



NANYANG
TECHNOLOGICAL
UNIVERSITY
SINGAPORE

CC0002 Navigating the Digital World

Module 4: The World of Digital Misinformation

Fighting Fake News

Presented by Assoc Prof Edson C. Tandoc Jr.



The Consequences of Fake News

- The notion of “harm”
- *Short-term effects*
- *Long-term effects*

THE CORONAVIRUS CRISIS

NYC Poison Control Sees Uptick In Calls After Trump's Disinfectant Comments

April 25, 2020 · 7:13 PM ET

WhatsApp rumours have led to 30 deaths in India. Who's next?

PHOTO: Reuters

by KUNAL PUROHIT
SOUTH CHINA MORNING POST | Feb 26, 2019

Your daily good stuff -
AsiaOne stories delivered
straight to your inbox

Burned to death because of a rumour on WhatsApp

By Marcos Martínez
BBC Monitoring

🕒 12 November 2018

Fake news sparks anti-Roma violence in France

By Jack Guy, CNN

🕒 Updated 2208 GMT (0608 HKT) March 27, 2019

This Week in Asia / Health & Environment

Coronavirus: saltwater spray infects 46 church-goers in South Korea

Areas at Risk

- **Short term**

- Political decisions
- Business
- Peace and order
- Reputation

- **Long term**

- Devaluation of information
- Erosion of trust in institutions
- Larger social divisions
- Chilling effect



What Can We Do?

Individuals

Governments

Tech companies

Journalists and fact-checkers

How We Authenticate Information

“How do you verify whether news you see on social media, such as Facebook, is correct?”

Internal Acts

Initial encounter between user and information

External Acts

When internal check is insufficient, user moves to external checks

Internal Acts of Authentication

The self	“Usually, we can all tell if the news is over-exaggerated or not. We are old enough to judge and think for ourselves.”
The source	“Check if the source is reliable, e.g. an article from an established media company is generally more factually correct than one from a relatively unknown news site.”
The message	“Check the tone of the news article to see if it's polemical or deliberately misleading/false to arouse emotions.”
Message cues	“If there are more likes.”

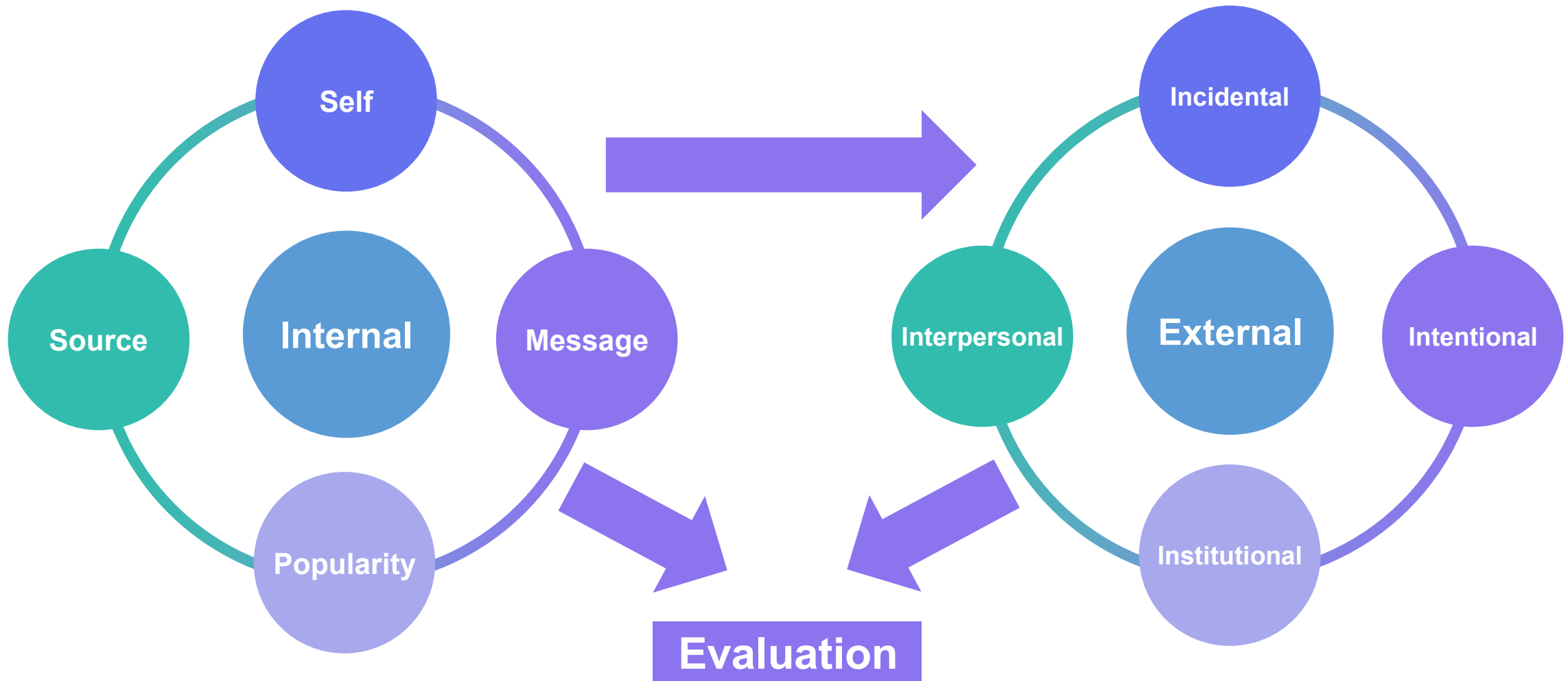
Survey of 2,501 Singaporeans (December 2016)

External Acts of Authentication

Incidental and interpersonal	“Through words of mouth from friends or relatives.”
Incidental and institutional	“If there is doubt of the truth of an article, I would just wait to see if there is a correction or a follow-up article of clarification. Often does.”
Intentional and interpersonal	“I WhatsApp a reliable chat group to ask members to verify.”
Intentional and institutional	“I Google for the title to see if there are any such reports on the mainstream news website.”

Survey of 2,501 Singaporeans (December 2016)

Audiences Acts of Authentication

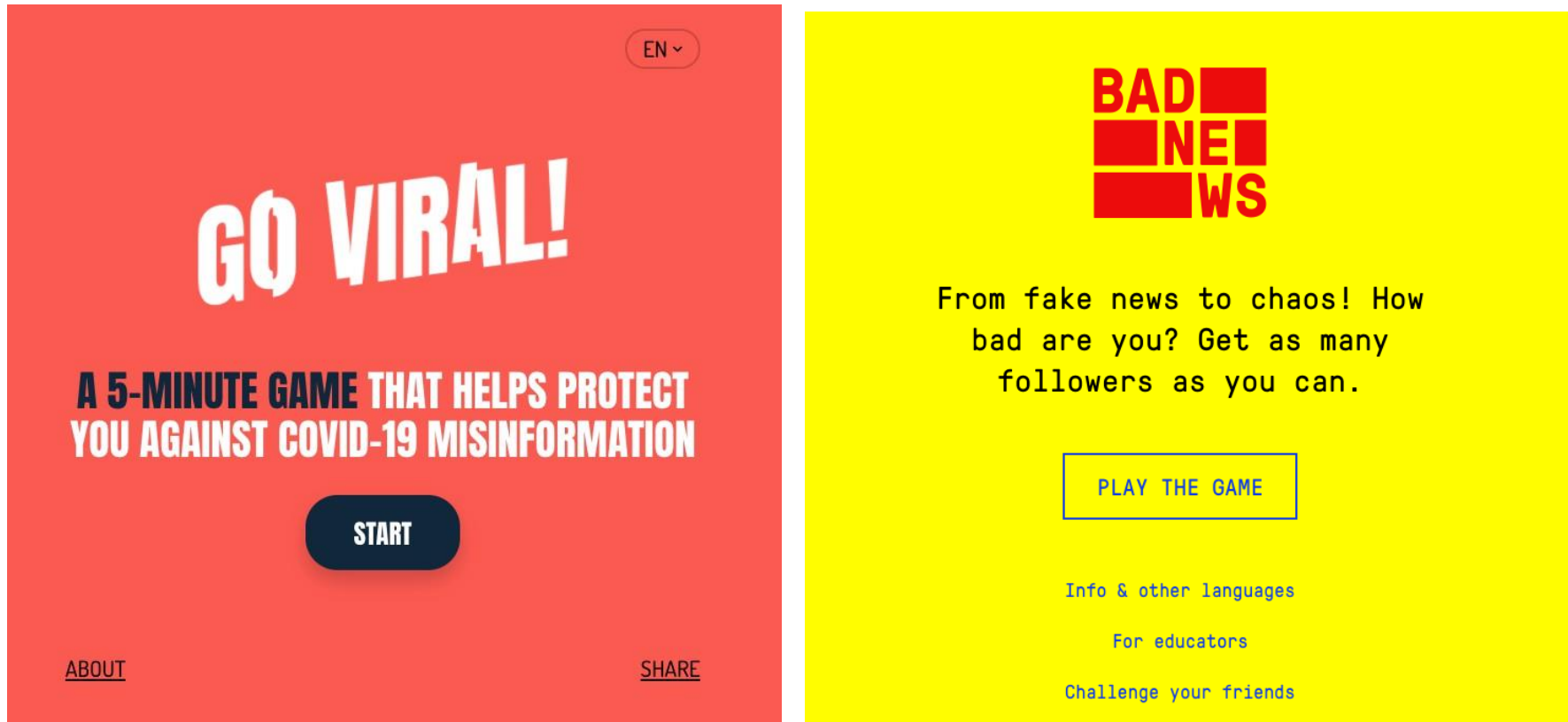


Authentication as a Social Process

- Motivations for authenticating
 - Self-image
 - Group cohesion
- Strategies of authentication
 - Group beliefs; “deep stories”
 - Source affiliation
 - Sharing as authenticating
- Consequences of authentication
 - Institutionalisation of Interdependence
 - Ritualisation of collective authentication



Gamifying Interventions



Singapore's POFMA

A large, bold, black opening quotation mark is positioned at the start of a blue line that extends across the top of the slide and then turns down to frame the text on the right.

An Act to prevent the electronic communication in Singapore of false statement of fact, to suppress support for and counteract the effects of such communication, to safeguard against the use of online accounts for such communication and for information manipulation, to enable measures to be taken to enhance transparency of online political advertisements, and for related matters.

A large, bold, black closing quotation mark is positioned at the end of a blue line that extends across the bottom of the slide and then turns up to frame the text on the left.

What is “False”?

“

(2) In this Act –

- (a) a statement of fact is a statement which a reasonable person seeing, hearing or otherwise perceiving it would consider to be a representation of fact; and
- (b) a statement is false if it is false or misleading, whether wholly or in part, and whether on its own or in the context in which it appears.

”

What Constitutes as Communicating?



Meaning of "communicate"

3. - (1) In this Act other than in Part 2, a statement or material is communicated in Singapore if it is made available to one or more end-users in Singapore on or through the internet.

(2) In Part 2, a statement is communicated in Singapore if it is made available to one or more end-users in Singapore on or through -

- (a) the internet; or
- (b) MMS or SMS.

(3) A reference in this Act to communicating a statement or material in Singapore includes causing its communication (within the meaning of subsection (1) or (2), as the case may be) in Singapore.



“Public Interest”

“

Meaning of "in the public interest"

4. For the purposes of this Act and without limiting the generality of the expression it is in the public interest to do anything if the doing of that thing is necessary or expedient –

- (a) in the interest of the security of Singapore or any part of Singapore;
- (b) to protect public health or public finances, or to secure public safety or public tranquillity;
- (c) in the interest of friendly relations of Singapore with other countries;
- (d) to prevent any influence of the outcome of an election to the office of President, a general election of Member of Parliament, a by-election of a Member of Parliament, or a referendum;
- (e) to prevent incitement of feelings of enmity, hatred or ill-will between different groups of persons; or
- (f) to prevent a diminution of public confidence in the performance of any duty or function of, or in the exercise of any power by, the Government, an Organ of State, a statutory board, or a part of the Government, an Organ of State or a statutory board.

”

Tech Companies



Tech Companies

How did their interventions evolve over time? Why?

How effective are these interventions? Why?



Fact-Checking

- **Verification:** The process of evaluating “the veracity of a story before it becomes the news” (Mantzaris, 2015).
- **Fact-checking:** “A process that occurs post publication and compares an explicit claim made publicly against trusted sources of facts” (Mantzaris, 2015).

CHECKLIST



Fact-Checking



<https://www.politifact.com/>



<https://www.snopes.com/>



<https://factcheck.afp.com/>

Fact-Checking



<https://blackdotresearch.sg/>



<https://verafiles.org/>



<https://en.cofacts.tw/>



<https://www.smhoaxslayer.com/>

Types of Fact-Checkers

The International Fact-Checking Network



The International Fact-Checking Network is a unit of the Poynter Institute dedicated to bringing together fact-checkers worldwide. The IFCN was launched in September 2015 to support a booming crop of fact-checking initiatives by promoting best practices and exchanges in this field.

Are you a fact-checking organization interested in being a verified signatory to IFCN's Code of Principles?

[APPLY NOW](#)


- Affiliated with news organisation
- Government-owned
- Independent organisation
- Volunteer group
- Individual

Some Fact-Checking Tools

1. Monitor what's trending
2. Verify images
3. Verify sites
4. Check the weather!



Fact-Check This:



Follow

This was written by a DOCTOR (and no - The name will be not be provided)

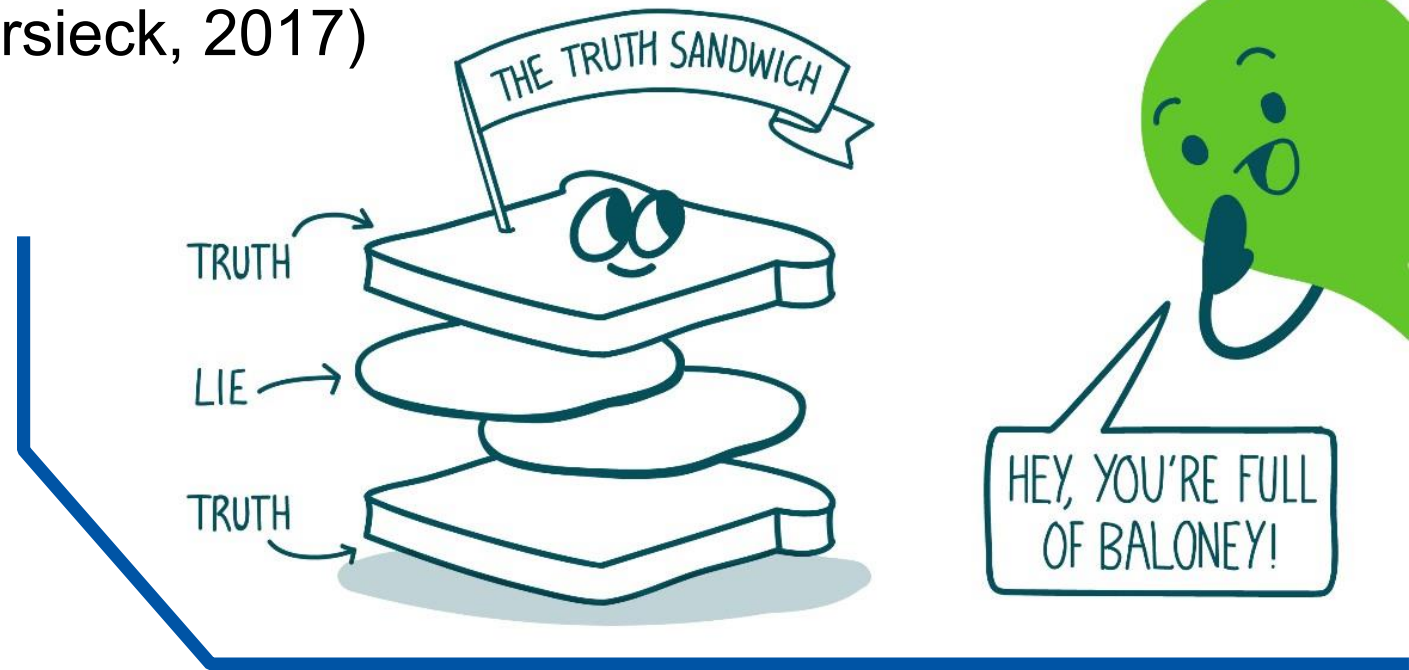
"A direct injection of ANY AMOUNT of Potassium Chloride (KCl) into the blood will in fact cause heart irregularities (palpitations and tachycardia) in even the most healthy of people (because it causes disruptions in the sodium-potassium pump mechanism essential for healthy heart function) - but in the elderly - even miniscule amounts directly injected into the blood will often cause death. Any amount of KCl directly injected into the blood of a pregnant woman will also likely cause a miscarriage. (See PubMed link below.)

KCl is found in the Pfizer and Moderna covid jabs in significantly substantial amounts. WHY? There is no reason for this to be added as far as I can tell - i.e. it's not a preservative, nor is it an adjuvant. Take it from me, an EXPERT in mineral health science - potassium chloride should NEVER, EVER be injected directly into the blood UNDER ANY CIRCUMSTANCES no matter what the amount. (That is, unless one wants to commit suicide and one can't find a gun!)

This is absolutely insane! No wonder elderly people are "dying like flies" after getting this jab! Shades of Nazi T4 euthanasia. I kid you not, according to Encyclopedia Britannica - the elderly were euthanized in Nazi Germany by POTASSIUM CHLORIDE INJECTIONS. The sad fact is, this was done for FINANCIAL reasons - Hitler did not want funds diverted to take care of the sick and elderly - he wanted every MARK to go for the war effort! "

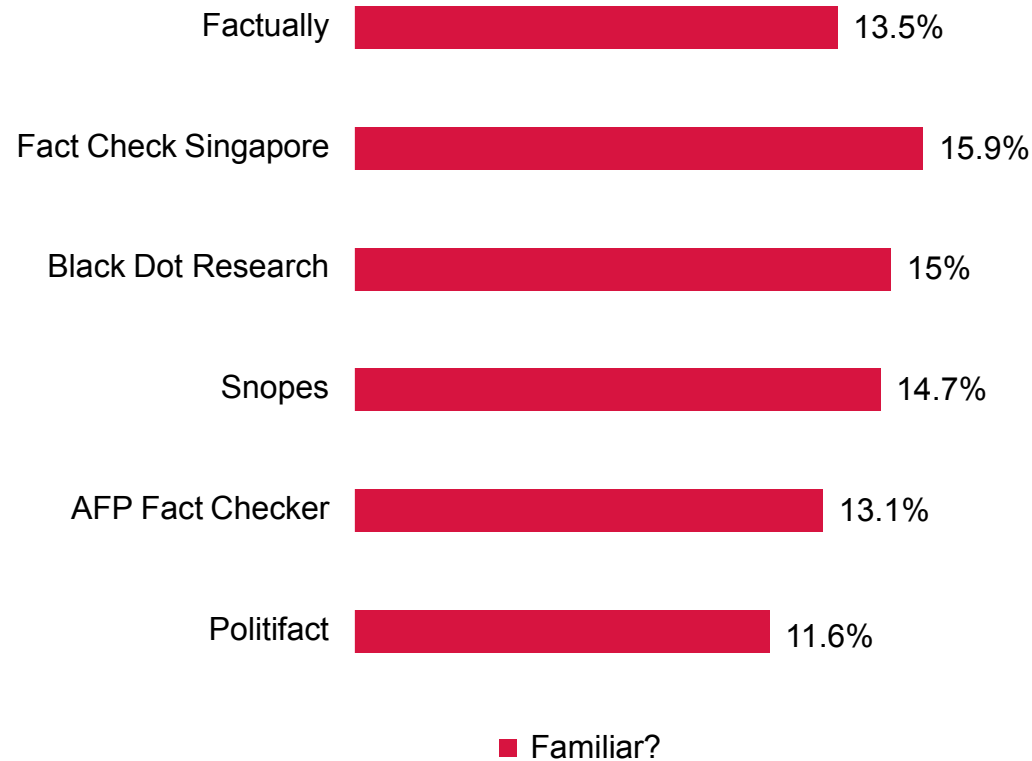
Fact-Check Message

1. Videos (Young et al., 2018)
2. Rating scales (Amazeen et al., 2018)
3. Mixed accuracy statements (Wintersieck, 2017)
4. Truth sandwich



Fact-Checking in Singapore

21% said they use fact-checking sites often or very often

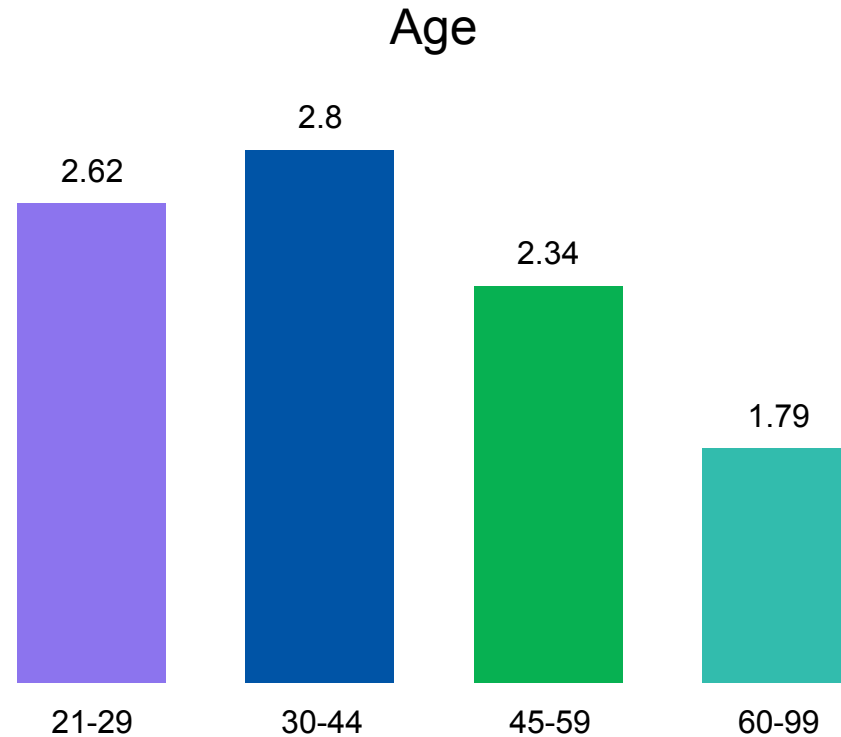


Survey of 1,000 Singaporeans (December 2019)

The survey is part of a research project funded by the Social Science Research Council (SSRC) examining the problem of deliberate online falsehoods in Singapore.

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Fact-Checking Fact-Checkers?

POLITICS

Political Fact-Checking Under Fire

January 10, 2012 - 1:00 PM ET

Heard on [Talk of the Nation](#)



30-Minute Listen

+ PLAYLIST



Sites like PolitiFact and Factcheck.org are designed to verify political claims and hold politicians accountable. But critics say fact-checking entities are themselves biased. The Weekly Standard's Mark Hemingway and Glenn Kessler of the Washington Post discuss fact-checking in American politics.

Read Mark Hemingway's [article](#) in *The Weekly Standard* and Glenn Kessler's [response](#) in *The Washington Post*.

What can we do?

1. Reflect on our own information behaviour.
2. Engage, rather than ignore.
3. Strive to understand others.
4. Use and support reliable and legitimate information sources.
5. Maximise available resources.
6. Equip ourselves.

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CC0002 Navigating the Digital World

Module 4: The World of Digital Misinformation

The Facts of “Fake News?”

Presented by Assoc Prof Edson C. Tandoc Jr.



A Web of Lies

Falsehoods

“A statement is false if it is false or misleading, whether wholly or in part, and whether on its own or in the context in which it appears” (POFMA, 2019)

Misinformation

The inadvertent dissemination of false information (Wardle, 2017)

Disinformation

The intentional dissemination of false information (Wardle, 2017)

Fake news

A specific type of falsehood intentionally packaged to look like news to deceive others (Tandoc, 2021)

One Term, Different Uses

What's common and different among these types of “fake news?”

- Political satire
- Advertising
- News parody
- Manipulation
- Propaganda
- Fabrication



Kim Jong-Un Named *The Onion*'s Sexiest Man Alive For 2012 [UPDATE]

NEWS · North Korea · Lifestyle · ISSUE 48-46 · Nov 14, 2012



Fake News as FAKE News

“A knowingly false headline and story is written and published on a website that is designed to look like a real news site, and is spread via social media.” (Rochlin, 2017)

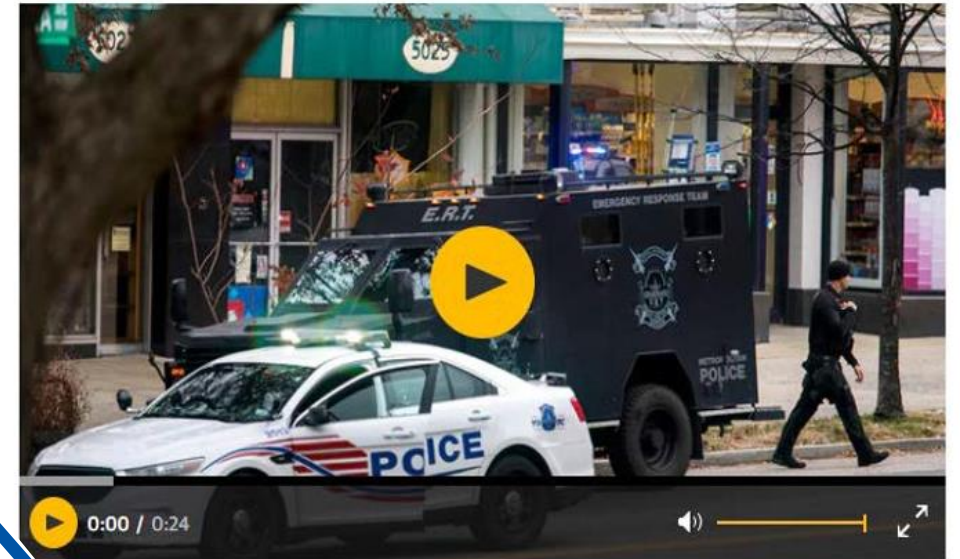
“News stories that were fabricated and promoted on social media in order to deceive the public for ideological and/or financial gain.” (Pennycook et al., 2017)

“News articles that are intentionally and verifiably false, and could mislead readers.” (Allcott & Gentzkow, 2017)

- **Financial**
- **Ideological**

Washington gunman motivated by fake news 'Pizzagate' conspiracy

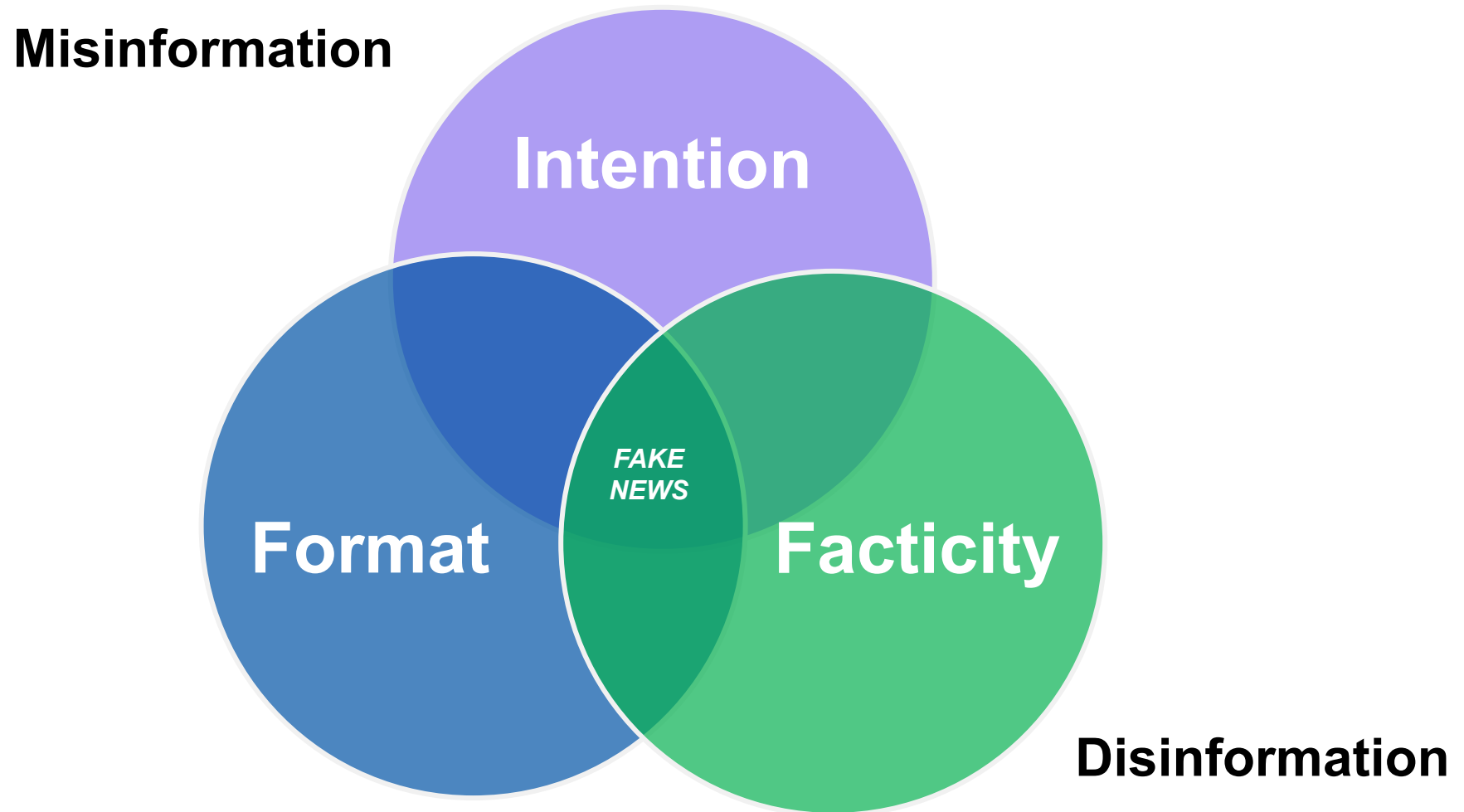
Washington restaurant Comet Ping Pong was target of fake news reports it was operating a child abuse ring led by Hillary Clinton and an aide



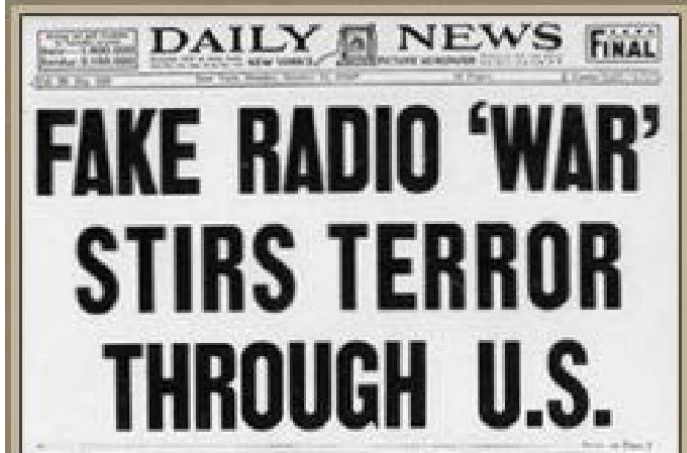
fake news pizzeria owner calls on conspiracists to stop

0.632

Fake News as FAKE News



Fake News is Old News



Why It Matters

This Week in Asia / Health & Environment

Coronavirus: saltwater spray infects 46 church-goers in South Korea

- The church in Gyeonggi Province sprayed salt water into the mouths of its followers out of a belief it would kill the virus
- The new cases have fuelled the South Korean government's efforts to clamp down on possible clusters, as cases rise to 8,236

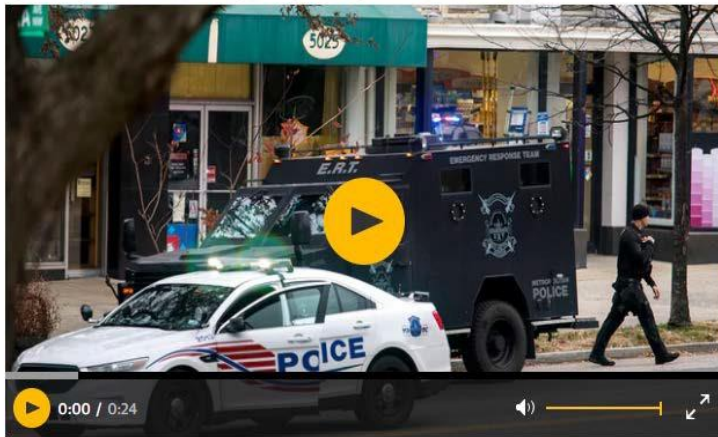


Park Chan-kyong
Published: 6:30pm, 16 Mar, 2020

Why you can trust SCMP

Washington gunman motivated by fake news 'Pizzagate' conspiracy

Washington restaurant Comet Ping Pong was target of fake news reports it was operating a child abuse ring led by Hillary Clinton and an aide



THE CORONAVIRUS CRISIS

NYC Poison Control Sees Uptick In Calls After Trump's Disinfectant Comments

April 25, 2020 - 7:13 PM ET

JASON SLOTKIN

WhatsApp rumours have led to 30 deaths in India. Who's next?

PHOTO: Reuters

by KUNAL PUROHIT
SOUTH CHINA MORNING POST | Feb 26, 2019

Your daily good stuff -
AsiaOne stories delivered
straight to your inbox

Burned to death because of a rumour on WhatsApp

By Marcos Martínez
BBC Monitoring

12 November 2018

'Hundreds dead' because of Covid-19 misinformation

By Alistair Coleman
BBC Monitoring

Which One is a Real News Story?



New York: Chinese immigrant sold hot dogs made with real dog meat

Xi Ping Chow, a 57-year-old Chinese immigrant, has been arrested by the NYPD this week after authorities were informed that the man was making his own hot dogs...



Bali dogs brutally killed, meat sold to unsuspecting tourists, investigation reveals

Australian tourists are unwittingly eating dog meat in Bali, according to evidence provided to the ABC's 7.30 program.

SGDAILY.SG

Which One is a Real News Story?



New York: Chinese immigrant sold hot dogs made with real dog meat

Xi Ping Chow, a 57-year-old Chinese immigrant, has been arrested by the NYPD this week after authorities were informed that the man was making his own hot dogs...

- Is this factual?
- What is the intention behind this post?
- Does it look like real news?

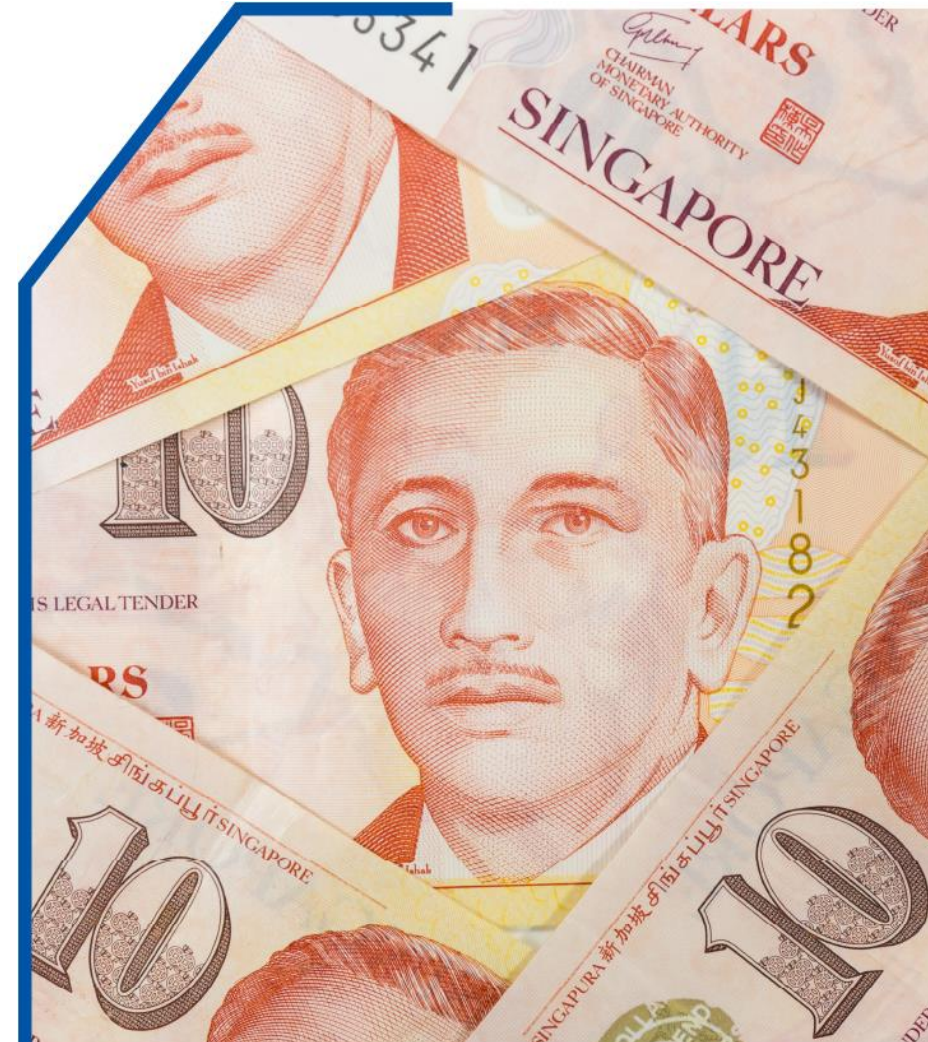
Motivations for Fake News

- **Financial**

- Attracting clicks
- Advertising revenues

- **Ideological**

- Personal agenda
- Weapons of mass misinformation



What Makes People Vulnerable?

- **Sender**

- Credible or familiar?
- Trustworthy or similar?
- Proximate or distal?

- **Message**

- Format
- Plausibility

- **Channel**

- Trusted or depended on?
- Closed or open?
- Feedback

- **Receiver**

- Confirmation bias
- Motivations
- Corrections

- **Context**

- Information overload
- Instability




Who is the Actual Source of This Message?

- Original source
- Immediate source
- Invisible source
- Trusted source
- Disregarded source

COVID-19 FACT CHECKS

FALSE: 'Required' COVID-19 home medical kit

JUL 29, 2020 9:24 PM PHT
RAPPLER.COM



FALSE

The World Health Organization says it 'does not recommend self-medication with any medicines...as a prevention or cure for COVID-19'

Focus on the Message Characteristics

🔗 Forwarded

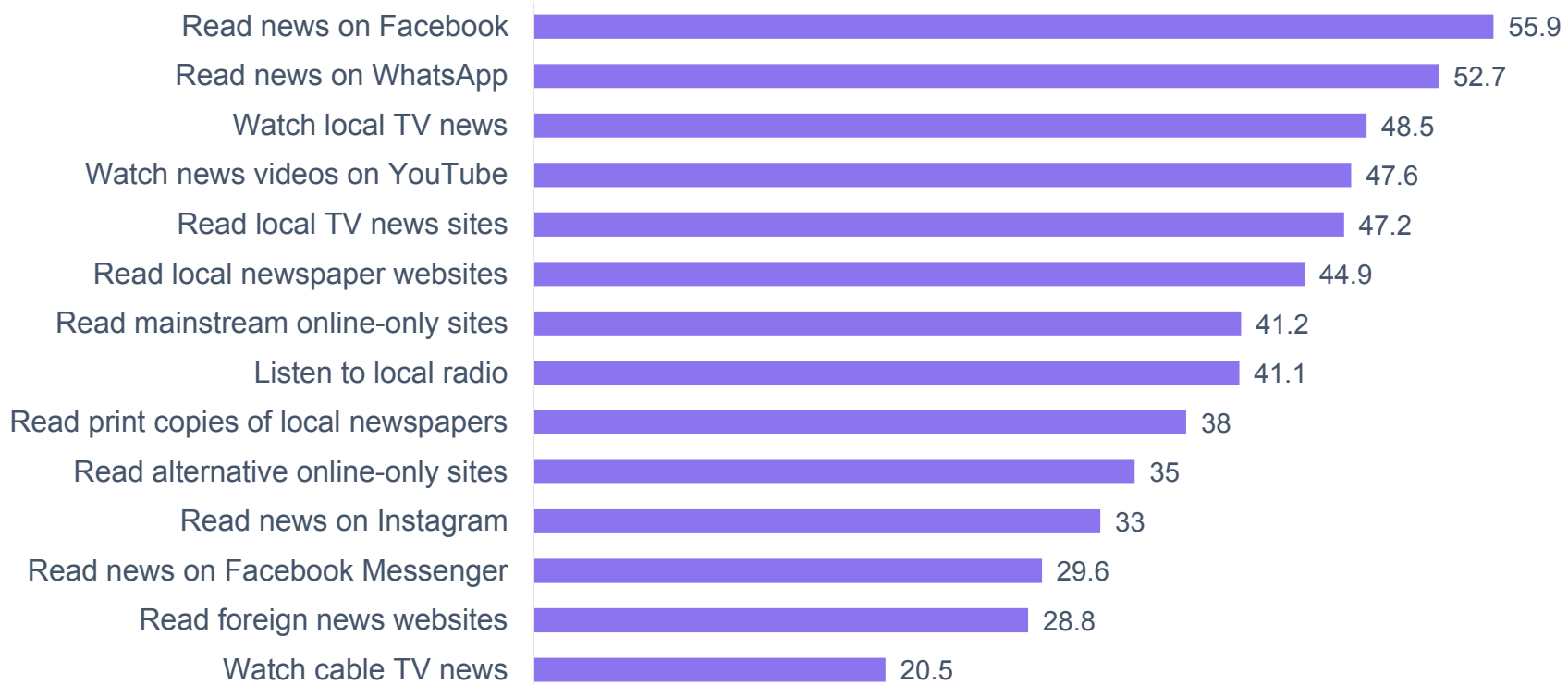
SERIOUS EXCELLENT ADVICE by Japanese doctors treating COVID-19 cases. Everyone should ensure your mouth & throat is moist, never DRY. Take a few sips of water every 15 mins at least. WHY? Even if the virus gets into your mouth...drinking water or other liquids will WASH them down through your oesophagus and into the stomach. Once there in tummy...your stomach ACID will kill all the virus. If you don't drink enough water more regularly...the virus can enter your windpipes and into the LUNGS. That's very dangerous. Pl remind everyone about this !

07:51

- Plausible?
- Mentions experts?
- Conversational tone?
- Stirs emotion?
- Asks you to forward?

Channels Where Information Flows

How often do you:



Survey of 1,000 Singapore residents (December 2019)

Channels Where Information Flows

This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook

A BuzzFeed News analysis found that top fake election news stories generated more total engagement on Facebook than top election stories from 19 major news outlets combined.



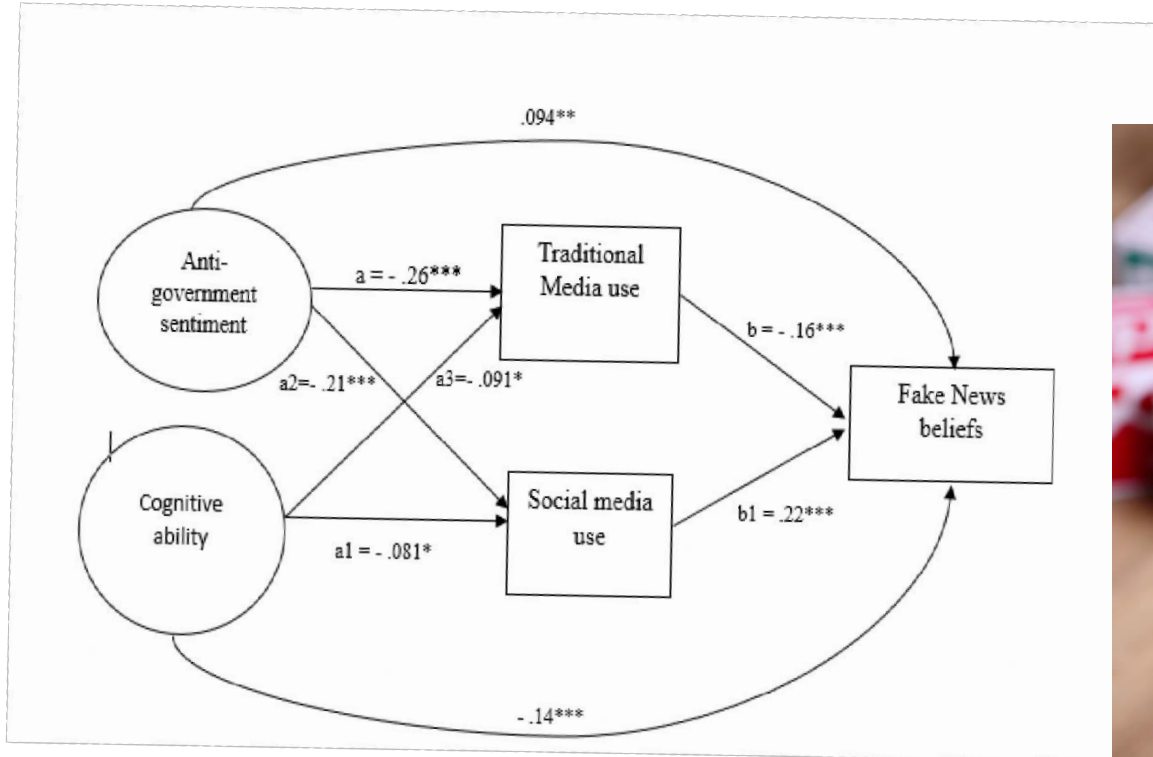
Craig Silverman
BuzzFeed Founding Editor, Canada

Posted on November 16, 2016, at 5:15 p.m. ET



- Popularity cues
- Reliance
- Lack of gatekeeping
- Information overload

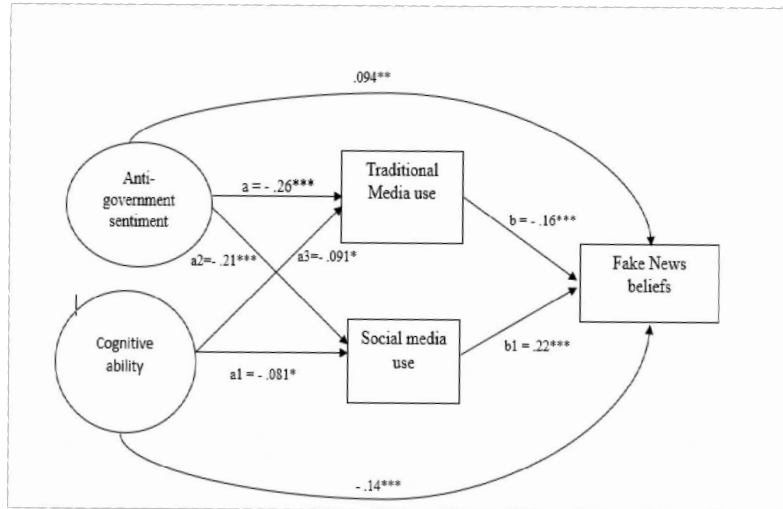
The Impact of Using Social Media for News



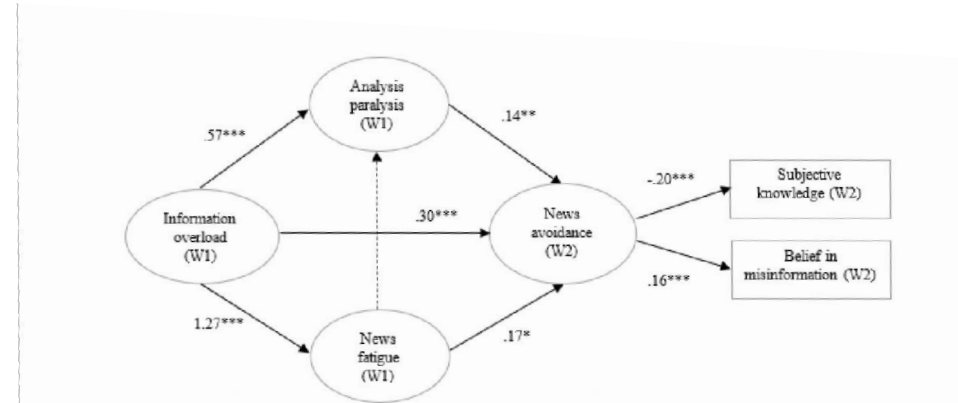
Survey of 1,000 Singapore residents (December 2019)
Survey of 1,000 Singapore Residents (May 2019)

**Higher social media news use =
Higher likelihood to believe in fake news**

Characteristics of the Audience



Survey of 1,000 Singapore residents (December 2019)



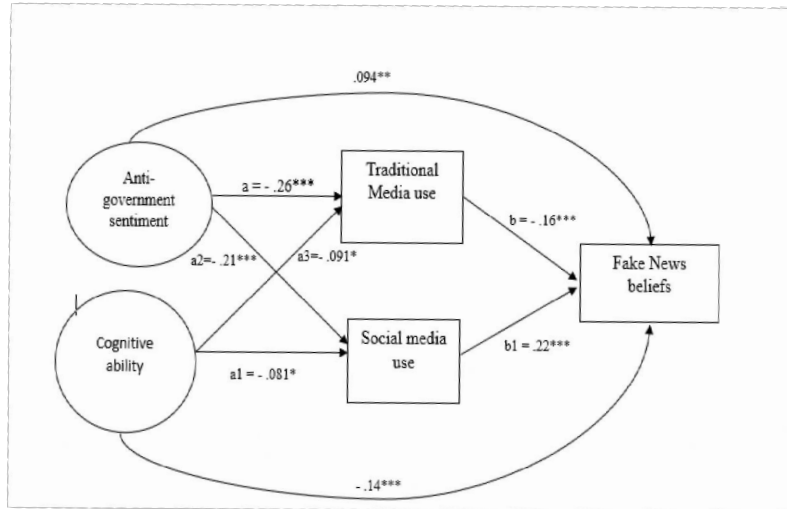
Note. Displayed values are standardized coefficients. Controlled for age, gender, education, income, ethnicity, news avoidance at Wave 1 and subjective knowledge at Wave 1. * denotes $p < .05$, ** $p < .01$, *** $p < .001$.

Two-wave panel survey: 767 Singapore residents (March 2020);
540 Singapore residents (April 2020)

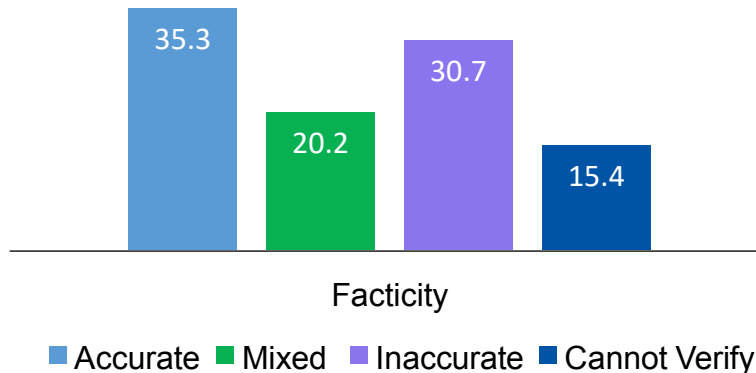
Those who actively avoid news about COVID-19 are more likely to believe in misinformation.

- Information behaviour
- News avoidance

Characteristics of the Audience

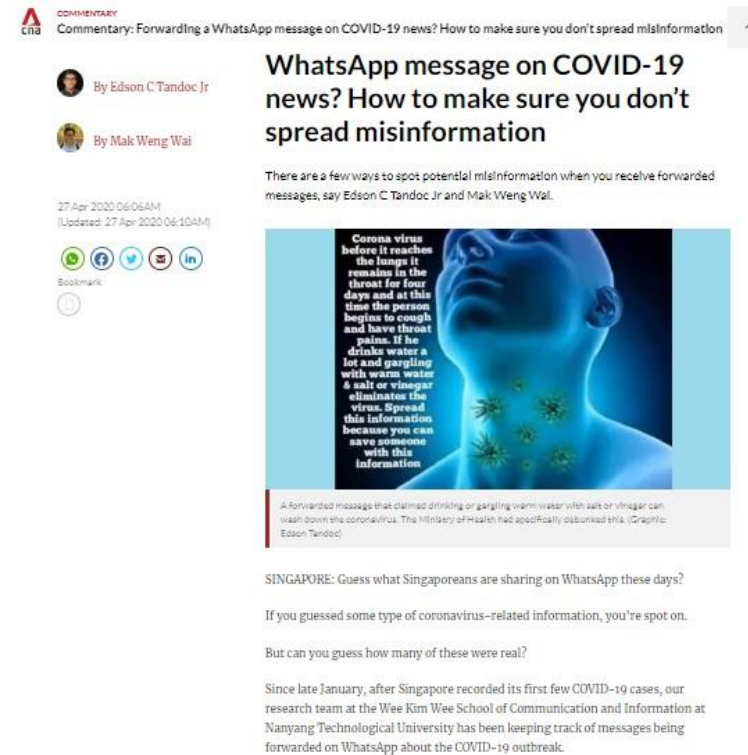


Survey of 1,000 Singapore residents (December 2019)



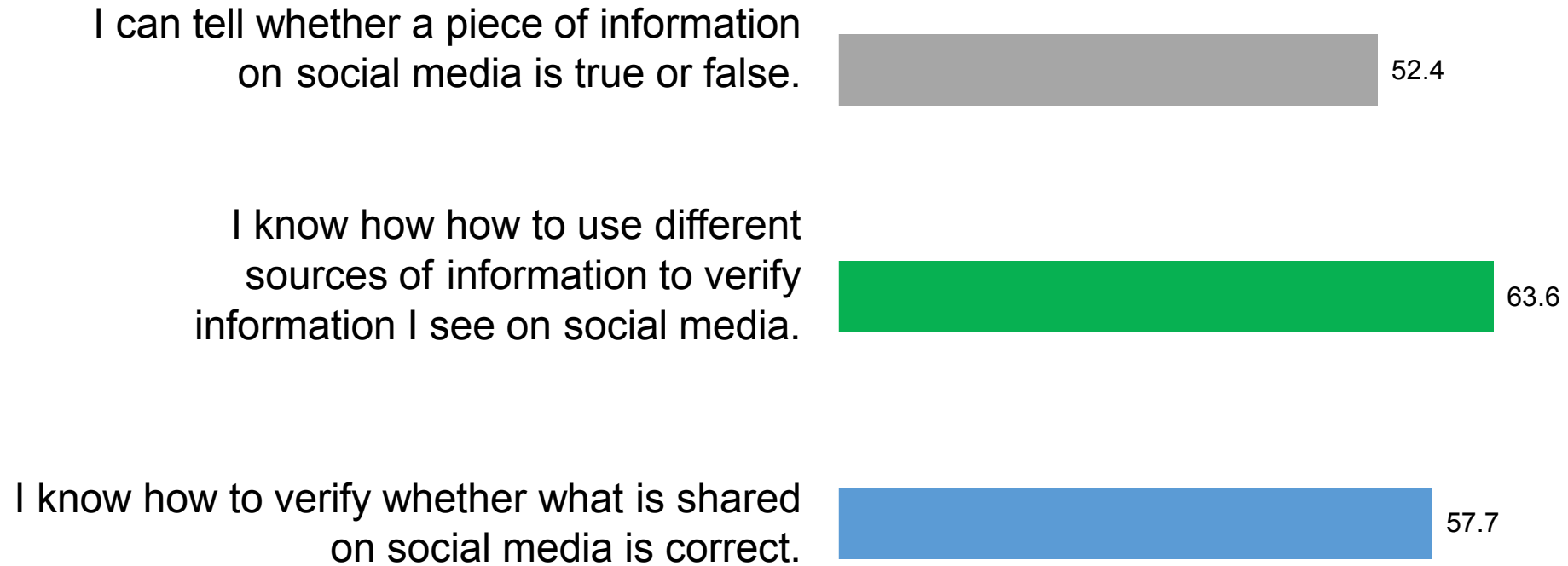
- Analysed 228 messages forwarded on WhatsApp, February-June 2020
- Collected from a WhatsApp group with more than 300 members

- Confirmation bias
- Motivations for sharing



High Confidence, Low Actual Capability

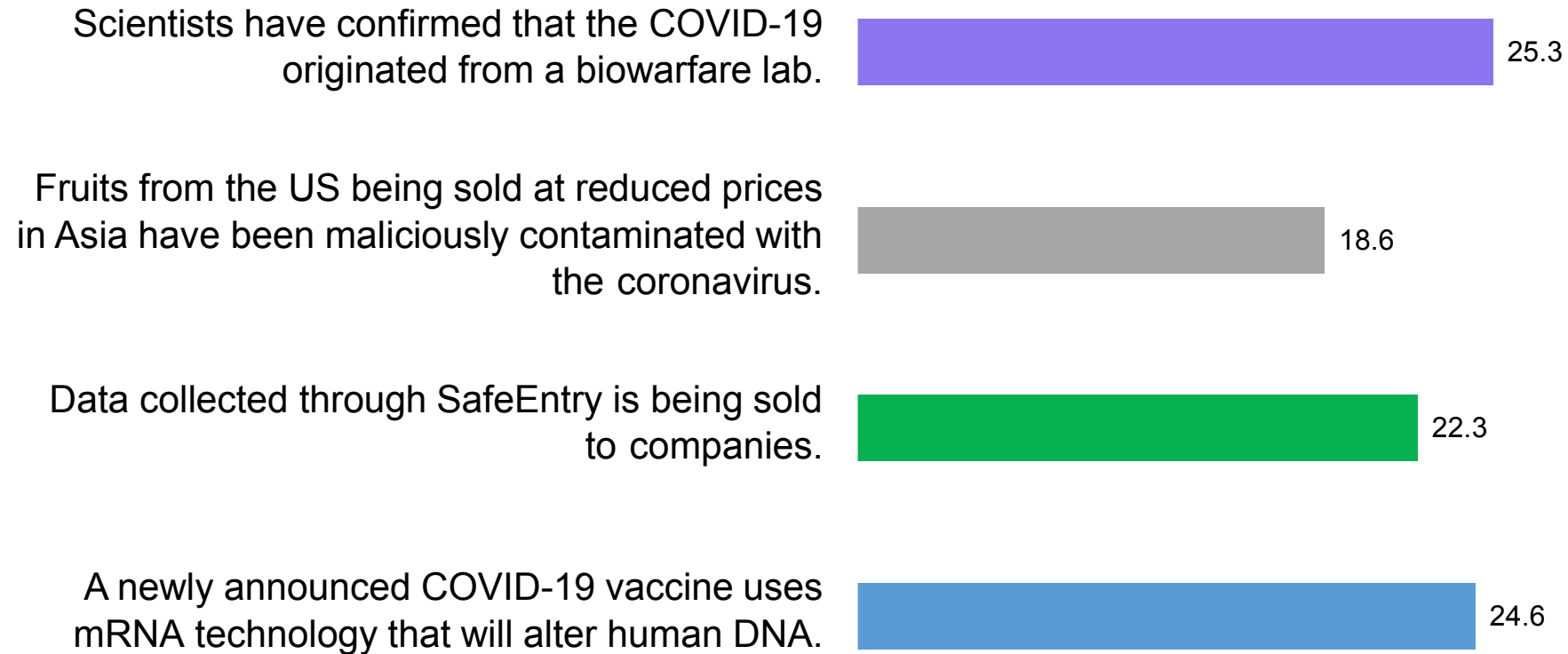
Percentage of those who selected “agree” or “strongly agree”



Survey of 1,600 Singapore residents (December 2020)

The survey is part of a research project funded by the Social Science Research Council (SSRC) examining the problem of deliberate online falsehoods in Singapore.

High Confidence, Low Actual Capability

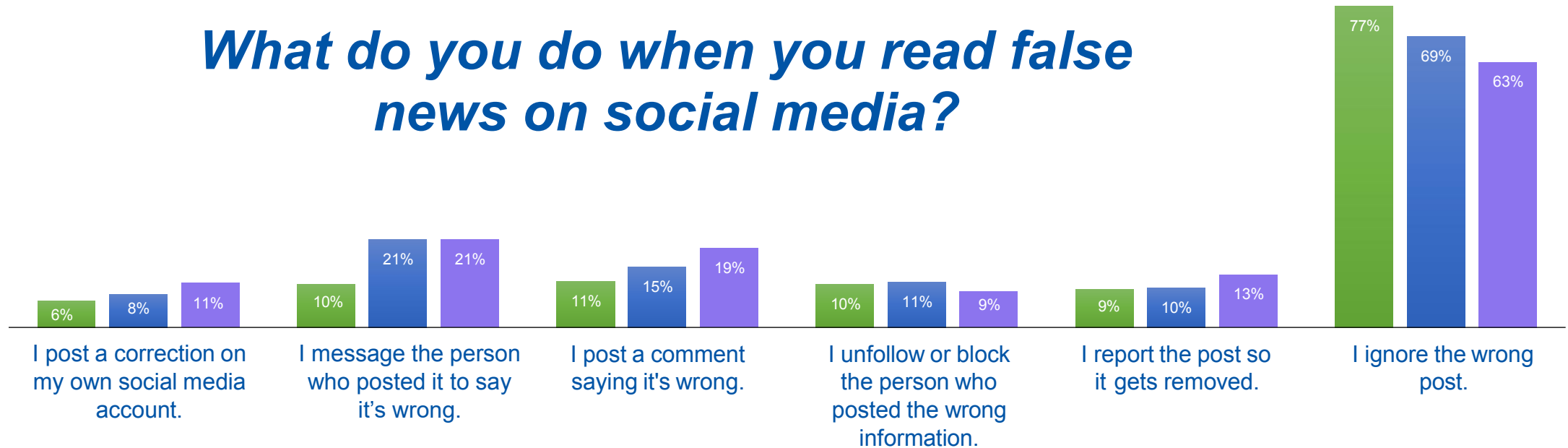


Survey of 1,600 Singapore residents (December 2020)

The survey is part of a research project funded by the Social Science Research Council (SSRC) examining the problem of deliberate online falsehoods in Singapore.

Informational Apathy?

What do you do when you read false news on social media?



Survey of 461 Singaporeans in three waves (December 2016, 2017, 2018); Project: Diffusion of News in the Age of PPIDs

Informational Apathy

- Issue relevance
- Interpersonal relationships
- Personal efficacy

“If let’s say it is those not very important kind of stuff maybe I will just let it... just ignore it in a way.”

“I feel like, to tell someone ‘oh, the news that you shared is fake,’ it might be a bit strong and offensive at first... They might get offended, so it's better to just leave it...”

“They cannot even think properly or talk rationally so just don't waste your time or don't bother explaining or you know, reasoning with them.”



So, what should we do?

Next Week: Fighting Fake News



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