Chapter 1

Social Media Analytics : An Overview

What is social media analytics?

Social media analytics refers to the collection of data and metrics that help you measure your overall social media performance. This helps marketers understand which types of social media content best resonate with their audience so they can shape and adapt their strategy accordingly. Reviewing social media analytics reports empowers teams to make data-informed decisions about how to transform their marketing efforts and grow their businesses.

Marketers can conduct social media analysis natively on platforms such as Instagram, TikTok and X (formerly known as Twitter). Marketers can also use social media management software like Sprout to dive deeper into the numbers.

What is the importance of social media analytics?

Social media analytics help marketers with a number of tasks, from informing their strategy to planning campaigns and inspiring content ideas. There are five major benefits of tracking social analytics:

1. Trendspotting

Trendspotting is the act of pinpointing upcoming trends before they're mainstream. Keeping a close eye on your social media analytics can help you do just that. Some of the trends that your social media analytics can help you determine include:

- Which platforms are gaining or losing traction and popularity

- Topics of interest that your audience is talking about (and brand mentions in conversations)
- Types of ads that interest your audience
- Rising influencers and products in your niche or industry
- Types of content that your audience engages with most

If analyzed properly, your social media analytics reports can be a huge help in identifying what you should post more of, what types of content are becoming more popular and what your audience wants to hear more about in the next quarter or year.

2. Brand sentiment

Brand sentiment illustrates how people are feeling about your brand. It includes all positive, neutral and negative feelings that are discussed online. By looking through your social media analytics, you can review and measure your brand sentiment through a sentiment analysis software.

This helps ensure your audience is happy with your business and enables you to detect opportunities to make amends with unsatisfied customers. And you can uncover opportunities to improve your business.

For instance, through sentiment analysis you could discover your customers are asking the same questions about a particular product feature, enabling you update your FAQ page or help center. Sentiment analysis can be used with competitor analysis because you can pinpoin new competitors and related topics your customers are buzzing about that you may have not considered before.

3. Value perception

Value perception (or perceived value) refers to the overall customer opinion of your brand's product or service and whether or not it can meet their needs. Perceived value is key to determining demand and the price point of a product or service. For example, if your product has a low perceived value, customers won't be willing to pay much for it.

You can measure value perception by using social listening tools and monitoring data from other digital marketing dashboards, such as Google Analytics. This can help guide the content you create to improve value perception and make sure you're showcasing how your product or service can hit key pain points.

4. Setting social media goals

Social media analytics can also help you see which channels and content are performing well, so you can create actionable, realistic social media goals and objectives.

The key word here is realistic. If you take a look at your social media analytics reports and realize your Instagram account is growing by 10 followers per week, trying to jump from 5,000 followers to 10,000 followers in a single quarter is not a realistic goal, even if you revamp your posting strategy. You might instead try to make a goal where your account starts growing by 20 followers per week instead and steadily increase that goal from there.

5. Proving ROI

Finally, your social media analytics can help prove the ROI of your social media marketing efforts. Each time you run a new campaign, monitor your social analytics to see how the content is performing, if people are clicking over to your website and if you're generating new sales. Doing this demonstrates social media ROI so teams can earn more buy-in and resources. UTM tracking and URL shortening are two ways that make proving ROI via analytics even easier. This way, you can attribute specific pipeline and purchases to your social media efforts.

What are the types of social media analytics?

There are several different types of social media analytics you should monitor in your social media dashboard that will guide your strategy and discover valuable insights. We'll walk you through the six main types of analytics below.

Performance analysis

First and foremost, you need to measure the overall performance of your social media efforts. This includes social media metrics including:

- Impressions
- Reach
- Likes
- Comments
- Shares
- Views
- Clicks
- Sales

What are the best social media analytics tools?

There are a heap of social media analytics tools to choose from, but it's all about finding the platform that fits the unique needs of your organization. Take a look at our top three suggestions:

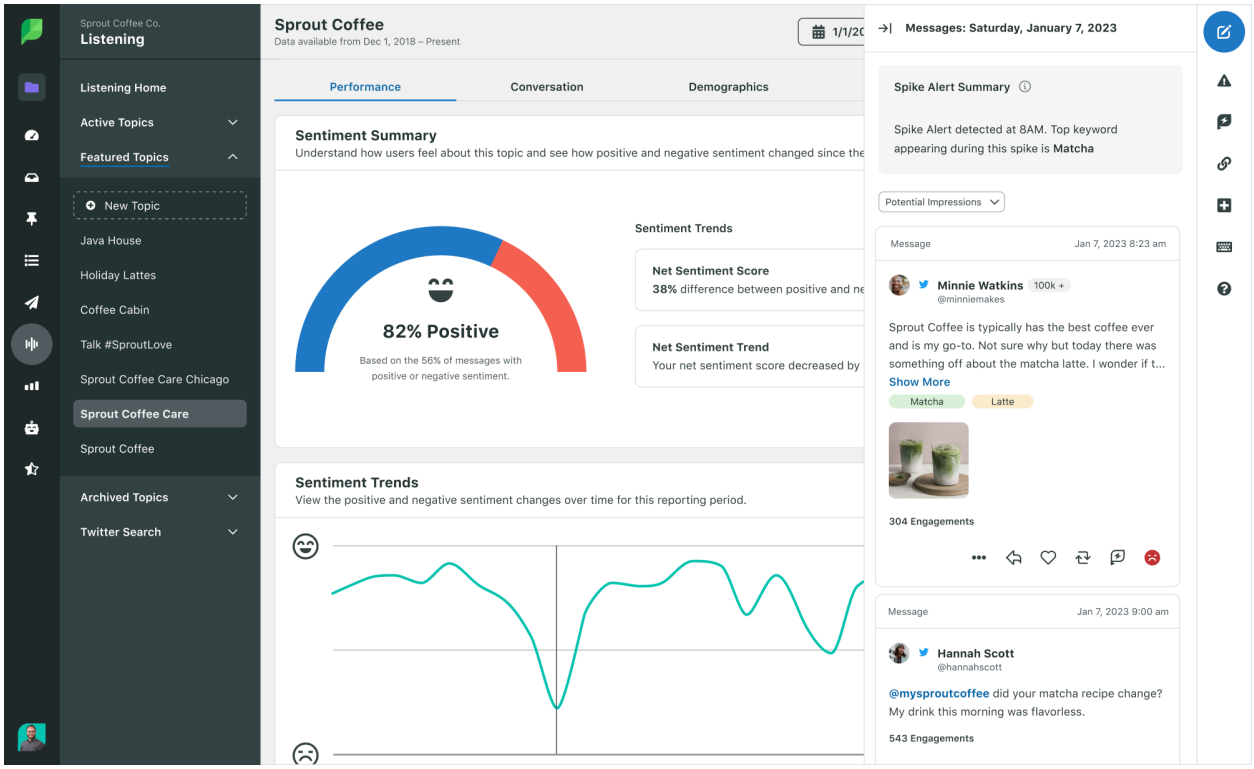
1. Sprout Social

Sprout offers cross-channel social media analytics, enabling you to dig into your performance on a single network or compare results across various networks at once.

Refining your content or business strategy is easy with Sprout's automated, presentation-ready reports. Take your research further with custom reports personalized to your organization's key performance indicators (KPIs).

But that's just the tip of the iceberg for our social media analytics. With Sprout's Advanced Listening tool, you can conduct sentiment analysis and uncover data about your audience, share of voice and relevant topics. And

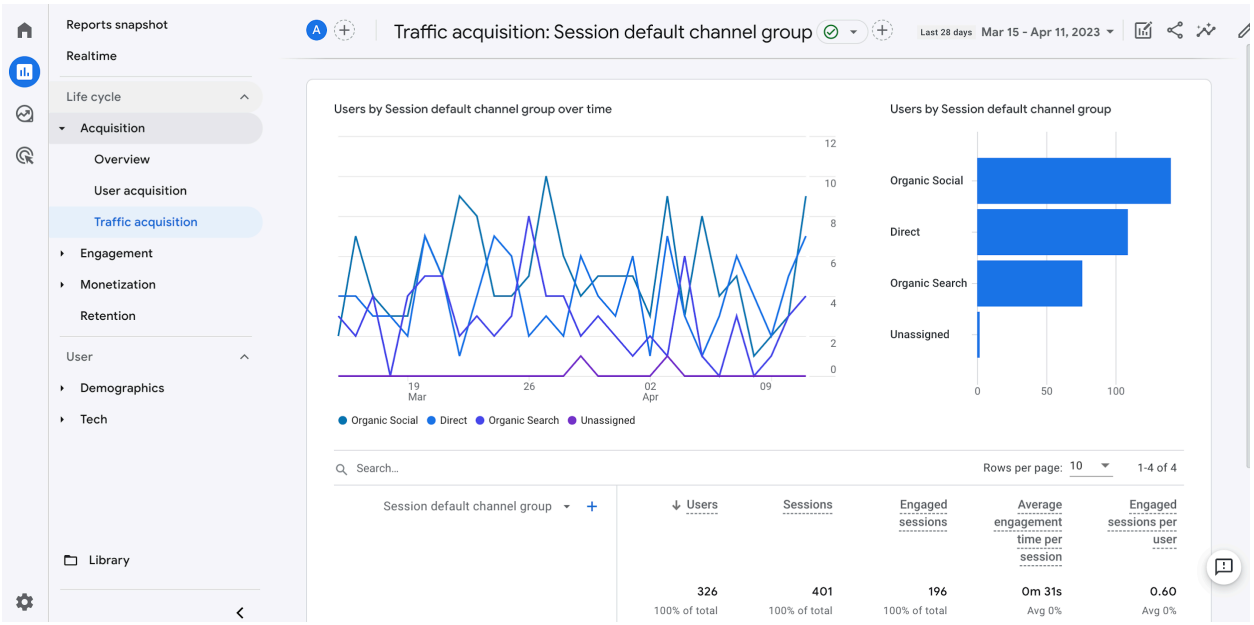
with Sprout Social Influencer Marketing (formerly Tagger), you can measure and maximize your influencer marketing ROI and optimize your social marketing efforts.



2. Google Analytics

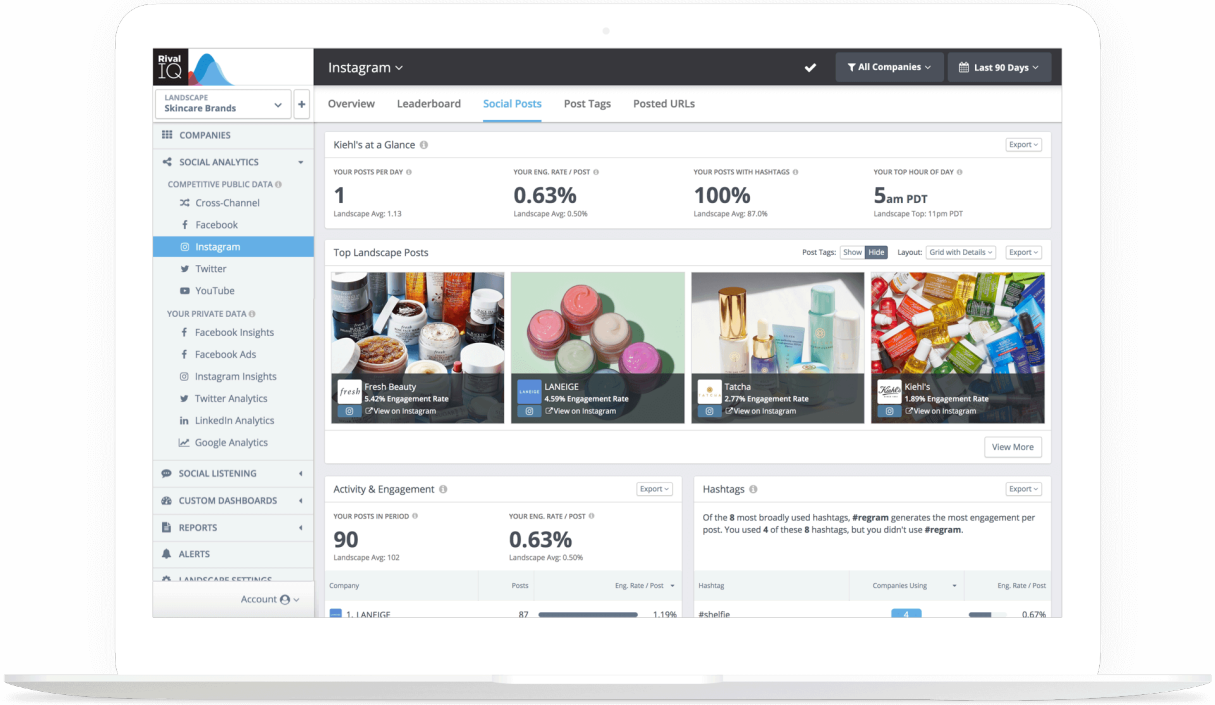
Google Analytics isn't solely for social analytics, but it's a staple for social media practitioners and leaders. You can create reports to monitor:

- How your social media efforts drive web traffic and lead generation
- Which social networks fuel the most traffic
- Audience demographics
- ROI of your social media campaigns



3. Rival IQ

Rival IQ is another tool for customized social media analytics reports. The platform can help brands track their success across a number of social networks including YouTube. Rival IQ also provides competitor analysis, social listening, influencer tracking, hashtag analytics and social media audits. Rival IQ is a great option for businesses with multiple social media channels or agencies working with multiple clients.


Rival IQ
Instagram
All Companies
Last 90 Days
LANDSCAPE
Skincare Brands
Overview
Leaderboard
Social Posts
Post Tags
Posted URLs
COMPANIES
SOCIAL ANALYTICS
COMPETITIVE PUBLIC DATA
Cross-Channel
Facebook
Instagram
Twitter
YouTube
YOUR PRIVATE DATA
Facebook Insights
Facebook Ads
Instagram Insights
Twitter Analytics
LinkedIn Analytics
Google Analytics
SOCIAL LISTENING
CUSTOM DASHBOARDS
REPORTS
ALERTS
Account
Kiehl's at a Glance
Export
YOUR POSTS PER DAY
1
Landscape Avg: 1.13
YOUR ENG. RATE / POST
0.63%
Landscape Avg: 0.50%
YOUR POSTS WITH HASHTAGS
100%
Landscape Avg: 87.0%
YOUR TOP HOUR OF DAY
5am PDT
Landscape Top: 11pm PDT
Top Landscape Posts
Post Tags: Show Hide
Layout: Grid with Details
Export
Fresh Beauty
5.42% Engagement Rate
View on Instagram
LANEIGE
4.59% Engagement Rate
View on Instagram
Tatcha
2.77% Engagement Rate
View on Instagram
Kiehl's
1.89% Engagement Rate
View on Instagram
View More
Activity & Engagement
Export
YOUR POSTS IN PERIOD
90
Landscape Avg: 102
YOUR ENG. RATE / POST
0.63%
Landscape Avg: 0.50%
Company
Posts
Eng. Rate / Post
1. LANEIGE
87
1.19%
Hashtags
Export
Of the 8 most broadly used hashtags, #regram generates the most engagement per post. You used 4 of these 8 hashtags, but you didn't use #regram.
Hashtag
Companies Using
Eng. Rate / Post
#shelfie
4
0.67%

1.8 SEVEN LAYERS OF SOCIAL MEDIA ANALYTICS

Social media at a minimum has seven layers of data. Each layer carries potentially valuable information and insights that can be harvested for business intelligence purposes. Out of the seven layers, some are visible or easily identifiable (e.g., text and actions) and other are invisible (e.g., social media and hyperlink networks).

The following are seven social media layers that will be discussed in detail in the subsequent chapters.

(1) Text	(2) Networks
(3) Actions	(4) Hyperlinks
(5) Mobile	(6) Location
(7) Search engines	

(1) Layer One : Text

- Social media text analytics deals with the extraction and analysis of business insights from textual elements of social media content, such as comments, tweets, blog posts, and Facebook status updates.
- Text analytics [illegible] media users' sentiments or identify emerging themes and topics.

(2) Layer Two : Networks

- Social media network analytics extract, analyze, and interpret personal and professional social networks, for example, Facebook, Friendship Network, and Twitter.
- Network analytics seeks to identify influential nodes (e.g., people and organizations) and their position in the network.

(3) Layer Three : Actions

- Social media actions analytics deals with extracting, analyzing, and interpreting the actions performed by social media users, including likes, dislikes, shares, mentions, and endorsement.
- Actions analytics are mostly used to measure popularity, influence, and prediction in social media.
- The case study included at the end of the chapter demonstrates how social media actions (e.g., Twitter mentions) can be used for business intelligence purposes.

(4) Layer Four : Mobile

Mobile analytics is the next frontier in the social business landscape. Mobile analytics deals with measuring and optimizing user engagement with mobile applications.

(5) Layer Five : Hyperlinks

- Hyperlink analytics is about extracting, analyzing, and interpreting social media hyperlinks (e.g., in-links and out-links).
- Hyperlink analysis for example, Internet traffic patterns and sources of incoming or outgoing traffic to and from a source.

(6) Layer Six : Location

Location analytics, also known as spatial analysis or geospatial analytics, is concerned with mining and mapping the locations of social media users, contents, and data.

(7) Layer Seven : Search Engines

Search engines analytics focuses on analyzing historical search data for gaining a valuable insight into a range of areas, including trends analysis, keyword monitoring, search result and advertisement history, and advertisement spending statistics.

1.10 SOCIAL MEDIA ANALYTICS CYCLE

- Social media analytics is a six step irrelative process (involving both the science and art) of mining the desired business insights from social media data (Fig. 1.10.1). At the center of the analytics are the desired business objectives that will inform each step of the social media analytics journal.
- Business goals are defined at the initial sage, and the analytics process will continue until the stated business objectives are fully satisfied. To arrive from data to insights, the steps may vary greatly based on the layers of social media mined (and the type of the tool employed).
- The following are the six general steps, at the highest level of abstraction, that involve both the science and art of achieving business insights from social media data.

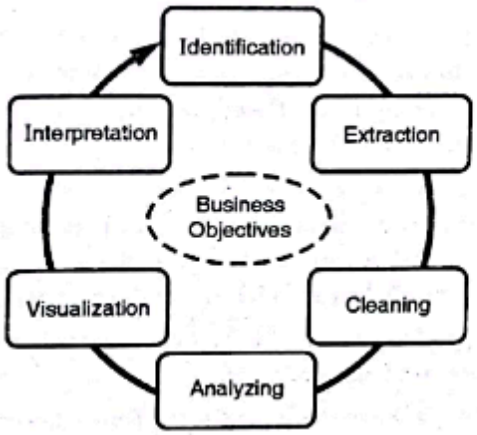


Fig. 1.10.1 : Social media analytics Cycle

Step 1 : Identification

- The identification stage is the art part of social media analytics and is concerned with searching and identifying the right source of information for analytical purposes.
- The numbers and types of users and information (such as text, conversation, and networks) available over social media are huge, diverse, multilingual, and noisy.
- Thus, framing the right question and knowing what data to analyze is extremely crucial in gaining useful business insights. The source and type of data to be analyzed should be aligned with business objectives. Most of the data for analytics will come from your business-owned social media

- **Step 2 : Extraction**
- Once a reliable and minable source of data is identified, next comes the science of extraction stage.
- The type (e.g., text, numerical, or network) and size of data will determine the method and tools suitable for extraction. Small-size numerical information, for example, can be extracted manually (e.g., going through your Facebook fan page and counting likes and copying comments), and a large-scale automated extraction is done through an API (application programming interface). Manual data extraction maybe practical for small-scale data, but it is the API-based extraction tools that will help you get most out of your social
- media platforms. Mostly, the social media analytics tools use API-based data extraction. APIs, in simple words, are sets of routines/protocols that social media service companies (e.g., Twitter and Facebook) have set up that allow users to access small portions of data hosted in their databases.
- The greatest benefit of using APIs is that it allows other entities (e.g., customers, programmers, and other organizations) to build apps, widgets, websites, and other tools based on open social media data. Some data, such as social networks and hyperlink networks, can only be extracted through specialized tools.
- Two important issues to bear in mind here are the privacy and ethical issues related to mining data from social media platforms.
- Privacy advocacy groups have long raised serious concerns regarding large-scale mining of social media data and warned against transforming social spaces into behavioral laboratories.
- The social media privacy issue first came into the spotlight particularly due to the large-scale "Facebook Experiment" carried out in 2012, in
- which Facebook manipulated the news feeds feature of thousands of people to see if emotion contagion occurs without face-to-face interaction (and absence of nonverbal cues) between people in social networks (Kramer, Guillory et al.2014).
- Though the experiment was consistent with Facebook's Data Use Policy(Editorial 2014) and helped promote our understanding of online social behavior, it does, however, raise serious concerns regarding obtaining informed consent from participants and allowing them to opt out

- **Step 3 : Cleaning**

- This step involves removing the unwanted data from the automatically extracted data. Some data may need a lot of cleaning, and others can go into analysis directly.
- In the case of the text analytics, for example, cleaning, coding, clustering, and filtering may be needed to get rid of irrelevant textual data using natural language processing (NPL).
- Coding and filtering can be performed by machines (i.e., automated) or can be performed manually by humans. For example, Discover Text combines both machine learning and human coding techniques to code, cluster, and classify social media data (Shulman 2014).

- **Step 4 : Analyzing**

- At this stage the clean data is analyzed for business insights. Depending on the layer of social media analytics under consideration and the tools and algorithm employed, the steps and approach you take will greatly vary. For example, nodes in a social media network can be clustered and visualized in a variety of ways depending on the algorithm employed.
- The overall objective at this stage is to extract meaningful insights without the data losing its integrity. While most of the analytics tools will follow you through the step-by-step procedure to analyzey our data, having background knowledge and an understanding of the tools and its capabilities is crucial in arriving at the right answers.

- **Step 5 : Visualization**

- In addition to numerical results, most of the seven layers of social media analytics will also result in visual outcomes.
- The science of effective visualization known as visual analytics is becoming an important part of interactive decision making facilitated by solid visualization (Wong and Thomas2004; Kielman and Thomas 2009). Effective visualization is particularly helpful with complex and huge data because it can reveal hidden patterns, relationships, and trends.
- It is the effective visualization of the results that will demonstrate the value of social media data to top management. Depending on the layer of the analytics, the analysis part will result in relevant visualizations for effective communication of results.
- Text analytics, for instance, can result in a word cooccurrence cloud; hyperlink analytics will provide visual hyperlink networks; and location analytics can produce interactive maps.

- Depending on the type of data, different types of visualization are possible, including the following.
  - Network data (with whom) - network data visualizations can show who is connected to whom. For example, a Twitter following-following network chart can show who is following whom. Different types of networks are discussed in a later chapter.
  - Topical data (what) - topical data visualization is mostly focused on what aspect of a phenomenon is under investigation. A text cloud generated from social media comments can show what topics/themes are occurring more frequently in the discussion.
  - Temporal data (when) temporal data visualization slice and dice data with respect to a time horizon and can reveal longitudinal trends, patterns, and relationships hidden in the data. Google trends data, for example, can visually investigate longitudinal search engine trends.
  - Geospatial data (where) geospatial data visualization is used to map and locate data, people, and resources. The chapter on location analytics provides more details on mapping.
  - Other forms of visualizations include trees, hierarchical, multidimensional (chart, graphs, tag clouds), 3-D (dimension), computer simulation, infographics, flows, tables, heat maps, plots, etc.

Step 6 : Interpretation

- Interpreting and translating analytics results into a meaningful business problem is the art part of social media analytics.
- This step relies on human judgments to interpret valuable knowledge from the visual data. Meaningful interpretation is particularly important when we are dealing with descriptive analytics that leave room for different interpretations. Having domain knowledge and expertise are crucial in consuming the obtained results correctly.
- Two strategies or approaches used here can be
  (1) producing easily consumable analytical results and
  (2) improving analytics consumption capabilities.
- The first approach requires training data scientists and analysts to produce interactive and easy-to-use visual results. And the second strategy focuses on improving management analytics consumption capabilities.

1.11 CHALLENGES TO SOCIAL MEDIA ANALYTICS

- Social media data is high volume, high velocity, and highly diverse, which, in a sense, is a blessing in terms of the insights it carries; however, analyzing and interpreting it presents several challenges.
- Analyzing unstructured data requires new metrics, tools, and capabilities, particularly for real-time analytics that most businesses do not possess.

Volume And Velocity As A Challenge

- Social media data is large in size and is swiftly generated. Capturing and analyzing millions of records that appear every second is a real challenge. For example, on Twitter, three-hundred forty-two thousand tweets appear every minute, and on Facebook, one million likes are shared every twenty minutes.
- Capturing all this information may not be feasible. Knowing what to focus on is crucial for narrowing down the scope and size of the data. Luckily, sophisticated tools are being developed to handle high-volume and high-velocity data.

Diversity As Challenge

- Social media users and the content they generate are extremely diverse, multilingual, and vary across time and space. Not every tweet, like, or user is worth looking at. A tweet or mention coming from an influential social media user is more important than a tweet from a noninfluential user.
- Due to the noisy and diverse nature of social media data, separating important content from noise is challenging and time consuming.

Unstructuredness As A Challenge

- Unlike the data stored in the corporate databases, which are mostly numbers, social media data is highly unstructured and consists of text, graphics, actions, and relations.
- Short social media text, such as tweets and comments, has dubious grammatical structure, and is laden with abbreviations, acronyms, and emoticons(a symbol or combination of symbols used to convey emotional expressions in text messages), thus representing a great challenge for extracting business intelligence.