Know-C19

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TIGER C19

Timely Integration of User
Generated Responses about C19

Introduction and Approach

WHAT: TIGER C19 is an ongoing collaboration between the University of Melbourne and Burnet Institute that combines big data analytics of social media postings with qualitative research methods.

WHY: TIGER C19 can inform public health and health information responses by examining local COVID-19-related issues of current interest as both a supplement and complement to other research (notably the longitudinal Optimise study). The focus is on Melbourne and Victoria, though the emerging themes have broader resonance and application to other jurisdictions in Australia and overseas.

HOW: Using a sophisticated data analytics tool, TIGER C19 extracts posts containing selected key words and themes from two social media platforms – Reddit and Twitter – that are then subjected to thematic analyses.

Summary of results

Table 1 below summarises findings for the key words, focusing on the top 20 URLS and the most popular upvoted (Reddit) or retweeted (Twitter) posts using the following key words: **Vaccine, hesitancy/hesitant, clots, AstraZeneca, Pfizer, side effect.**

- **Timeframe:** 14 April – 5 May
- **Total number of hits/posts:** 11,787

Table 1: Summary of Reddit and Twitter 'captures' by key words

Hits	Trends	Top 20 URLS
		Key Word: Vaccine
Reddit: 1,451 hits Twitter: 3,229 hits	Peaks on 27 April and 29 April	**Official Sources:** Australian Department of Health, South Australian Government, UK Public Health Official Report, European Medicines Agency. **Media Sources:** The Guardian, ABC, Herald Sun, The Age, Richardson Post, MSN News, 9 News, NY Times, Human Rights Watch, GMA News, Birmingham News, News.com.au, First Post, SMH. **Academic Sources:** BMJ, MedRxiv. **Social Media:** Twitter, Instagram, YouTube, Reddit. **Unofficial Sources:** Blog: Marxy's Musing on Technology, Chris Billington Australia COVID-19 Vaccine rollout webpage.

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Hits	Trends	Top 20 URLS

Key Word: Hesitancy/Hesitant

Hits	Trends	Top 20 URLS
Reddit: 77 hits Twitter: 164 hits	Peaks on 27 April and 1-2 May	**Media Sources:** Herald Sun, WA Today, The Guardian, ABC, The Australian, News Medical, The Age, Grist, Bloomberg. **Academic Sources:** University of Melbourne. **Social Media:** YouTube, Twitter. **Unofficial Sources:** Bangla Viral, Easy Branches, Upstart, Metaculus.

Key Word: Clots

Hits	Trends	Top 20 URLS
Reddit: 223 hits Twitter: 313 hits	Peaks on 28-29 April	**Official Sources:** European Medicines Agency, Department of Health Australia, United Kingdom Government Website. **Media Sources:** 9 News, The Guardian, Dailymail.uk, Bloomberg, SMH, ABC, Junkee. **Academic Sources:** BMJ, MJA, Ash Publications, University of Minnesota. **Social Media:** Twitter, YouTube. **Unofficial Sources:** Ars Technica webpage.

Key Word: AstraZeneca

Hits	Trends	Top 20 URLS
Reddit: 130 hits Twitter: 2,517 hits	Peaks on 29 April and 3-4 May	**Official Sources:** Australian Department of Health, European Medicines Agency. **Media Sources:** 9 News, ABC, The Guardian, Telegraph.co.uk, MSN, Business Today, SMH, First Post, Birmingham News, 9 News, City News, News.com.au, Business Insider. **Academic Sources:** Springer Link. **Social Media:** Twitter, Google groups/forum. **Unofficial Sources:** Blog: Marxy's musing on technology, Pitchfest.

Key Word: Pfizer

Hits	Trends	Top 20 URLS
Reddit: 590 hits Twitter: 3,022 hits	Peaks on 20 April and 3 May	**Official Sources:** Department of Health Australia, Public Health Report UK, FDA, WHO, New Caledonia Gov Website, Northern Health COVID-19 Vaccination Program. **Academic Sources:** The University of Birmingham. **Media Sources:** News.com.au, CNBC, Herald Sun, SMH, The Guardian, Your World Events, National Herald India, BBC, Canberra Times, ABC, MSN, Bloomberg, Sputnik News, First Post, Manchester Evening News, Times of Israel, New Caledonia, NY Times, Business Insider, Financial Review, Inc.nc. **Social Media:** Twitter, Reddit. **Unofficial Sources:** Googledocs, Metaculus.

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Hits	Trends	Top 20 URLS

Key Word: Side Effect

Reddit: 30 hits	Peak on 13 April	**Official Sources:** WHO, Australian Department of Health.
		Media Sources: ABC, Euro news, Market Watch.
		Academic Sources: University of Minnesota.
Twitter: 41 hits		**Social Media:** Reddit, YouTube, Twitter.
		Unofficial Source: Word Document.

For **Table 2** we analysed the most popular posts (and repost trails) to determine emerging key themes

Table 2: Emerging Themes

Key Word	Emerging Theme	Amount of hits (Retweets/Reposts)
Vaccine	**Pfizer is preferred to AstraZeneca**	53
	AstraZeneca is unsafe/ high risk	27
	Australians want Pfizer over AstraZeneca	17
	Other countries are not using AstraZeneca	5
	Over 50's want Pfizer	4
	The Government is mismanaging the vaccine rollout	38
	Australian vaccine rollout is too slow	34
	Government vaccine messaging is ineffective	4
	Encouragement to get vaccinated	38
	Positive vaccination experiences	17
	Promotion of safety and efficacy of vaccines	16
	Promotion of increased vaccine uptake in Australia	5

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Key Word	Emerging Theme	Amount of hits (Retweets/Reposts)
Hesitancy/ Hesitant	**Australians are vaccine hesitant**	**34**
	Who is hesitant (Personal accounts, disability workers etc)	19
	Losing trust in vaccine safety	7
	The media is complicit in creating hesitancy	3
	Concern re wasted vaccines due to low uptake	3
	Ways to reduce hesitancy	2
	Confusion and Information Sharing	**15**
	Seeking/sharing vaccine related information	13
	Correcting vaccine misinformation	2
Vaccine production	**Vaccine Production in Australia**	**15**
	Local production will improve vaccine supply	10
	Australia is blocking global vaccine production	3
	Australia should produce Pfizer	2
Travel bans	**India Travel Bans are Unethical**	**10**
	Travel bans are a human rights violation	8
	Australians in India should be vaccinated	1
	Indian Australians are frontline workers	1
AstraZeneca	**Under 50's want option of getting AstraZeneca**	**8**
	AstraZeneca should be available to under 50's who are aware of the risks	6
	Vaccine inaccessible due to age	2
Vaccine 'queue-jumpers'	**Vaccine 'queue-jumpers'**	**6**
	Olympians shouldn't have early access to Pfizer	5
	Healthcare workers should be vaccinated before others	1