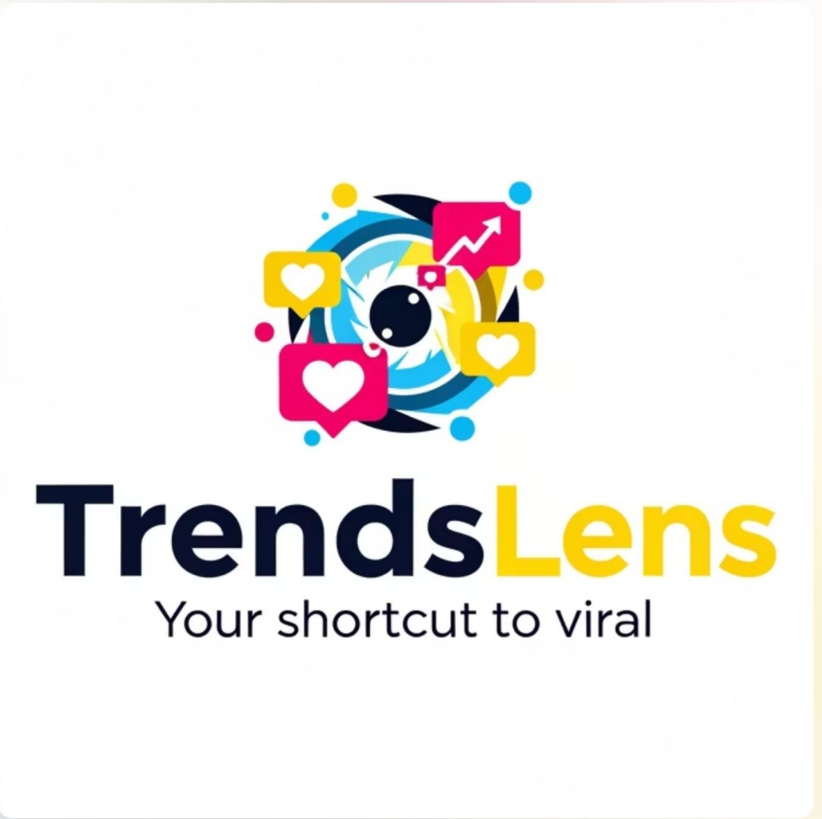
TrendLens

Short-video platforms like TikTok and YouTube Shorts dominate digital attention in 2025. Yet creators, brands, and marketers struggle to understand why some videos go viral, what formats resonate, and how engagement behaves across regions.

TrendLens is a data-driven solution designed to decode these patterns and deliver actionable insights.



The Business Problem

High Volume + High Velocity

Trends shift hourly, and engagement spikes unpredictably across platforms.

Fragmented Multi-Platform Data

TikTok and YouTube use different attributes, metrics, and trend signals.

Lack of Reliable Insight

Creators and brands rely on guesswork instead of data-backed strategy.

Business Need: A unified analytical framework that transforms raw platform activity into clear insights on performance, audience behavior, and trend movements.

Quick Data Overview

TrendLens analyzes a comprehensive 2025 dataset to provide a holistic view of short-video trends and performance.

Static Reference Data

These stable attributes provide foundational context:

- Video metadata (ID, title, duration, upload time)
- Content category, hashtags, music used
- Creator attributes (handle, tier, region)
- Language & geographic tags

Transactional Engagement Data

These time-varying metrics track dynamic performance:

- Views, likes, shares, comments
- Watch time, retention rate, drop-off curves
- Virality indicators (hashtags, trend propagation)

This combination delivers a complete 360° picture of content performance, audience behavior, and evolving trend movements.

Solution Approach

TrendLens delivers a centralized intelligence layer that transforms raw short-form video activity into business-ready insights.

01

Consolidate Multi-Platform Data

Unify creator and video data from TikTok and YouTube Shorts.

02

Standardize Engagement Metrics

Enable fair comparison across platforms and content types.

03

Identify Trend Patterns

Analyze by category, geography, and audience demographics.

04

Measure Format Performance

Determine which formats drive watch time, virality, and saves.

05

Surface Strategic Recommendations

Deliver actionable insights for creators and marketers.

The goal: Move from noisy, fast-changing interactions to predictable, data-backed decision-making.

Business Insights Uncovered

Content Strategy

- Short trends outperform medium and evergreen content
- Tutorials and comedy videos generate strongest retention
- Music-heavy videos outperform in shares and saves

Audience & Regional Behavior

- Engagement varies significantly by region (Asia, NA, Europe)
- Lifestyle and Education perform consistently worldwide
- Peak activity shows clear best posting windows

Creator-Level Intelligence

Creator tiers reveal growth trajectories and identify top performers for brand partnerships.

Business Value Delivered

For Creators

- Optimize posting time
- Focus on high-engagement formats
- Understand audience regions and preferences

For Brands & Advertisers

- Identify the right creators for partnerships
- Target campaigns by trend category and region
- Engage where viewer attention is strongest

For Platform Strategists

- Measure trends' lifecycle and adoption patterns
- Benchmark platform performance
- Improve recommendation logic based on viewer behavior

Outcome: Increased reach, better content planning, stronger audience growth, and strategic monetization.

Dashboard Walkthrough

LogiStream: DataCo's Live Flow

Unlocking Proactive Supply Chain Intelligence

The Business Problem: Lack of Real-Time Visibility

High Volume + High Velocity

180K+ transactions and complex GeoJSON data.

Fragmented Multi-Platform Data

CSV Transactional Data + Nested GeoJSON Data.

Retrospective Analysis

Management only analyzes late deliveries and fraud weeks after the fact.

Business Need: A unified Cloud Data Pipeline to combine historical, transactional, and geospatial data to enable real-time operational alerts.

Solution Approach: The AWS Serverless Pipeline

LogiStream delivers a centralized intelligence layer that transforms raw supply chain activity into business-ready insights.

01

Ingest & Pre-Process GeoJSON

Lambda function flattens complex GeoJSON coordinates into WKT strings.

02

Unify and Catalog Data

AWS Glue Crawlers infer schema for all sources into a unified Data Catalog (logistream).

03

Dimensional Modeling (ETL)

PySpark ETL generates surrogate keys and loads data into a Snowflake Schema (Redshift Serverless).

04

Enable Geospatial Analytics

Specialized dim_route_shapes table supports path visualization (though not used in Power BI, mention its capability).

05

Deliver Actionable Intelligence

Final Power BI dashboard enables top-down strategic and operational audits.

The goal: Move from reactive, delayed analysis to proactive, real-time operational intelligence.

The Analytical Engine: Snowflake Schema Design

The shift from flat operational database to dimensional model enables high-speed analytics and strategic drill-down reporting.

Operational Source

Raw Transactional Data and Flattened GeoJSON

Analytical Destination

Fact table (fact_supplychain_events) at the center, surrounded by key dimensions: dim_product (hierarchy), dim_execution_status, dim_geography

Key Insight: The dimensional model ensures high query speed for complex joins and enables drill-down reporting across product, status, and geographic dimensions.

Business Intelligence: Insights Uncovered

Strategic Profitability

- Insights on Total Profit by Department/Category
- Insight: Identify most profitable segments using the Treemap and guide inventory/marketing priorities

Logistics Reliability

- Insights on Schedule Adherence % and Avg Days to Ship (Real)
- Insight: Audit carrier performance (e.g., Schedule Reliability by Shipping Mode) and optimize routes by comparing reliability vs. cost

Proactive Risk & Demand

Insights on Late Risk Percentage and Orders at Late Risk. Mitigate risk proactively by tracking the Late Risk Trend and using the map to identify geographic hotspots for intervention.

Dashboard Walkthrough