

Snowfall in the News, 2019-2026: Seasonality, Geography and Tone of Global Coverage of Snowfall, Snowstorms and Blizzards, 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 snowfall, snowstorms and blizzards were covered in a global news index from January 2019 to July 2026, using 84,266 de-duplicated articles, and set that coverage beside 2,068 research papers (2015–2025) and 435 patent families (2015–2024) on the same subject. Six results stand out:

1. **Seasonality.** On average 59.76% of each year's snowfall coverage appears in December, January and February. June, July and August hold 5.57%.
2. **Attention, not occurrence.** Snowfall's share of news ranged from 4.08 to 7.97 articles per 10,000 between 2019 and 2025, and was 39.4% lower in 2025 than in 2019. Its monthly share peaked in January 2026, the month of the January 23–27 North American winter storm, at 26.53 articles per 10,000.
3. **Geography.** The United States holds 54.77% of located snowfall news (lift 1.13) and India 23.08% (lift 1.75). Nepal (3.61) is the most over-represented country; Europe as a whole is under-represented (0.62). Within India, Himachal Pradesh (27.45), Jammu and Kashmir (10.45) and Sikkim (10.34) lead; within the United States, Nebraska (3.55), Maine (3.16) and Colorado (3.04) lead among states whose tags are not distorted by place-name errors.
4. **Tone and themes.** 67% of snowfall articles are negative in tone (all news: 33.6%). Travel disruption appears in 21.22% of themed articles, 150.47 times its rate in all news.
5. **Measurement.** 21.24% of raw matches for snowfall vocabulary were other senses of the words (a video-game company, a hacking group, a television series), figurative uses or templated alerts.
6. **Research and invention.** Snowfall papers fell from 0.34 to 0.23 per 10,000 papers between 2015 and 2025. Patent families are few (435 in ten years), and China's office held 65.9% of their filings.

Findings stated for citation

- **F1.** Between 2019 and 2025, an average of 59.76% of each year's snowfall news appeared in December–February, against 25% for an even spread.
- **F2.** January 2026 was the peak month for snowfall news, at 26.53 articles per 10,000.
- **F3.** The United States' share of located snowfall news (54.77%) was 1.13 times its share of all news; India's (23.08%) was 1.75 times.
- **F4.** Nepal (3.61) was the most over-represented country in snowfall news.

- **F5.** 67% of snowfall articles were negative in tone, 1.99 times the all-news share.
- **F6.** Travel disruption appeared in 21.22% of themed snowfall articles, 150.47 times its frequency in all news.
- **F7.** 21.24% of raw snowfall-vocabulary matches were other senses, figurative uses or templated alerts.
- **F8.** Snowfall papers' share of all papers in 2025 was 0.69 times its 2015 level.
- **F9.** China's office held 65.9% of filings of snowfall-related patent families (2015–2024).
- **F10.** Within India, Himachal Pradesh (27.45), Jammu and Kashmir (10.45) and Sikkim (10.34) had the most over-represented snowfall coverage.
- **F11.** Three Himalayan states held 76.19% of located Indian snowfall news.
- **F12.** Within the United States, Nebraska (3.55), Maine (3.16) and Colorado (3.04) had among the most over-represented snowfall coverage; New Jersey (0.16) and Tennessee (0.49) the least.
- **F13.** Snowfall's share of United Kingdom news rose 1.37-fold from 2023 to 2025.

1. Introduction

Snowfall is a routine part of winter in much of the Northern Hemisphere, and a hazard when it comes as a snowstorm or a blizzard. Heavy snow closes roads, airports and schools, cuts power and isolates mountain communities. News is often the first public record of such an event: where it struck, how much fell and what it disrupted. News coverage also shapes what the public treats as an emergency. Yet coverage is rarely measured as data in its own right. Weather services record snowfall. Bibliometric studies record research. Few sources record attention, meaning how much of the news snowfall 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 (21,109 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, an 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 snowfall when its opening text contains *snowfall(s)*, *snowstorm(s)*, *snow storm(s)*, *blizzard(s)*, *heavy snow*, *lake-effect snow* or *snow squall(s)* as whole words. The word "blizzard" has several common senses that are not weather, so four families of matches are excluded:

- the video-game company Blizzard and its games, a state-linked hacking group with "Blizzard" in its name, a dessert sold under the name, and a rare medical syndrome;
- the television series *Snowfall*;

- figurative uses ("a blizzard of paperwork", "a snowfall of shaved ice" was found in the check below);
- templated weather-alert bulletins, such as "an updated weather alert was issued ... for a snow squall".

Together these removed 22,724 of 106,990 raw matches (21.24%). One reviewer read 40 randomly drawn matched openings. 38 used the words in the meteorological sense (precision 95%), and in 31 (77.5%) snowfall or a snowstorm was the main subject. The two false positives were figurative.

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 snowfall articles divided by its share of all located articles. For states, the baseline is all located news from the same country. Place tags derived from ordinary words ("Congress", "Earth", "Winter", "Cloud", "Mobile", "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 snowfall, snowstorm, blizzard, snow storm, heavy snow, lake-effect snow or snow squall in the title. Repository deposits and gaming senses are excluded. Patent families (2006–2024) use the same title rule, with snow accumulation and snow load added, are counted once per filing office, and exclude games, toys and frozen desserts.

3. Results

3.1 How much and when

The index holds 84,266 snowfall articles from January 2019 to July 2026. Raw counts rose from 9,408 in 2019 to 13,028 in 2025, but the share of all news did not: 7.97 per 10,000 in 2019, 5.33 in 2024 and 4.83 in 2025 (Table 1). The low point was 2020, at 4.08 per 10,000, 48.81% below 2019. The index grew by more than a third that year, so the dip cannot be separated from changes in outlet mix. The highest monthly share was January 2026, at 26.53 per 10,000, followed by January 2019 (20.62) and February 2019 (19.96) (Figure 1).

Year	Snowfall articles	All articles in index	Per 10,000
2019	9,408	11,807,177	7.97
2020	6,614	16,230,014	4.08
2021	8,963	17,281,220	5.19
2022	11,161	19,115,515	5.84
2023	9,908	20,484,506	4.84
2024	12,418	23,311,896	5.33
2025	13,028	26,990,006	4.83

Table 1. Snowfall articles per year and as a share of the index. 2026 (January–July) is partial and omitted; it holds most of a snow season, so its share (9.73) is not comparable.

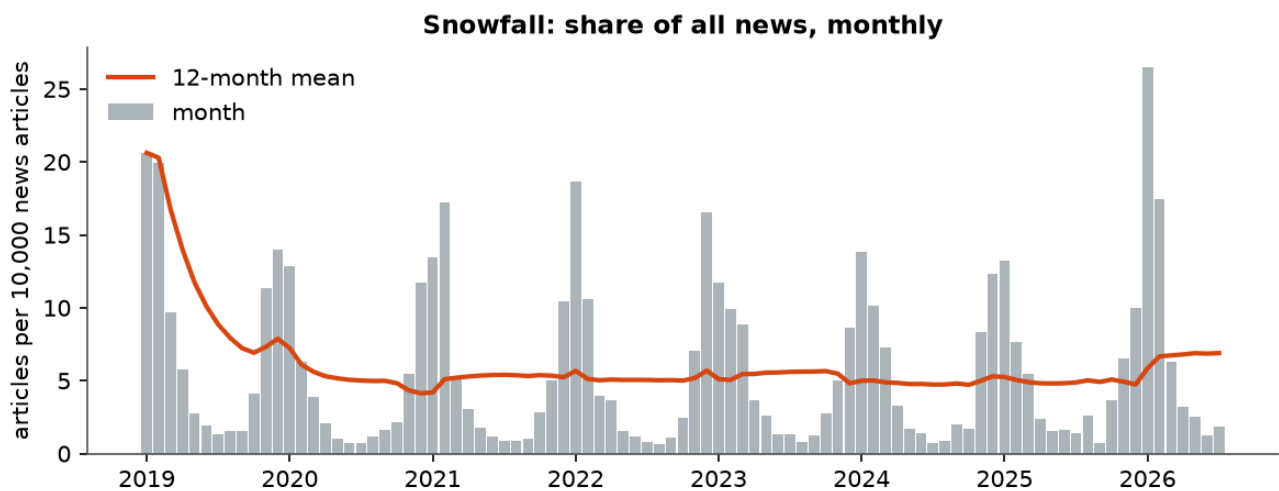


Figure 1. Snowfall coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean.

Coverage is strongly seasonal (Figure 2). January (25.08%), December (17.99%) and February (16.69%) together hold 59.76% of a typical year's snowfall articles. March (9.94%) and November (10.24%) make up most of the rest. July is the quietest month (1.58%), and the summer months hold 5.57% together. The pattern follows the Northern Hemisphere winter, which dominates the index.

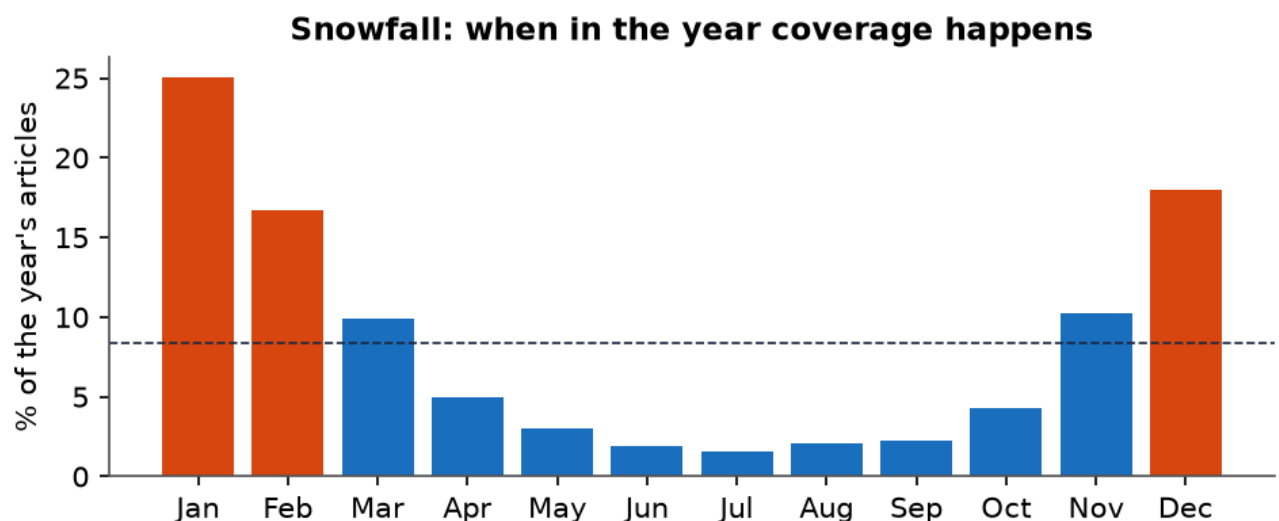


Figure 2. Share of each year's snowfall articles published in each month, averaged over 2019–2025. Dashed line = an even spread (8.3% per month).

3.2 Where

Between January 2023 and July 2026, 24,913 snowfall articles carried a primary location. The United States holds the largest raw share (54.77%), with a lift of 1.13. India's share (23.08%) comes with a lift of 1.75. Among the 17 countries with at least 100 located articles, the most over-represented is Nepal (3.61). Norway (2.43) also shows a high lift, but a hand check of the sample found that about a third of its tags come from "Auli", an Indian ski resort read as a place in Norway, so it is not interpreted. Austria (2.27), whose tags fall in Austrian towns such as Innsbruck, Villach and Bregenz, follows. Australia (0.29), France (0.46) and Russia (0.57) are the most under-represented (Table 2, Figure 3).

Country	Located snowfall articles	Share %	Lift vs all news
United States	13,645	54.77	1.13
India	5,751	23.08	1.75
United Kingdom	1,050	4.21	0.72
Canada	719	2.89	1.34
China	403	1.62	0.61
Japan	262	1.05	0.99
France	228	0.92	0.46
Germany	206	0.83	0.7
South Korea	179	0.72	1.2
Nepal	162	0.65	3.61
Australia	157	0.63	0.29
Italy	145	0.58	0.6
Austria	133	0.53	2.27
New Zealand	127	0.51	0.79
Norway	123	0.49	2.43
Switzerland	115	0.46	1.06
Russia	107	0.43	0.57

Table 2. The 17 countries with at least 100 located snowfall articles, January 2023 – July 2026, with lift against all located news. Norway's lift is inflated by place-name errors (see text).

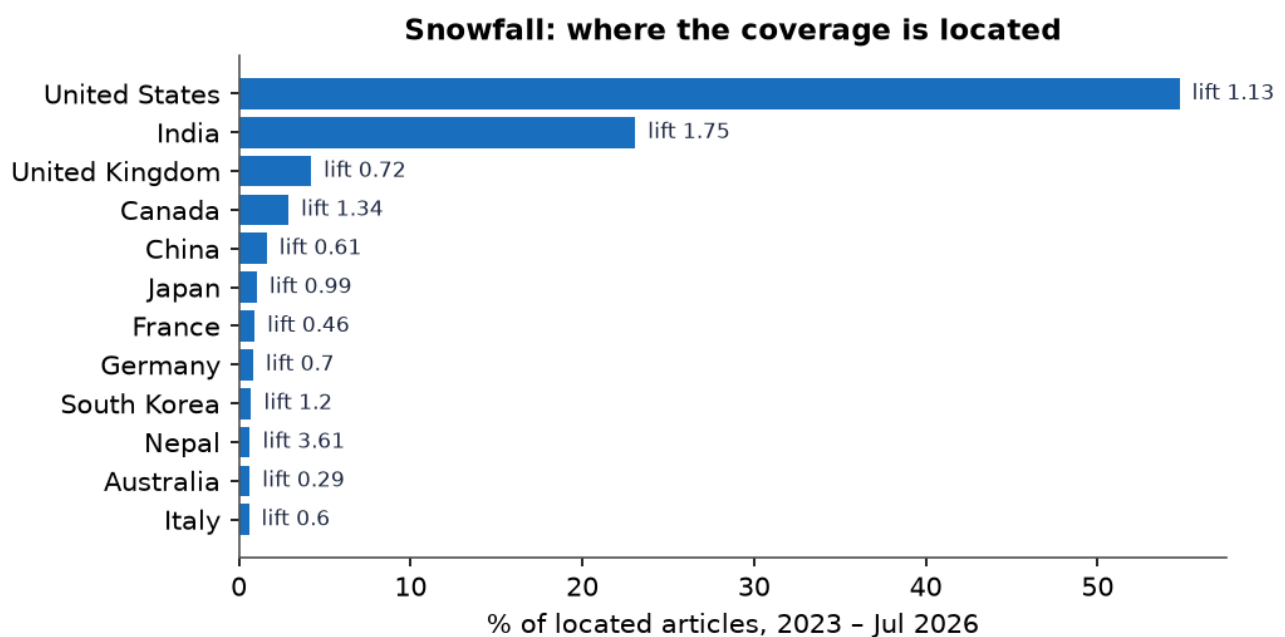


Figure 3. Leading countries by share of located snowfall articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Only 17 countries have at least 100 located snowfall articles, so most of the map is grey. Snowfall is strongly over-represented in the news of Nepal, Austria and India (Norway's high lift is a tagging artefact, see above), and mildly in Canada, South Korea, the United States and Switzerland. It is under-represented in Australia, France, Russia, Italy, China and Germany. By continent, North

America (1.18) and Asia (1.17) are over-represented, while Europe (0.62), Oceania (0.42), Africa (0.21) and South America (0.18) are not (Figure 7, left). Asia's lift comes mostly from India and Nepal.

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

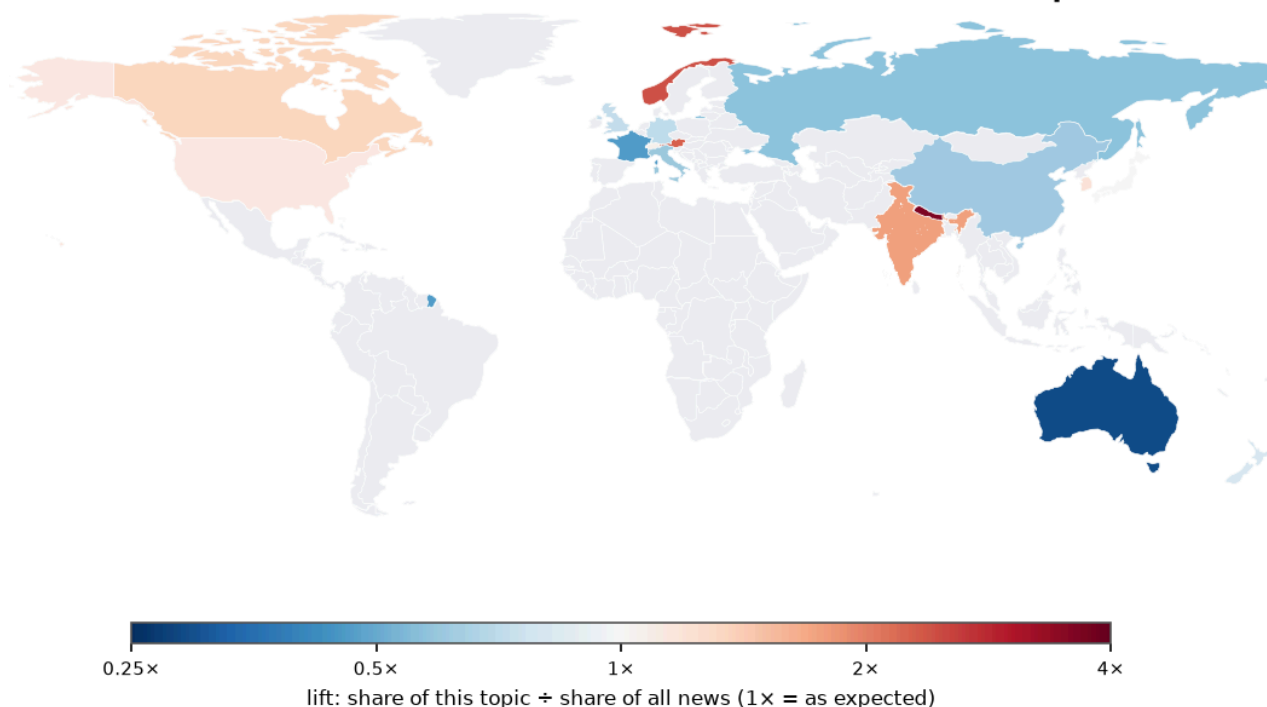


Figure 4. Lift of each country's share of located snowfall articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within countries, the picture is sharper (Table 3). In India, snowfall coverage concentrates in the Himalaya. Measured against each state's share of Indian news, Himachal Pradesh (27.45), Jammu and Kashmir (10.45), Sikkim (10.34), Uttarakhand (6.53) and Ladakh (6.15) are the most over-represented. Himachal Pradesh, Jammu and Kashmir and Uttarakhand alone hold 76.19% of located Indian snowfall news (4,163 of 5,464 articles). Delhi has 454 articles but a lift of only 0.64, and Uttar Pradesh (0.22) and Madhya Pradesh (0.37) are far below their weight in Indian news (Figure 5). In the United States, the raw lift table is led by North Dakota (5.68), but this lead is a tagging artefact: in the sample, about a third of North Dakota tags come from "New England" read as the city of that name in North Dakota. Among the other states, Nebraska (3.55), Maine (3.16), Colorado (3.04), Minnesota (3.01) and New Hampshire (2.88) are the most over-represented, which fits the northern Great Plains, the Rockies, the north-central states and New England. Wisconsin (2.38), whose tags now fall in cities such as Milwaukee, Madison and Green Bay, is tenth. New Jersey (0.16), Tennessee (0.49) and Florida (0.5) are among the least represented (Figure 6). New York holds the most US articles (1,906) and has a lift of 1.28.

India: state	Articles	Lift	United States: state	Articles	Lift
Himachal Pradesh	2,022	27.45	North Dakota	338	5.68
Jammu and Kashmir	1,341	10.45	Nebraska	191	3.55
Sikkim	60	10.34	Maine	173	3.16
Uttarakhand	800	6.53	Colorado	752	3.04
Ladakh	80	6.15	Minnesota	612	3.01
Delhi	454	0.64	New Hampshire	105	2.88
Rajasthan	95	0.5	Rhode Island	54	2.74
Haryana	70	0.5	Florida	343	0.5
Madhya Pradesh	59	0.37	Tennessee	142	0.49
Uttar Pradesh	150	0.22	New Jersey	395	0.16

Table 3. States with the highest and lowest lift in snowfall coverage, January 2023 – July 2026 (states with at least 50 articles). North Dakota is shown as tagged but is inflated by place-name errors (see text); the US map carries the same artefact. Lift = the state's share of the country's located snowfall articles ÷ its share of all located news from that country.

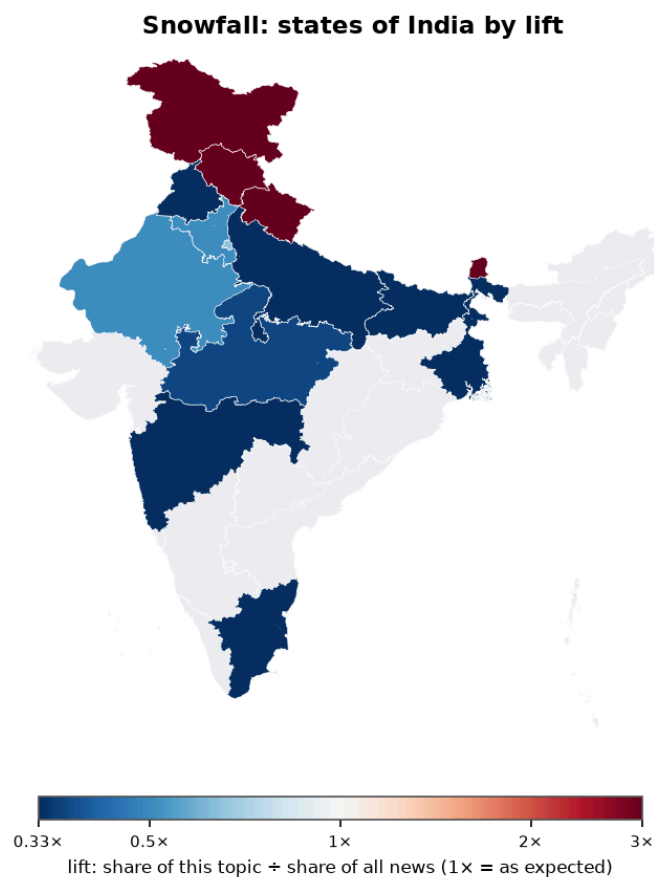


Figure 5. Lift of each Indian state's share of located snowfall articles against its share of all located Indian news, January 2023 – July 2026. Official outline.

Snowfall: states of United States by lift

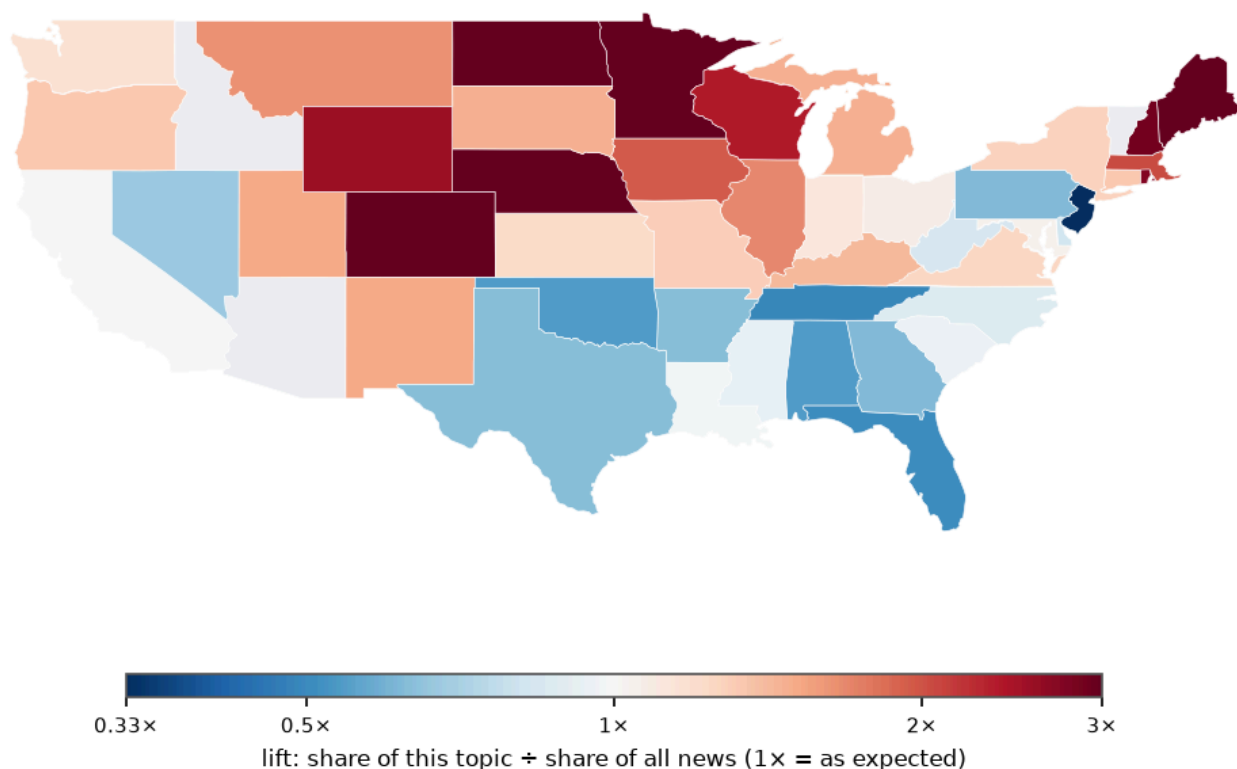


Figure 6. Lift of each US state's share of located snowfall articles against its share of all located US news, January 2023 – July 2026.

Attention also moves between countries from year to year (Figure 7, right). Measured as snowfall articles per 10,000 of each country's located news, among the five countries with the most located articles, Canada rose from 4.13 in 2023 to 7.83 in 2025 (1.9 times), the United Kingdom from 3.73 to 5.11 (1.37 times) and the United States from 5.8 to 7.12 (1.23 times). India fell from 10.8 to 8.13 (0.75 times) and China from 6.16 to 4.09 (0.66 times) over the same years. Among smaller countries, Nepal rose from 16.47 to 30.15 and Austria fell from 24.9 to 5.63, but their yearly counts are small. India's attention was highest in 2019 (19.44), as was Canada's (16.76); Canada's 2023 level was its lowest of the period, so its rise is partly a return from a low year.

Snowfall coverage is more negative than the country's own news in each of the eight countries with enough labelled articles. Relative to each country's news overall, the gap is largest in Japan (72.9% negative against 23.3%, 3.13 times), China (82% against 27.2%, 3.01 times) and Canada (68.2% against 27.1%, 2.52 times). It is smallest in France (60.5% against 47.6%, 1.27 times). The ratio is 2.21 in Germany, 2.18 in the United Kingdom, 2.02 in the United States and 1.7 in India.

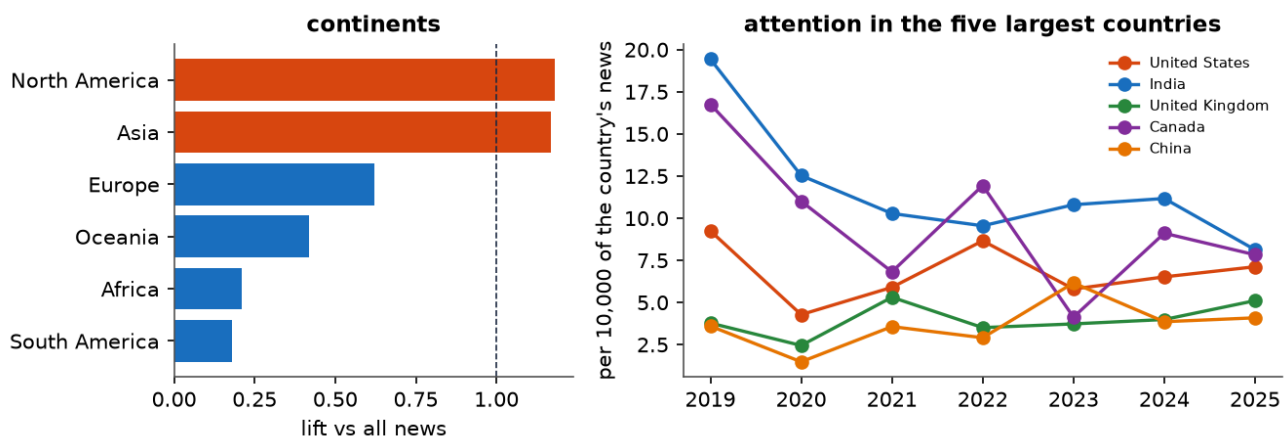


Figure 7. Left: lift by continent, January 2023 – July 2026. Right: snowfall articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Snowfall coverage is more negative than news in general, but only slightly more urgent (Figure 8). Among articles with a tone label, 67% are negative, against 33.6% across the index (1.99 times). Editorial priority puts 48% of snowfall articles at critical level (7 or higher), against 42.6% of all news (1.13 times). The small priority gap is consistent with much snowfall news being forecasts and seasonal travel notices rather than emergency reporting.

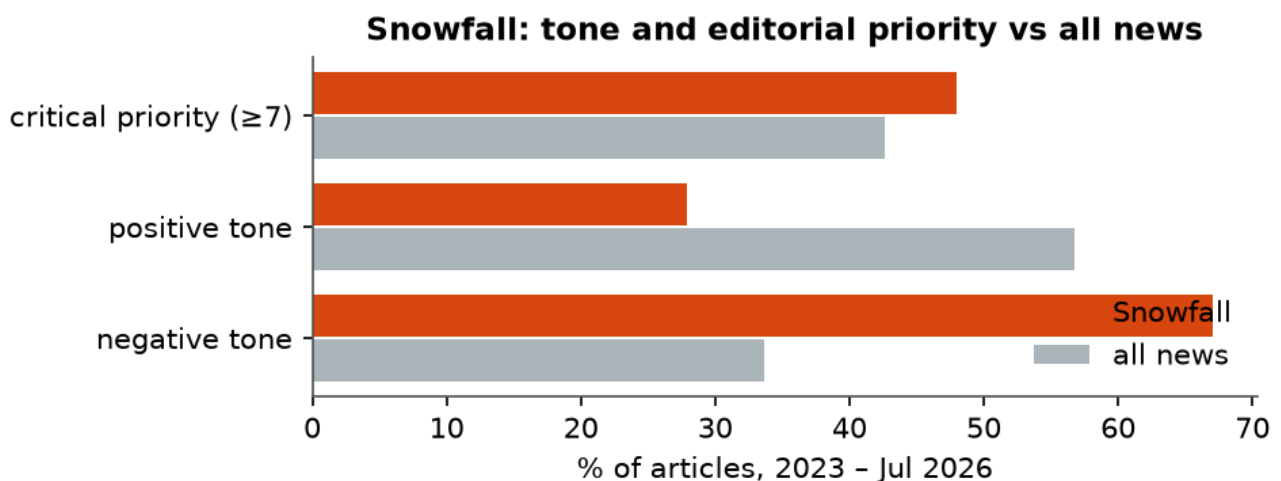


Figure 8. Tone and the share rated critical priority, snowfall articles vs all news, 2023 – Jul 2026.

Themes show what snowfall stories are about (Table 4). Snowstorm and blizzard alerts (57.62% of themed articles) and winter preparedness (53.51%) are the most common. Travel disruption appears in 21.22%, 150.47 times its rate in all news. Avalanche and landslide rescue appears in 3.61%, 42.02 times its rate.

Theme	Articles	Share %	Lift
snowstorm and blizzard alerts	17,772	57.62	331.6
winter weather preparedness	16,505	53.51	319.06
weather-related travel disruptions	6,544	21.22	150.47
historical weather comparisons	1,403	4.55	95.82
ski resort management and operations	119	0.39	91.98
severe weather warnings	7,721	25.03	50.17
seasonal weather trends	641	2.08	44.39
avalanche and landslide rescue missions	1,114	3.61	42.02

Table 4. Themes most specific to snowfall coverage (lift against all themed news), January 2023 – July 2026.

The organisations named most often are weather agencies: the National Weather Service (1,974 articles), India's meteorological department (1,160 under its abbreviation and 572 under its full name), the Met Office (967) and Environment and Climate Change Canada (250). Wire services, social platforms and the National Football League (316) also rank high, which reflects how snowfall news is sourced and what it disrupts.

3.5 Research attention and invention

Research on snowfall did not keep pace with the scientific literature. Papers with snowfall terms in the title fell from 236 in 2015 (0.34 per 10,000 papers) to 163 in 2025 (0.23 per 10,000), so the topic's share in 2025 was 0.69 times its 2015 level. Between 2015 and 2025, 2,068 such papers were published (3,820 since 2000). The most-cited deal with Arctic sea ice and winter snowfall, regional climate simulation of snowfall, and the response of snowfall extremes to warming [1–4].

News attention and research attention both fell after 2019 (Figure 9), with different shapes. The news share swings with individual winters. The research share has declined gradually since 2018. Title matching may miss snow research published under broader terms, such as snow cover or precipitation.

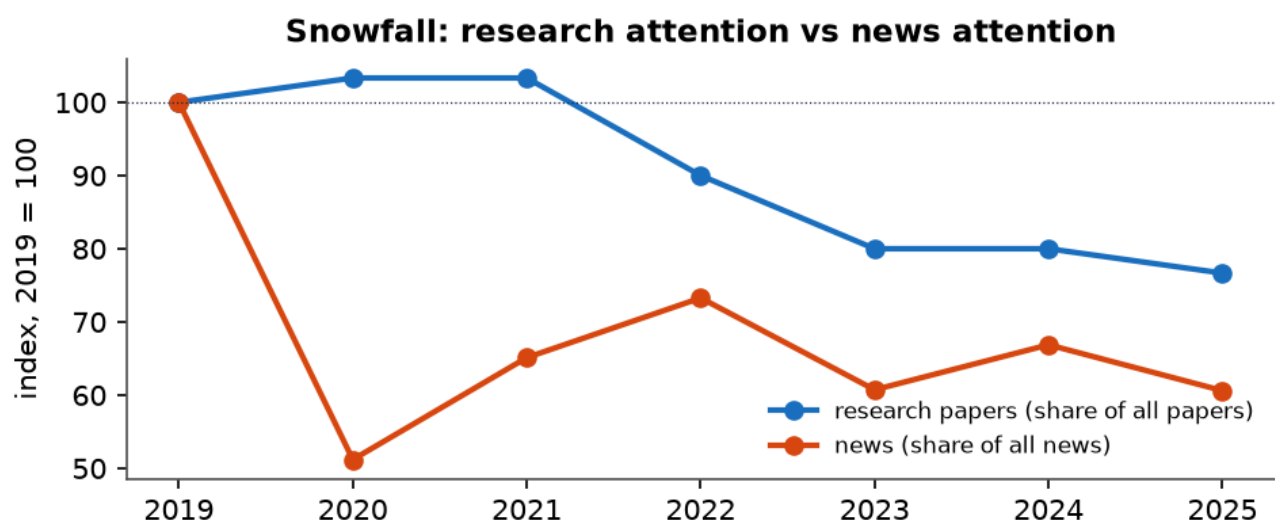


Figure 9. Research papers with snowfall terms in the title (share of all papers) and snowfall news (share of all news), each indexed to 2019 = 100.

Patenting is small. 34 snowfall-related patent families were published in 2015 and 54 in 2024 (1.59 times), with a high of 73 in 2020. China's office holds 65.9% of families from 2015 to 2024, followed by Japan (13.7%) and South Korea (10%) (Figure 10). The leading technology classes are meteorological instruments and forecasting (G01W, 34 families),

climate-change adaptation technologies (Y02A, 30), photovoltaic systems (H02S, 10, for snow on solar panels) and snow removal (E01H, 8).

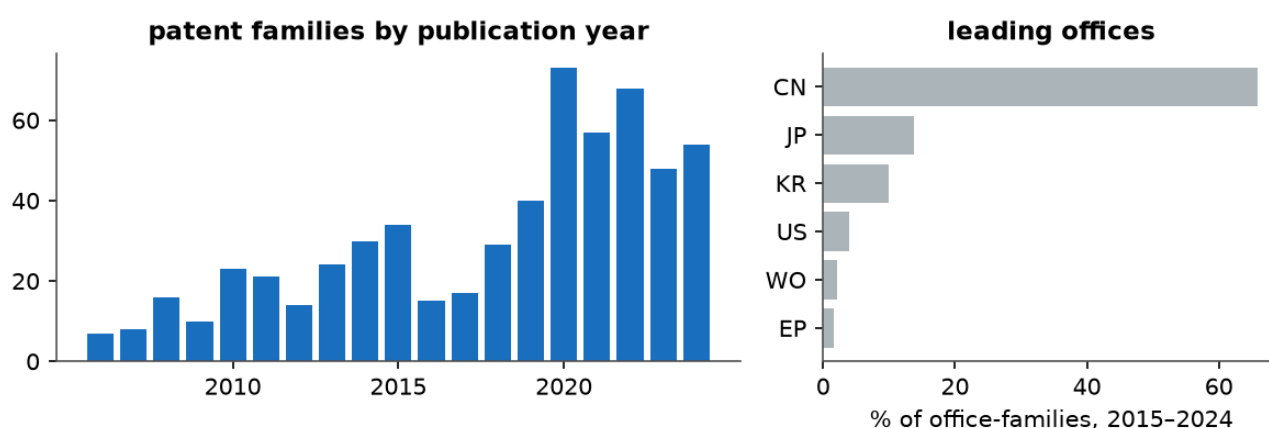


Figure 10. Snowfall-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of snowfall. First, coverage measures attention. The 2020 trough and the January 2026 peak are measures of attention, shaped by competing news, outlet mix and where storms struck, not of the amount of snow that fell. Second, geography in the news follows the press as much as the climate. The United States and India together hold more than three quarters of located snowfall news, while Nepal shows the highest lift on a small count. Within India, a handful of Himalayan states account for most coverage, and within the United States, the northern Great Plains, the Rockies, the north-central states and New England. Location tags carry errors: ordinary words read as places had to be treated as unlocated, and remaining place-name errors can still make a small place look like a snow hotspot. Third, a keyword search for "blizzard" returns a great deal that is not weather. About a fifth of raw matches were a games company, a hacking group, a television series, figurative language or automated alerts.

Research, invention and news run on different clocks. News follows the winters and the big storms. Research on snowfall as a named subject is a shrinking share of science. Patents are few and concentrated in East Asia, with forecasting instruments and snow on solar panels among the leading uses. The dataset lets researchers link these records, for example to test whether heavily covered storms are followed by research or patent activity in the affected region.

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, and January–July 2026 holds most of a snow season, so 2026 is excluded from year comparisons.
- **Matching.** Matching uses the article opening. Articles that mention snowfall only later, or that use "snow" alone, are missed, and 5% of matches are not about snowfall.
- **Machine labels.** Location, tone, priority and themes are machine-labelled. Place tags derived from ordinary words ("winter", "cloud", "mobile") were treated as unlocated in every location field, which removed 15.3% of city-tagged articles and lowers located

counts. The city field is still noisy and is not analysed. Some place-name errors remain in the state and country fields: "New England" is placed in North Dakota and "Auli" in Norway, so the lifts of those places are not interpreted.

- **Outlet mix.** The index over-represents English-language and Northern Hemisphere outlets. This shapes both seasonality and geography.
- **Research and patent counts.** These match titles only. Patent counts are small, so yearly changes are noisy; office shares reflect filing practice.

Data availability

The dataset (article sample, monthly and country tables, state tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 21,109 of 84,239 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 "snowfall" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

References

1. Jiping Liu et al. (2012). Impact of declining Arctic sea ice on winter snowfall. *Proceedings of the National Academy of Sciences*. <https://doi.org/10.1073/pnas.1114910109>
2. Roy Rasmussen et al. (2011). High-Resolution Coupled Climate Runoff Simulations of Seasonal Snowfall over Colorado: A Process Study of Current and Warmer Climate. *Journal of Climate*. <https://doi.org/10.1175/2010jcli3985.1>
3. Paul A. O’Gorman (2014). Contrasting responses of mean and extreme snowfall to climate change. *Nature*. <https://doi.org/10.1038/nature13625>
4. John P. Krasting et al. (2013). Future Changes in Northern Hemisphere Snowfall. *Journal of Climate*. <https://doi.org/10.1175/jcli-d-12-00832.1>
5. John Turner et al. (2019). The Dominant Role of Extreme Precipitation Events in Antarctic Snowfall Variability. *Geophysical Research Letters*. <https://doi.org/10.1029/2018gl081517>
6. Rob W. Andrews et al. (2013). The effects of snowfall on solar photovoltaic performance. *Solar Energy*. <https://doi.org/10.1016/j.solener.2013.02.014>
7. Jianqi Sun et al. (2010). Spatial-temporal features of intense snowfall events in China and their possible change. *Journal of Geophysical Research Atmospheres*. <https://doi.org/10.1029/2009jd013541>
8. Fliar BI (2026). *Snowfall in the News 2019–2026: article-level dataset and coverage tables*. Prism News API. <https://github.com/fliarbi/prism-news-api>