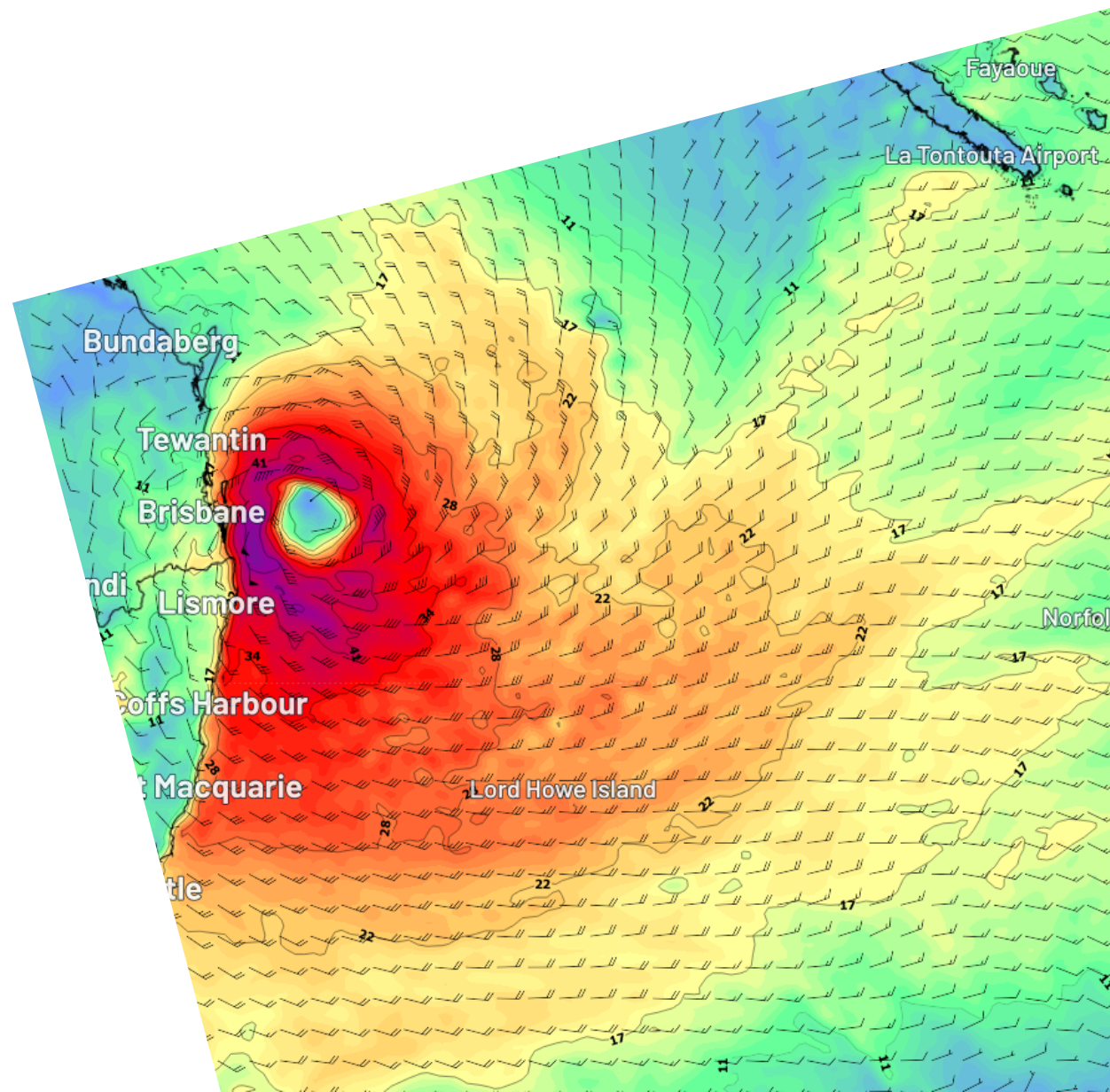# Community Experiences of Tropical Cyclone Alfred

A Social Media Analytics Approach

Dr Julian Marx

j.marx@unimelb.edu.au

Cyclone Alfred & Social Media

The Australian

TikTokers cashing in on Cyclone Alfred

How Cyclone Alfred helped the rise of the 'weather influencer'. Cyclone Alfred has caused carnage for many but for social media influencers the...

10 Mar 2025

The Sydney Morning Herald

As the weather bureau pumps out crucial cyclone information, millions look elsewhere

Data

| Stage	#	Facebook	Instagram	X
Stage 1 (keyword + group-based tracking)	10 groups/event pages	267 posts 458 comments	2,307 posts 254 comments	26 posts 90 comments
Stage 2 (account-based tracking)	18 agencies (37 accounts)	~450 posts ~1,500 comments	~300 posts ~1,200 comments	~200 posts ~800 comments

Methods & High-Level Findings

Topic Modeling (automated)

Cyclone Alfred – Topic Frequency by Category

Category	Post Count
Regional Focus: Brisbane & Gold Coast	320
Personal Reactions & POV Posts	136
Queensland Landfall & Tropical Cyclone Reports	116
Beach & Coastal Imagery	115
Anticipation of Cyclone Alfred	87
Brisbane Weather & Cyclone Updates	69
Food Posts (Cyclone-Related)	44
Dog/Animal Content (Cyclone-Related)	43
Surfing at Kirra Beach	41
Safety Advice & Preparedness	31
Surf Photography	30
Australian Surf Culture & Swell	27
Local Retail & Power Mentions	24
Local Business Status & Community Support	23
Power Outages & Gratitude Posts	21
Electrical Issues During Storm	21
Byron Bay Lifestyle	19
Sunrise & Portrait Posts (Cyclone Context)	18
Rain & Water Imagery	18
Community Help & Recovery Efforts	18
Cyclone Impacts & Storm Surge	17
Pet Safety & Animal Care	17
Air Travel Disruptions	15
Wellness & Body Vibes	15
Evacuation Advice & Flood Tips	14
Reflections After the Storm	14
Fitness Posts (Cyclone Context)	14
Burleigh Beach Updates	12
Motorbike Culture (Cyclone Context)	11
Children's Education & Special Needs	10
General Cyclone Mentions & Safety	780

Temporal bracketing (automated)

Brisbane Incident Facebook Page

- Reports of empty supermarket shelves
- David Crisafulli press conference
- Emergency alert cancelled
- Updates and "round 2" warnings

Thematic Analysis (manual)

Bottom-up

#1: Requesting crisis-related information
#2 Sharing crisis-related information
#3 Support and Wellbeing
#4 Humor as a Coping Strategy
#5 Turning to unofficial information sources
#6 Exploiting the crisis
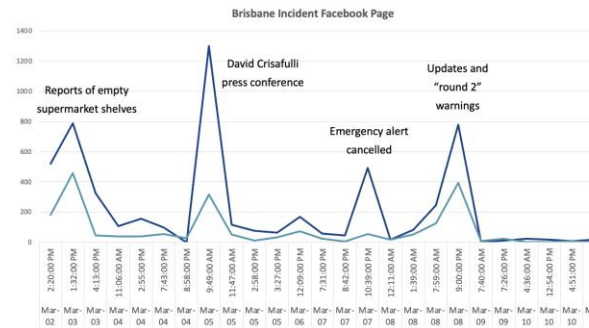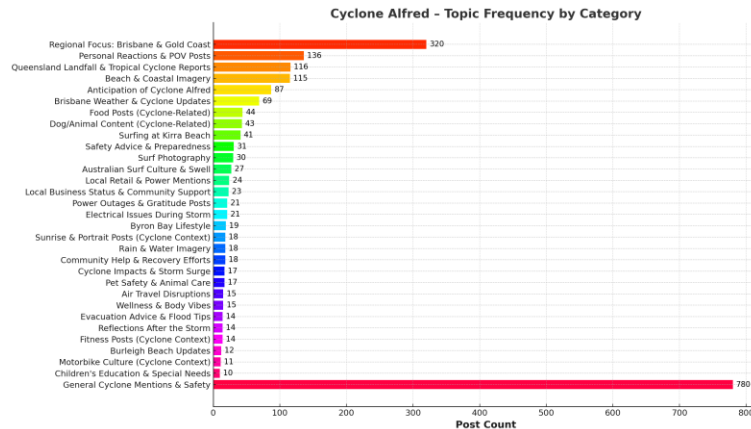
Top-down
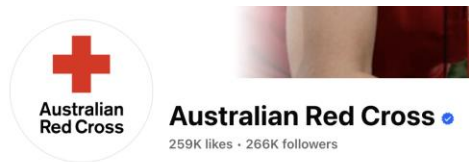
#1 Emergency warnings
#2 Household and business preparedness
#3 Trusted information sources
#4 Insurance and financial preparedness
#5 Extent of damage
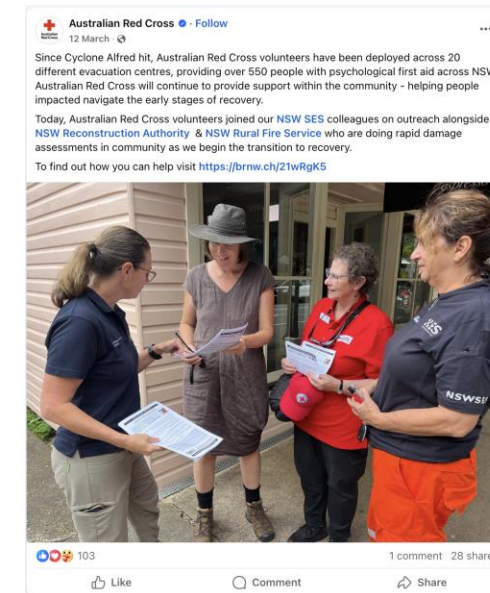#6 Initial recovery and clean up

Findings (continued) high information density

official sources

text-heavy, static visuals

"legacy" communications

medium-targeted, but low reach

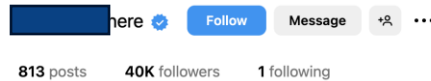# Findings (continued)

algorithmic audiencing

Various sources (influencers, media companies, community members)

low information density

short-form video content

low-targeted, but extensive reach

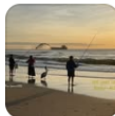# Findings (continued)

Closed and
semi-public
community
spaces

**"dark"
social**

hyper-localised
and community-
based targeting

Indians In Brisbane (est.2014)
Public · 103K members · 10+ posts a day
Join

1 friend is a member

Gold Coast Community
Public · 95K members · 10+ posts a day
Join

Sunshine Coast Small Business Network
Public · 10K members · 10+ posts a day
Join

Implications

There is a gap between how EMA use social media
and how communities consume it

"Legacy" Communications

Algorithmic Audiencing

(Riemer & Peter, 2021)

Dark Social

(Marx et al., 2024)

Strategic implications

- Explore visual, short-form content (understand algorithms!)
→ E.g. Instagram Reels, TikTok, Stories

- Partner with trusted community influencers
→ Collaborate with group admins & moderators for organic spread

- Enter/listen to 'dark social' spaces where possible
→ Work with regional/closed groups, maintain transparency, build trust

- Enable two-way communication
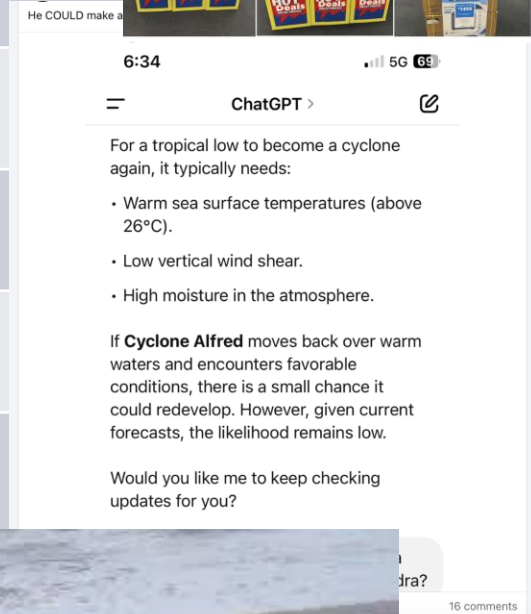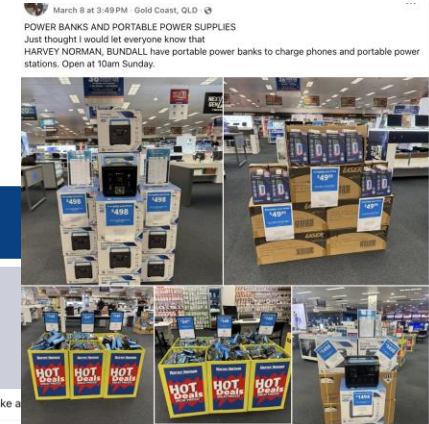→ Use Q&As, comments, live updates to build trust & correct misinformation, Reddit
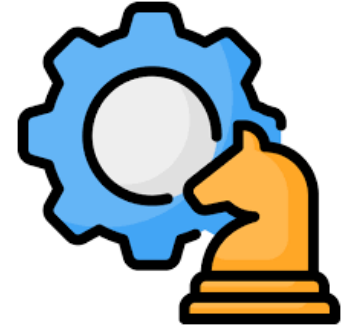
References / further reading

- Abbasi, A., Dillon, R., Rao, H. R., & Liu Sheng, O. R. (2024). Preparedness and response in the century of disasters: overview of information systems research frontiers. Information Systems Research, 35(2), 460-468.

- Basyurt, A. S., Marx, J., Stieglitz, S., & Mirbabaie, M. (2022). Designing a social media analytics dashboard for government agency crisis communications. Australasian Conference on Information Systems, Melbourne, Australia.

- Fischer-Preßler, D., Marx, J., Bunker, D., Stieglitz, S., & Fischbach, K. (2023). Social media information governance in multi-level organizations: How humanitarian organizations accrue social capital. Information & Management, 60(7), 1-18.

- Marx, J., Bahl, R., & Sutanto, J. (2024). The role of "dark" social media in crisis management: A scoping review. Australasian Conference on Information Systems, Canberra, Australia.

- Marx, J., Blanco, B., Amaral, A., Stieglitz, S., & Aquino, M. C. (2023). Combating misinformation with internet culture: the case of Brazilian public health organizations and their COVID-19 vaccination campaigns. Internet Research, 33(5), 1990-2012.

- Mirbabaie, M., Bunker, D., Stieglitz, S., Marx, J., & Ehnis, C. (2020). Social media in times of crisis: Learning from Hurricane Harvey for the coronavirus disease 2019 pandemic response. Journal of Information Technology, 35(3), 195-213.

- Mirbabaie, M., Marx, J., & Reimann, A. (2022). Rumor correction in social media crisis communication: A case of connective sense-breaking. AIS Transactions on Human-Computer Interaction, 14(2), 150-184.

- Riemer, K., & Peter, S. (2021). Algorithmic audiencing: Why we need to rethink free speech on social media. Journal of Information Technology, 36(4), 409-426.

- Shahbazi, M., & Bunker, D. (2024). Social media trust: Fighting misinformation in the time of crisis. International Journal of Information Management, 77, 1-13.

- Truong-Ngoc, M., Marx, J., Mirbabaie, M. (2025). Digital activism triggered by climate-related crisis events: evidence from Australian bushfire seasons. European Conference on Information Systems, Amman, Jordan.

Stage 1: Inductive thematic analysis

Theme		Subthemes	Examples
#1: Requesting crisis-related information	❓	Fundraising, travelling, preparation, updates, payments	
#2 Sharing crisis-related information	📌	Help, warnings, emergency alerts, service updates, evacuation, getting ready, wildlife, financial assistance schemes	
#3 Support and Wellbeing	💬	Mental health, impatience, pet photos, concern for loved ones, appreciation for admins, support	
#4 Humor as a Coping Strategy	😂	Memes, sarcasm, anthropomorphizing alfred, reminders, tracking	
#5 Turning to unofficial information sources	ℹ️	Screenshots, photos, verified sources, untraceable sources, social sources	
#6 Exploiting the crisis	❔	Conspiracy theories, imitating, hijacking	

Stage 2: Deductive thematic analysis

Theme	User responses	Engagement characteristics	Examples
#1: Emergency warnings	Mixed: **gratitude** for timely updates, **frustration** about unclear or delayed info, **humour/sarcasm** as coping	Higher engagement in visual, interactive posts; low engagement on text-heavy official posts	
#2 Household and business preparedness	Practical **advice** sharing; **questions** about sandbag access; **concerns** for elderly, disabled, pet owners; panic buying	Strong peer-to-peer engagement; comments foster mutual aid; inequities surfaced in comment threads	
#3 Trusted information sources	Trust linked to **tone**, **responsiveness**, **helpfulness**; high trust in BoM, Red Cross, grassroots Facebook groups	High engagement when posts answered questions, were localised, visual; low for generic or delayed info	
#4 Insurance and financial preparedness	**Confusion** and **frustration** about disaster payments; low discussion on insurance pre-disaster	Around troubleshooting access to aid; minimal proactive financial prep discussion	
#5 Extent of damage	**Photos/videos** documenting physical, economic, infrastructure damage; rapid peer info sharing on closures	High engagement with emotional/visual content; community info often faster than official updates	
#6 Initial recovery and clean up	**Gratitude** to responders; volunteering intentions; **relief** after cyclone downgrade; some **donation fatigue**	Emotional engagement in gratitude and safety reinforcement; donation skepticism noted	

Stage 2: Account-based analysis

- Bureau of Meteorology
- Australian Red Cross
- Energy Networks Australia
- Green Cross Australia
- National Emergency Management Agency (NEMA)
- Queensland Fire Department
- Queensland State Emergency Service
- NSW Reconstruction Authority
- Healthy Land and Water
- NSW Reconstruction Authority
- Fire and Rescue NSW
- NSW Rural Fire Service
- NSW State Emergency Service
- Department of Planning and Environment
- Department of Customer Service
- NSW National Parks and Wildlife Service