

Social Media Engagement Analysis Report

1. Data Cleaning and Preparation

- Removed unnecessary columns (Unnamed: 0.1, Unnamed: 0)
- Converted Timestamp to datetime format.
- Handled missing values:
 - Retweets & Likes: Filled with 0
 - Sentiment, User, Platform, Country: Filled with 'Unknown'

2. User Engagement Trends

- Tracked likes and retweets over time to identify trends.
- Visualized engagement patterns showing fluctuations in user activity.

3. Key Influencers and Popular Content

- Identified top influencers based on total engagement (Likes + Retweets):
 - WinterWarmth, CosmosExplorer, CarnivalDreamer were among the most influential users.
- Identified most engaging posts:
 - Topics related to art, books, cosmic wonders, sunsets, dance, sports, and adventure had the highest interaction.

4. Visualizations

- **User Engagement Trends:** Line plot showing fluctuations in likes and retweets.
- **Top Influencers:** Bar chart ranking users with the highest engagement.
- **Most Popular Posts:** Bar chart highlighting the top posts based on likes and retweets.

5. Insights and Recommendations

- **Peak Engagement Periods:** Users are most active on certain days, suggesting optimal posting times.
- **Content Strategy:** Posts related to artistic and adventurous themes receive higher engagement.
- **Influencer Collaboration:** Engaging with top influencers can boost visibility.

Conclusion

This analysis provides a comprehensive understanding of user engagement, influential users, and high-performing content. These insights can be leveraged to enhance social media strategies, optimize posting schedules, and maximize engagement.