

Earthquakes in the News, 2019-2026: Event Peaks, Geography and Tone of Global Earthquake Coverage, and How It Compares with Research and Invention

Fliar BI · Prism Research Layer · Working paper, October 2026 · Dataset and code: github.com/fliarbi/prism-news-api · Licence CC BY-NC 4.0

Abstract

We measure how earthquakes were covered in a global news index from January 2019 to July 2026, using 149,186 de-duplicated earthquake articles, and set that coverage beside 60,920 research papers and 23,946 patent families on earthquakes. Six results stand out:

1. **Event peaks.** Earthquake coverage shows no stable season. Its peaks come from single disasters. In February 2023, the month of the Turkey-Syria earthquakes, earthquakes took 102.09 of every 10,000 news articles, the highest monthly share in the window. The 2023 annual share (19.81 per 10,000) was 2.63 times that of 2022.
2. **Geography.** The United States holds the largest raw share of located earthquake news (17.31%) but is under-represented at a lift of 0.36. Myanmar (109.45), Vanuatu (99.7), Turkey (47.78), Morocco (47.11) and Syria (45.66) are the most over-represented countries. By continent, Asia's lift is 2.5 and North America's 0.39.
3. **States.** Within India, Ladakh (9.05), Manipur (4.91), Assam (4.42) and Jammu and Kashmir (4.07) lead. Within the United States, Alaska (17.14), Hawaii (14.23) and California (4.02) lead.
4. **Shifting attention.** In 2025 earthquake articles made up 35.42% of located Myanmar news. Thailand's share rose 39.09-fold and Greece's 11.23-fold from 2023 to 2025, while Turkey's fell by 90.76%.
5. **Tone and urgency.** 76.2% of earthquake articles are negative in tone (all news: 33.6%), and 78.3% are rated critical priority (all news: 42.6%).
6. **Research and invention.** Earthquake papers made up 8.69 of every 10,000 papers in 2015 and 9.65 in 2025. Earthquake patent families published per year rose 2.86-fold from 2015 to 2024, after a peak in 2021, and China's office held 84.7% of office filings.

Findings stated for citation

- **F1.** February 2023 was the peak month for earthquake news, at 102.09 articles per 10,000, 13.54 times the 2022 annual share.
- **F2.** Earthquakes took 19.81 of every 10,000 articles in 2023, 2.63 times their 2022 share.
- **F3.** The United States held 17.31% of located earthquake news at a lift of 0.36. Myanmar (109.45), Vanuatu (99.7), Turkey (47.78), Morocco (47.11) and Syria (45.66) were the most over-represented countries.
- **F4.** 76.2% of earthquake articles were negative in tone, 2.27 times the all-news share.
- **F5.** 78.3% of earthquake articles received a critical machine-assigned priority rating, 1.84 times the all-news share.

- **F6.** Tsunami early warning appeared in 20.81% of themed earthquake articles, 354.79 times its frequency in all news.
- **F7.** In 2025 earthquake articles made up 35.42% of located Myanmar news.
- **F8.** Earthquake coverage as a share of Thailand's news rose 39.09-fold from 2023 to 2025.
- **F9.** Earthquake coverage as a share of Turkey's news fell 90.76% from 2023 to 2025.
- **F10.** In 2023 earthquakes took 2,005.68 of every 10,000 located Moroccan articles.
- **F11.** Earthquake coverage as a share of Greece's news rose 11.23-fold from 2023 to 2025.
- **F12.** Within India, Ladakh (9.05), Manipur (4.91), Assam (4.42) and Jammu and Kashmir (4.07) had the most over-represented earthquake coverage.
- **F13.** Within the United States, Alaska (17.14), Hawaii (14.23) and California (4.02) had the most over-represented earthquake coverage, and New Jersey (0.12), Pennsylvania (0.31) and Florida (0.4) the least.
- **F14.** Earthquake papers made up 8.69 per 10,000 papers in 2015 and 9.65 in 2025.
- **F15.** Earthquake patent families published per year rose 2.86-fold from 2015 to 2024, less than their 2021 peak; China's office held 84.7% of office filings.

1. Introduction

Earthquakes strike without a season and with little warning. A few large events cause most of the deaths and damage, and news is often the first public record of them: where the ground shook, how many died and how the response unfolded. News coverage also shapes what the public and governments treat as urgent and where aid goes. Yet coverage is rarely measured as data in its own right. Seismic catalogues record earthquakes. Bibliometric studies record research. Few sources record attention, meaning how much of the news an earthquake takes and when, where and in what tone.

This paper and its dataset do that. They combine three records for one topic: a global news index, research papers and patents. Each comparison uses a denominator, so that growth in the index or in publishing is not mistaken for growth in interest. The companion dataset publishes an article-level sample (37,038 rows) and full coverage tables, so every figure here can be re-derived. The [Prism News API](#) serves the full history.

2. Data and methods

News. The Prism news index holds articles from outlets worldwide; non-English articles are indexed in English translation. Each article carries its opening text (the first few sentences), a primary location, a graded tone label, a machine-assigned editorial priority rating (1-9), themes, keywords and named organisations. We count unique article identifiers; repeated rows for the same article are removed. When this release was built, 92.88% of the index was readable, so all counts are lower bounds.

Matching. An article is about earthquakes when its opening text contains *earthquake*, *earthquakes*, *quake*, *quakes*, *temblor* or *temblors* as whole words. Broader words such as *tremor*, *aftershock* and *seismic* were tested and dropped, because samples showed many medical, figurative and oil-exploration uses. Four families of matches are excluded:

- sports uses, mainly the San Jose Earthquakes football club ("the Quakes");
- figurative uses ("a political earthquake", "survey quakes", the word set in quotation marks);
- other senses such as frost quakes, moonquakes and the Quake video game;
- automatically generated earthquake reports.

Together these removed 5,463 of 154,649 raw matches (3.53%). One reviewer read 40 randomly drawn matched openings. 36 used the words in the seismic sense (precision 90%), and in 32 (80%) an earthquake was the main subject. The false positives were figurative: a "real earthquake" in a television show, an "earthquake" in a family, a simile for snoring and "the world quakes" for a new series.

Measures. Coverage over time is expressed per 10,000 articles in the index that month or year, because the index grew from 11,807,177 articles in 2019 to 26,990,006 in 2025. Seasonality uses each year's within-year month shares, averaged over the complete years 2019–2025. Geography, tone, priority and themes use January 2023 – July 2026. Geography is expressed as lift: a country's share of earthquake articles divided by its share of all located articles. States are measured against the located news of their own country. Country attention over time is the number of earthquake articles per 10,000 of that country's located news in each year. Place tags that came from ordinary words (such as "Congress", "Earth", "Winter", "Cloud", "Mobile" and "Hurricane", 714 words in all) were treated as unlocated in every location field, which removed 15.3% of city-tagged articles.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with *earthquake*, *seismic hazard*, *seismic risk* or *aftershock* in the title. Repository deposits and non-seismic senses (moonquakes, the video game) are excluded. Patent families (2005–2024) match *earthquake*, *seismic isolation*, *seismic isolator*, *anti-seismic*, *aseismic*, *earthquake-resistant* or *seismic damper* in the title, and are counted once per filing office. Seismic surveying for oil and gas is not matched, because *seismic* alone is not a patent term.

3. Results

3.1 How much and when

The index holds 149,186 earthquake articles from January 2019 to July 2026. Raw counts rose from 12,404 in 2019 to 28,791 in 2025, but the share of all news barely moved: 10.51 per 10,000 in 2019 and 10.67 in 2025 (Table 1). The exception is 2023, at 19.81 per 10,000, 2.63 times the 2022 share. That year held the Turkey–Syria earthquakes in February, the Al Haouz earthquake in Morocco in September and the Herat earthquakes in Afghanistan in October. February 2023 alone held 15,561 articles, 38.35% of the year's total, and a monthly share of 102.09 per 10,000 (Figure 1). That is 13.54 times the 2022 annual share. The next highest months are September 2023 (29.73) and July 2019 (24.14).

Year	Earthquake articles	All articles in index	Per 10,000
2019	12,404	11,807,177	10.51
2020	12,257	16,230,014	7.55
2021	13,899	17,281,220	8.04
2022	14,419	19,115,515	7.54
2023	40,581	20,484,506	19.81
2024	18,245	23,311,896	7.83
2025	28,791	26,990,006	10.67

Table 1. Earthquake articles per year and as a share of the index. 2026 (January–July) is partial and omitted.

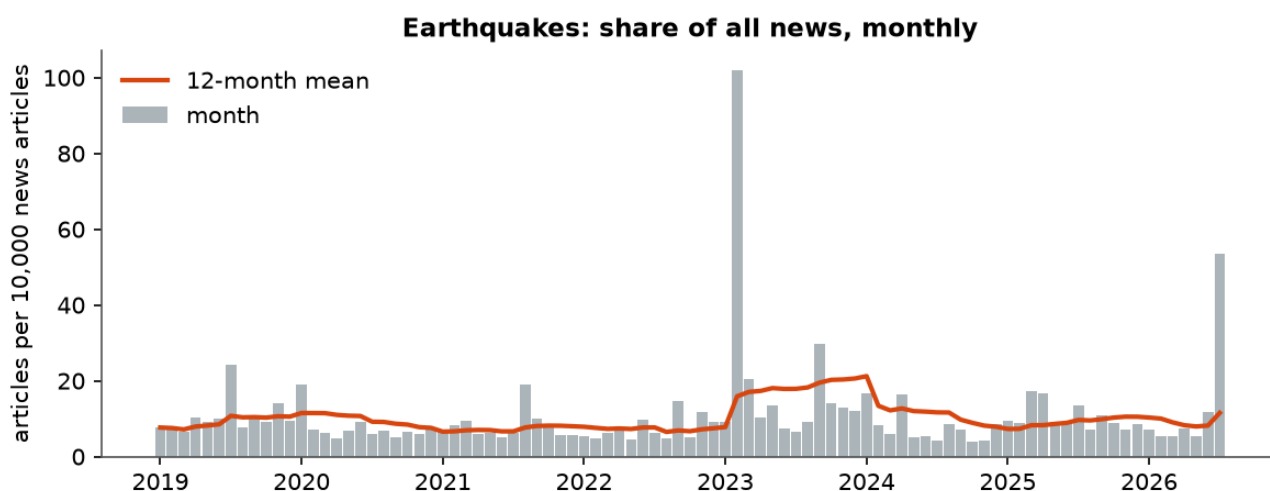


Figure 1. Earthquake coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean. The last months of 2026 rest on very few indexed articles.

Unlike floods or storms, earthquake coverage shows no stable season (Figure 2). January (10.65%) and February (11.48%) hold the largest average shares of a year's articles, and October the smallest (6.38%), but the pattern comes from single events: February 2023 and the Noto earthquake in Japan on 1 January 2024. Without such events, no month stands out.

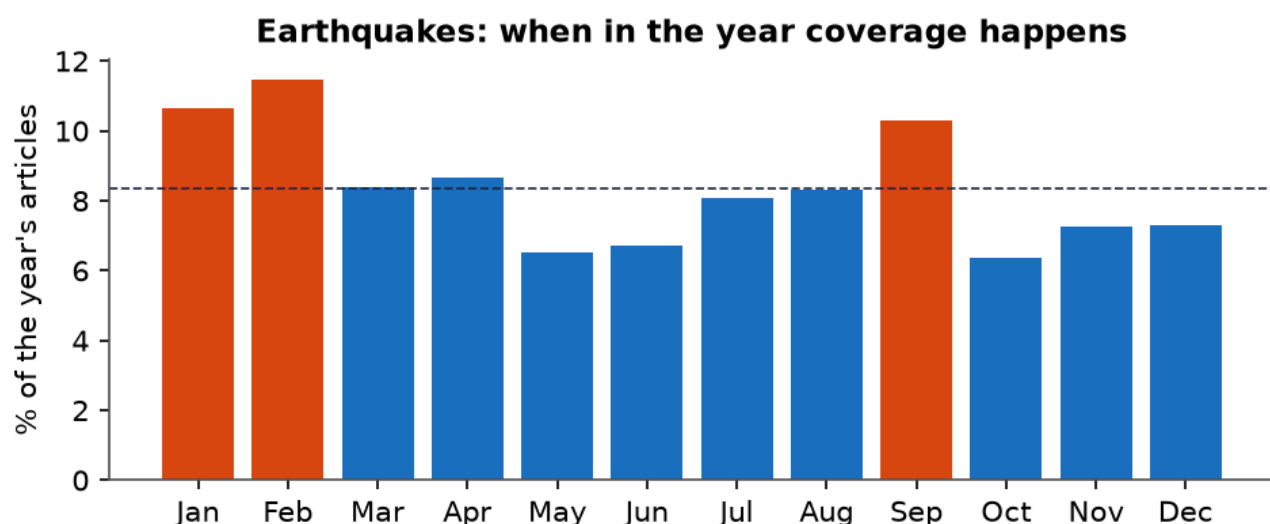


Figure 2. Share of each year's earthquake articles published in each month, averaged over 2019–2025. Dashed line = an even spread (8.3% per month).

3.2 Where

Between January 2023 and July 2026, 52,120 earthquake articles carried a primary location. The United States holds the largest raw share (17.31%), but its lift is 0.36: earthquakes take a far smaller share of American news than of news overall. Turkey (15.17%) is second by count, with a lift of 47.78. India holds 9.1% at a lift of 0.69. Among countries with at least 100 located earthquake articles, Myanmar (109.45) and Vanuatu (99.7, from 373 articles) have the highest lifts, followed by Turkey, Morocco, Syria and Afghanistan (Table 2, Figure 3). Most of these countries had a major earthquake in the window.

Country	Located earthquake articles	Share %	Lift vs all news
United States	9,022	17.31	0.36
Turkey	7,905	15.17	47.78
India	4,744	9.1	0.69
Japan	3,940	7.56	7.11
Morocco	1,879	3.61	47.11
Myanmar	1,847	3.54	109.45
China	1,698	3.26	1.24
Syria	1,680	3.22	45.66
Afghanistan	1,499	2.88	34.84
New Zealand	1,371	2.63	4.07
Indonesia	1,267	2.43	8.74
Philippines	1,080	2.07	6.57
Taiwan	1,055	2.02	15.24
Nepal	1,050	2.01	11.17

Table 2. Leading countries in located earthquake news, January 2023 – July 2026, with lift against all located news.

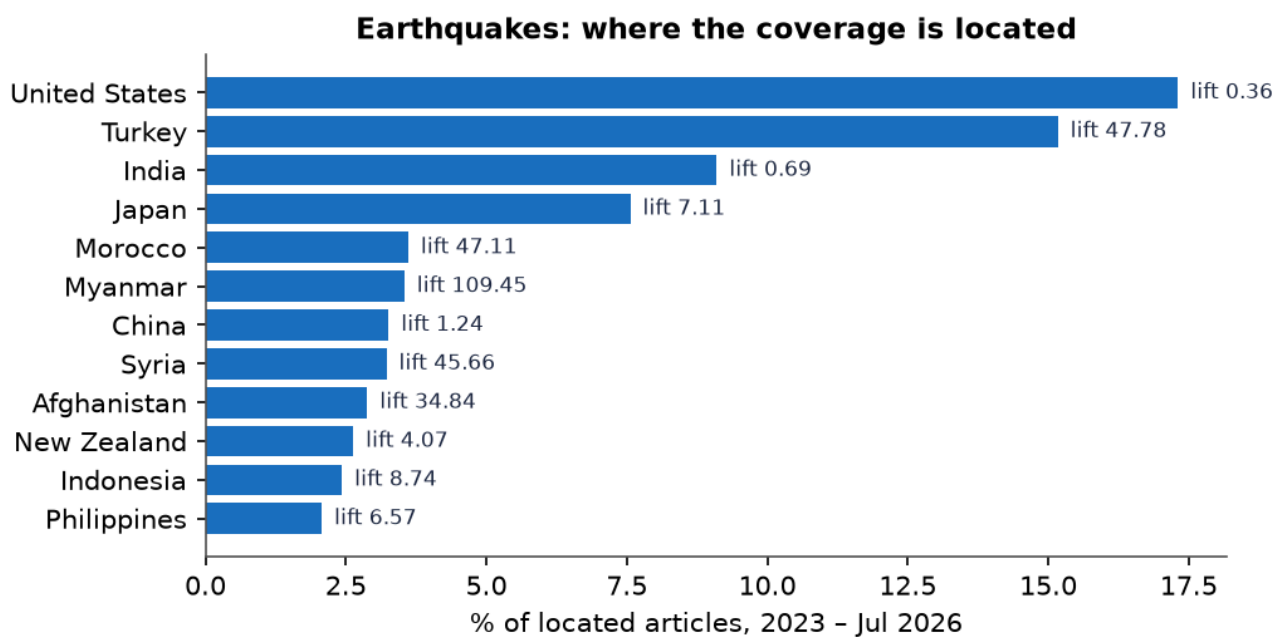


Figure 3. Leading countries by share of located earthquake articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Earthquakes are over-represented in the news of the Alpine-Himalayan belt, from Morocco and Turkey through Afghanistan and Nepal to Myanmar, and around the Pacific, in Japan, Taiwan, the Philippines, Indonesia, New Zealand and Chile. They are under-represented in most of Europe, North America and Australia. By continent, Asia (2.5), Oceania (1.86) and South America (1.42) are over-represented, Africa is at parity (1.0), and Europe (0.44) and North America (0.39) are under-represented (Figure 7, left). Asia's lift is 6.41 times North America's.

Earthquakes: which countries over- and under-cover the topic

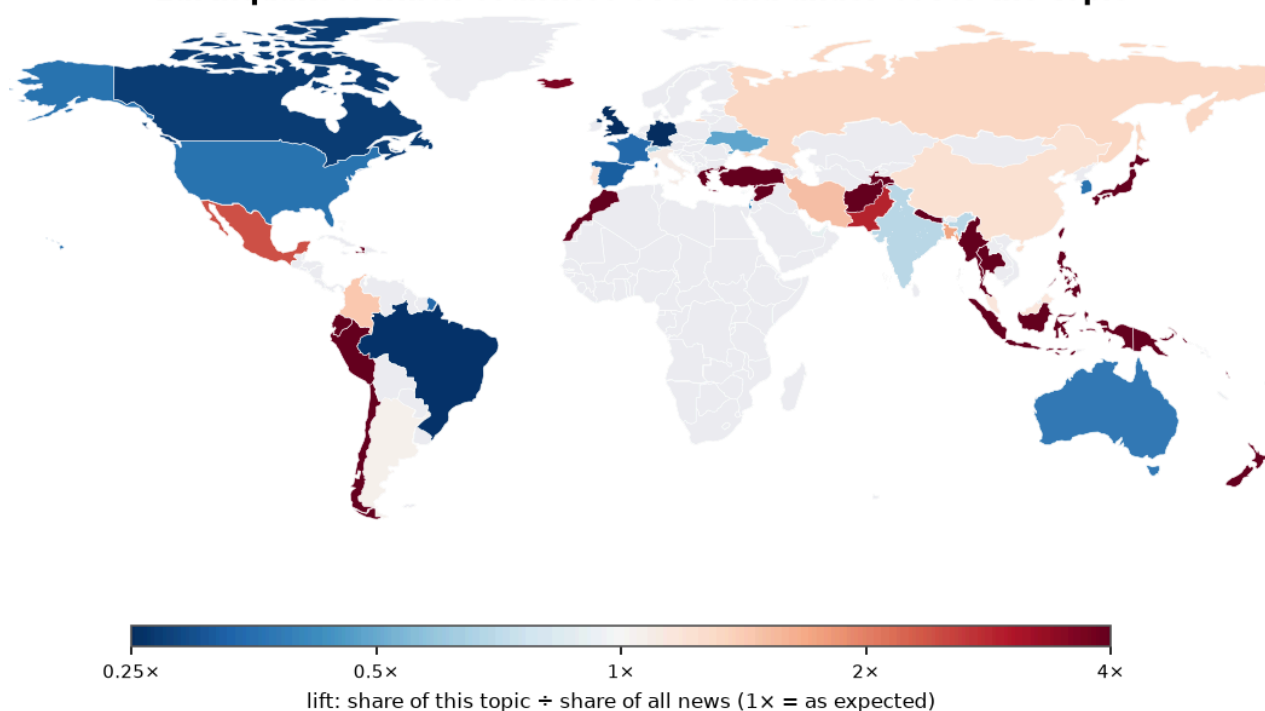


Figure 4. Lift of each country's share of located earthquake articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within countries, coverage is uneven (Table 3). In India, earthquake coverage concentrates in the Himalayan and north-eastern states. Measured against each state's share of Indian news, Ladakh (9.05), Manipur (4.91), Assam (4.42), Jammu and Kashmir (4.07) and Meghalaya (3.73) are the most over-represented. Delhi holds the most articles (746, 18.26% of located Indian earthquake news), at a lift of 1.41. Karnataka (0.23), Maharashtra (0.26) and Telangana (0.54), in the peninsula, are under-represented (Figure 5). In the United States, Alaska (17.14) and Hawaii (14.23) lead by lift, and California holds 40.1% of located US earthquake articles at a lift of 4.02. Oregon (2.32) and Washington (1.59), on the same Pacific margin, follow. New Jersey (0.12), Pennsylvania (0.31) and Florida (0.4) are far below their weight in American news (Figure 6).

India: state	Articles	Lift	United States: state	Articles	Lift
Ladakh	88	9.05	Alaska	258	17.14
Manipur	113	4.91	Hawaii	318	14.23
Assam	296	4.42	California	2,973	4.02
Jammu and Kashmir	391	4.07	Oregon	172	2.32
Meghalaya	72	3.73	Washington	309	1.59
Uttarakhand	255	2.78	South Carolina	75	1.55
Himachal Pradesh	145	2.63	Utah	77	1.17
Gujarat	272	2.01	Nevada	80	1.05
Lowest: Uttar Pradesh	335	0.65	Lowest: Illinois	89	0.45
Telangana	77	0.54	Florida	161	0.4
Maharashtra	170	0.26	Pennsylvania	138	0.31
Karnataka	51	0.23	New Jersey	167	0.12

Table 3. States with the highest and lowest lift in earthquake coverage, January 2023 – July 2026 (states with at least 50 earthquake articles). Lift = the state's share of the country's located earthquake articles ÷ its share of all

located news from that country.

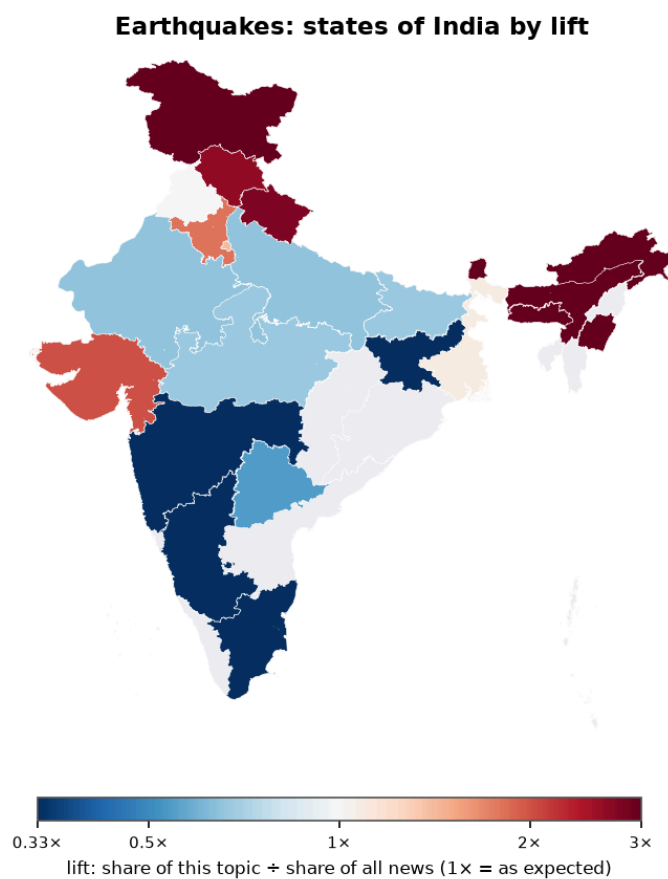


Figure 5. Lift of each Indian state's share of located earthquake articles against its share of all located Indian news, January 2023 – July 2026. Official outline; Ladakh is drawn within Jammu and Kashmir in the boundary file used.

Earthquakes: states of United States by lift

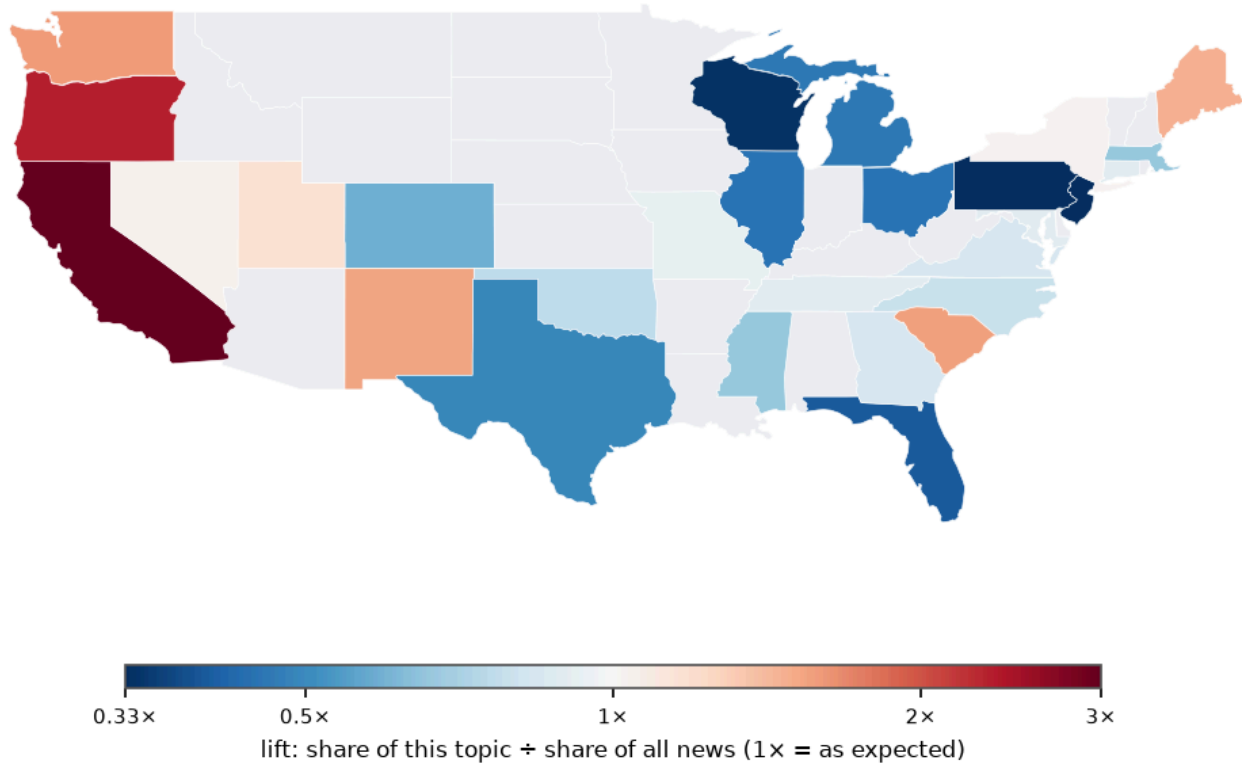


Figure 6. Lift of each US state's share of located earthquake articles against its share of all located US news, January 2023 – July 2026.

Attention moves sharply between countries from year to year, because it follows single events (Figure 7, right; Table 4). Measured as earthquake articles per 10,000 of each country's located news, Thailand rose from 10.53 in 2023 to 411.62 in 2025 (39.09 times) and Myanmar from 110.75 to 3,541.71 (31.98 times), in the year of the Myanmar earthquake. In 2025 earthquake articles made up 35.42% of all located Myanmar news. Greece rose 11.23 times, in the year of the Santorini-Amorgos swarm, and Russia 5.18 times, in the year of the Kamchatka earthquake. Turkey fell from 1,790.79 to 165.51, a fall of 90.76%, after the 2023 disaster, and Italy (0.26), France (0.29) and Nepal (0.41) also fell.

Rising country	2023	2025	Change	Falling country	2023	2025	Change
Thailand	10.53	411.62	39.09	Turkey	1,790.79	165.51	0.09
Myanmar	110.75	3,541.71	31.98	Italy	33.39	8.61	0.26
Greece	26.36	296.04	11.23	France	11.07	3.18	0.29
Russia	8.5	43.99	5.18	Nepal	328.25	133.05	0.41
Taiwan	35.06	114.3	3.26	Indonesia	186.35	88.2	0.47

Table 4. Countries whose earthquake coverage rose or fell most between 2023 and 2025, in articles per 10,000 of the country's located news (among countries with at least 100 located earthquake articles in 2025).

Earthquake coverage is negative in tone everywhere, but the gap against each country's own news varies. Among the countries in the tone table (data/country_tone.csv), it is largest in Japan (87.4% negative against 23.3% for Japanese news overall, a gap of 64.1 points), Greece (92.9% against 31.2%) and China (88.3% against 27.2%). It is smallest where news is already negative: Haiti (77.4% against 73.9%), Syria (86.4% against 80.3%) and Iran (82.1% against 72.5%).

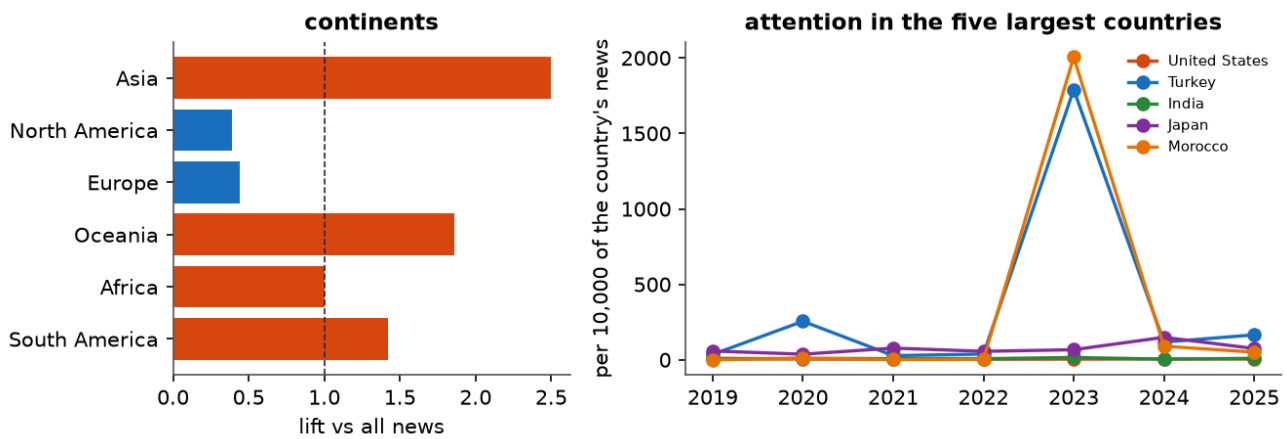


Figure 7. Left: lift by continent, January 2023 – July 2026. Right: earthquake articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Earthquake coverage is far more negative and more urgent than news in general (Figure 8). Among articles with a tone label, 76.2% are negative, against 33.6% across the index (2.27 times). A machine-assigned editorial priority rating puts 78.3% of earthquake articles at critical level (7 or higher), against 42.6% of all news (1.84 times).

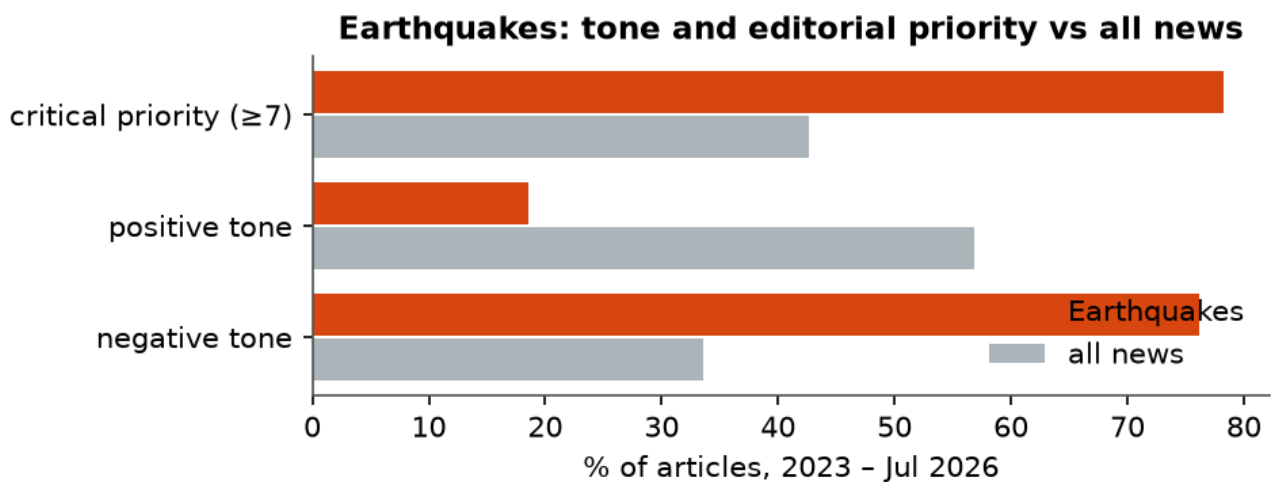


Figure 8. Tone and the share rated critical priority, earthquake articles vs all news, 2023 – Jul 2026.

Themes show what earthquake stories are about (Table 5). Damage assessment and relief is the most common (64.65% of themed articles). Tsunami early warning appears in 20.81%, 354.79 times its rate in all news, and seismology in 18.91%. Crustal deformation, tectonic uplift and fault-zone themes are small but highly specific to the topic.

Theme	Articles	Share %	Lift
seismology and earthquake dynamics	12,605	18.91	575.85
earthquake damage assessment and relief operations	43,099	64.65	514.01
crustal deformation and strain modeling	1,661	2.49	513.88
tectonic uplift and erosion interactions	2,110	3.16	482.77
plate tectonics and continental drift theories	1,522	2.28	379.25
tsunami early warning system effectiveness	13,872	20.81	354.79
landslide risk assessment and mitigation	1,296	1.94	332.86
natural disaster response and recovery efforts	19,307	28.96	106.78

Table 5. Themes most specific to earthquake coverage (lift against all themed news), January 2023 – July 2026. The organisation named most often is the United States Geological Survey (7,983 articles), whose magnitude estimates are quoted worldwide. Wire services follow (Reuters 3,618, the Associated Press 2,407), then the Red Cross and Red Crescent movement (1,357). Some tags are mis-assigned names, so the list is not analysed further. The Philippine Institute of Volcanology and Seismology (629) is the leading national agency after the US survey.

3.5 Research attention and invention

Research on earthquakes kept pace with the scientific literature but did not outgrow it. Papers with an earthquake term in the title made up 8.69 of every 10,000 papers in 2015 and 9.65 in 2025, a 1.11-fold change, while the total literature in the corpus grew by a factor of 1.0. The share fell to 6.93 in 2022 before recovering. Between 2015 and 2025, 60,920 such papers were published. The most-cited include work on injection-induced earthquakes, on earthquake-triggered chains of hazards and on machine learning for earthquake detection [1–4].

News attention does not track research attention (Figure 9). Research share moves slowly, while news share jumps with each great earthquake.

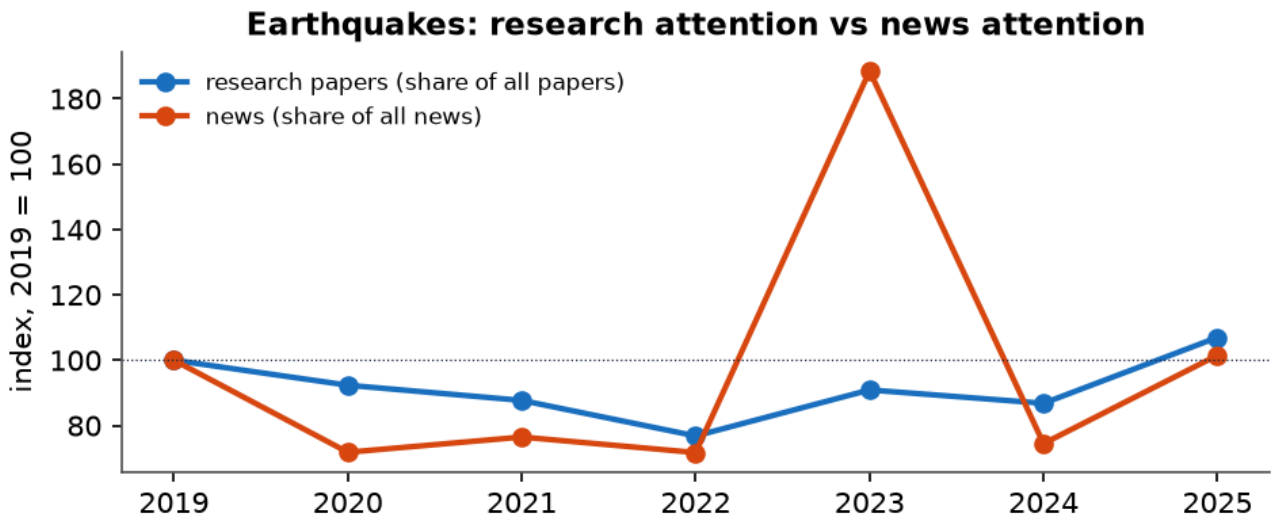


Figure 9. Research papers with earthquake terms in the title (share of all papers) and earthquake news (share of all news), each indexed to 2019 = 100.

Patent counts rose: 1,067 earthquake-related patent families were published in 2015 and 3,050 in 2024 (2.86 times), with a jump in 2020 (3,298) and a peak of 4,092 in 2021. All published patent families also rose, from 3,302,996 in 2015 to 5,556,813 in 2024, so part of the rise reflects growth in patenting overall. China's office holds 84.7% of office filings from 2015 to 2024, followed by South Korea (6.7%) and Japan (4.5%) (Figure 10). The leading technology classes are geophysical detection (G01V, 1,264 families, which includes earthquake sensors and early warning) and building structures (E04B, 789; E04H, 669).

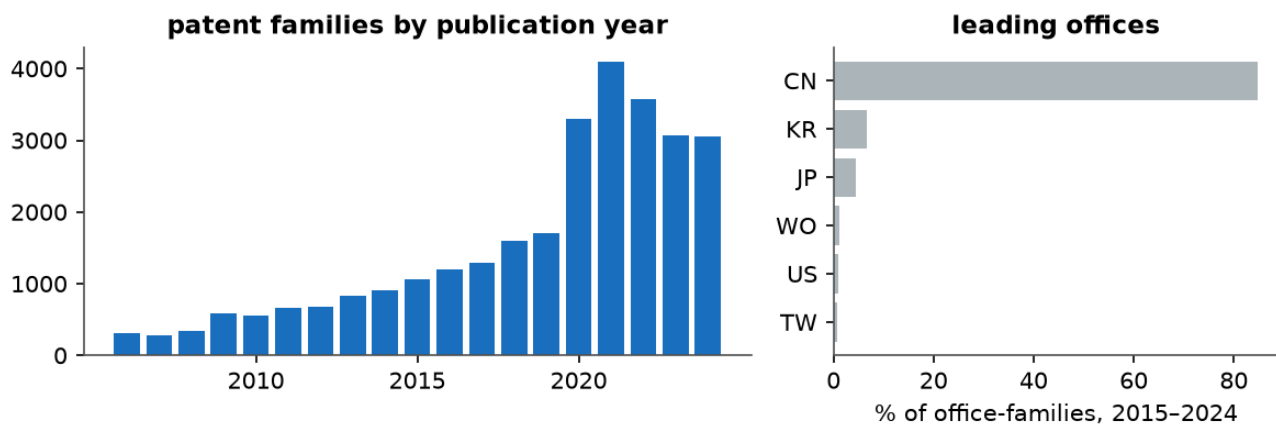


Figure 10. Earthquake-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of earthquakes. First, coverage measures attention, and attention is concentrated in single disasters. A single month, February 2023, carried more than a third of that year's coverage, and the share of a country's news can rise thirty- or forty-fold in the year a great earthquake strikes it or a neighbour. Second, raw shares mislead. The United States leads earthquake news in raw terms but is under-represented relative to its weight in the index, while countries on the Alpine-Himalayan belt and the Pacific rim carry most of the attention. Within India and the United States, the most over-represented places are the Himalayan and north-eastern states, Alaska, Hawaii and California, all in seismically active regions. Third, earthquake vocabulary is cleaner than that of many disaster topics. Only 3.53% of raw matches had to be removed, but the main false sense, the figurative "earthquake" for a shake-up, survives exclusion rules and makes up most of the remaining error.

Research, invention and news run on different clocks. Research share is nearly flat. Patent counts grew most and are concentrated in one office. News jumps with each disaster and falls back within a year. The dataset lets researchers link the three, for example to test whether earthquakes with heavy coverage are followed by research or patent activity in the affected country.

5. Limitations

- **Index availability.** 92.88% of the index was readable at build time, so counts are lower bounds. Shares and lifts are less affected, because the missing part is spread across topics.
- **Coverage after May 2026.** The index thins after May 2026, so 2026 is partial and is excluded from year comparisons. The July 2026 monthly share (53.4 per 10,000) rests on only 48,500 indexed articles and is not interpreted.
- **Matching.** Matching uses the article opening. Articles that mention earthquakes only later are missed, and 10% of matches are not about earthquakes, mostly figurative uses.
- **Machine labels.** Location, tone, priority and themes are machine-labelled. The city field is noisy and is not analysed. Place tags that came from ordinary words (such as "Congress", "Earth", "Winter", "Cloud", "Mobile" and "Hurricane", 714 words in all) were treated as unlocated in every location field, which removed 15.3% of city-tagged

articles. Two US state rankings in an earlier build (Kentucky high, Arizona low) came from such tags and are no longer reported. Organisation tags include some mis-tagged names.

- **Small baselines.** Country attention for Myanmar, Morocco and other countries with few located articles is sensitive to which outlets the index collects.
- **Outlet mix.** The index over-represents English-language outlets, which shapes geography.
- **Research and patent counts.** These match titles only. Office shares reflect filing practice; utility models are numerous in China.

Data availability

The dataset (article sample, monthly, country, continent and state tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 37,038 of 149,155 matched articles to 31 July 2026. Full article text, headlines, publishers, later articles and other topics are served by the Prism News API: <https://github.com/fliarbi/prism-news-api> (base URL <https://radar-api.fliarbi.com/news>). A worked query: `prism-news trends "earthquake" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

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