

I. INTRODUCTION:-

Social media refers to a variety of technologies that facilitate the sharing of ideas and information among their users. From Facebook and Instagram to XPlatform (formerly Twitter) and YouTube, more than 4.7 billion people use social media, equal to roughly 60% of the world's population.

In early 2023, 94.8% of users accessed chat and messaging apps and websites, followed closely by social platforms, with 94.6% of users.

How social media originated and evolved
social media started out as a way for people to
interact with friends and family but soon expanded
to serve many different purposes.

In 2004, My Space was the first network
to reach 1 million monthly active users.

Social media participation exploded in the years
that followed with the entry of Facebook and
Twitter. Business gravitated towards these platforms
in order to reach an audience instantly on a global

scale.

→ overview of social media:

According to Global web index, 46% of internet users worldwide get their news through social media. That compares to 40% of users who view news on news websites. Gen Z and millennials were most likely to view news on social sites versus other generations.

Social media plays a key role in many 'business' marketing strategies, not surprising given the sheer number of hours people spend each day on social websites and apps. At the same time, social media is an ever-changing field, with relatively recent apps such as TikTok, Signal, and Clubhouse joining the ranks of established social networks like Facebook, YouTube, X platform and Instagram.

What social media is used for today:

Social media platforms are often divided into six categories: social networking, social bookmarking, social news, media sharing, microblogging and online forums.

These diverse platforms serve a vast range of purposes and user interests. Some appeal to hobbyists, others to people in their work lives. People use them to find others across the globe who share their political & other views.

Entertainers use social media to engage with donors. Governments often turn to social media to convey vital information during emergencies.

Pros and cons of Social media:

Social media platforms allow people to access information in real time, to connect with others, and to find nich communities. At best, it makes the world more interconnected.

On the other hand, social media is also very good at spreading disinformation, creating polarization and even causing harmful psychological effects.

Still, according to a 2019 Survey by Pew Research center, people's use of social media is correlated

with have more friends and more diverse personal networks, especially within emerging economies. Some 80% of teenagers say social media allows them to feel more connected to their peers, according to a 2018 Pew Research Center survey of U.S. teens ages 13 to 17. Overall, one in three said that social media has had a mostly positive effect on them, while 59% said it had neither a positive nor a negative effect.

At the same time, many teens' use, and overuse, of social media has raised questions about its effect on their physical and mental health by distracting them, disrupting their sleep and exposing them to bullying, rumor spreading, unrealistic views of other people's lives, and peer pressure," as the Mayo Clinic notes.

In 2018, social media and search advertising spending made up roughly 55% of overall and spending globally.

what will happen if social media goes down in the near future?

If social media were to go down in the near future, it would be a huge adjustment for many people. It would be difficult for those who rely on it for communication and networking to find alternative ways to stay connected. It could potentially lead to an increase in other forms of communication such as face-to-face conversations and physical mail, as people look for ways to stay connected and share information. Additionally, businesses that use social media for advertising, promotion, and customer service would have to find alternate methods of reaching their audiences. It could be a difficult transition, but it could also create opportunities for creative new forms of communication and connection.

SHORT TERM INTERNSHIP

PROJECT DOCUMENTATION

DISSECTING THE DIGITAL LANDSCAPE : A Comprehensive Analysis of Social Media

-A Comprehensive Analysis of Social Media provides a detailed and in-depth analysis of various social media platforms, including Facebook, Twitter, Instagram, YouTube, and LinkedIn. The analysis covers a wide range of topics related to social media, such as the history and evolution of social media, the demographics of social media users, the impact of social media on communication and society and the challenges and opportunities of social media for businesses and organizations.

Data Collection and Extraction from Database :-

Data Collection is the process of gathering and measuring information on variables of interest, in a established systematic fashion that enables us to answer stated research questions, test hypothesis, and evaluate outcomes and generates insights from the data.

Data Preparation:

We have prepared the data in the excel sheet from the information we have collected tweet, id, time, impression, engagements, retweets, likes, user profile, url clicks, hashtag clicks, permalink, app opens, app install, follows, email-tweets, dial phone, media views, detail expands, media engagements. And we prepared the dataset for our project.

Data Visualization:

Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make the complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualization can help people quickly identify patterns, trends, and outliers in the data.

Here are the few visualizations we have created as a part of our project:

1. KPI Chart:

KPI (key performance chart) is used to, at a quick glance, give information about the current performance of a company or organization.

In our KPI chart we gave
Base value - tweet and Target value - retweet.

2. Summary Chart:

A Summary chart can graph summary statistics such as the Mean or the Median, the distribution of the data, the Outliers and Single Data Points.

In our summary chart we gave values — media views (89.1k) (89075)

3. Line Chart:

A graphical representation used to display data points connected by straight lines.

In our line chart we gave

X-axis — Likes and y-axis — Id

5. Tree Map:

A tree map chart provides a hierarchical view of your data and makes it easy to spot patterns, such as which items are store's best sellers. The tree branches are represented by rectangles and each sub-branch is shown as a smaller rectangle.

In our Treep map we gave
Ar - Tweet | and size - impressions

6. Word Cloud:

Word Cloud is a visualization method that allows you to quickly see which words appear more frequently in a bunch of text. In a Word cloud chart, the weight of each word will be proportional to its frequency. You can also assign other metrices to determine the size of the word.

In our cloud, we gave
Words - tweet | and size as likes

7. Column Chart:

A Column chart or graph that represents the categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally.

In our visualizations we gave Engagements in Bars and engagement rates in length.

8. Double Visualization:

Here in chart A we gave date in filter dropdown

In Chart B we gave columns - likes, replies, Media views

9. Hierarchical bubble:

A hierarchy bubble visualization shows a large amount of data in a small place.

In Our Visualization, we gave date in bubble, and hash in size.

Dashboard:

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries.

In our dashboard we have provided six visualizations: KPI chart of Tweets compared to retweets, Line chart of Id by likes, Hierarchical bubble chart of hashtag clicks, Tree chart of impressions for tweet 1-hierarchy, Summary chart on media views and Word Cloud on Tweet_1 colored by likes sized likes.

Report :

A report is a document that presents information in a specific format and layout, usually based on data from a database or other data source. A report in IBM Cognos can contain various elements, such as tables, charts, graphs, and images, as well as text and data elements. There are several different types of reports available in IBM Cognos, including list reports, crosstab reports, chart reports and report studio reports.

In our Report on a comprehensive analysis of social media we provided four visualizations. Report was comprised of world cloud created by using likes. The elementum has the highest likes as per the visualization. Treep map had been created by using the Tweet_2 data. Hierarchical bubble chart created using hashtag clicks. The column chart created by using the values in y-axis and measures on x-axis for replies, retweets, likes.

Story:

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

In our story we have 9 scenes, the first scene is the introduction of our story. And the second scene is created using ISPI chart: Tweets compared to retweets. Third scene is line chart visualization: rate of likes by id, fourth scene is word cloud: Tweets sized by likes, fifth scene is Report of likes, replies and media views according to their id. Sixth scene is the summary chart: Summary of media views, seventh scene is hashtag clicks bubble, eighth is the tree map: hierarchy of impressions,

Performance Testing :

Amount of Data Rendered to DB2

Utilization of Data Filters, No of Calculation Fields, No. of Visualizations / Graphs.

Web Integration:

Dashboard and story Embed with UI with flask.

Integrating dashboard /reports/stories to web
Installed the Visualization studio and downloaded
a template of our choice Blikin from
the Bootstrap. We have edited the code
html according to our requirements and
then in IBM Cognos we have copied the
embedded copies of story, report and
dashboard and pasted it under the
respective sections in the html code. We
changed the width and heights of them
according to our requirements. And then
using python code , we import flask
and used python code for the
completion . In this way we have completed

our Webapp : DISSECTING THE DIGITAL LANDSCAPE.

Overall, our aim is to provide a comprehensive overview of the digital landscape of the complex and dynamic world of social media (Twitter as an example), and to inform future research, policy, and practice in this rapidly evolving field.