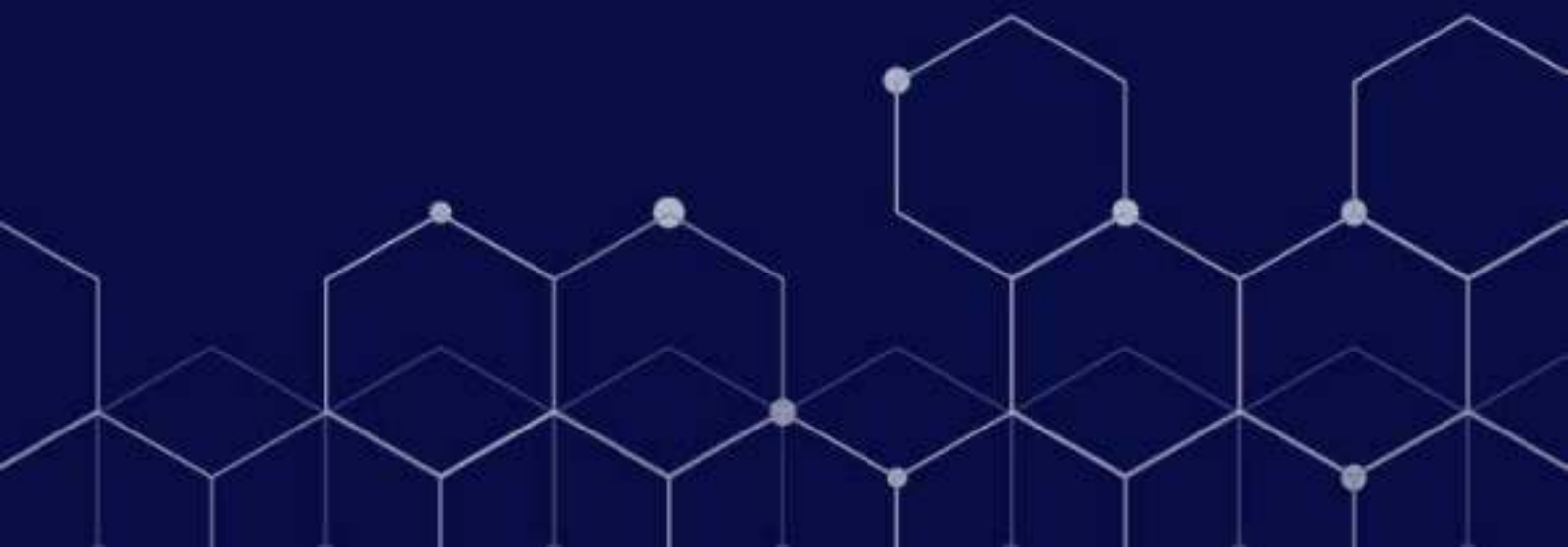


Defining, Determining, and Dealing with Deliberate Online Falsehoods in Singapore



**Principal Investigator:
Edson C. Tandoc Jr.**



CONTENTS

About the Project	3
Defining Fake News	4 – 6
Why Fake News Spreads	7 – 14
Consequences of Fake News	15 – 19
Fighting Fake News	20 – 23
Fake News Detective	24
Future and Ongoing Research	25 – 28
The Research Team	29





Wee Kim Wee School
of Communication and Information

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ABOUT THE PROJECT

Funded by the Singapore Social Science Research Council, this project began in August 2019 with the mission of systematically and comprehensively examining the problem of fake news in Singapore and developing interventions to stem its spread. The project has four main goals: understand how various stakeholders define the problem, analyse how the public determines what is fake news and what is not, examine the ways society can deal with the problem, and design interventions to combat the spread of fake news and counter its harmful effects.

Led by Assoc Prof Edson Tandoc Jr., the project's interdisciplinary team worked closely with academic collaborators within and outside Singapore, as well as with numerous government, industry, and media partners. The studies summarised in this volume emerged from these academic and community collaborations and partnerships. They represent the work of not only the project's research team, but also that of the more than 40 student researchers trained under the project from various secondary schools, junior high schools, and universities in Singapore in the last three years. These studies also draw insights from interviews and focus group discussions involving about 300 individuals across the country, as well as from surveys and online experiments involving more than 3,000 participants. They also include relevant studies by the Centre for Information Integrity and the Internet at the Wee Kim Wee School of Communication and Information at Nanyang Technological University Singapore, which served as project's academic home.



DEFINING “FAKE NEWS”: A typology of scholarly definitions

AUTHORS

Edson C. Tandoc Jr.,
Zheng Wei Lim &
Richard Ling

This paper is based on a review of how previous studies have defined and operationalized the term “fake news.” An examination of 34 academic articles that used the term “fake news” between 2003 and 2017 resulted in a typology of types of fake news: news satire, news parody, fabrication, manipulation, advertising, and propaganda. These definitions are based on two dimensions: levels of facticity and deception. Such a typology is offered to clarify what we mean by fake news and to guide future studies.



Scan to read more

Tandoc Jr., E. C., Lim, Z. W., & Ling, R. (2018). Defining “Fake News”:
A typology of scholarly definitions, *Digital Journalism* 6(2), 137-153.





THE FACTS OF FAKE NEWS: A research review

This article offers a review of scholarly research on the phenomenon of fake news. Most studies have so far focused on three main themes: the definition and the scope of the problem; the potential causes; and the impact of proposed solutions. First, scholarly research has defined fake news as a form of falsehood intended to primarily deceive people by mimicking the look and feel of real news. Second, studies have identified cognitive processes that make individuals more prone to the influence of fake news, such as confirmation bias, selective exposure, and lack of analytical thinking. Finally, while fact checking has also risen in response to fake news, studies have found that corrections to wrong information only work on some individuals.

AUTHOR

Edson C. Tandoc Jr.



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Tandoc Jr., E. C. (2019). The facts of fake news: A research review. *Sociology Compass*. 2019; 13:e12724.





WAR OF THE WORDS: How individuals respond to “fake news,” “misinformation,” “disinformation,” and “online falsehoods”

AUTHORS

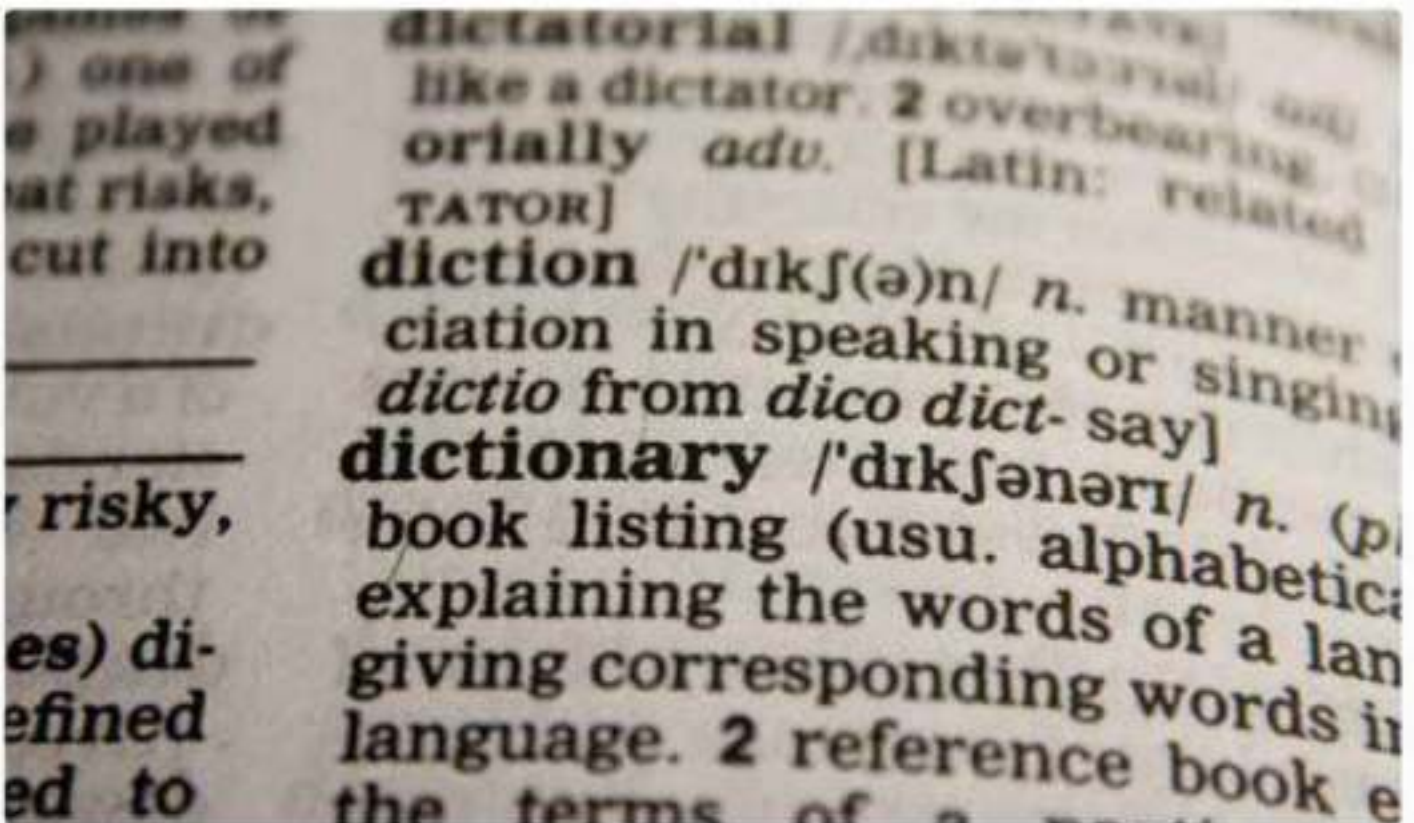
Edson C. Tandoc Jr.,
& Seth Kai Seet

Some argue the term “fake news” has lost its meaning and should be discarded. This study revisits these arguments and compares how individuals respond to the term “fake news” with how they respond to other related terms, such as “misinformation,” “disinformation,” and “online falsehoods.” Through an online survey of 1,015 adult participants in Singapore, this study found that participants who saw the term “fake news” reported the highest level of perceptions of falsity and intentionality. The term “fake news” also elicited the highest level of concern, perceived severity, and treatment recommendation, although the terms “misinformation” and “online falsehoods” also displayed similar levels, while “disinformation” elicited the lowest ratings.



Scan to read more

Tandoc Jr., E. C., & Seet, S. K. (2022). War of the words: How individuals respond to “fake news,” “misinformation,” “disinformation,” and “online falsehoods”. *Journalism Practice*.





FAKE NEWS AS A CRITICAL INCIDENT IN JOURNALISM

This study examines how American newspapers made sense of the issue of fake news. By analyzing newspaper editorials and considering the problem of fake news as a critical incident confronting journalism, this study found that news organizations in the US recognize fake news as a social problem while acknowledging the challenge in defining it. They generally considered fake news as a social media phenomenon thriving on political polarization driven by mostly ideological, but sometimes also financial, motivations. Therefore, they assigned blame for the rise of fake news to the current political environment, to technological platforms Google and Facebook, and to audiences.

AUTHORS

Edson C. Tandoc Jr.,
Joy Jenkins, &
Stephanie Craft

Tandoc Jr., E. C., Jenkins, J., & Craft, S. (2018) Fake news as a critical incident in journalism. *Journalism Practice*, 13(6), 673-689.



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WHAT IS (FAKE) NEWS? Analyzing news values (and more) in fake stories

AUTHORS

Edson C. Tandoc Jr.,
Ryan J. Thomas, &
Lauren Bishop

While many scholarship on fake news have focused on the 'fakeness' of fake news, this study looks at the 'newsness' of fake news by examining the extent to which it imitates the characteristics and conventions of traditional journalism. Through a content analysis of 886 articles, we find that articles published by fake news sites look very much like traditional—and real—news in terms of news values, topic, and format. Most articles included the news values of timeliness, negativity, and prominence; were about government and politics; and were written in an inverted pyramid format. However, one point of departure is that the majority of articles analyzed included the opinion of their author or authors.



Scan to read more

Tandoc Jr., E. C., Thomas, R. J., & Bishop, L. (2021). What is (fake) news? Analyzing news values (and more) in fake stories. *Media and Communication*, 9(1), 110-119





AUDIENCES' ACTS OF AUTHENTICATION IN THE AGE OF FAKE NEWS: A conceptual framework

Through an analysis of relevant literature and open-ended survey responses from 2501 Singaporeans, this article proposes a conceptual framework to understand how individuals authenticate the information they encounter on social media. In broad strokes, we find that individuals rely on both their own judgment of the source and the message, and when this does not adequately provide a definitive answer, they turn to external resources to authenticate news items.

AUTHORS

Edson C. Tandoc Jr.,
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Debbie Goh, &
Lim Zheng Wei

Tandoc Jr., E. C., Ling, R., Westlund, O., Duffy, A., Goh, D., & Zheng Wei, L. (2018). Audiences' acts of authentication in the age of fake news: A conceptual framework. *New Media & Society*, 20(8), 2745–2763.



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TELLING LIES TOGETHER?

Sharing news as a form of social authentication

AUTHORS

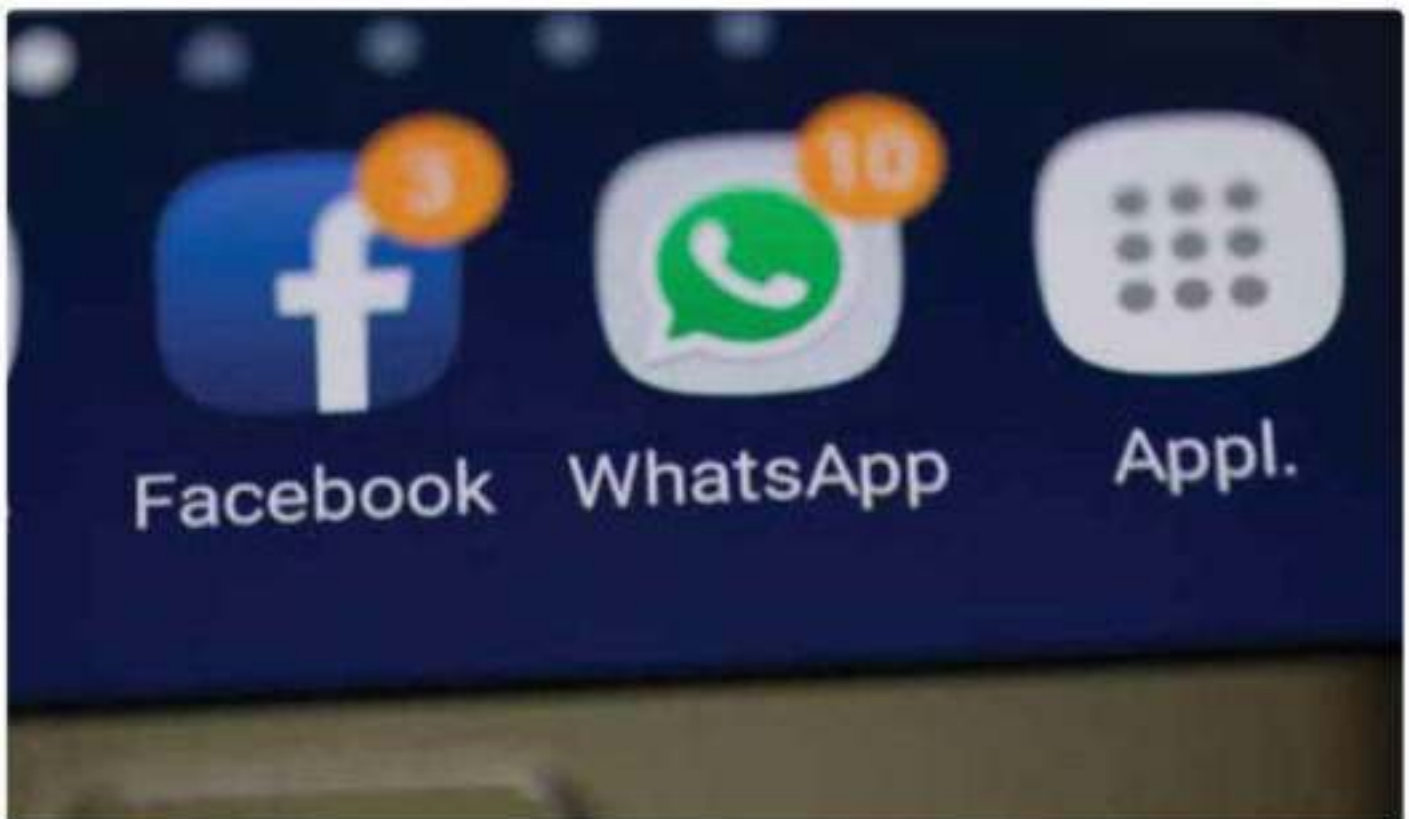
Barui K. Waruwu,
Edson C. Tandoc Jr.,
Andrew Duffy, Nuri
Kim, & Rich Ling

The increasingly assertive position of social media as a news source means that news audiences can no longer depend on traditional journalists for information verification. Instead, they must determine news credibility on their own. Most information credibility studies have considered news audiences' information evaluation as a purely cognitive endeavour, implying that individuals can arrive at valid information without social validation. This article re-conceptualizes audiences' acts of news authentication by considering it not only as an individual activity, but a social act intertwined with socialization and collective sensemaking. Through a series of focus group discussions, we unpacked the social dimension of news authentication.



Scan to read more

Waruwu, B. K., Tandoc Jr., E. C., Duffy, A., Kim, N., & Ling, R. (2021). Telling lies together? Sharing news as a form of social authentication. *New Media & Society*, 23(9), 2516-2533.





FALLING FOR FAKE NEWS: The role of political bias and cognitive ability

Through a nationally representative survey involving 855 social media users in Singapore, this study proposes and tests a framework to explain why people believe in fake news. Guided by work on dual process models that theorize that individuals engage in either thorough or automatic processing, this study finds that both cognitive ability and political bias predict the extent to which individuals fall for fake news. While both exert direct effects on the extent to which individuals believe in fake news, they also exert indirect effects through how they lead individuals to different news consumption patterns.

AUTHORS

Edson C. Tandoc Jr.,
James Lee, Matthew
Chew, Fan Xi Tan, &
Zhang Hao Goh

Tandoc Jr., E. C., Lee, J., Chew, M., Tan, F. X., & Goh, Z. H. (2021). Falling for fake news: the role of political bias and cognitive ability. *Asian Journal of Communication*, 31(4), 237-253



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DIFFUSION OF DISINFORMATION: How social media users respond to fake news and why

AUTHORS

Edson C. Tandoc Jr.,
Darren Lim, &
Rich Ling

This exploratory study seeks to understand the diffusion of disinformation by examining how social media users respond to fake news and why. Using a mixed-methods approach in an explanatory-sequential design, this study combines results from a national survey involving 2501 respondents with a series of in-depth interviews with 20 participants from the small but economically and technologically advanced nation of Singapore. This study finds that most social media users in Singapore just ignore the fake news posts they come across on social media. They would only offer corrections when the issue is strongly relevant to them and to people with whom they share a strong and close interpersonal relationship.



Scan to read more

Tandoc Jr., E. C., Lim, D., & Ling, R. (2019). Diffusion of disinformation: How social media users respond to fake news and why. *Journalism*, 21(3), 381-398.





TOO GOOD TO BE TRUE, TOO GOOD NOT TO SHARE: The social utility of fake news

Social networks have become increasingly popular for sharing news, which offer fertile ground for fake news to spread. This paper considers the impact of the latter on the former, particularly in circumstances where the sharer either does not know or does not suspect that the news they are sharing is fake. This distinction is important because while sharing information and news may be construed as a social good, sharing news that turns out to be fake might negatively impact relationships. Based on 12 focus groups, this study examines how social media users react to fake news and how it affects interpersonal relationships and social cohesion.

AUTHORS

Andrew Duffy,
Edson C. Tandoc Jr,
& Rich Ling

Duffy, A., Tandoc Jr., E. C., & Ling, R. (2020). Too good to be true, too good not to share: The social utility of fake news. *Information, Communication & Society*, 23(13), 1965-1979.



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AVOIDING REAL NEWS, BELIEVING IN FAKE NEWS? Investigating pathways from information overload to misbelief

AUTHORS

Edson C. Tandoc Jr.
& Hye Kyung Kim

This study sought to examine the potential role of news avoidance in belief in COVID-19 misinformation. Using two-wave panel survey data in Singapore, we found that information overload is associated with news fatigue as well as with difficulty in analyzing information. News fatigue and analysis paralysis also subsequently led to news avoidance, which increased belief in COVID-19 misinformation. However, this link is present only among those who are frequently exposed to misinformation about COVID-19.



Scan to read more

Tandoc Jr., E. C. & Kim, H. K. (2022). Avoiding real news, believing in fake news? Investigating pathways from information overload to misbelief. *Journalism*.





CONSEQUENCES OF ONLINE MISINFORMATION ON COVID-19: Two potential pathways and disparity by ehealth literacy

This study examines the consequences of misinformation about COVID-19 preventions. Using a three-wave panel survey in Singapore, we found that exposure to online misinformation prompts engagement in self-reported misinformed behaviors while discouraging evidence-based prevention behaviors such as social distancing. This study further identifies information overload and misperception on prevention as important mechanisms that link exposure to online misinformation and misinformed behaviors. The effects of misinformation exposure differ by individuals' e-health literacy level, suggesting the need for a health literacy education to minimize the counterproductive effects of misinformation online.

Kim, H. K. & Tandoc Jr., E. C. (2022). Consequences of online misinformation on covid-19: Two potential pathways and disparity by ehealth literacy, *Frontiers in Psychology* 13, 783909.

AUTHORS

Hye Kyung Kim &
Edson C. Tandoc Jr.



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WHEN VIRUSES AND MISINFORMATION SPREAD: How young Singaporeans navigated uncertainty in the early stages of the COVID-19 outbreak

AUTHORS

Edson C. Tandoc Jr. & James Chong Boi Lee

This study examines how young adults in Singapore managed uncertainty around the COVID-19 outbreak. Through a series of focus group discussions, we found that participants experienced uncertainty, especially when it comes to how they should protect themselves. They managed this uncertainty in two ways: while some engaged in information seeking, others engaged in information scanning, with some of them finding it impossible to avoid information about COVID-19, as it comes up in their routine social media use and offline conversations. Understanding that COVID-19 does not threaten young people, our participants noted only minimal disruptions to them. Instead, they were more concerned about their older family members, whom they considered as more vulnerable.

Tandoc Jr., E. C. & Lee, J. C. B. (2022). When viruses and misinformation spread: How young Singaporeans navigated uncertainty in the early stages of the COVID-19 outbreak. *New Media & Society*, 24(3), 778-796.



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SOCIAL MEDIA MAY HINDER LEARNING ABOUT SCIENCE: Social media's role in learning about COVID-19

This study examines the causal effects of social media use on COVID-19 knowledge (both factual knowledge and misinformation detection) as well as the underlying mechanisms through which such effects occur. Based on panel survey data across six weeks in the U.S., we found that consuming news from social media fostered the perception that one need not actively seek news anymore because it would reach them anyway through their social connections ("news-finds-me" perception). This, in turn, can make one both uninformed and misinformed about COVID-19 issues. Furthermore, this mediated relationship is stronger among those who experience higher levels of information overload while on social media.

AUTHORS

Sangwon Lee,
Edson C. Tandoc Jr.,
& Edmund W. J. Lee

Lee, S., Tandoc Jr., E. C., & Lee, E. W. J. (2023). Social media may hinder learning about science: Social media's role in learning about COVID-19. *Computers in Human Behavior* 138, 107487



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WHY PEOPLE WHO KNOW LESS THINK THEY KNOW ABOUT COVID-19: Evidence from US and Singapore

AUTHORS

Sangwon Lee,
Masahiro Yamamoto,
& Edson C. Tandoc Jr.

This study explores the effects of traditional media and social media on different types of knowledge about COVID-19. We also explore how surveillance motivation moderates the relationship between media use and different types of knowledge. Based on cross-national data from Singapore and the United States, we find that news seeking via social media is negatively related to factual knowledge and positively related to subjective knowledge and knowledge miscalibration. News seeking via traditional media is not significantly related to factual knowledge. Although the main effects are highly consistent across the two countries, we find some different interaction patterns across these countries.



Scan to read more

Lee, S., Yamamoto, M., & Tandoc Jr., E. C. (2022). Why people who know less think they know about COVID-19: Evidence from US and Singapore. *Journalism & Mass Communication Quarterly*, 99(1), 44–68.





POISONING THE INFORMATION WELL?

The impact of fake news on news media credibility

This study examines the impact of fake news discourse on perceptions of news media credibility. If participants are told they have been exposed to fake news, does this lead them to trust information institutions less, including the news media? Study 1 (n = 188) found that news media credibility decreased when participants were told they saw fake news, while news credibility did not change when participants were told they saw real news. Study 2 (n = 400) found that those who saw fake news – and were told they saw a fake news post – decreased their trust in the news media while those who saw fake news and were not debriefed did not change their perceptions of the news media. This shows that the social impact of fake news is not limited to its direct consequences of misinforming individuals, but also includes the potentially adverse effects of discussing fake news.

Tandoc Jr., E. C., Duffy, A., Jones-Jang, S. M., & Goh, W. W. P. (2021). Poisoning the information well? The impact of fake news on news media credibility. *Journal of Language and Politics*, 20(5), 783-802.

AUTHORS

Edson C. Tandoc Jr.,
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FACING FAKES: Understanding tech platforms' responses to online falsehoods

AUTHORS

Cai Hui Lien,
James Lee &
Edson C. Tandoc Jr.

While technology companies have been blamed for playing a key role in the rise of online falsehoods, it has not always been clear how these companies understand the nature of the problem, which can explain their responses and how these responses evolved over time. Through a qualitative analyses of official press releases and public statements issued by various online technology platforms from 2016 to 2020, this exploratory study seeks to understand and typologize how technology platforms constructed and characterized the problem of online falsehoods and how these manifest in the range of interventions they have implemented.



Scan to read more

Lien, C. H., Lee, J., & Tandoc Jr., E. C. (2022). Facing fakes: Understanding tech platforms' responses to online falsehoods. *Digital Journalism* 10(5), 761-780.





MOVING FORWARD AGAINST MISINFORMATION OR STEPPING BACK? WhatsApp's forwarded tag as an electronically relayed information cue

By alerting receivers that the message was not originally written by the sender, WhatsApp's forwarded tag was envisioned to trigger skepticism of, and efforts to, verify the tagged content. But does it? This study seeks to answer this question using a mixed-methods study conducted in Singapore that combines data from an online experiment ($n = 266$) and interviews ($n = 65$). The experiment found participants rated a WhatsApp message as less credible when it was accompanied by a forwarded tag, whereas the interviews found users associate the forwarded tag with originality and sincerity.

AUTHORS

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Tandoc Jr., E. C., Rosenthal, S., Yeo, J., Ong, Z., Yang, T., Malik, S., Ou, M., Zhou, Y., Zheng, J., Mohamed, H., Tan, J., Lau, Z., & Lim, J. (2022). Moving forward against misinformation or stepping back? WhatsApp's forwarded tag as an electronically relayed information cue. *International Journal of Communication*, 16, 18.



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DOES LENGTH MATTER? The impact of fact-check length in reducing COVID-19 vaccine misinformation

AUTHORS

Edson C. Tandoc Jr.,
James Chong Boi Lee,
Sangwon Lee, &
Pei Jun Quek

This study examines the impact of message length and audience's perceived information overload on the effectiveness of a fact-check in reducing belief in fake news within the COVID-19 vaccination context. Through an online experiment (N = 374) conducted in Singapore, we found an interaction effect between one's level of information overload and the type of fact-check that was being shown (short, medium, or long). The findings from this study help to extend the literature on the effectiveness of fact-checks in reducing general public's belief in fake news.



Scan to read more

Tandoc Jr., E. C., Lee, J. C. B., Lee, S., & Quek, P. J. (2022). Does length matter? The impact of fact-check length in reducing COVID-19 vaccine misinformation. *Mass Communication & Society*.





DEVELOPING A PERCEIVED SOCIAL MEDIA LITERACY SCALE: Evidence from Singapore

Through focus group discussions involving social media users and nationally representative online surveys conducted in Singapore, we identify 4 types of competencies in which social media literacy can manifest: technical, social, privacy related, and informational. Using a sequential, exploratory mixed-methods approach, we first identified literacy events and practices that were grounded in social media users' actual experiences through a series of focus group discussions. Then, based on the qualitative results, we developed and tested a perceived social media literacy (PSML) scale through a series of 3 national online surveys, where we found disparities in PSML based on socioeconomic factors.

AUTHORS

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Tandoc Jr., E. C., Yee, A., Ong, J., Lee, J., Xu, D., Han, Z., Chew, M., Ng, J., Lim, C., Cheng, L., & Cayabyab, M. (2021). Developing a Perceived Social Media Literacy Scale: Evidence from Singapore. *International Journal of Communication* 15(22), 2484-2505.



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FAKE NEWS DETECTIVE

DESIGNED BY

Liew Zi Peng,
Lau Zhen Jie, &
Lee Chia Zhe

Fake News Detective is an online game designed by three NTU students—Liew Zi Peng, Lau Zhen Jie, and Lee Chia Zhe—under the supervision of Assoc Prof Edson C. Tandoc Jr. *Fake News Detective* aims to raise awareness about the problem of fake news as well as encourage players to be more discerning of information they encounter online. Designed as an escape room game, where the player explores a location, solves puzzles, and searches for clues, *Fake News Detective* combines exciting game elements and real-life examples of fake news and fact-checks. The game also helps players understand the phenomenon of fake news, such as the reasons individuals make fake news and strategies fake news creators exploit to deceive others. The game also introduces to players various steps they can take to combat fake news, such as lateral thinking, cross-checking with reputable sources, and the National Library Board's S.U.R.E. methodology.



Scan and Play

About Fake News Detective

The online world is rapidly being shrouded in falsehoods, but you can be our hope to find the mastermind behind the spread of fake news. Go through three levels of fact-finding and adventure. Understand why fake news spreads and hone your fake news detection skills through a series of exploration and puzzle-solving. This interactive educational game will help you to advance your skills in fighting fake news.

Our Detectives





FUTURE & ONGOING RESEARCH

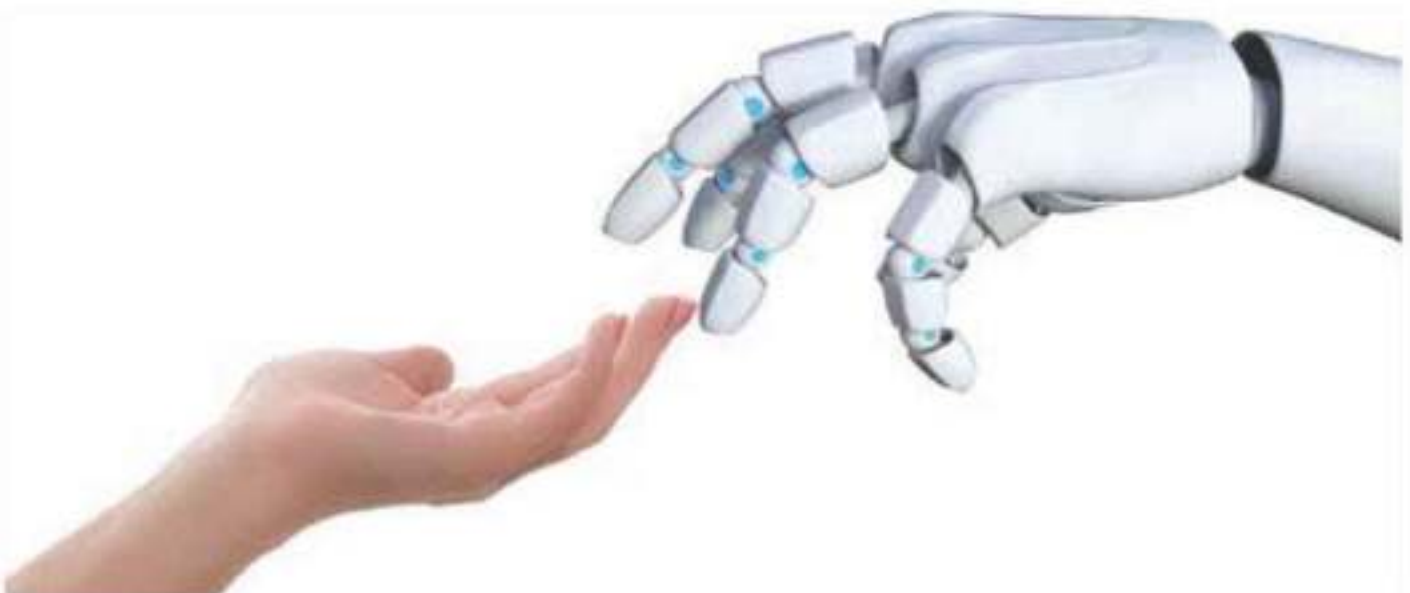
ONLINE SCAMS IN SINGAPORE

This research project examines online scams in Singapore, looking at the types of online scams in Singapore, the strategies employed by online scams, people's vulnerability to scams, and the impact of anti-scam campaigns in Singapore.



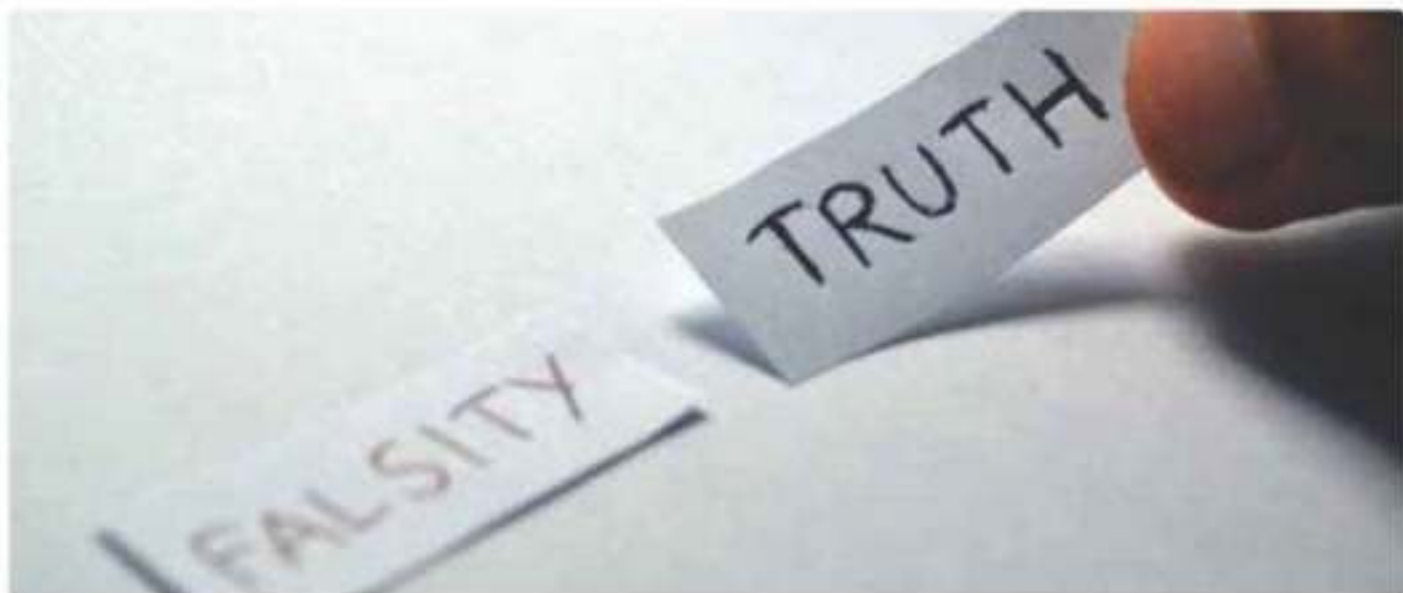
AUTOMATING TRUTH & ACCOUNTABILITY? Public Attitudes toward AI and Human-Machine Communication in Singapore

This research project, funded by the National Research Foundation AI Singapore, examines portrayals of AI communication, Singaporeans' perceptions and reception toward AI communication, and people's responses to AI errors, with a focus on AI use in fact-checking.



WHY DON'T YOU FACT-CHECK? Investigating How to Encourage Individuals to Use Fact-Checking Sites to Fight Fake News

Funded by the Ministry of Education's Tier 1 Grant, this research project examines the factors influencing people's usage of fact-checking websites and verification tools, as well as how to promote and encourage fact-checking behaviour.



DIGITAL HEALTH AND WELL-BEING

This research project examines how internet use and various online platforms can impact people's social, emotional, and psychological well-being, with a focus on social media and problematic internet behaviours.



EMERGING SOCIAL MEDIA

This research project focuses on new and emerging social media platforms, such as TikTok and Telegram. It examines the content on these platforms, as well as users' use and perceptions of the platforms.



NEWS IMPORTANCE IN SINGAPORE

This research project examines Singaporeans' perception of news from various sources and platforms, focusing on what news people consider to be important and whether the perceived importance translates into readership.



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and the

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