

LAB MANUAL  
PART A  
(PART A: TO BE REFERRED BY STUDENTS)

**Experiment No-01**

**A.1 Aim:**

**Study various –**

- i) Social Media platforms (,Facebook, twitter YouTubeetc)
- ii) Social Media analytics tools ( Facebook insights, google analytics net lyticetc)
- iii) Social Media Analytics techniques and engagement metrics (page level, post level, member level)
- iv) Applications of Social media analytics for business.  
e.g. Google Analytics <https://marketingplatform.google.com/about/analytics/>  
<https://netlytic.org>

<b>Lab Objective</b>	To understand the fundamental concepts of social media networks
<b>Lab Outcome</b>	Understand characteristics and types of social media networks

**A-2 Prerequisite**

Source-Internet

**A.3 OutCome**

Students will able to understand the fundamentals, characteristics and types of social media networks

#### A.4 Theory:

Based on below mentioned points students have to study social media platform and various tools.

- i) Social Media platforms ( Facebook, twitter, YouTubeetc)
- ii) Social Media analytics tools ( Facebook insights, google analytics net lyticetc)
- iii) Social Media Analytics techniques and engagement metrics (page level, post level, member level)
- iv) Applications of Social media analytics for business.  
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#### Study points

- 7 layers of social media analytics
- Social media analytics cycle
- Social media analytics tools

Layer of social media	Example of tools
Text	Discovertext, Lexalytics, Tweet Archivist Twitonomy Netlytic LIWC Voyant
Actions	Lithium Twitonomy Google Analytics SocialMediaMineR
Network	NodeXL UCINET Pajek Netminer Flocker Netlytic Reach Mentionmapp
Mobile	Countly Mixpanel Google Mobile Analytics
Location	Google Fusion Table Tweepsmap Trendsmap Followerwonk Esri Maps Agos
Hyperlinks	Webometrics Analyst VOSON
Research Engines	Google Trends

PART B  
(PART B: TO BE COMPLETED BY STUDENTS)

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<b>Date of Experiment:</b>	<b>Date of Submission:</b>
<b>Grade:</b>	

**B.1. Study the fundamentals of social media platform and social media tools:**

Various Social Media Platforms:

- **Facebook:** Facebook was launched in 2004 by Mark Zuckerberg. Facebook is a social networking platform that allows users to connect with friends and family online. Users can create a personal profile and share photos, videos, links, and updates with their network of friends. They can also join or create groups, pages, and events, and use the platform to communicate with people they know or have met in real life. Additionally, Facebook also offers a variety of features such as instant messaging, live streaming, and a marketplace for buying and selling goods.
- **Twitter:** Twitter is a social media platform that allows users to share short, text-based messages known as tweets. Users can include links, photos, and videos in their tweets. Users can follow other users and can see the tweets of the accounts they follow in their own timeline. Users can also like, retweet, reply and share tweets from other users. Twitter also allows users to create hashtags to group tweets by a certain topic and make it easy for other users to find related tweets. Twitter has become a popular tool for sharing news, thoughts, and updates from individuals, businesses, and organizations.
- **YouTube:** YouTube was created in 2005 by three former PayPal employees and was later acquired by Google in 2006. YouTube is a video-sharing platform that allows users to upload, share, and view videos. Users can create their own channels, upload videos, and subscribe to other users' channels to receive updates when new videos are posted. Videos on YouTube can be watched by anyone with an internet connection, and can be public or private. The platform includes a variety of content such as music videos, movie trailers, TV show clips, educational videos, vlogs, and live streams. YouTube also allows users to comment on videos, give "thumbs up" or "thumbs down" ratings, and create playlists of their favorite videos. YouTube has become the largest video sharing website in the world.

## Social Media Analytics Tools:

**Google Analytics:** Google Analytics is a free web analytics service offered by Google that tracks and reports website traffic. It allows website owners to track how users interact with their website, including how many users visit the site, where they come from, what pages they visit, and how long they stay. With Google Analytics, you can see how many visitors your site has, which pages they visit, how long they stay, and where they come from. You can also track e-commerce transactions, goals, and user engagement. Additionally, it allows you to gain insights about your audience demographics, interests and behavior, and can track campaigns and measure the performance of your advertising. Google Analytics is widely used by websites and businesses to track their web traffic, and can provide valuable insights into how to improve website performance and user engagement.

**Facebook Insights:** Insights provide information about your Page's performance, such as demographic data about your audience and how people are responding to your posts. Bear in mind that you can only access data in Page Insights for the last two years, and demographic data, such as age, gender and location, are available in Page Insights once there is data for 100 or more people. Pages categorized as a Community Page don't have Insights.

You can use Insights to:

- Understand how people are engaging with your Page.
- View metrics about your Page's performance.
- Learn which posts have the most engagement and see when your audience is on Facebook.

**NetLytic:** Netlytic is a community-supported text and social networks analyzer that can automatically summarize and visualize public online conversations on social media sites. It is made for researchers by researchers, no programming/API skills required.

With Netlytic you can:

- Capture publicly available posts from social media sites or other sources (Twitter, YouTube, RSS Feed, or text/csv file)
- Discover popular topics
- Find and explore emerging themes of discussions
- Build, visualize and analyze online communication networks using social network analysis
- Map geo-coded social media data

## Social Media Analytics techniques and engagement metrics:

### **1. Reach**

Reach is simply the number of people who see your content. It's a good idea to monitor your average reach, as well as the reach of each individual post, story, or video. A valuable subset of this metric is to look at what percentage of your reach is made up of followers vs. non-followers. If a lot of non-followers are seeing your content, that means it's being shared or doing well in the algorithms, or both.

### **2. Impressions**

Impressions indicate the number of times people saw your content. It can be higher than reach because the same person might look at your content more than once. An especially high level of impressions compared to reach means people are looking at a post multiple times. Do some digging to see if you can understand why it's so sticky.

### **3. Audience growth rate**

Audience growth rate measures how many new followers your brand gets on social media within a certain amount of time. It's not a simple count of your new followers. Instead, it measures your new followers as a percentage of your total audience. So when you're just starting out, getting 10 or 100 new followers in a month can give you a high growth rate. But once you have a larger existing audience, you need more new followers to maintain that momentum.

Page Level: Page level data accounts for actions taken on the page during a time frame. In Social Analytics, most metrics, such as the overview cards at the top and graphs showing data over time, are based on Page level data. For example, Total Impressions is the total number of impressions on any post on the page during the time frame.

Post Level: Post level data is lifetime values specific to actions taken on those posts. Post-level metrics display lifetime data from individual posts published during the selected time period of your analysis. All post data is aggregated and displayed for the day the post was published, regardless of when the engagement happened.

Member level: Member level metrics attribute data to the profile/page, focusing on when engagement happened, regardless if a post was published during the analyzed date range or not. Data is aggregated by when it happened, and it is not related to a specific piece of content.

### Applications of Social media analytics for business: -

- Spot trends related to offerings and brands
- Understand conversations - what is being said and how it is being received
- Derive customer sentiment towards products and services
- Gauge response to social media and other communications
- Identify high-value features for a product or service

- Uncover what competitors are saying and its effectiveness
- Map how third-party partners and channels may affect performance

## **B.2 Input and Output:**

Students are required to identify the Case study to understand social media analytics to achieve business objectives.

### Business objectives of social media:

- Brand awareness: Brand awareness is all about your brand becoming relevant to potential buyers in the places where your buyers will be. This also means posting content regularly that answers the questions your customers are asking in the accepted mediums your audience is expecting. That content includes links to blog posts, infographics, statistics, and relevant articles. But don't forget to show the world who your brand is by posting photos of employees, the office, and company events.
- Enhance public relations: By following your company's mentions on your social media channels and outside social media, you can find out what customers are saying about your brand and respond to complaints promptly, understand how your brand is perceived, and gain insights into reputation management and brand public relations.
- Build community of advocates: Brand loyalty has always been one of the most critical factors in long-term growth. In the past, companies relied on word of mouth. Social media provides an entirely new platform where brand loyalty can be shared with thousands of people in real-time.
- Research and Development: By continuously engaging with customers, your company can stay up to date on the problems they're facing and develop solutions. Just as importantly, follow your competitors on social media to see how they engage their customers if they're facing any complaints, and rolling out any promotions or new products.
- Driving sales and needs: If you're not leveraging social channels to acquire leads and generate sales, you're not using social media marketing to your advantage. This is what most companies strive for first, but fail to realize that it's unlikely that sales will grow without time spent on the first four social media goals.

### **B.3 Observations and learning:**

The term social media refers to a computer-based technology that facilitates the sharing of ideas, thoughts, and information through virtual networks and communities. Social media is internet- based and gives users quick electronic communication of content, such as personal information, documents, videos, and photos. Users engage with social media via a computer, tablet, or smartphone via web-based software or applications. We have hence observed the case studies of various social media platforms like facebook, twitter etc. We have also seen the various analytics tools that are used for the analysis of these platforms like google analytics.

### **B.4 Conclusion:**

We can hence conclude that we have successfully studied various social media platforms.

### **B.5 Question of Curiosity**

**[NOTE: If answer copied from chatGPT, it will not be considered, study in depth is expected]**

**Q1.** Why it is important for business managers to understand and mine social media data?

**Ans:** Companies use social media data mining to find out more about customer tastes, preferences and biases. For example, an organization may want to examine the demographic characteristics of emerging client groups or determine public sentiment toward a certain brand or logo — or even a politician or religious group. Companies also use social media data to gather intelligence on specific geographies, competitors or potential partners.

**Q2.** What is social media analytics, and how it is different from traditional business analytics?

**Ans:** Yes, social media have changed and are changing Business Intelligence. But, while social media are definitely newer than traditional media, does it mean, one should be considered and not the other? “Social monitoring is identifying and responding to individual brand mentions on social media. Social listening, on the other hand, is collecting data from those social mentions and broader customer conversations, and pulling insights from them so you can make better decisions for your customers... Social monitoring is reactive. ... where social listening, which is proactive, allows brands to take those short-term interactions and build them to glean insights for a long-term strategy.

**Q3.** What ethical issues should be considered when mining social media data?

**Ans:** social media mining naturally lends itself to use in business. Nowadays, online advertisements are almost always catered specifically to the user behind the screen, and companies like Google and Facebook have spent significant amounts of money to show the most relevant ads to their consumers. However, taking information from everyday people’s social media for corporate use places user privacy at the center of the issue. For example, Facebook

regularly collects immense volumes of data on its users by trawling through ads that were clicked, updates on profiles, shows watched, and holidays, filing all that data away in order to “help advertisers reach people...interested in their products, services, and causes.”

**Q4.** Compare different social media analytics tools available in the market and explain their strengths and weakness.

**Ans:**

### **1. Google Analytics**

While it's not solely a social media analytics tool, Google Analytics is one of the best ways to track social media campaigns and even help you measure social ROI. For instance, you can see how much traffic comes to your website from each social network, or use UTM parameters to track specific social media campaigns.

### **2. TapInfluence**

The boom of influencer marketing has created a need for social media tools specifically tailored for influencer campaigns. In short, TapInfluence highlights relevant influencer metrics in black and white so brands can better understand whether or not a potential relationship makes sense prior to outreach.

### **3. HubSpot**

With HubSpot's analytics tools you can tie social media performance to business and revenue growth. Whether publishing directly through HubSpot, or publishing using other tools or while on the go, you'll be able to report on the success of your social strategy across every channel. You can also compare the performance of multiple social channels to measure campaign performance. HubSpot's social analytics tools offer expansive graphs and visuals that break down the numbers by specific platform features, like audience, session lengths, and impressions.