Google Trends Rising Search Analysis

1. Project Overview

This project analyses ‘rising Google search terms’ to understand how search interest behaves over time and to distinguish between short-term spikes and sustained growth trends.

Rather than focusing solely on ranking position, the analysis evaluates:

- How long a term remains active across weeks, and
- How strongly search interest grows during that period.

The project demonstrates a Power BI-centric analytics workflow using:

- BigQuery (data source)
- Excel (data validation only)
- Power BI (DAX measures, visualisation, dashboard)
- PDF reporting for insight communication

2. Dataset Description

The dataset is sourced from the Google Trends Public Dataset in BigQuery and contains rising search terms across multiple regions.

Dataset scope:

- Time period: 1 year
- Rows: approximately 17,000
- Geographic level: DMA (Designated Market Area)

Columns included:

- week
- dma_name
- term
- rank
- percent_gain

The dataset includes only rising search terms, meaning all terms have experienced measurable growth during the selected period.

3. Data Preparation

Key preparation steps included:

- Exporting data from BigQuery as a CSV file
- Validating structure and data types in Excel
- Removing obviously unusable values
- Ensuring consistent formatting before analysis

Excel was used only for validation purposes.

No pivot tables, KPI calculations, or analysis were performed in Excel.

All analytical logic and metrics were implemented in Power BI using DAX measures.

4. Exploratory Data Analysis (EDA)

4.1 Overall Trend Behaviour

Initial exploration showed that rank movement across weeks was minimal for most terms.

As a result, rank position alone was not sufficient to distinguish meaningful trend behaviour.

4.2 Persistence (Active Weeks)

Terms varied in how long they remained active:

- Some terms appeared for only a small number of weeks
- Others remained active consistently across the observed period

Insight:

Persistence provides a strong signal for identifying sustained interest versus temporary spikes.

4.3 Growth Intensity (Percent Gain)

Average percent gain varied significantly across terms, even among those with similar persistence.

Insight:

High percent gain does not necessarily indicate long-term relevance; some high-growth terms are short-lived.

4.4 Persistence vs Growth

Comparing active weeks against average percent gain revealed distinct trend patterns:

- Short-lived spikes (high intensity, low persistence)

- Sustained trends (moderate to high intensity over many weeks)

Insight:

Persistence and growth intensity together provide clearer differentiation than rank movement alone.

5. Key Findings

- Rank movement across weeks was limited within the filtered dataset.
- Persistence (active weeks) is a strong indicator of sustained trend behaviour.
- Terms with similar persistence levels can show very different growth intensity.
- High growth does not always imply long-term relevance.
- Combining persistence and intensity provides a clearer view of trend behaviour than rank alone.

6. Recommendations

- Use persistence-based metrics to distinguish sustained trends from short-term spikes.
- Avoid relying solely on rank when analysing rising search terms.
- Prioritise trends that demonstrate both sustained activity and meaningful growth.
- Extend analysis with broader rank ranges or longer time periods for deeper trend movement analysis.

7. Limitations

- The dataset includes only rising search terms.
- Rank movement is limited within the selected scope.
- Analysis is descriptive and does not include forecasting.
- External drivers of search behaviour (events, media, seasonality) are not explicitly modelled.

8. Power BI Dashboard Overview

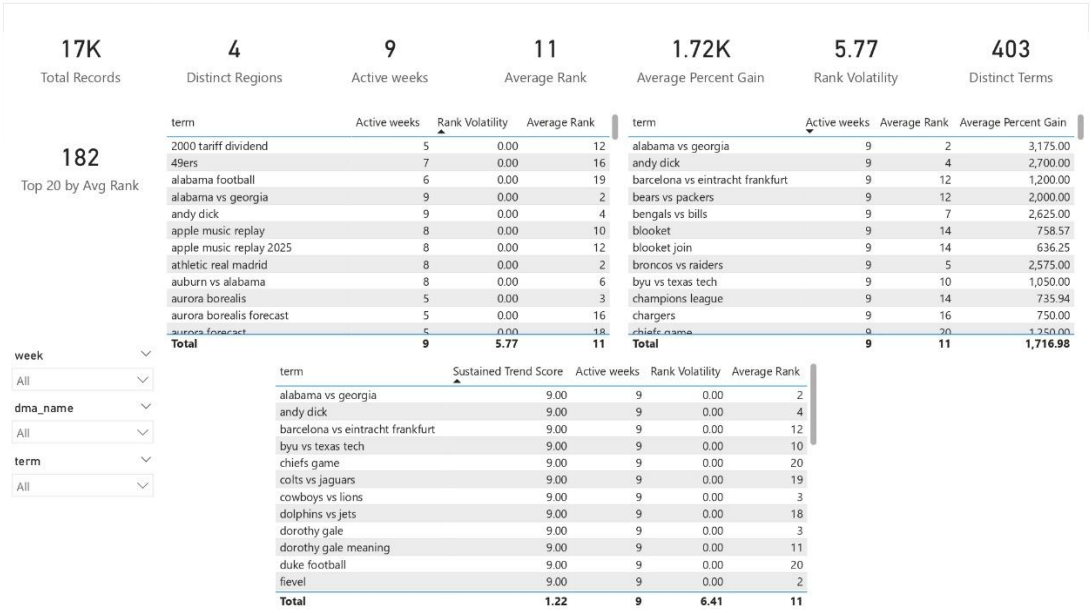
8.1 Short Description

The Power BI dashboard provides an interactive view of rising search term behaviour, focusing on persistence versus growth intensity.

Users can explore how different terms behave across weeks to identify short-lived spikes and sustained trends.

8.2 What users can see

- Persistence vs growth intensity scatter plot
- Supporting table with key metrics
- Week-based filtering for time exploration
- Dashboard overview



17K	4	9	11	1.72K	5.77	403
Total Records	Distinct Regions	Active weeks	Average Rank	Average Percent Gain	Rank Volatility	Distinct Terms

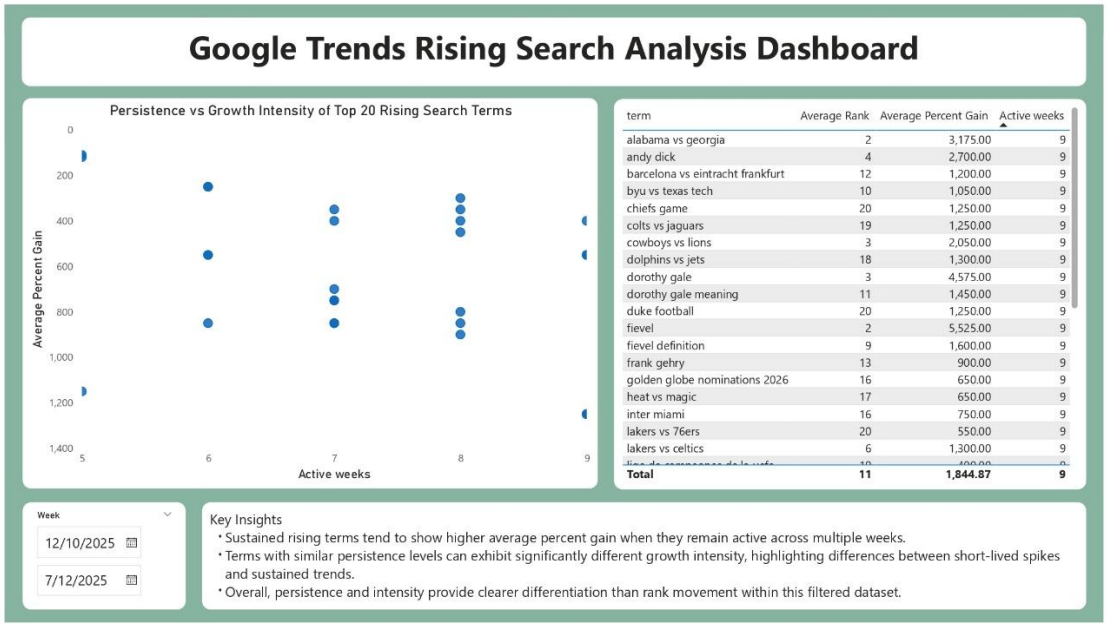
182
Top 20 by Avg Rank

term	Active weeks	Rank Volatility	Average Rank
2000 tariff dividend	5	0.00	12
49ers	7	0.00	16
alabama football	6	0.00	19
alabama vs georgia	9	0.00	2
andy dick	9	0.00	4
apple music replay	8	0.00	10
apple music replay 2025	8	0.00	12
athletic real madrid	8	0.00	2
auburn vs alabama	8	0.00	6
aurora borealis	5	0.00	3
aurora borealis forecast	5	0.00	16
aurora forecast	5	0.00	18
Total	**9**	**5.77**	**11**

term	Active weeks	Average Rank	Average Percent Gain
alabama vs georgia	9	2	3,175.00
andy dick	9	4	2,700.00
barcelona vs eintracht frankfurt	9	12	1,200.00
bears vs packers	9	12	2,000.00
bengals vs bills	9	7	2,625.00
blooket	9	14	758.57
blooket join	9	14	636.25
broncos vs raiders	9	5	2,575.00
byu vs texas tech	9	10	1,050.00
champions league	9	14	735.94
chargers	9	16	750.00
chiefs game	9	20	1,250.00
Total	**9**	**11**	**1,716.98**

week: All
dma_name: All
term: All

term	Sustained Trend Score	Active weeks	Rank Volatility	Average Rank
alabama vs georgia	9.00	9	0.00	2
andy dick	9.00	9	0.00	4
barcelona vs eintracht frankfurt	9.00	9	0.00	12
byu vs texas tech	9.00	9	0.00	10
chiefs game	9.00	9	0.00	20
colts vs jaguars	9.00	9	0.00	19
cowboys vs lions	9.00	9	0.00	3
dolphins vs jets	9.00	9	0.00	18
dorothy gale	9.00	9	0.00	3
dorothy gale meaning	9.00	9	0.00	11
duke football	9.00	9	0.00	20
fievel	9.00	9	0.00	2
Total	**1.22**	**9**	**6.41**	**11**



term	Average Rank	Average Percent Gain	Active weeks
alabama vs georgia	2	3,175.00	9
andy dick	4	2,700.00	9
barcelona vs eintracht frankfurt	12	1,200.00	9
byu vs texas tech	10	1,050.00	9
chiefs game	20	1,250.00	9
colts vs jaguars	19	1,250.00	9
cowboys vs lions	3	2,050.00	9
dolphins vs jets	18	1,300.00	9
dorothy gale	3	4,575.00	9
dorothy gale meaning	11	1,450.00	9
duke football	20	1,250.00	9
fievel	2	5,525.00	9
fievel definition	9	1,600.00	9
frank gehry	13	900.00	9
golden globe nominations 2026	16	650.00	9
heat vs magic	17	650.00	9
inter miami	16	750.00	9
lakers vs 76ers	20	550.00	9
lakers vs celtics	6	1,300.00	9
Total	**11**	**1,844.87**	**9**