

PROJECT CASE STUDY

TITLE: ONLINE NEWS PERFORMANCE ANALYSIS

Content Features, Publishing Patterns, and Article Popularity Insights from Mashable Articles

1.0 Objective: To identify the content categories, publishing patterns, and article-level features associated with stronger online-news popularity, using social shares as the available proxy for audience response. The analysis was designed to demonstrate how a media analytics team could support editorial planning with clear, evidence-based insights.

2.0 Dataset and Approach

The study used the UCI Online News Popularity dataset, which contains article-level features from Mashable. Each record represents an article, with information on content category, publishing day, article length, links, images, videos, sentiment indicators, and total social shares.

Link to Dataset: <https://archive.ics.uci.edu/dataset/332/online+news+popularity>

3.0 Tools Used: Power Query/Power BI

4.0 Key Metrics: The key metrics used amongst others are:

- a) Total articles analyzed
- b) Total shares
- c) Median shares
- d) High-popularity rate
- e) Median shares by category and day

5.0 Derived Analysis Fields

- a) Content Category
- b) Publishing Day and Day Type
- c) Popularity Segment
- d) Article Length Segment
- e) Media Richness and Sentiment Group

6.0 Key Insights: The key insights are:

- a) **Article popularity is highly skewed.** The median article received about 1,400 shares, while a small number of viral articles received far more. Median shares were therefore used alongside averages to avoid over-reading outliers.

- b) **Social Media content had the strongest typical performance.** Social Media articles recorded the highest median shares at about 2,100, followed by Other, Lifestyle, and Technology content.
- c) **World and Entertainment content had weaker typical performance.** World articles had median shares of about 1,100, while Entertainment articles had a median of about 1,200.
- d) **Weekend publishing was associated with stronger performance.** Saturday had the highest median shares at about 2,000, followed by Sunday at about 1,900. This indicates an opportunity for testing, not proof that publishing day alone causes success.
- e) **No single article feature strongly explains popularity.** Length, images, videos, links, keywords, and sentiment showed weak standalone relationships with shares, suggesting that performance depends on a combination of topic, timing, format, and distribution.

7.0 Editorial Recommendations

- a) **Prioritize high-performing categories strategically.** Increase experimentation and editorial investment in Social Media, Technology, Lifestyle, and other higher-performing themes when the goal is social reach and shareability.
- b) **Test a deliberate weekend publishing strategy.** Schedule selected high-potential stories for Saturday and Sunday, then compare results with weekday publication through controlled experiments.
- c) **Use median shares as a core editorial KPI.** Track median shares by category and publishing day alongside averages to reduce the influence of viral outliers.
- d) **Review underperforming categories.** For World and Entertainment content, test stronger headlines, richer visual storytelling, alternative formats, and improved distribution.
- e) **Avoid one-size-fits-all content rules.** Do not assume that longer articles, more images, more links, or more positive sentiment automatically lead to stronger performance.

8.0 Recommended Next Steps

- a) **Expand engagement measurement beyond social shares.** Add page views, read-through rate, scroll depth, returning readers, newsletter clicks, traffic source, and subscription conversion to understand true reader value.
- b) **Run A/B tests.** Test headlines, article formats, visual treatments, and publishing schedules to establish whether observed patterns are causal.
- c) **Create a recurring editorial dashboard.** Refresh core metrics weekly to support content planning, prioritization, and accountability across editorial, growth, and product teams.
- d) **Build self-service documentation.** Define the key metrics and create clear reference notes so non-technical stakeholders can interpret performance consistently.