



## What's IN-cubating? Jan - Mar 2024

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### Upcoming Events

17 April 2024

**Digital divides, human migration & mobile technology, and youth activism**

Time: SGT: 20:30 to 22:00

Venue: Zoom



19 April 2024

**AI & Fake News Workshop**

Time: SGT 13:00 to 17:00

Venue: Matchbox @  
Mothership (Limited Seats)



**Prof Edson Tandoc**  
Director, IN-cube

IN-cube is celebrating its third anniversary with a panel on AI and Fake News to be held on April 19, 2024 at Matchbox @ Mothership. This panel is part of the month-long Ideas Festival 2024 organised by the Singapore Social Science Research Council (SSRC).

We are also launching a new lab under IN-cube: the **Laboratory for Online information Research and Education (LORE)**. Spearheaded by Assoc Prof. Lee Chei Sian, LORE emphasizes interdisciplinary research by focusing on education and the development of competencies in navigating digital environments as well as evaluating and utilising online information. It examines individuals' online behaviors, motivations, participation patterns, and the impacts of diverse interaction mechanisms.

In this newsletter, we also share our activities in the first quarter of 2024. First, we have started analysing data from the Wave 7 of our State of the Internet and Media in Singapore (STIMS) panel survey. Second, we also complemented Wave 7 with a survey of university students in Singapore, focusing on their internet and generative AI use (see next article).

Third, our faculty researchers also participated in various research initiatives in Singapore as well as in other countries, continuing our efforts at public engagement. Finally, we also share two new publications that examined various communication and technology practices during the COVID-19 pandemic: contact tracing and fact-checking. You will find more details below.

Third, our faculty researchers also participated in various research initiatives in Singapore as well as in other countries, continuing our efforts at public engagement. Finally, we also share two new publications that examined various communication and technology practices during the COVID-19 pandemic: contact tracing and fact-checking. You will find more details below.

# AI in the classroom? Singapore students say OK to use ChatGPT for assignments

Most university students in Singapore believe that using generative AI, such as ChatGPT, to write graded school assignments is acceptable.

This is based on an online survey conducted in January this year by the Centre for Information Integrity and the Internet (IN-cube) involving 570 undergraduate and graduate students from the six universities in Singapore.

Nearly 71% of the participants said they think their instructors or professors would find it acceptable for students to use ChatGPT in graded writing assignments.

When asked about their perceptions of other students using ChatGPT in their graded writing assignments, some 69% also said they found this to be acceptable.

At least 43.2% of the survey respondents said they used ChatGPT for their graded writing assignments often or very often in the previous semester.

IN-cube has noted an increasing trend in the number of adults who use ChatGPT in Singapore, citing results from its panel surveys conducted every six months.

But the use of generative AI has also elicited some concerns, such as the risk of plagiarism and cheating, especially in the context of using it in school.

In the January survey, IN-cube also asked the student-participants to indicate how they are using ChatGPT in school.



The most popular use is for seeking information and conducting research, with 44.2% of the respondents saying they use ChatGPT for this purpose often or very often.

This is followed by using ChatGPT to translate text (42.8%), edit grammar (42.3%), and rephrase sentences and paragraphs (40%). At least 38.2% said they use ChatGPT to write graded assignments.

The reason for using generative AI in schoolwork? At least 50% of the respondents agreed that using ChatGPT would help them to get better marks or scores.

Some 49% also agreed that doing so will enhance task effectiveness, while 47.7% agreed that it will enhance the quality of their task completion.

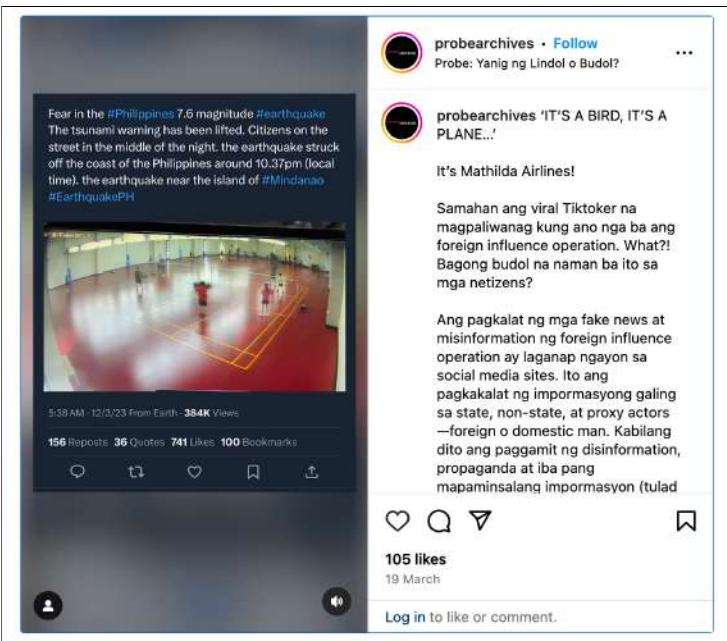
“It seems that many students see benefits from using ChatGPT in their schoolwork,” Professor Edson Tandoc Jr., IN-cube’s Director, said. “However, we must also guide our students in using the tool in ways that enhance, rather than undermine, their learning and development.”

# Public Engagement



Supported by the National Youth Council, Singapore Movement for Good, the Media Literacy Council, and in partnership with TouchAi Network Health Services, the #SUPERKIND campaign, launched by Asst Prof Edmund Lee's FYP group, aims to foster a more inclusive and positive online environment, raising awareness about cyberbullying among Singapore's youth.

Their efforts are reported in the Chinese-language news Lianhe Zaobao. Read more about the campaign: [#SUPERKIND](#).



Prof Edson Tandoc Jr. took part in an initiative by Probe Productions, a multi-awarded media organisation in the Philippines, that tackles the serious issue of disinformation during disasters.

In this 11-minute video made for Instagram, Professor Tandoc shares his insights about why many people become vulnerable to disinformation in times of uncertainty. This is part of Probe Productions' series of initiatives to increase public awareness on disinformation and influence operation campaigns in the Philippines. Watch the Instagram reel [here](#).



Assoc Prof Chen Lou presented the preliminary findings from her Digital Advertising and Consumer Psychology Lab in a presentation titled, "AI Synthetic Advertising: Regulations and Ethical Concerns" during the Session on "Generative AI – Applications, Ethics, and Legal Concerns" at the [American Academy of Advertising's Annual Conference](#). The conference was held from March 14-17, 2024 in The Nines Hotel, Portland, Oregon, USA. This project investigates elderly's perceptions, attitudes, behaviours, and experiences in relation to social media use, with a focus the platform's affordance and the wellbeing of the elderly.



## Roles of Trust & Sense of Community

Together with overseas collaborators, Assoc Prof Hyunjin Kang and Asst Prof. Edmund Lee published a paper on the roles of trust in Government and Sense of Community in COVID-19 Contact Tracing. Using a 2-wave survey (n=674) and in-depth interviews (n=12) with TraceTogether users in Singapore, they found that trust in the government increased perceived benefits while it decreased privacy concerns regarding the use of TraceTogether.

Furthermore, the sense of community also played a moderating role in the influence of government trust on perceived benefits.

Read more: [doi.org/10.2196/48986](https://doi.org/10.2196/48986)

JMIR MHEALTH AND UHEALTH Kang et al

Original Paper

**The Roles of Trust in Government and Sense of Community in the COVID-19 Contact Tracing Privacy Calculus: Mixed Method Study Using a 2-Wave Survey and In-Depth Interviews**

Hyunjin Kang<sup>1</sup>, PhD; Jong Kyu Lee<sup>2</sup>, PhD; Edmund WJ Lee<sup>3</sup>, PhD; Cindy Toh<sup>4</sup>, BA

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**Abstract**

**Background:** Contact tracing technology has been adopted in many countries to aid in identifying, evaluating, and handling individuals who have had contact with those infected with COVID-19. Singapore was among the countries that actively implemented the government-led contact tracing program known as TraceTogether. Despite the benefits the contact tracing program could provide to individuals and the community, privacy issues were a significant barrier to individuals' acceptance of the program.

**Objective:** Building on the privacy calculus model, this study investigates how the perceptions of the 2 key groups (ie, government and community members) involved in the digital contact tracing factor into individuals' privacy calculus of digital contact tracing.

**Methods:** Using a mixed method approach, we conducted (1) a 2-wave survey (n=674) and (2) in-depth interviews (n=12) with TraceTogether users in Singapore. Using structural equation modeling, this study investigated how trust in the government and the sense of community exhibited by individuals during the early stage of implementation (time 1) predicted privacy concerns, perceived benefits, and future use intentions, measured after the program was fully implemented (time 2). Expanding on the survey results, this study conducted one-on-one interviews to gain in-depth insights into the privacy considerations involved in digital contact tracing.

**Results:** The results from the survey showed that trust in the government increased perceived benefits while decreasing privacy concerns regarding the use of TraceTogether. Furthermore, individuals who felt a connection to community members by participating in the program (ie, the sense of community) were more inclined to believe in its benefits. The sense of community also played a moderating role in the influence of government trust on perceived benefits. Follow-up in-depth interviews highlighted that having a sense of control over information and transparency in the government's data management were crucial factors in privacy considerations. The interviews also highlighted surveillance as the most prevalent aspect of privacy concerns regarding TraceTogether use. In addition, our findings revealed that trust in the government, particularly the perceived transparency of government actions, was most strongly associated with concerns regarding the secondary use of data.

**Conclusions:** Using a mixed method approach involving a 2-wave survey and in-depth interviews, we expanded our understanding of privacy decisions and the privacy calculus in the context of digital contact tracing. The opposite influences of privacy concerns and perceived benefit on use intention suggest that the privacy calculus in TraceTogether might be viewed as a rational process of weighing between privacy risks and use benefits to make an uptake decision. However, our study demonstrated that existing perceptions toward the provider and the government in the contact tracing context, as well as the perception of the community triggered by TraceTogether use, may bias user appraisals of privacy risks and the benefits of contact tracing.

*JMIR Mhealth Uhealth 2024;12:e48986* doi:10.2196/48986


## Fact-Checking in WhatsApp groups

This journal article analysed 238 forwarded messages sent to a public fact-checking group on WhatsApp in Singapore during the first six months of the COVID-19 pandemic. It found that the most common topic was public policy and action; most of the messages focused on negative aspects; and nearly half of the messages were either partly or entirely inaccurate.

As the situation worsened in Singapore, with number of cases increasing and more regulations implemented by the government, the messages shared to be authenticated focused more on public policy, became more negative, and contained more inaccuracies. These findings indicate that the types of information people seek to authenticate are those that have utility; are important and consequential; are likely to inform their actions and decisions; and can aid them in sense-making. Read more:

[doi.org/10.1080/0144929X.2024.2318613](https://doi.org/10.1080/0144929X.2024.2318613)

BEHAVIOUR & INFORMATION TECHNOLOGY  
<https://doi.org/10.1080/0144929X.2024.2318613>

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**Content tracing: examining fact-checking via a WhatsApp group during the COVID-19 pandemic**

Edson Tandoc<sup>1</sup>, Seth Seet<sup>2</sup>, Weng Wai Mak<sup>3</sup> and Ker Hian Lua<sup>4</sup>

<sup>1</sup>Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore, Singapore; <sup>2</sup>School of Humanities, Nanyang Technological University, Singapore, Singapore

**ABSTRACT**  
 This study is based on a content analysis of 238 forwarded messages sent to a public fact-checking group on WhatsApp in Singapore during the first six months of the COVID-19 pandemic to understand what types of information people would submit for fact-checking, allowing insights into possible motivations behind the use of fact-checking services. Focusing on content characteristics, we examined the range of topics, substance, and facticity of the messages forwarded to the WhatsApp group to be fact-checked. The most common topic was public policy and action; most of the messages focused on negative aspects; and nearly half of the messages were either partly or entirely inaccurate. Comparing the distribution of messages across a six-month period, we found that content characteristics varied over time. As the situation worsened in Singapore, with number of cases increasing and more regulations implemented by the government, the messages shared to be authenticated focused more on public policy, became more negative, and contained more inaccuracies. These findings indicate that the types of information people seek to authenticate are those that have utility, are important and consequential, are likely to inform their actions and decisions, and can aid them in sense-making.

**KEYWORDS**  
 information verification; WhatsApp; fact-checking; challenge; misinformation; COVID-19

**ARTICLE HISTORY**  
 Received 27 August 2024  
 Accepted 9 February 2024

**1. Introduction**

A response to the spread of online falsehoods is the emergence of fact-checking initiatives in many countries (Vijaykumar et al. 2021). The Duke Reporters' Lab (n.d.) has identified more than 390 fact-checking initiatives globally as of March 2023. These initiatives to debunk falsehoods take on different forms (Singer 2021). Most put up websites where they publish fact-checks, while some encourage the public to submit any claims they encounter, such as via messaging apps, for fact-checking. For example, a group of university students in Singapore set up a WhatsApp group where members can share claims they think need to be fact-checked (Lee 2020). However, not many people use fact-checking sites despite their availability (Tandoc, Lim, and Ling 2020). Given the importance of fact-checking information in a period marked by the spread of fake news, understanding what makes individuals engage in fact-checking will be helpful.

Some studies have explored the motivations of journalists to engage in fact-checking (e.g. Graves, Nyhan, and Reifer 2016; Lelo 2022). These studies found that journalists' fact-checking efforts tend to be motivated by journalistic values and the impact on their professional status (Graves, Nyhan, and Reifer 2016; Lelo 2022). However, in a period when the onset of fact-

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# Upcoming Events

**SPEAKERS:**  
Marcelo Santos, Assoc. Prof., Universidad Diego Portales  
Michele Ferris, Doubles, University of Costa Rica  
Tanja Bosch, Professor, University of Cape Town

**MODERATOR:**  
Rich Ling, Professor

Scan QR code to sign up

**ICA COMMUNICATION & TECHNOLOGY DIVISION**  
**VIRTUAL BROWNBAG**  
**GLOBAL DIALOGUE ON COMMUNICATION TECHNOLOGY (SESSION 2): DIGITAL DIVIDES, HUMAN MIGRATION & MOBILE TECHNOLOGY, AND YOUTH ACTIVISM**  
**WEDNESDAY 17 APRIL**  
830AM-10AM EST; 1230PM-2PM UTC/GMT  
More Info & Registration  
<https://tinyurl.com/CommAndTechBrownbag>

International Communication Association  
NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE  
Centre for Information Integrity and the Internet  
Wee Kim Wee School of Communication and Information

IN-cube is co-organising a webinar with the International Communication Association's Communication and Technology Division on April 17, 2024 (SGT time: 20:30 to 22:00).

The webinar will discuss Global Dialogue on Communication Technology (Session 2): Digital divides, human migration & mobile technology, and youth activism.

Prof. Rich Ling will be moderating the session. Register [here!](#)

**IDEAS FESTIVAL**  
INSIGHTS FROM THE HUMANITIES & SOCIAL SCIENCES

**AI and Fake News**

19 April 2024  
1:00pm - 5:00pm  
Matchbox by Mothership  
30A Kallang Place,  
#05-02

With generative AI lowering barriers to digital editing, deepfakes and other types of AI-powered manipulations will become more widespread and convincing. What can we do to prepare our communities? Join us as we bring together academic, policy, and industry partners to discuss interventions targeted at the problem of fake news.

This session will focus on:

- The role of AI in exacerbating the fake news problem.
- Use of AI-powered solutions for fact-checking and detection.
- Ethical and regulatory considerations of employing AI in addressing fake news.

**REGISTER NOW**

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

The AI & Fake News Panel (April 19, 2024, 13:00 to 17:00) at Matchbox @ Mothership seeks to continue, expand, and deepen conversations around, and interventions targeted at, the problem of fake news as artificial intelligence makes it an even more formidable threat. This proposed workshop will bring together academic, policy, and industry partners and will focus on three main areas:

1. Examining the role of AI in exacerbating the fake news problem
2. Exploring AI-powered solutions for fact-checking and detection
3. Addressing ethical and regulatory considerations in managing AI.

Sign up now [here](#) (Limited Seats)

## About IN-cube

IN-cube stands for Centre for Information Integrity and the Internet, a research centre at the Wee Kim Wee School of Communication and Information at Nanyang Technological University Singapore. It aims to contribute to promoting information integrity in online spaces, especially in an era of misinformation and disinformation, through timely, rigorous, and relevant research that links academics, policymakers, industry players, and the public. Learn more about IN-cube by visiting our website:

[ntu.edu.sg/incube](https://ntu.edu.sg/incube)

Contact us at [incube@ntu.edu.sg](mailto:incube@ntu.edu.sg)

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