#HACK THE FEED: A social media data story

FOR: PLAYHOUSE COMMUNICATIONS LTD.

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Overview

Playhouse Communication is one of Nigeria's leading digital marketing agencies. They combine design and media planning with cutting-edge tech solutions to reimagine what marketing is all about. Their client roster is a mix of global juggernauts and nimble SMEs, each redefining their sectors.

We are rolling out the ultimate arena for innovation in data and setting the stage for up and coming data scientists and analysts to showcase their skills, win huge cash prizes, and boost their careers. The "Hack the Feed" hackathon is a showdown where data analytics meets creative prowess.

Your mission? To decode a treasure trove of social media data for one of our high-profile clients and transform it into game-changing insights.

In a rare move, we're handing you the keys to a vault of exclusive social media data to let you dig deep, get creative, and strike gold with actionable insights that could redefine the future of digital marketing. This isn't just a hackathon; it's your chance to shape the future of digital engagement. 🚀

Key Deliverables:

Participants are expected to:

- Create a comprehensive and reproducible report detailing their findings.
- Propose actionable recommendations based on the insights.
- Create a simple and engaging visualisation of your results & analysis.
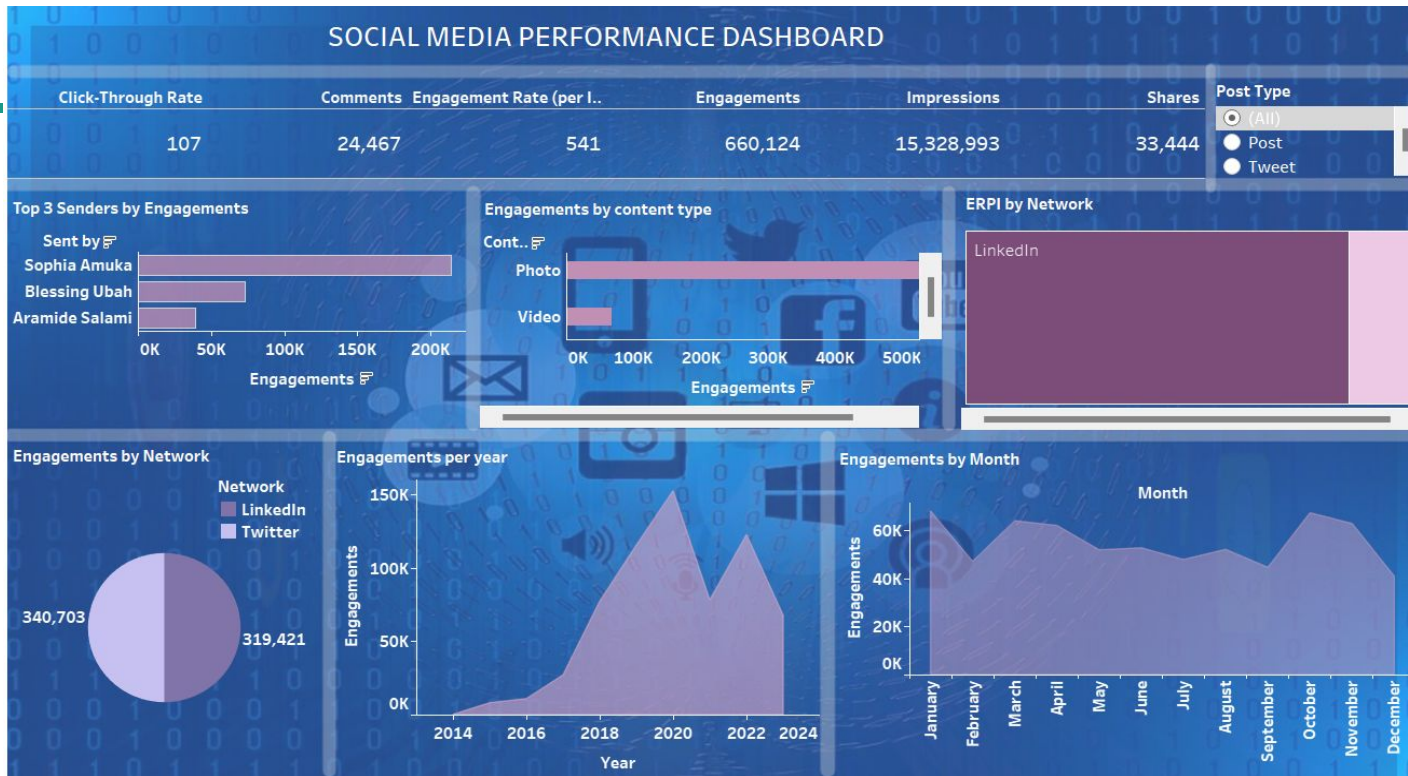
About the dataset (The Cleaning Process)

Two different datasets are provided, each describing activities of a company on LinkedIn and Twitter. The data was collected on the Dicey Tech platform (where the hackathon was hosted). The data was connected to the jupyter notebook environment and explored as thus :

The twitter data had 8529 rows and 147 columns while the linkedIn data had 7760 rows and 147 columns . It was observed that most columns contained an array of null values and they were immediately removed to avoid bias .

After the removal of null values, the data was checked for duplicates and there appeared not to be any. The data was then merged together and the data types were corrected accordingly. At the point, the entire dataset contained 8855 rows and 18 columns and is ready to be explored and analysed.

Exploratory Data Analysis (EDA)

SOCIAL MEDIA PERFORMANCE DASHBOARD

Click-Through Rate	Comments	Engagement Rate (per l..	Engagements	Impressions	Shares	Post Type
107	24,467	541	660,124	15,328,993	33,444	◉ (All) ○ Post ○ Tweet

Top 3 Senders by Engagements

Sent by ▤
- Sophia Amuka
- Blessing Ubah
- Aramide Salami

Engagements ▤ (0K – 200K)

Engagements by content type

Cont.. ▤
- Photo
- Video

Engagements ▤ (0K – 500K)

ERPI by Network

LinkedIn

Engagements by Network

Network
- LinkedIn
- Twitter

340,703   319,421

Engagements per year (Year 2014–2024)

Engagements by Month (Month: January–December)

The data was analysed and things became clearer. The next page would buttress on the insights gained from the data.

The dashboard can be interacted with here: Hack the Feed | Tableau Public

Insights and Recommendations

Key Insights

- The platform with the most engagements in twitter

- Linked has the highest Engagement per Impression rate

- Content type with the most engagement is Photos

- Sophia Amuka's post had the most Engagements

- January records the most engagements

- Engagements peaked in 2020

Recommendations

- Leverage on Twitter: since twitter has the most engagements,It makes more sense to focus on this platform. Posting frequently on this platform can improve online presence and engagements.
- Optimise LinkedIn content: Since LinkedIn has the highest engagement per impression rate, It would be great to continue to use the platform to reach out to professional audience by tailoring content to the target audience.
- Prioritize Visual content: Since Photo contents have the highest engagement and CTR(Click-through rate), Invest in high quality visual content that can appeal to the target audience.
- Analyse Sophia's content: With the high engagements her content received, a deep-dive into her content strategy should be taken.
- Strategize posting time : Given that the highest engagements were received between the 10th and 17th hour, more contents should be posted within these periods to increase Engagements.

Time Series Forecasting Analysis
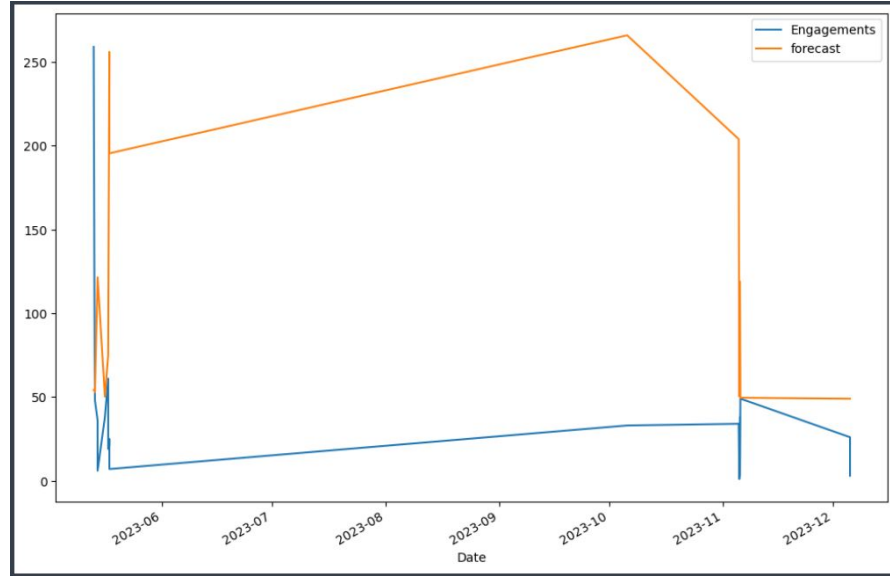
Engagements were predicted for the second half of 2023 using the Time series forecasting analysis ; Seasonal Autoregressive Integrated Moving Averages (SARIMA) and It was seen that that Engagement would come up from June 2023 up to September and engagements will decline through December.

It is therefore recommended that content strategy is planned against these periods. More visual contents should be considered as this is what has been receiving high engagements.