

Analysis of the dynamics of internet searches for the word “Antarctica” in the Gateway Cities

Similarities and differences of the 5 geographical points

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Introduction

The five Gateway Cities — Punta Arenas, Ushuaia, Hobart, Christchurch and Cape Town — each play a distinct functional role in the global Antarctic system: tourism, science, logistics, or institutional identity. This study asks whether that diversity is reflected in what their populations search for online, and whether Antarctica is discussed more in these cities than in other major cities worldwide.

Methodology

- Google Trends, monthly data, Jul 2021–Jun 2026
- Regional proxy used, since Trends has no city-level granularity
- Term selected by language/official usage: Antártica (Chile) · Antártida (Argentina) · Antarctica (Australia, NZ, South Africa)
- Cross-language analysis (Spanish vs. English) for Punta Arenas and Ushuaia
- Peaks cross-checked against documented news events

Control cities (global powers)

- New York, London — Antarctica (English)
- Moscow — Антарктида (Russian)
- Tokyo — 南極 (Japanese)
- Delhi — Antarcctica (English; Hindi version yielded no usable data)
- Beijing selected but excluded — no usable data (see Limitations)

Three functional profiles

Tourist-seasonal — Ushuaia
Extreme seasonality; vocabulary dominated by cruises and tour operators.

Scientific-logistical — Hobart, Christchurch
No marked seasonality; peaks tied to station resupply and medical evacuations.

Institutional-identity — Punta Arenas (Spanish)
Moderate seasonality; vocabulary centered on the region's official name.

Regions used as proxy

Gateway City	Region	Code
Punta Arenas	Magallanes y Ant. Chilena	CL-MA
Ushuaia	Tierra del Fuego, Is. Atl. Sur	AR-V
Hobart	Tasmania	AU-TAS
Christchurch	Canterbury	NZ-CAN
Cape Town	Western Cape	ZA-WC

Search vocabulary: three axes

- Institutional-identity (Spanish): "Antártica chilena", "Antártida argentina" — almost absent in English
- Tourist-commercial (English, all 5 regions): cruises, named operators, flights, access costs
- Scientific-labor: strongest in Tasmania and Christchurch — research stations, job postings

Methodological limitations

- Minimum reporting threshold: zero values may reflect low volume, not zero interest
- Regional proxy used since Trends has no city-level data
- Values are relative, not comparable in absolute volume — except in the shared-scale comparisons in this poster
- Beijing excluded: top query for “南極” was a clothing brand (Nanjiren); the formal term “南极洲” returned zero data — likely reflecting Google’s low market share in China
- Delhi Hindi search returned near-zero data; English series used instead

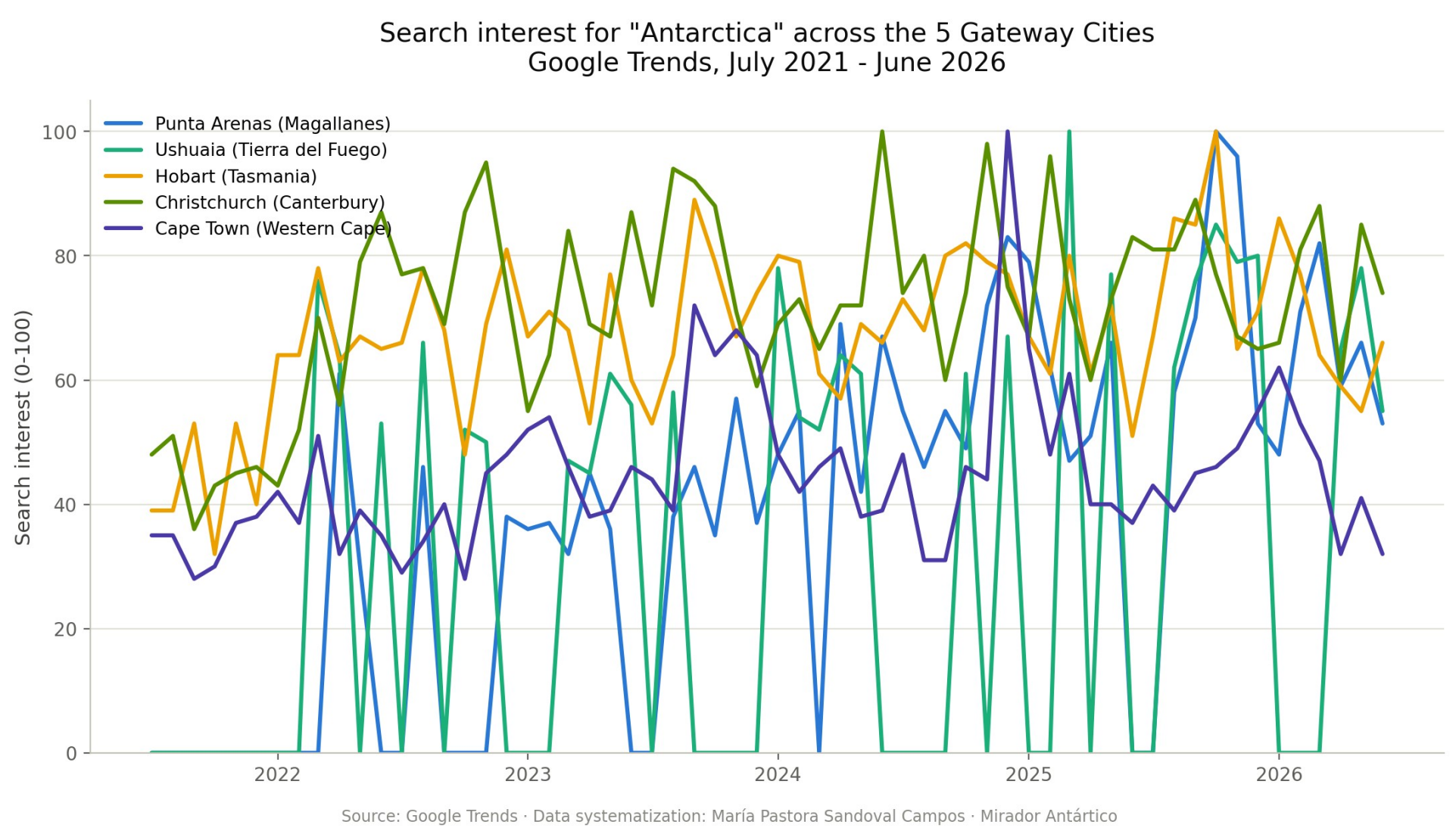
Full paper & explanatory video



Scan to download the full paper (PDF) and watch a short video explaining the study — narrated in English, with Spanish subtitles.

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Search interest across the 5 Gateway Cities



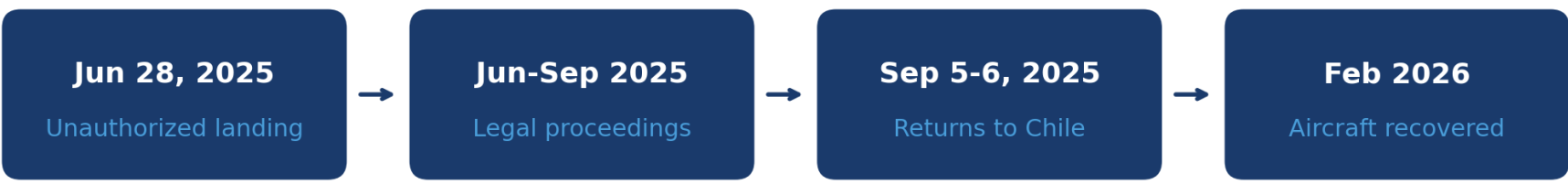
All five regions show an upward trend across the five-year window, but seasonality differs sharply — continuous year-round interest in Tasmania, Canterbury and Western Cape versus pronounced gaps in Magallanes and Tierra del Fuego.

Significant peaks and their causes

- Magallanes (ES), Oct–Nov 2025: Ethan Guo case — unauthorized landing, detention, legal proceedings
- Magallanes (EN), Jan–Feb 2026: cruise season + international coverage of the Guo case's resolution
- Tasmania, Oct 2025: start of Antarctic season, Casey/Davis resupply
- Canterbury, Jun 2024: emergency medical evacuation, depths of austral winter
- Western Cape, Dec 2024: historic Cape Town–Wolf's Fang flight (Airbus A340)

Tracer case: Ethan Guo

An American pilot and influencer detained after landing without authorization in Chilean Antarctica. The case's prolonged development generated search peaks at different times depending on language — the same event, two different audiences.



Cape Town: a hybrid case

The sharpest, most isolated peak of the five regions (Dec 2024) is tied to one event — the Wolf's Fang flight. Its top query, "what is antarctica", suggests an audience with less prior familiarity than in the other four Gateway Cities.

Year-over-year: 2024 vs. 2025

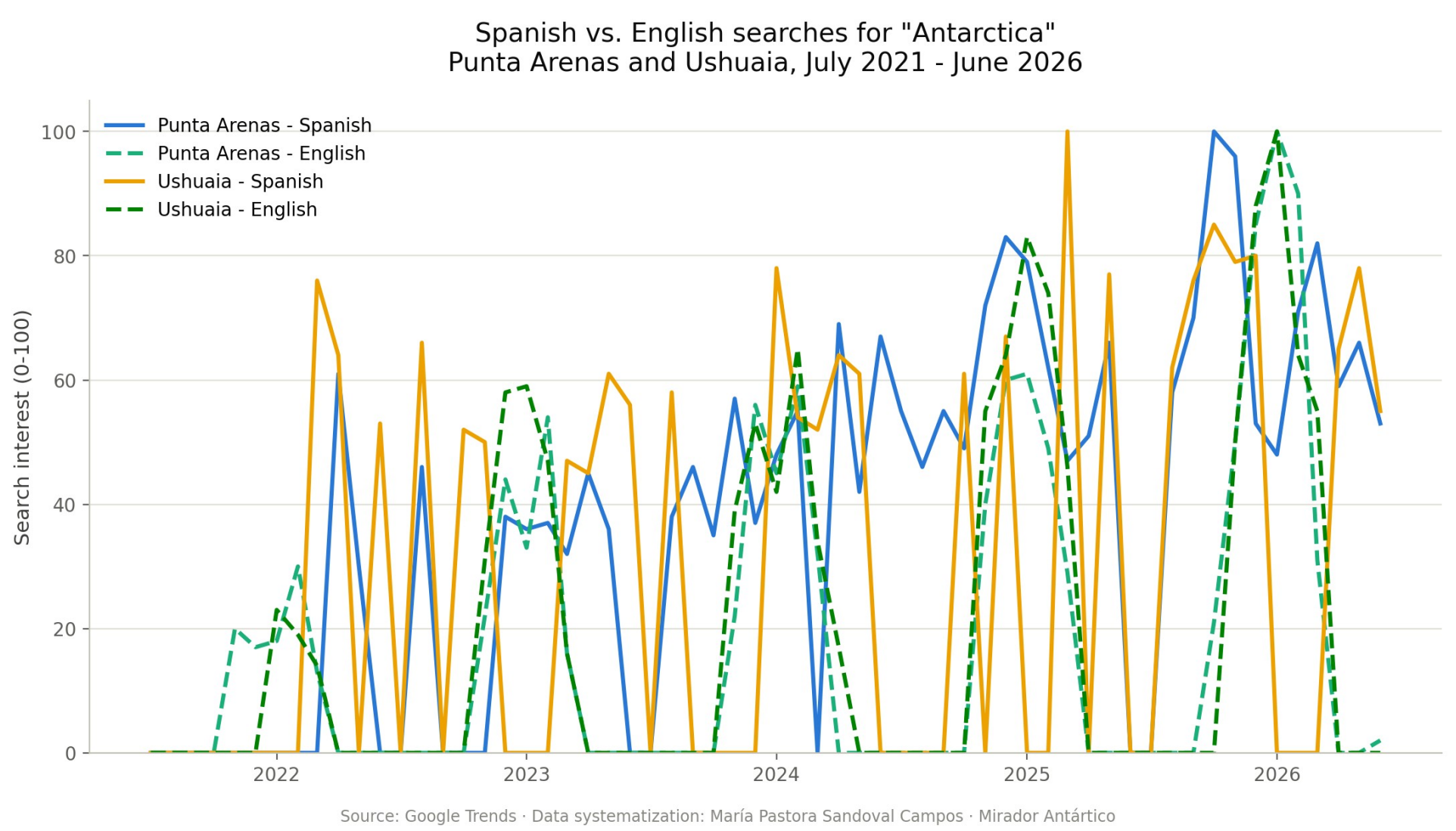
Region	2024 avg	2025 avg	Change
Magallanes (ES)	53.4	56.8	+6.4%
Magallanes (EN)	19.7	24.6	+25.0%
Tierra del Fuego (ES)	36.4	46.6	+27.9%
Tasmania	72.6	72.2	-0.6%
Canterbury	76.0	76.0	0.0%
Western Cape	46.8	47.3	+1.1%

Growth concentrates in the Spanish-speaking regions, coinciding with the Ethan Guo case; science-institutional regions stayed essentially flat.

Top query per region

Region	Top query
Magallanes	antártica chilena
Tierra del Fuego	antártida argentina
Tasmania	australia antarctica
Canterbury	antarctica nz
Western Cape	what is antarctica

Spanish vs. English within the same cities



Key finding: language outweighs location

English searches in Punta Arenas and Ushuaia are nearly indistinguishable — same seasonality, same vocabulary. Their Spanish versions share neither.

Punta Arenas vs. global powers (shared scale)

City	Weekly avg	Max	% weeks active
Magallanes	13.4	100	19.5%
New York	4.1	11	100%
London	4.1	9	100%
Moscow	2.2	6	85.9%
Tokyo	4.5	16	100%

Global powers show constant, low-intensity curiosity; Magallanes is silent 80% of weeks but peaks far above any of their five-year ceilings when it speaks.

5 Gateway Cities (shared scale): a correction

City	Weekly avg	Max	% weeks active
Canterbury	10.4	24	87.8%
Tasmania	10.0	31	71.8%
Magallanes	9.5	100	18.7%
Western Cape	2.6	8	80.9%
Tierra del Fuego	1.3	77	2.7%

On a true shared scale, Tierra del Fuego and Western Cape are far smaller than the other three — correcting a magnitude reading implied by independently-normalized charts.

Cultural findings in control cities

- Tokyo: “南極物語” (1983 film) and sled dogs Taro/Jiro — heritage-driven interest
- Delhi: exam-style queries matching a school English text on Antarctica; shares a Doraemon film reference with Tokyo
- Moscow: institutional — Vostok station, no tourist vocabulary
- London/New York: “what is antarctica” and cruise vocabulary, respectively

Discussion

Gateway Cities and global powers show qualitatively distinct patterns: constant low-intensity curiosity abroad versus prolonged silence punctuated by episodic intensity in Magallanes. Being a Gateway City is necessary but not sufficient for high search volume — local population, media coverage and tracer events like Ethan Guo modulate it.

Conclusion

Digital interest in Antarctica depends not only on where the search happens, but on what language it happens in, and on episodic events — evidence that each Gateway City hosts distinct, overlapping audiences.

Future research

- Extend to cities with emerging Antarctic ties
- Explore city-level data as platforms improve granularity
- Investigate unexplained local peaks (e.g. Tierra del Fuego, Mar 2025)
- Explore alternative sources (e.g. Baidu Index) to cover China

Selected references

Google. (2026). Google Trends [data set]. trends.google.com

T13. (2026, Feb 15). Ethan Guo recuperará su avión...

Flightradar24. (2024, Dec 23). Cape Town to Antarctica by private A340.

Full reference list in the accompanying paper.