

Altmetrics: 'big data' that map the influence of Australian research



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Thanks to

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The data in question

- Australian Universities that published most and where  Dimensions
- Rate of engagement  Altmetric
- Most popular platforms  Altmetric
- Mapping mentions from Twitter, Facebook, news and policy  Altmetric



About the data sources



- *Total number of documents*
- *Years for documents*
- Includes articles, grant information, and patents



- 17 altmetrics data types
- 11.9 million articles mentioned
- 88.1 million mentions
- Bulk of data from post-2011
- Includes articles, preprints, datasets, and other output types

Which Australian organizations published the most?

Top 5 Australian Universities

University of Queensland (313)

University of Sydney (286)

University of Melbourne (247)

Monash University (241)

University of New South Wales (225)



Where did these Australian universities publish?

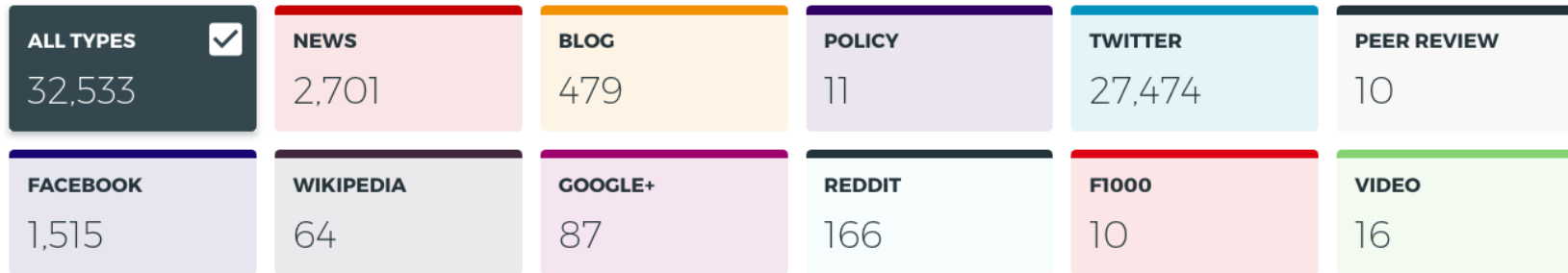


Citation/Altmetric data for 2017 Australian research



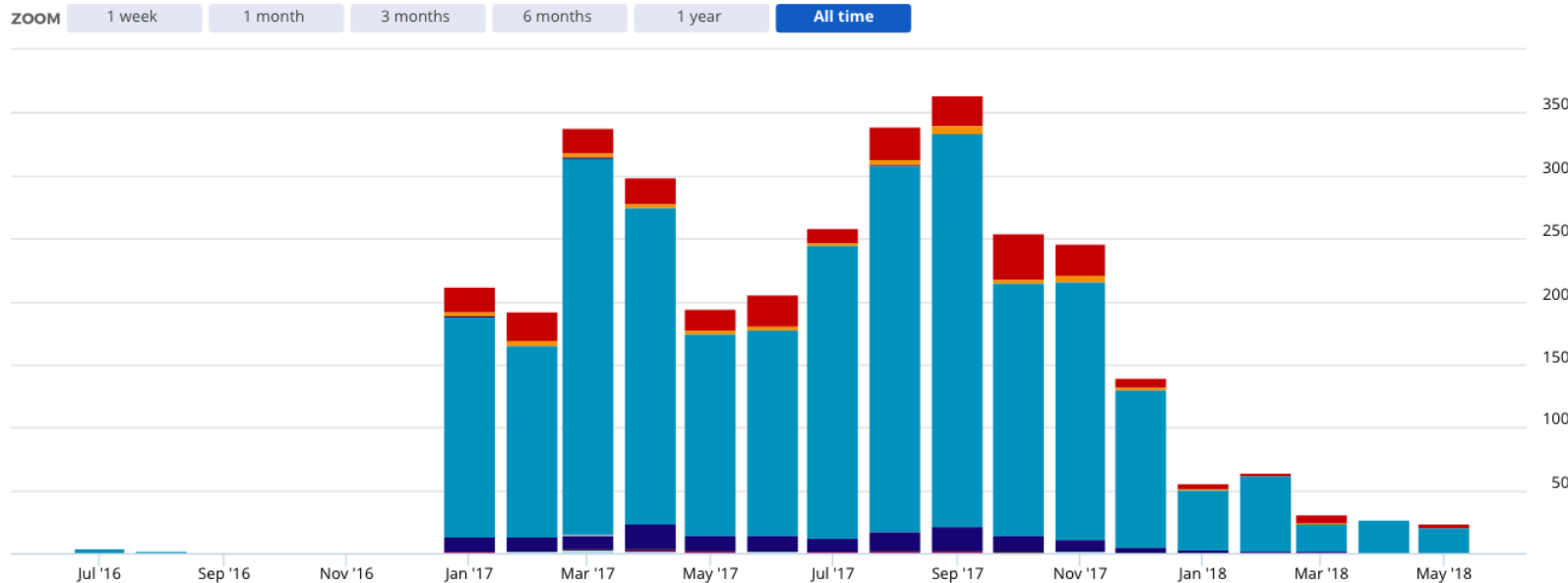
Total citations	9,301
% cited	58.7%
Citation per publication	2.14
% Altmetric mentions	43.5%

Rate of engagement with 2017 Australian research (overall)

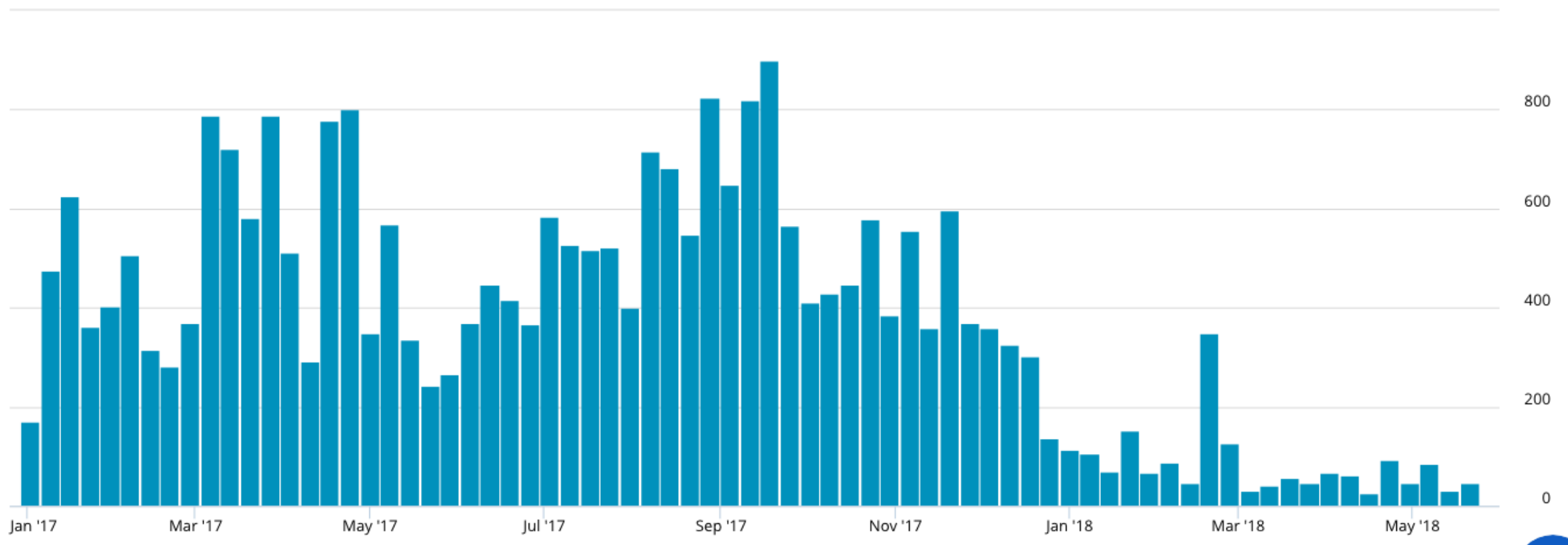


47.8% of 2017 Australian research mentioned in a source Altmetric tracks

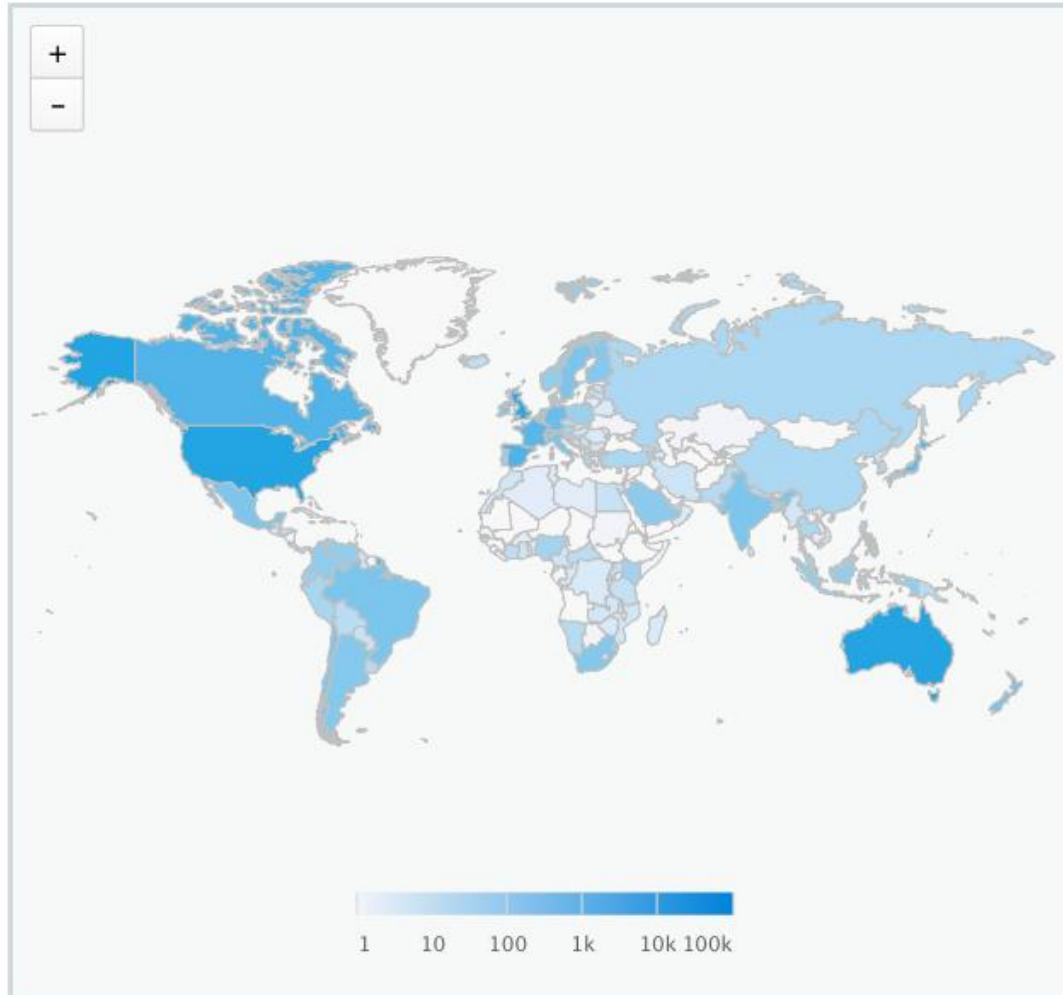
32,533 mentions total as of 30 May 2018



Rate of engagement with Australian research (Twitter) – 27,474 mentions



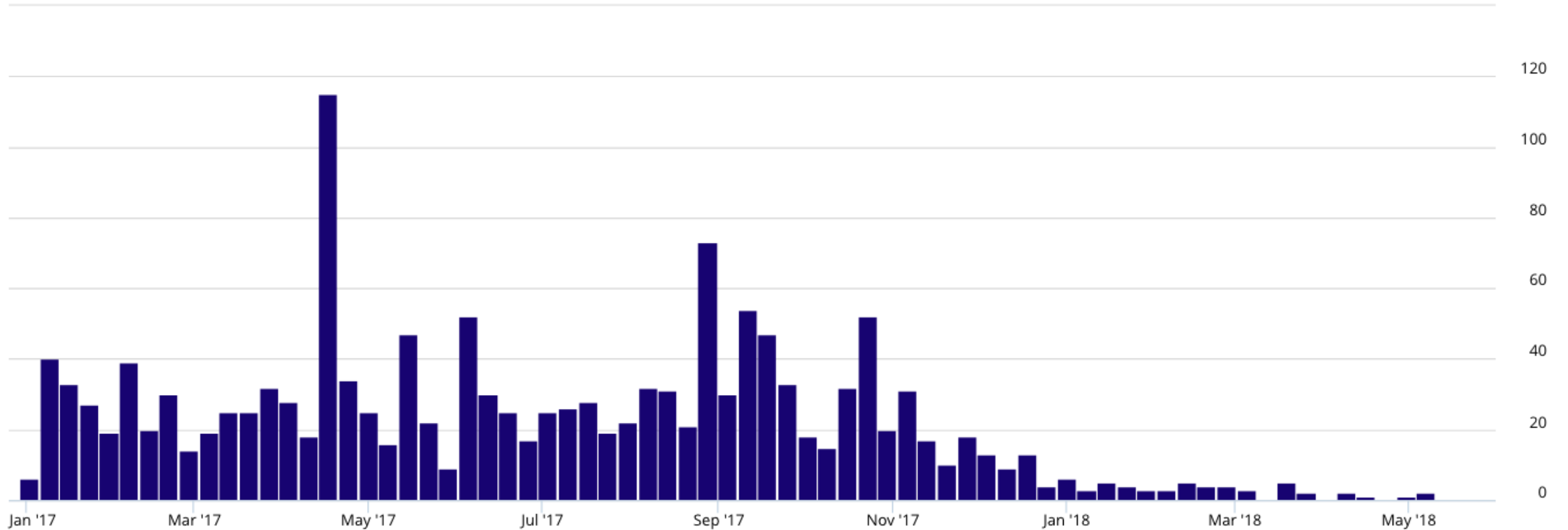
Mapping Twitter attention



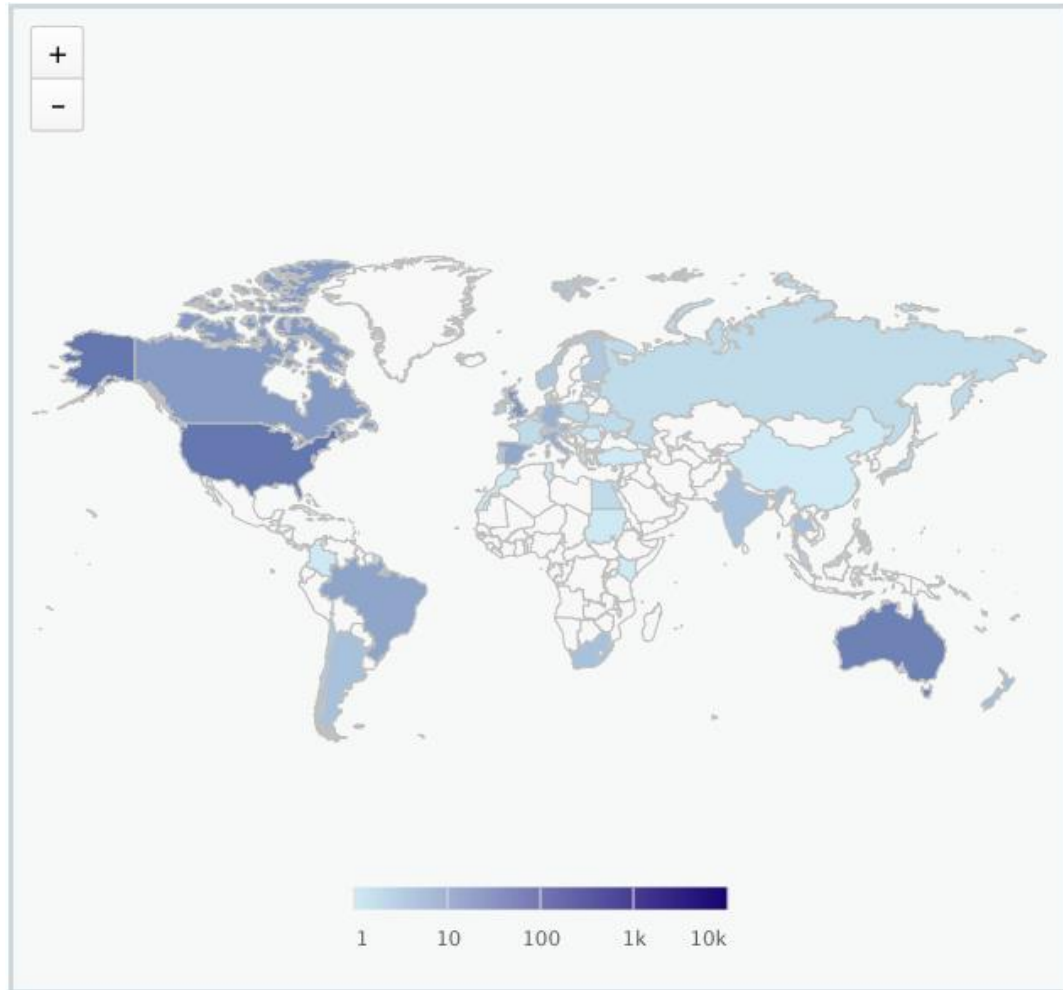
COUNTRY	TOTAL TWEETS	UNIQUE TWEETERS
United States	4,008 (14.6%)	2,745 (15.8%)
Australia	37.14 (13.5%)	1,960 (11.3%)
United Kingdom	3,003 (10.9%)	2,018 (11.6%)
Spain	860 (3.1%)	597 (3.4%)
Canada	822 (3.0%)	567 (3.3%)

27,474 mentions from 17,375 unique tweeters
in 163 countries

Rate of engagement (Facebook) – 1,515 mentions



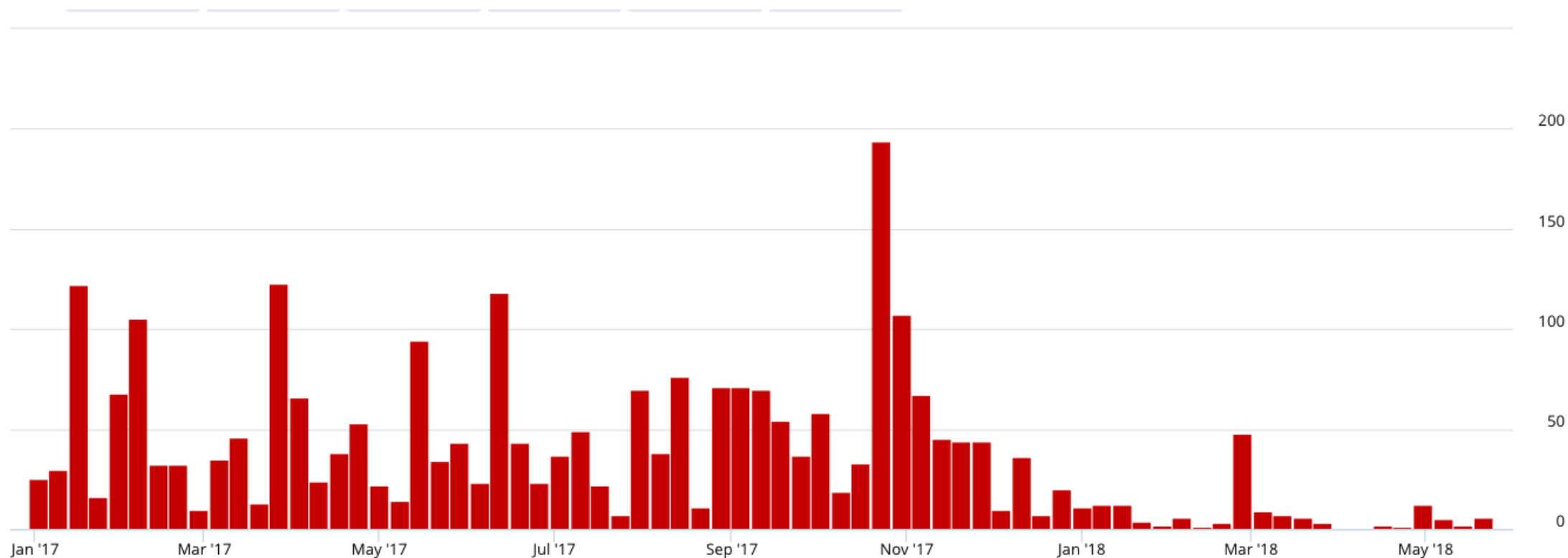
Mapping Facebook attention



COUNTRY	TOTAL POSTS	UNIQUE PAGES
United States	137 (9.0%)	118 (10.3%)
Australia	91 (6.0%)	62 (5.4%)
United Kingdom	38 (2.5%)	32 (2.8%)
Canada	29 (1.9%)	21 (1.8%)
Brazil	20 (1.3%)	17 (1.5%)

1,515 Facebook posts on 1,141 unique Facebook Pages in 51 countries

Rate of engagement with Australian research – 2,701 mentions



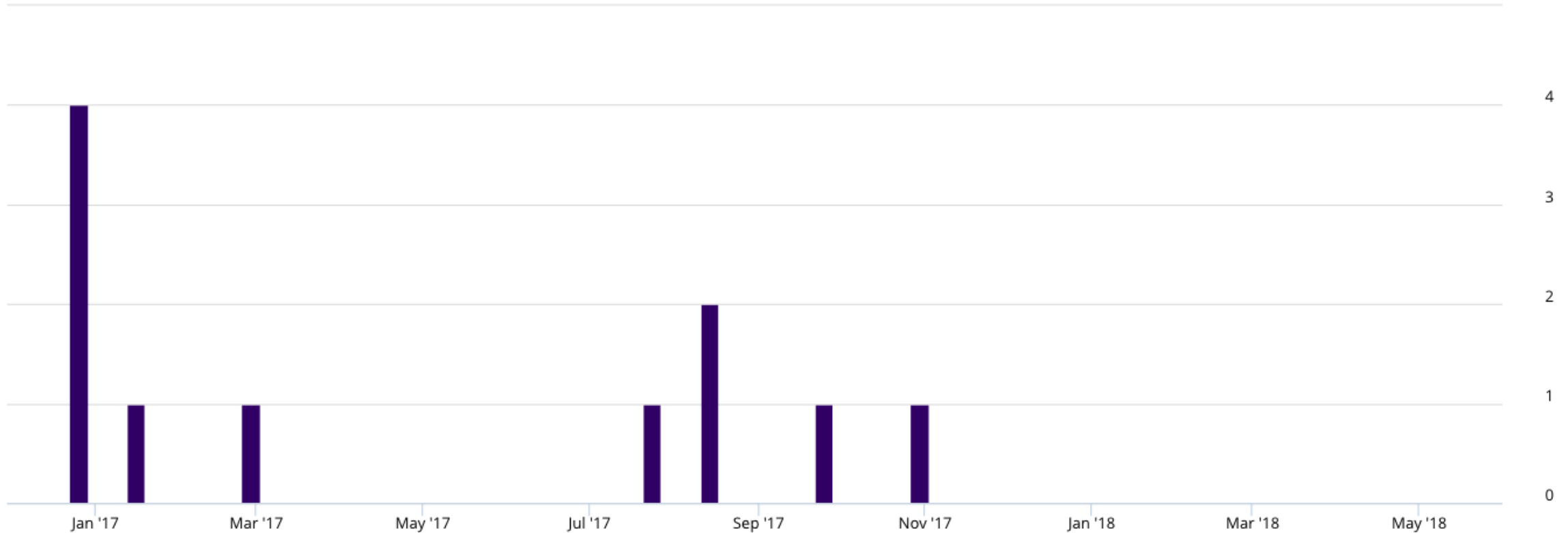
Mapping mainstream media attention



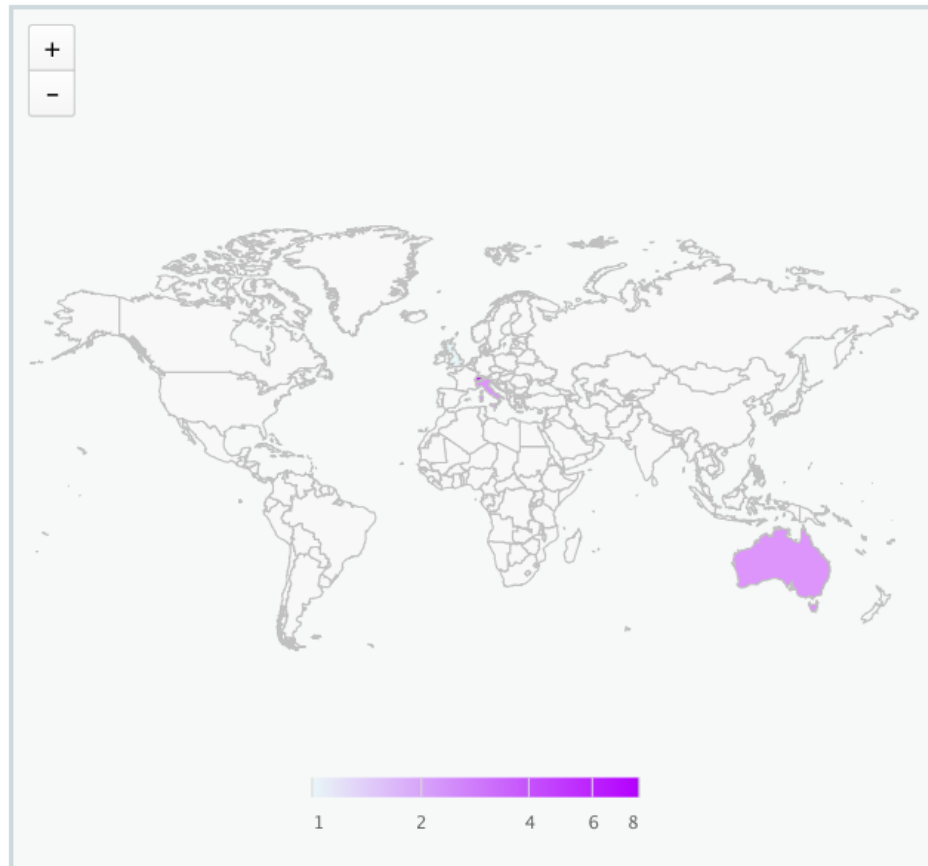
COUNTRY	NEWS STORIES	UNIQUE OUTLETS
United States	1,269 (47.0%)	316 (49.8%)
United Kingdom	405 (15.0%)	74 (11.7%)
Australia	292 (10.8%)	35 (5.5%)
India	174 (6.4%)	28 (4.4%)
Russia	82 (3.0%)	9 (1.4%)

2,701 news stories in 635 unique news outlets in 49 countries

Rate of engagement with Australian research (Policy) – 11 mentions



Mapping policy attention



COUNTRY	POLICY DOCS	UNIQUE SOURCES
Switzerland	6 (54.5%)	1 (25.0%)
Italy	2 (18.2%)	1 (25.0%)
Australia	2 (18.2%)	1 (25.0%)
United Kingdom	1 (9.1%)	1 (25.0%)

11 policy documents mentioned in 4 unique policy sources in 4 countries

Limitations

- Data constrained by the sources tracked (e.g. no tracking of WeChat messages)
- Data processing changes by providers may cause spikes in attention (e.g. scraping for mentions in certain sources of attention)
- Primarily STEM research considered due to Dimensions' scope
- Dimensions coverage still growing

Takeaways

- Australian research had a great deal of international influence in 2017
- US, UK and Australia primary audiences for research
- Twitter offered the most sustained attention over time, followed by news outlets
- *Scientific Reports* (866 publications) and *PLoS One* (831 publications) were popular venues that had the most attention with 16,997 and 14,629 mentions respectively



Thanks.

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