Cognitive hacking and Big Tech platforms

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DEFINITIONS

Disinformation:

False information spread deliberately to deceive

Misinformation:

False information but not deliberate

Malinformation:

Information stemming from the truth but exaggerated in a way that misleads and causes harm

Information warfare:

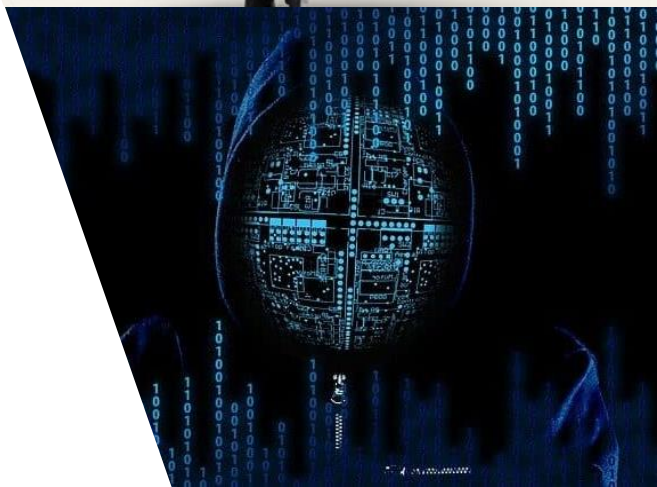
Contest for provision and assurance of information supporting friendly decision-making, while denying and degrading adversaries

Fake news:

False or misleading information presented as news

Propaganda:

Misleading or biased information used to promote a political cause or point of view



COGNITIVE HACKING IS CYBER

Cognitive hacking

- Cyberattack using disinformation manipulating perception and exploiting psychological vulnerabilities to change behaviour
- Against data, systems, communications platforms, networks, infrastructure, network security
- Cybersecurity threat
- Solutions part of cyber domain

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TECHNIQUES

False reports	Out of context	Memes	Deepfakes
AI bots	Trolling	Flooding	Astroturfing
‘Testimonials’	Distorted images	Favourable influencers	Cross-platform activity
Repurposed spam	Coordinated posting	Narrative laundering	Edited audio

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WHAT DOES IT DO?

To what degree is disinformation a threat and be intentionally weaponised against a population without it's knowledge?

- Creates disharmony
- Shapes views
- Amplifies grievances
- Exacerbates tensions
- Attracts attention
- Encourages protests
- Promotes bad health advice
- Sows discord
- Unsettles communities
- Influences corporate decisions
- Weakens brands
- Tactical military advantage
- Damages reputations
- Financial crime
- Fraud
- Theft
- Inaccurate records
- Insider threats
- Insecure information
- Impacts stock market
- Government mistrust
- Destabilises governments
- Influences elections

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HOW IT MIGHT WORK

- **Multiple sources** more persuasive
- **Endorsement** by large numbers
- **Familiar themes** appealing even if false
- From **groups recipient belongs**
- **Appearance** of expertise/trustworthiness
- Confirmation bias **reaffirm beliefs**
- Backed by **apparent evidence**
- ***Sleeper-effect*** **low credibility source** remembered true when source forgotten
- **Initially assumed valid** but proven false
- **Rapid, continuous** and **repetitive**

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WHAT IS THE IMPACT?

2022 Philippines Election – Ferdinand 'Bongbong' Marcos Jr

- Officially launched campaign Facebook video
- False social media undermining reputation, whitewashing scandals and enhancing family
- Most viral news driven by social media shares

2018 Brazilian Election – Jair Bolsonaro

- Relied heavily on social media
- Brazil 120m Whatsapp users – 44% electorate
- Followers created Whatsapp groups
- Disseminated misinforming content against political rivals and minority groups

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WHAT IS THE IMPACT?

2016 US Presidential Election – Donald Trump

- Exploited online media to agitate and motivate vast, unseen audience
- Mastered Twitter
- Redefining its power as tool of political promotion, distraction, score-settling and attack

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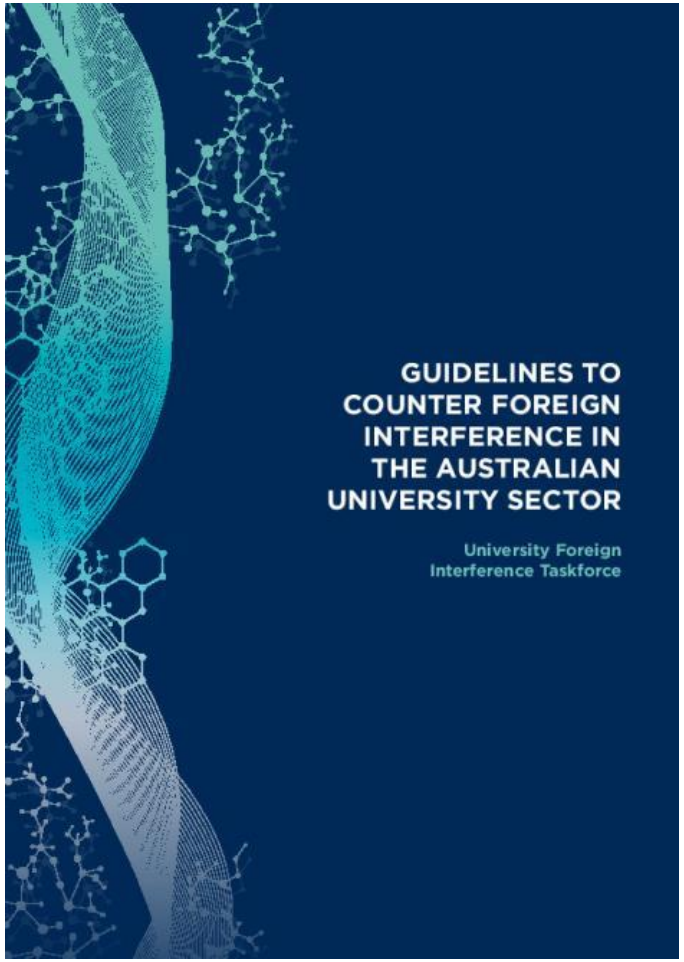
GOVERNMENT

- DFAT disinformation taskforce
- DHA counter foreign interference taskforce
- Guidelines to counter foreign interference in Australian university sector
- **Defence Information Warfare Division** – Joint Influence Activities
- **Foreign influence transparency scheme**
- **Legislation**
  - ACMA regulatory powers holding big tech accountable for harmful content
  - Platforms developing voluntary Australian code of practice
  - Gamified e-smart digital literacy course for primary and high school



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Meta

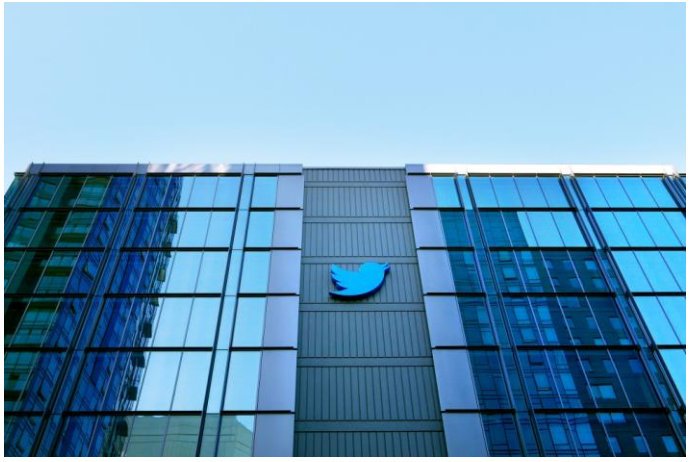
- Parent company of Facebook, Instagram, and WhatsApp

Facebook

- Online social media and social networking service
- Psychological persuasion techniques facilitate user engagement
- Very efficient propagating emotionally resonating content appealing to user preferences/beliefs
- **Algorithms prioritise content aligning user interests over accuracy more likely to be shared regardless of veracity**
- Uses algorithms for targeted advertising based on user data
- **More likes, shares and comments more engagement**
- Not financially incentivised to weed out dis/misinformation
- **Users don't need to create content, longer users spend longer time for ads**

TWITTER

- Microblogging social networking communications service
- **Extremely important global public discourse platform**
- **Evolved into very powerful influential private entity for political campaigns**
- Algorithms and users reporting to detect objectionable content
- Own censorship rules deciding who gets banned
- **Content removed on ideology** creating perceived bias
- After claims tweets sparked violence and mob stormed U.S. Capitol 6 January 2021 Trump permanently suspended
  - **Political censorship vs free-speech**



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Bespoke algorithms

- Short-form video hosting service owned by Chinese company ByteDance
- **Powerful AI behavioural profile algorithms**
- Predicting friends
- Positive-negative AI stimulating emotions to redirect
- **Repeated exposure to positive emotions subconsciously links to propaganda/politics**
- **User-specific profile learning trigger stimuli**
- Addictive using compelling stimuli to spend hours on
- Ukraine invasion world's first 'TikTok war'
- Zelenskiy asked 'TikTokers' to help war and Joe Biden briefed top users
- Features and opaque algorithms prime to remix disinformation media

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MEDIA REACTIONS

Left vs Right

- January 2018 then POTUS reportedly referred to African nations and Haiti as ***'sh*thole countries'*** when discussing immigration deal

Reactions

- **CNN's Don Lemon** called President Trump a *'racist'* saying he wasn't shocked

- **CNN's Anderson Cooper** emotional saying White House could learn from *'dignity'* of Haitian people

- **Fox's Jesse Watters** defended President Trump saying many American people *'speak similarly'*

- **Fox's Tucker Carlson** defended President Trump saying *' awful lot of immigrants come from dangerous and dirty countries'*

Purr and Snarl: *terrorist vs freedom fighter, seal harvest vs sea pup slaughter, vandalism vs street art, fetus vs unborn child, management offers vs union demands, protester vs rioter*

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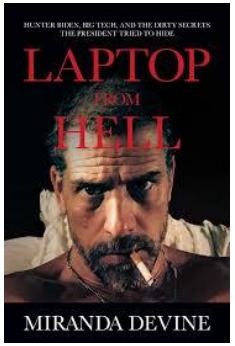
HUNTER BIDEN

- Laptop left at Delaware repair shop 2019
- October 2020 New York Post published story
- Twitter blocked newspaper's account and users sharing
- Hunter Biden introduced then VP Joe Biden to Ukrainian energy company Burisma
- Biden pressured Ukraine Government into firing investigating prosecutor
- Twitter said decision to block was mistake



'10 held by H for the big guy?'

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CANBERRA CONVOY

- Anti-vaccine mandate protests February 2022
- Disparate groups protesting different issues part protest/reality TV
- Influencers para-social intimate relationship generating loyalty, affection and support
- More social media content than protest
- Selling merchandise, livestreaming and latest interpersonal dramas
- Hothouse minute-by-minute content creating visible divisions

Anti-vaccination, anti-vaccine mandate activists, Sovereign citizens, ultra religious groups, United Australia Party, indigenous rights activists

FALL OF MOSUL

Mosul

- Iraqi security **fell to ISIS (<1500) in three days** 2014
- **Choreographed marketing campaign** – Twitter and Instagram selfies
- **Exciting edited pictures** truck convoys black flags
- **Bots amplifying and exploiting social media algorithms**
- **Mobile apps watch at home** feeling part of battle
- **ISIS arrived defenders panicked** spreading fear
- Saw convoys and suicide bombings **deserting flood**
- **Better equipped soldiers abandoned US weapons**
- **Transformed narrative through media exaggerating capabilities** and territorial gains polarising population **driving rivals away**
- Online atrocities in **psychological operations**
- **No sophisticated military of cyber** capability
- **Manipulated information mitigating** shortcomings
- Impression unstoppable mission **making minor firefights appear heroic victories**

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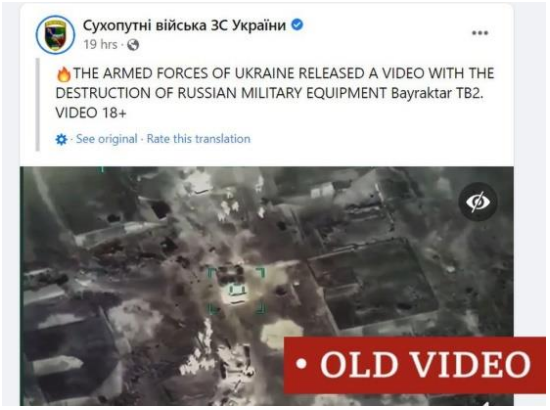

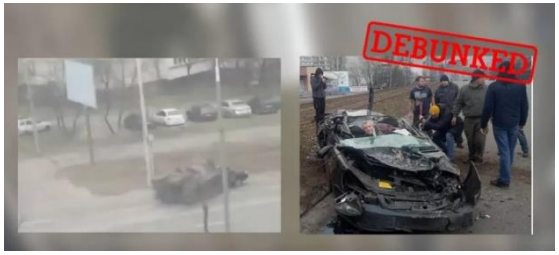

CITIZEN WARFARE

Elon Musk

- Starlink satellite internet services

Anonymous

- Declared cyber war on Russia
- Denial of services hacking Defence databases and hijacking state TV

Civilian drones

- Consumer drones used video footage shared social media

Bellingcat

- Volunteers fact-checking and citizen investigations in war zones, human rights abuses and crime

Baltic Elves

- Volunteers highlighting false news using scientific and academic sources

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FRAUDSTERS AND CON ARTISTS

Bernie Madoff

- Former NASDAQ chairman ran $64b Ponzi scheme

Belle Gibson

- Scammer and pseudoscience advocate

Elizabeth Holmes

- Biotech entrepreneur and Theranos CEO

Melissa Caddick

- Fraudulent financial advisor

Charismatic, visionaries, grandiose, fanciful claims, unrealistic results, unpaid bills, vague assertions, unkept promises, determined denials, small unusual errors, unflustered, affinity fraud

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PAST

Aircraft

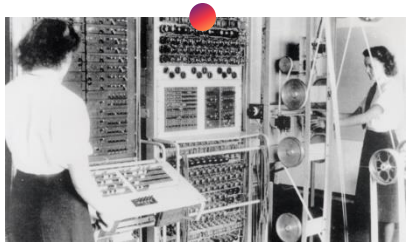
1900s

1940s

Now

Computer

1950s

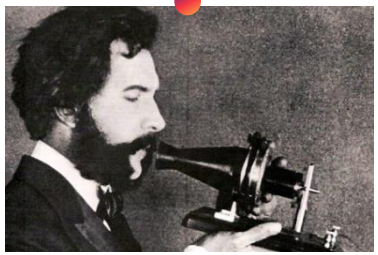


1980s

Now

Telephone

1870s



1970s

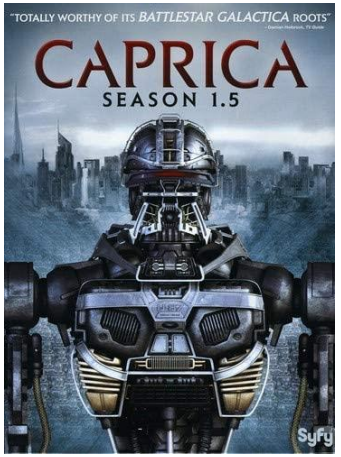
Now

Future?

Virtual lives

Implanted memories

Digital immortality

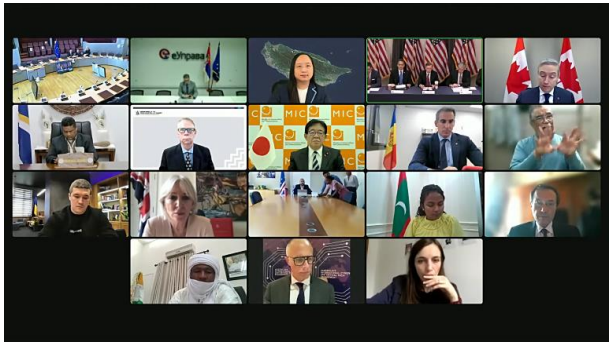


Cyborgs

Holographic partners

Precognition hiveminds

EVOLVING



- Specific **'naming and shaming' exposes but won't always lead to behaviour change** or embarrassment
- When defence improves, disinformation innovates in cat-and-mouse
  - AI fake profiles, handle switching and new perpetrators
- Censorship ramped up alternative methods embraced
- **Political outsourcing**
  - Marketing and PR companies
  - Indonesia deepfake 'Jasmine'
- Fake news outlets remain

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WHY DO SOMETHING ABOUT IT?

- **Different viewpoints**
- **Unelected company employees running systems how they see fit with near monopoly on public discourse**
- People disagreeing with certain narratives excised or shadow banned
- Algorithmically curated information affects exposure to ideologically cross-cutting news - embolden abuse or encourage other views?
- **Companies controlled by private citizens banning people**
  - Trump not Putin, Iran's Supreme Leader or Taliban
- Mainstream media
  - Want balanced reporting
- Mistakes made
  - COVID origin, treatment, isolation rules, infection after vaccination and mask effectiveness
  - Platforms updating standards and policies

REFORM

Labelling

- **Warnings labels** at initial exposure with extra click to see
- Repetition, retraction or refutation
- Corrections providing alternative story

Suspensions

- **People don't back down**, they want to talk, cancelling may move but won't silence
- **Banning creates one side echo chambers**
- Temporary suspensions not permanent
- Remove or hide offensive posts

Regulations

- **Independent government regulatory body**
- Legislation amendments

Algorithms

- Instead of liable for user content, **accountable for content amplification/targeting**
- **Require by law to meet baseline algorithmic open standards**

Transparency

- **Terms of service rules** for permitted user-generated content and behaviour
- **Disclose algorithms and processes** identifying recommendations and violations
- Regular transparency reports with volume and actions taken
- **Explain algorithm optimisation and variables** allowing users to shape experience
- **Platforms or publishers**

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JOE ROGAN

Joe Rogan Experience

- Comedian and MMA commentator
- **Promotes show as conversation** not source of accurate information
- Diverse accomplished scientists, politicians, adventurers, comedians and sports people to conspiracy theorists
- Openly engages in **array of boundary free ideological subjects**
- Current affairs, politics, comedy, MMA, philosophy and psychedelics

Recent trouble 2021

- Guests discussing COVID and not getting vaccinated
- Apologised for racially insensitive language and be more balanced
- 113 episodes removed

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JOE ROGAN EXPERIENCE

Critics

- **Financially sponsoring misinformation**
- Guests discuss nonsense with misinformation treated as fact
- Popularity and money with **no real pressure for mistakes**
- Portraying open-mindedness giving conspiracies/dangerous ideas platform

What to do

- For disinformation to cause harm needs **transmitter and receiver**
- Receivers don't have research/literacy to evaluate lacking critical thinking
- Many minds made up beforehand
- Greater content and advisory warnings
- **If de-platformed will move**
- Others will fill void
- Let interview who he wants
- **Public decides if you like listen if not don't**

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