government
- Finnish model can be leveraged in low-resource environments.
  - Uganda experienced similar positive results using same methodology

![Media Literacy Index (selected countries), 2022 scores](image-url)

- Finland: 75
- Norway: 73
- Denmark: 73
- Sweden: 70
- Ireland: 70
- Canada: 68
- Australia: 63
- UK: 61
- Germany: 61
- US: 60
- Spain: 58
- France: 57
- Japan: 56
- Italy: 48
- Israel: 41
- Ukraine: 37
- Turkey: 29

[https://www.apa.org/monitor/2022/01/career-fake-news](https://www.apa.org/monitor/2022/01/career-fake-news)
COUNTERING DISINFORMATION

Reduce exposure
- Differential promotion
- Dissemination control
- Content removal
- Demonetizing

Reduce belief
- Labeling
- Providing context
- Civic education, media literacy

Media Literacy Around the States | Media Literacy Now
How Finland starts its fight against fake news in primary schools | Finland | The Guardian
Collectively **hunt, track, and investigate foreign perpetrators of disinformation**—much like is done for foreign cyber actors.

Pull together disparate efforts, often operating in company silos, and not integrated into the broader cybersecurity community.

Leverage threat intel to **disrupt operations**, much like the successful takedown of ransomware operators.

In addition to operation disruptions, it’s essential to **choke off the financial supply** to known foreign disinformation sites, whether via ad placements, traffic sources, or otherwise.

Build consumer facing technology with **information integrity as a key principle**.

Foster **innovation and research** to enable more responsible technology.

Build a **more resilient society** through programs and technology that encourage critical news consumption.

**Secure international norms** that create a standard of behavior for nation-state information campaigns, particularly for those that touch on topics of fundamental human rights, such as healthcare.

[Defending Ukraine: Early Lessons from the Cyber War (microsoft.com) – Integrity Principles on pg 26](#)
RESOURCES

- Procter & Gamble wins $19 million in Satanism suit - The New York Times (nytimes.com)
- Glut of Fake LinkedIn Profiles Pits HR Against the Bots – Krebs on Security
- North Korean fraudsters suspected of copying people’s LinkedIn and Indeed profiles in a bid to land jobs at U.S. crypto firms (yahoo.com)
- How to Tell a Job Offer from an ID Theft Trap – Krebs on Security
- Companies scramble to combat ‘fake news’ | Financial Times (ft.com)
- Trolls Are Targeting Indian Restaurants With A Create-Your-Own Fake News Site (buzzfeednews.com)
- Tesla: Russia's Top Propaganda Target - CleanTechnica
- Digital Defense Report 2021 (microsoft.com)
- Students’ Civic Online Reasoning | Stanford History Education Group
- Informing health choices in low-resource settings - The Lancet
- “Finland puts Russian kids in prison” – Disinformation that Shaped the Minds of Millions
- Trust in Government – OECD
- Media Literacy Around the States | Media Literacy Now
- How Finland starts its fight against fake news in primary schools | Finland | The Guardian
- Psychology today: How Finland fights Disinformation
- Fighting fake news in the classroom
- Defending Ukraine: Early Lessons from the Cyber War (microsoft.com) – Integrity Principles on pg 26
THANK YOU!

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