Q2. Web mining and social media analysis

Web analytics involves collecting, analysing and reporting web data for understanding & optimizing web usage.

Web mining process can be described as the sequence of steps for the development of advanced decision support systems.

Monitoring activities include:

- **Usage:**
  Keep track of the paths users take during their access, the efficiency of pages/hyperlinks in guiding the users to accomplish their goals.

- **Users:**
  How users are grouped taking into account their browser history

- **Data quality:**
  How adequate the content and meta data of a website are.

- **Automation:**
  The effect of personalization actions, eg. if a user is following the recommendations of products and pages or not.

Social media analytics →

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

Social media analytics is broader than metrics like likes, followers, retweets etc.

Social media analytics uses specifically designed software platforms that are similar to web search tools. Data about keywords or topics are obtained through ~~web~~ search ~~or~~ queries or web 'crawlers' that span channels.
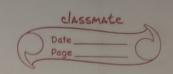
Social media analytics tools incorporate the process of social listening. Listening involves monitoring social channels for problems and opportunities.

Why is social media analytics important?

News of a great product can spread like wildfire, and news of a bad product or a bad experience with a customer service rep can spread just as quickly owing to the prevalance of social media.

Consumers are now holding organizations ~~responsible~~ to account for their brand promises, and are sharing their experiences with friends, coworkers and the public at large.

Social media analytics helps companies address these experiences and use them to →

- Spot trends related to offerings and brands
- Understand conversations - what is being said and how it is being recieved
- Derive customer sentiments 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 it's effectiveness.
- Map how third party channels may affect performance.

These insights can be used not only to make tactical adjustments (such as addressing an angry tweet), but also to help drive strategic decisions.

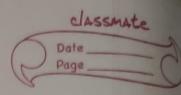These strategies can affect a range of business activities :

→ Product development :

Analyzing an aggregate of Facebook ~~reviews~~ posts, tweets and amazon product review can deliver a clearer picture of customer pain points, shifting needs and desired features. Trends can be identified and tracked to shape the management of existing product lines as well as guide new product development.

→ Customer experience :

An IBM study discovered that organizations are evolving from product-led to experience-led businesses.
Behavioral analysis can be applied across channels to capitalize on micro moments, to delight customers and increase loyalty and lifetime value

→ **Branding:**

Natural language processing and sentiment analysis can continually monitor positive or negative expectations to maintain brand health and develop new brand attributes.

→ **Competitive analysis :**

Understanding what competitors are doing and how customer is responding is always critical.

→ **Operational efficiency :**

Deep analysis of social media can help organizations improve how they gauge demand.
Retailers and others can use that information to manage inventory and suppliers, reduce costs and optimize resources.