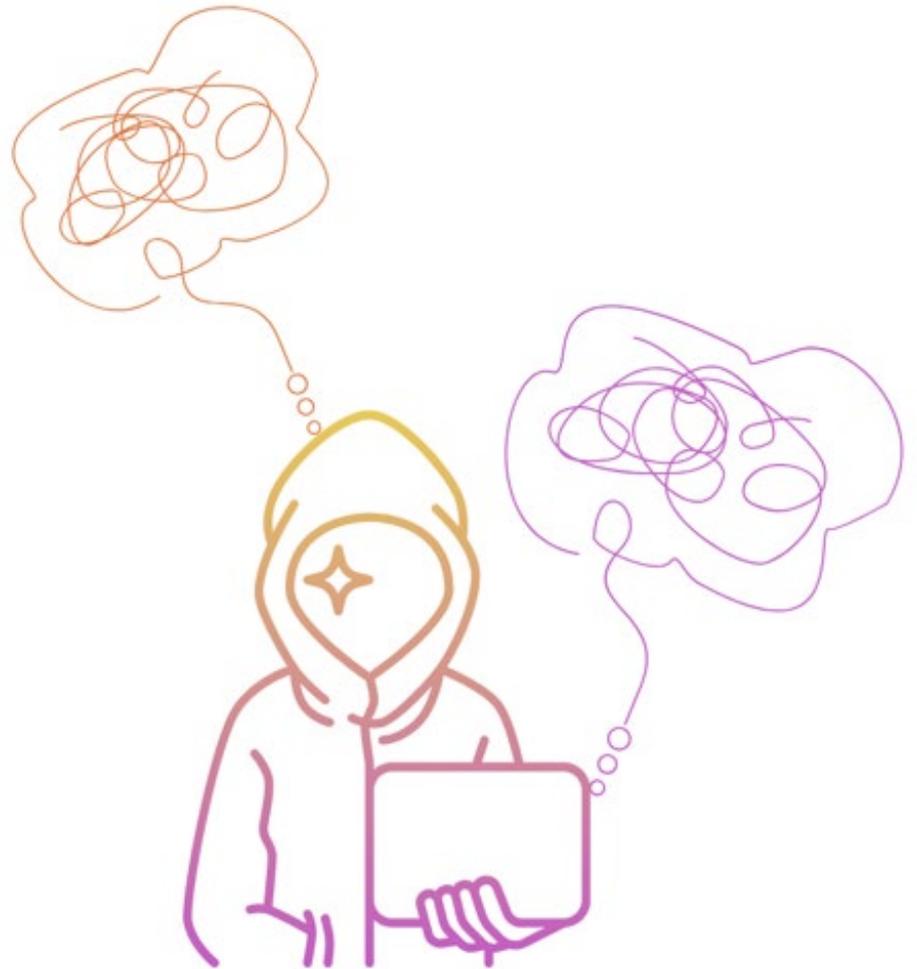


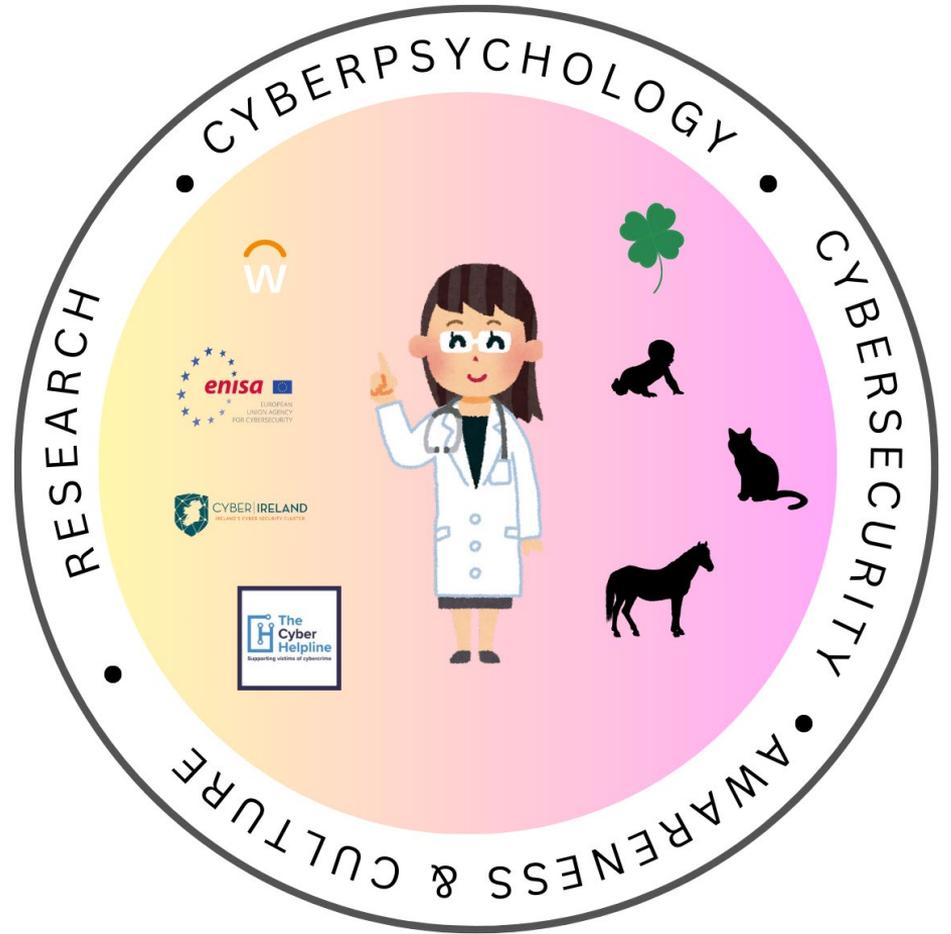
# Unraveling The Psychology of Cybercrime

*Understanding the Minds Behind  
Attacks and Defense*

Dr Louise O Hagan



# About me



# Psychological factors of Cybercrime



# Keep this in Mind!

Individuals don't think they are likely to become victims of cybercrime



# Victim Bias



# Victim Bias

## Why Victim Bias Exists

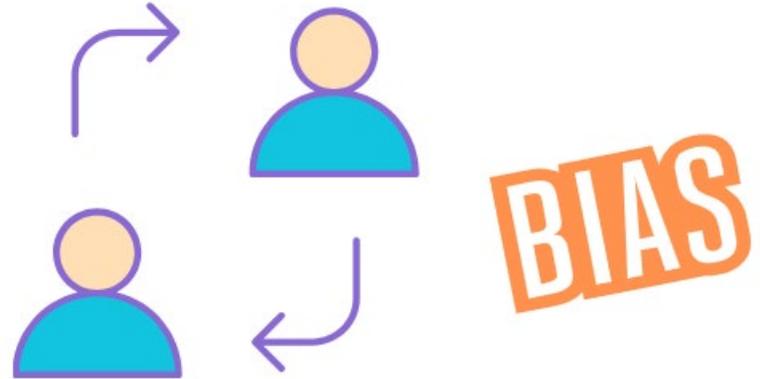
Optimism Bias - others  
Perceived Control - over outcome

## Consequences of Victim Bias

No Preparation - not securing data  
Increased Risk - neglect preventative

## Overcoming Victim Bias

Proactive Measures  
Awareness & Education - understand risk



# Cambridge Analytica Scandal

- Trust harmless activity - personality test
  - App permission - data exposure
  - Psychological profiling - location, personality
  - Psychological targeting - survey participants (and their friends) data was being used for political micro-targeting.
- 
- **Victim bias causes US to dismiss risks and assume we're safe online**
  - **Awareness is key** - it crucial to critically assess online activities, permissions, and the platforms



# Cybercrime Victim Personas



# Victim Persona

Victims of cybercrime vary widely, but often share certain vulnerabilities

Naive



Distracted

Overconfident



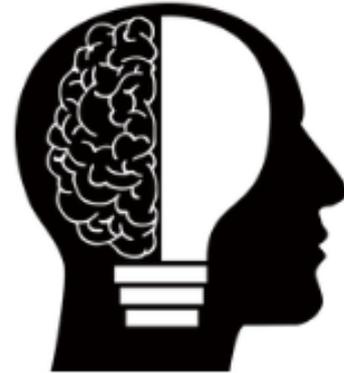
Everyone?

High value Target



Third party - not our control

# Psychological Profiles & Traits of Attackers



# Psychological Profiles and Traits of Attackers

Cybercriminals often exhibit a range of psychological profiles and traits that vary based on their motivations and the types of crimes they commit..

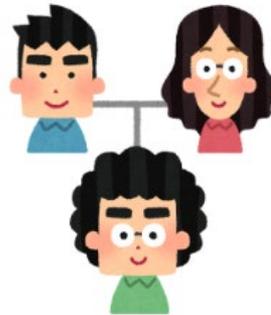
Hacktivist



Insider



Opportunist



Professional & Nation State



*Narcissistic, low self control, disinhibition, no empathy, impulsive, manipulative, risk takers - disinhibition (Suler)*

# Question

Do you value personal data?

# Story Time

- PhD Research Survey and Experiment
- 3000 participants 99.9% value their personal data
- 85% did not click to read T&C communicating what happens their personal data
- 15% clicked, but 11 seconds

Terms and Conditions <https://www.qualtrics.com/privacy-statement/>

I understand terms and conditions

# Question

Have you ever  
accepted cookies,  
T&C, Privacy Policies?

# What are we accepting?

## Cookies on O2

We use cookies to help you get the best experience from our site and show you more relevant products. Carry on browsing without changing your settings if you agree to our use of cookies. See our [cookie policy](#) and find out how to [manage cookies](#). The cookies we use include analytics and advertising cookies.

- Cookies Policy is 12006 words
- Third party cookies persistent for 1906 days or can reject individually



- When clicked on it opens a list of 2000 vendors that have access to visitor's data including location, device location and settings, browser information, pages delivered
- Need to read 2000 contracts to understand what is happening with their data

# Psychological Theory: Privacy Paradox

Do as I say? Say as I do?

But I don't do as I say...

But I think I do.....



# Psychological Elements Exploited



# Psychological Elements Exploited

Cybercriminals often exploit several psychological elements of the victim

Linked to Cialdini 6 Principle of Persuasion

Love

Emotional  
Manipulation

Easily to find  
Targets

Dating Apps

Target Vulnerability



High Success Rate

Low Detection

Hard to Prove a Crime

# Psychological Elements Exploited Contd

Trust



*Reciprocity and Commitment*

Fear



*Authority and Scarcity*

Urgency



# Email I received

Dear Professor Louise,

We recently received a new book proposal from **Gordon P. D. Ingram** for a book entitled ***Growing Up Connected: Risks and Opportunities for Adolescents in the Digital Age***. Given your expertise, we were wondering whether you would be willing to review this proposal?

This book would be published as part of our Focus series. Our Focus program is a fairly new initiative and Focus books are longer than journal articles, but not quite as long as the average monograph (so they are 20,000 to 50,000 words in length). Also, we do not expect reviewers to read the attached articles/thesis of authors/editors from cover to cover, they are just given to the reviewer to get a general idea of author's writing style.

If you were to review the proposal for us by **18<sup>th</sup> September 2019**, we would be able to pay you a fee of \$85 by bank transfer or offer you \$150 worth of Routledge books. Please feel free to take a look at [www.routledge.com](http://www.routledge.com) in order to choose which books you would like.

Please let me know whether you would like to take part in the review as soon as possible, so that I can contact another reviewer if necessary.

Looking forward to hearing from you,

# My Response

Hi Saharsh.

Pleased to meet you.

I would be more than happy to review the proposal “***Growing Up Connected: Risks and Opportunities for Adolescents in the Digital Age***” in exchange for books.

Kind regards,

# Their Reply

Dear Louise(If I may),

Many thanks for your response and for agreeing to review this proposal. I have attached the proposal material, along with a report form for you to complete and return to me by **18<sup>th</sup> September 2019**.

If you would prefer a cash payment, please let me know and I'll send a bank details form via our secure signing system, DocuSign after you submit review. If you would prefer books, please let me know which you'd like and provide a postal address and contact number when you return the review. Please feel free to take a look at [www.routledge.com](http://www.routledge.com) in order to choose which books you would like.

If you have any queries please do not hesitate to get in touch.

Best wishes,

Saharsh

# Question

Do you think I received  
the books?

# Psychological & Emotional Impact of Victims



# Victim Impact

The impact of cybercrime on victims can be profound and multifaceted



# The Identity Theft Resource Center Annual Survey

## Victim Data

1. Emotional and Psychological Impact
2. Financial Consequences
3. Social Impact
4. Physical Health Consequences
5. Long-Term Impact



# Key Takeaways



# Understanding Cybercrime through Psychology

**Role of Psychology:** Understanding how people think and behave online is vital for creating effective awareness programs.

- Cybercrime is influenced by victim and attacker psychology.
- Victim bias and personas play a role in cybercrime.
- Attackers exploit psychological principles to manipulate victims.
- Cybercrime has significant psychological and emotional impacts on victims.



Questions?

Thank you!

