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TY.BSc (Computer Science)

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Subject- Data Analytics

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Chapter 4. Social Media and Text Analytics

Introduction:

Social media analytics is the ability to gather and find meaning in data gathered from social channels to support business decisions and measure the performance of actions based on those decisions through social media.

Practitioners and analysts alike know social media by its many websites and channels: Facebook, YouTube, Instagram, Twitter, LinkedIn, Reddit and many others.

Social media analytics is broader than metrics such as likes, follows, retweets, previews, clicks, and impressions gathered from individual channels. It also differs from reporting offered by services that support marketing campaigns such as LinkedIn or Google Analytics.

Overview of Social Media Analytics:

It may seem like a daunting task, but tracking your social media analytics isn't difficult. It just requires a little bit of planning and a lot of consistency. You've got this!

First, watch our video on how the social team here at Hootsuite checks their social media analytics every day:

We've even made a template for you to plug your social media analytics report into at the end of this post.

Social Media Analytics Process:

Social Media Analytics Process consist of following three steges:

1.Data Capturing:

Data capture is the process of extracting information from paper or electronic documents and converting it into data for key systems. It's where most organizations begin their information management and digital transformation journey.

Automated data capture solutions reduce manual data entry and help control the chaos of paper-based processes. Workforces can easily collect relevant data from multiple forms of content and use it for designated workflows.

Data capture is the process of extracting information from any type of document or email and converting it into a format readable by a computer

2.Data Understanding:






Quality data is fundamental to any data science engagement. To gain actionable insights, the appropriate data must be sourced and cleansed. As presented in detail in this practice: "Understand data needs to support AI and data science solutions" each business analytics problem has specific data requirements, and different patterns may apply. The article address the activities of collecting data, describe the data, visualize and verify data quality. In this article we are complementing those tasks with some specifics considerations to address as a Data Scientist. There are two key stages of Data Understanding: a Data Assessment and Data Exploration.

3.Data Presentation:

Data Analysis and Data Presentation have a practical implementation in every possible field. It can range from academic studies, commercial, industrial and marketing activities to professional practices. In its raw form, data can be extremely complicated to decipher and in order to extract meaningful insights from the data, data analysis is an important step towards breaking down data into understandable charts or graphs.

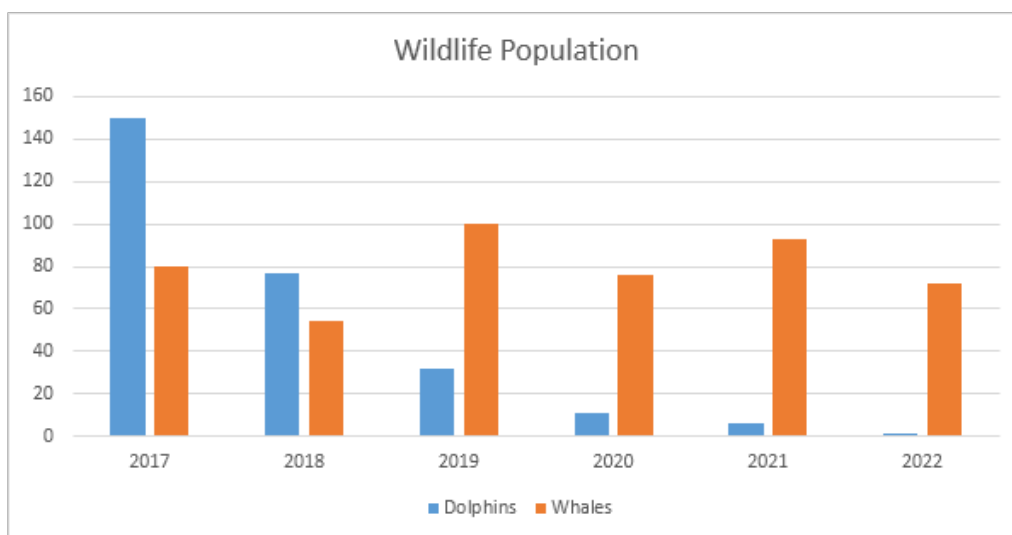
Data analysis tools used for analyzing the raw data which must be processed further to support N number of applications. Therefore, the processes or analyzing data usually helps in the interpretation of raw data and extract the useful content out of it. The transformed raw data assists in obtaining useful information. Once the required information is obtained from the data, the next step would be to present the data in a graphical presentation. The presentation is the key to success. Once the information is obtained the user transforms the data into a pictorial Presentation so as to be able to acquire a better response and outcome.

1. Pictorial Presentation

Small Towns	Number of illiterate children
Melrose	
Marengo	
Midway	
Parral	
Rushville	

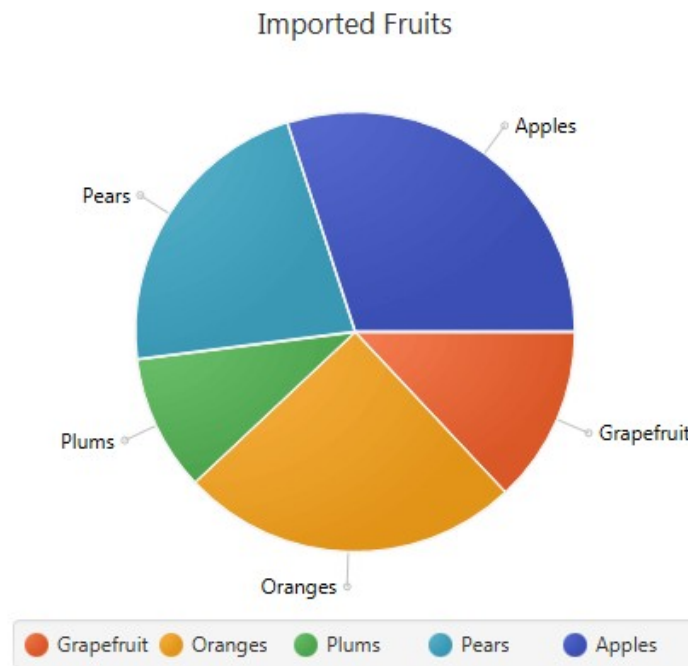
It is the simplest form of data Presentation often used in schools or universities to provide a clearer picture to students, who are better able to capture the concepts effectively through a pictorial Presentation of simple data.

2. Column chart



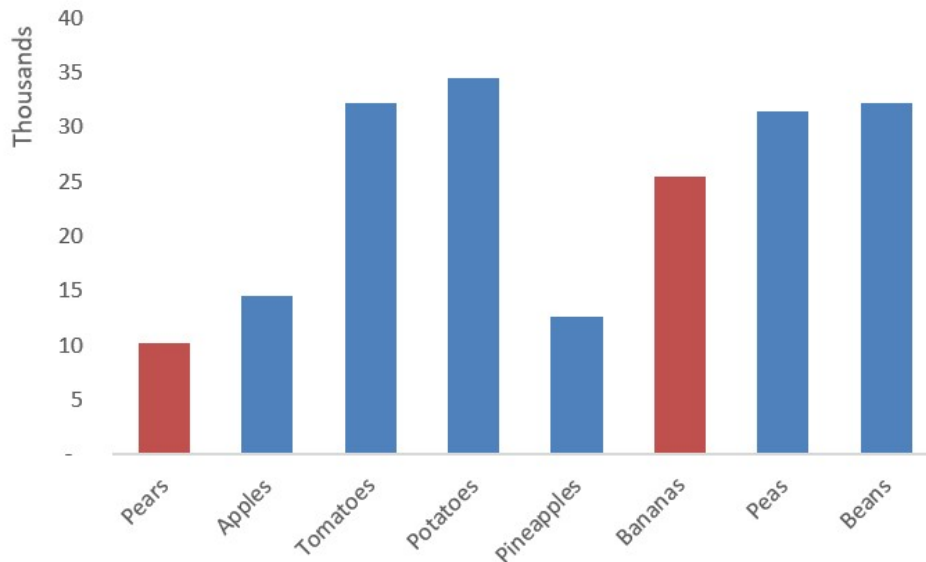
It is a simplified version of the pictorial Presentation which involves the management of a larger amount of data being shared during the presentations and providing suitable clarity to the insights of the data.

3. Pie Charts



Pie charts provide a very descriptive & a 2D depiction of the data pertaining to comparisons or resemblance of data in two separate fields.

4. Bar charts



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

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

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 is mostly used to understand social media users' sentiments or identify emerging themes and topics.

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.

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. 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.

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 (or apps for short)

LAYER FIVE: HYPERLINKS

Hyperlink analytics is about extracting, analyzing, and interpreting social media hyperlinks (e.g., in-links and out-links). Hyperlink analysis (discussed in chapter 6) can reveal, for example, Internet traffic patterns and sources of incoming or outgoing traffic to and from a source.

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.

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.



Social Media Analytics Life 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 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.