

# 1. Project Overview

This Power BI project is designed to analyze and visualize social media posts performance across multiple platforms (Instagram, Twitter, YouTube etc.). By aggregating key metrics such as posts, followers, likes, comments, impressions, and engagement rates, reach, shares, the dashboard provides critical insights into social media growth, content effectiveness, and audience behavior.

## 2. Objectives

1. **Consolidate Data:** Integrate key performance indicators (KPIs) from multiple social media posts across different platforms, locations, and content types into a unified, interactive dashboard for streamlined analysis.
2. **Monitor Performance:** Quickly view high level metrics such as total posts, total followers, average engagement rate, total likes and impressions.
3. **Analyze Trends:** Observe changes in followers, impressions, and engagement over time to uncover patterns and seasonality.
4. **Discover Insights:** Identify top performing content types, optimal posting times, and the platforms that has the highest engagement to enhance overall social media strategy.

## 3. Data Sources

- **Data Sources:** This is a dummy dataset created using python libraries like pandas, random, numpy & datetime. This dataset has 18 columns

## 2. Dashboard Layout

The dashboard is divided into two main pages:

1. **Overview:** Provides high level KPIs and a summary of key metrics across platforms, content type, location.
2. **Trends:** Focuses on changes over time, exploring trends in followers, impressions, and engagement.

Each page has 3 common filters (Content Type / Platform / Location) that let you sort data based on Content Type (like Videos, Stories, Text etc), Social Media platform (YouTube, Instagram, Twitter etc.), or Region (Kathmandu, Pokhara, Lalitpur etc).

Why: Helps you dig deeper into what works best. For example, you can compare how Instagram Reels perform versus regular posts, or analyze content performance by region to plan your strategy.

Content Type	Platform	Location
All	All	All

Below is a breakdown of each section/page and charts:

### 3. Overview Page

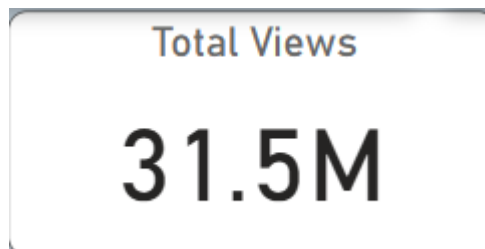
This page gives a quick snapshot of posts, content type, overall social media performance. It helps teams and decision makers see what's working and where to focus next.

#### 1. Total Posts



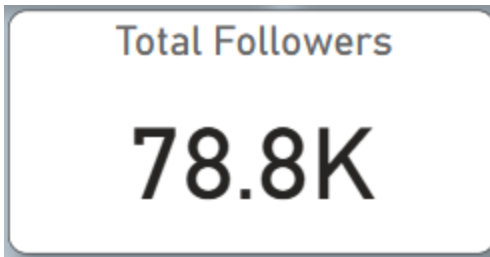
- **Definition:** Shows the sum of posts across all platforms within the selected time frame.
- **Purpose:** It shows how active you are on social media. Regular posting helps keep your audience engaged and builds consistency.

#### 2. Total Views (31.5M)



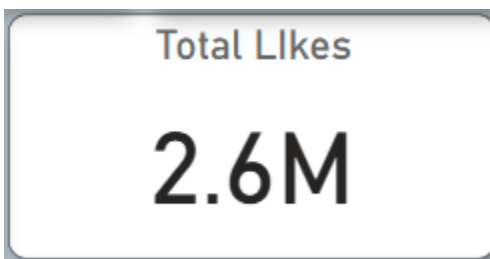
- **Definition:** The aggregated total of all views or video plays across platforms.
- **Purpose:** Views tell you how many people are watching your content. More views usually mean more exposure and stronger brand awareness.

#### 3. Total Followers (78.8K)



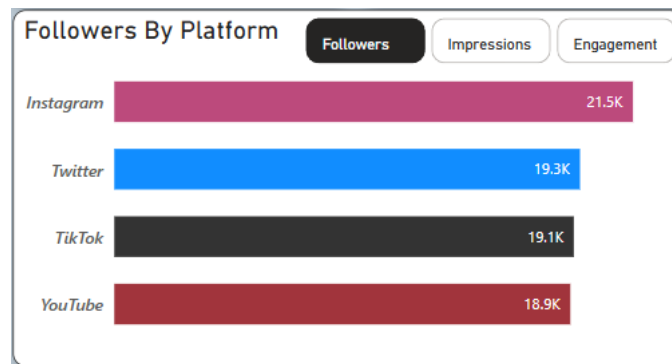
- **Definition:** The total number of users who have followed the account across all platforms during the given timeframe of this dataset.
- **Purpose:** This shows the size of your audience. Growing followers typically indicates increasing brand interest and potential for higher engagement. In the context of ad campaigns, more followers can lead to a wider reach, greater campaign impact etc.

#### 4. Total Likes (2.6M)



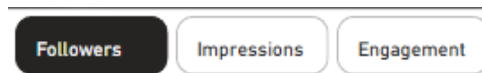
- **Definition:** The total number of “likes” on your posts.
- **Purpose:** Likes are a quick way to measure how much people enjoy your content. It’s a basic, but important, sign of positive engagement.

#### 5. Followers by Platform (Bar Chart)



- **Insight:** Displays follower counts split by each platform (Instagram, Twitter, TikTok, YouTube).
- **Purpose:** Helps you see which platforms have the biggest audiences. For example, if Instagram has 21.5K followers and Twitter has 19.3K, Instagram might be your strongest channel.

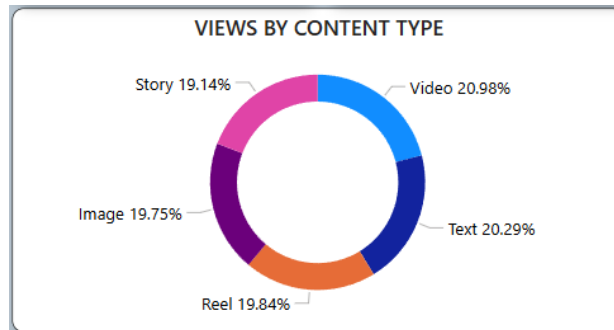
## 6. Followers / Impressions / Engagement Toggle



Lets you switch between three metrics:

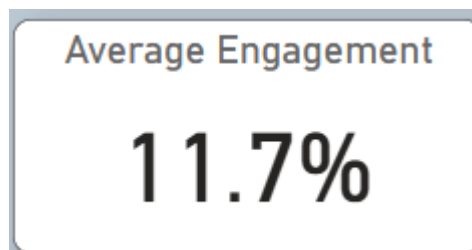
- Follower counts
- Total impressions
- Average engagement rate (all shown per platform)
- **Purpose:** It helps you quickly compare audience size, visibility, and engagement across platforms. For example, if one platform has a lot of impressions but low followers or engagement, it could mean that people are seeing your content but not connecting with it, a clear sign of growth opportunity.

## 7. Views by Content Type (Donut Chart)



- **Definition:** Breaks down views by content type (like Stories, Videos, Reels).
- **Purpose:** Helps identify which format is driving the most watch time or views. For example, if Videos gets 30% of total views while Stories gets 19.3%, it suggests video based content might be more impactful.

## 8. Average Engagement (11.7%)

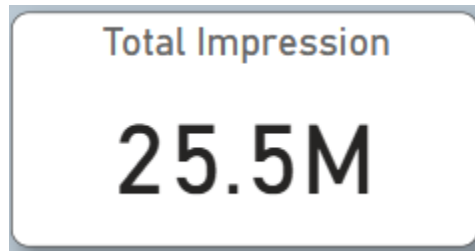


- **Definition:** The average engagement rate across all posts, calculated as:

$$\text{Engagement Rate} = (\text{Likes} + \text{Comments} + \text{Shares}) \div \text{Total Followers} \times 100$$

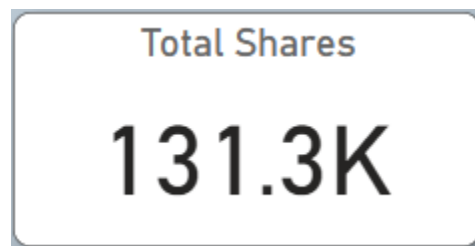
- **Purpose:** This helps you understand how well your content connects with your audience. A higher rate means more interest and interaction.

#### 9. Total Impressions (25.5M)



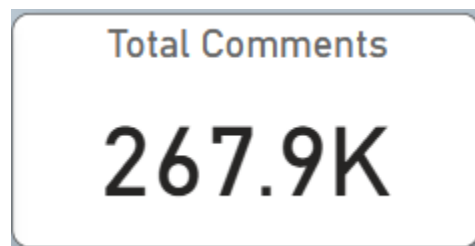
- **Definition:** The number of times your posts were shown to people, whether or not they clicked or watched.
- **Purpose:** Impressions show your potential reach. Even if people don't interact, it still shows they saw your content.

#### 10. Total Shares (131.3K)



- **Definition:** The number of times content was shared by viewers.
- **Purpose:** Shares are a great sign that people value your content enough to pass it on. It often means more reach and potential of viral.

#### 11. Total Comments (267.9K)



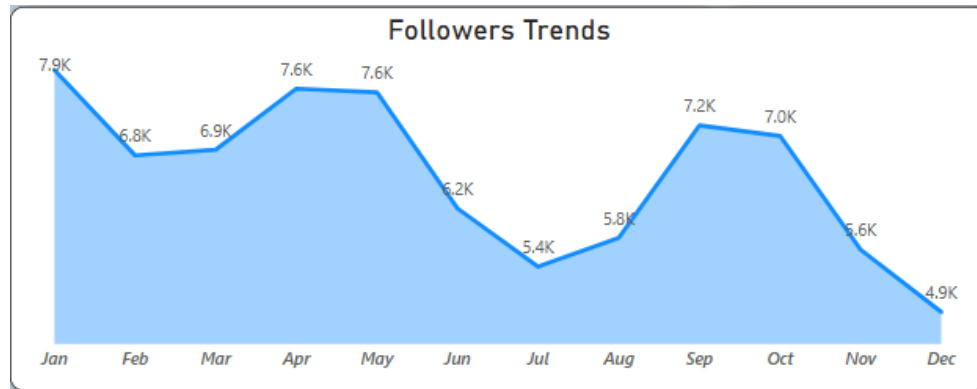
- **Definition:** The total number of comments, replies, or discussions on your posts.
- **Purpose:** Comments shows deeper engagement. They show that people care enough to respond, give feedback, or join the conversation.

## 4. Trends Page

This page helps track how social media performance changes over time. It shows trends in followers, impressions, and engagement and helps discover the best times to post.

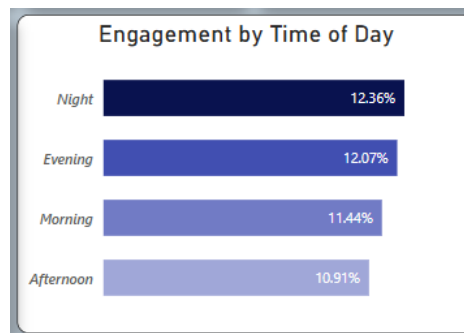
---

### Followers Trends (Area Chart)



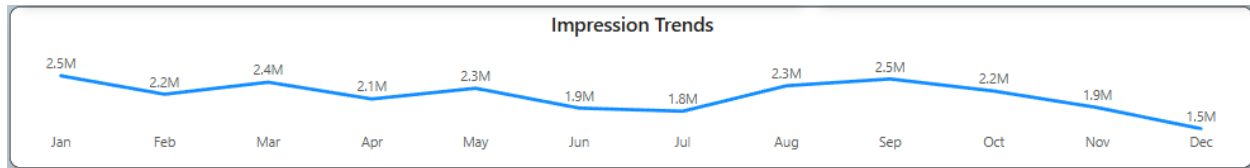
- **What it shows:** The number of followers each month, from January to December.
  - **Why:** Helps you understand if your audience is growing or shrinking. Sudden changes (spikes or drops) may be linked to specific campaigns or big content uploads.
- 

### Engagement by Time of Day (Bar Chart)



- **What it shows:** How much engagement (likes, comments, shares) you get at different times of the day. (Morning, Afternoon, Evening, Night)
  - **Why:** Tells you when your audience is most active. For example, if engagement is highest in the evening around 12:30%, that's likely the best time to post important updates or announcements.
- 

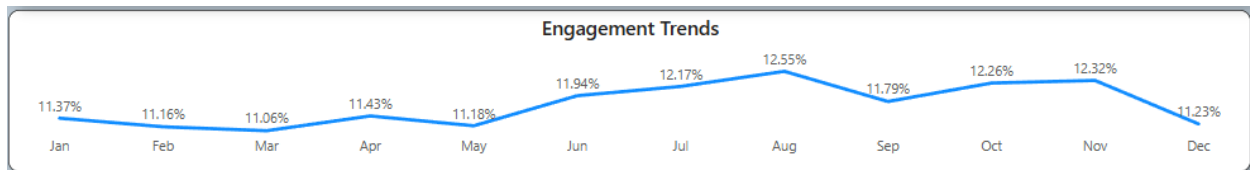
### Impression Trends (Line Chart)



- **What it shows:** How many people saw your content over a year across all platforms.
- **Why:** Shows if your brand visibility is increasing, staying steady, or dropping. It's a great way to see the impact of ad campaigns or boosted posts.

---

### Engagement Trends (Line Chart)



- **What it shows:** How audience interaction (likes, comments, shares) changes over time.
- **Why:** Helps you see if your content is getting more or less engaging. Big jumps can mean a campaign did well, while flat lines may signal it's time to change your approach.

---

## 5. Why These Metrics and Visuals Matter

### Complete Overview

Showing key numbers like total posts, followers, impressions, and engagement together gives a quick picture of how your social media is doing overall.

### Platform-Wise Breakdown

Seeing data by platform (like YouTube, Instagram etc.) helps you know where you're performing well and where you might need to focus more.

### Content-Type Insights

Charts showing which type of content (like Stories, Reels, or Videos) get the most views help you understand what your audience enjoys the most.

### Spotting Trends Over Time

Line graphs showing changes each week or month help you see if your reach is growing or slowing down. This helps in measuring the success of your campaigns and making quick adjustments.

### Best Time to Post

The “Engagement by Time of Day” chart shows when your audience is most active. Posting at those times can get you more likes, comments, and shares.

### **Improving Content Strategy**

Tracking likes, comments, shares, and video views regularly shows which posts your audience connects with most. This helps in planning better content and using your time wisely.

## **6. Potential Use Cases and Actionable Insights**

### **Campaign Evaluation**

Find out which campaigns or types of posts led to big jumps in impressions or engagement. Use these insights to repeat what works well in future campaigns.

### **Resource Allocation**

If one platform (like Instagram or TikTok) shows much better engagement than others, it’s smart to focus more of your time, budget, and creative work there for better results.

### **Content Format Optimization**

If short videos (like reels or stories) consistently get more views, you can shift your strategy to create more short form sized video content.

### **Posting Strategy**

By tracking when engagement is highest during the day or week, you can post content at those peak times to get more attention.

### **Real-Time Monitoring**

Updating the dashboard regularly (daily, weekly, or monthly) helps to quickly respond to new trends or issues like a sudden drop in followers.

---

## **7. Conclusion**

This Power BI Social Media Analytics Dashboard brings all your platform data together in one place. It helps you track key metrics, understand what is working, and spot trends quickly. With its interactive charts and filters, you can easily see which content performs best, when to post, and how to improve your strategy. Regularly updating and reviewing the dashboard keeps your social media plan sharp, flexible, and helps gain more followers or subscribers.