

CHAPTER 4: **Social Networking**

1. Define the online social network?

-is a social structure made of individuals (or organizations) that can be called as “nodes”, and the links that are the different types of relationships established between nodes.

2. List the advantages and disadvantages of social networks?

Advantage:

Availability and Connectivity

Worldwide information

Increased communication

Brand Marketing

De-Stress

Disadvantage:

Make you addicted

Wellbeing Risks

Reduced physical interactions

Counterfeit News

Increased Cybercrimes

Hacker's risk

Security concerns

3. List the online social network types?

1. Social networking sites.
2. Social review sites.
3. Image sharing sites.
4. Video hosting sites.
5. Community blogs.
6. Discussion sites.

4. Describe the architecture of online social networks?

Profiles, friends, blog posts, widgets, and generally something unique to that specific social networking website — such as the ability to 'poke' somebody on Facebook or high-five someone on Hi5 — are all part of this framework.

CHAPTER 5: Social Network Analysis

1. what the network analysis measures?

It is used for measuring and analyzing the structural properties of the network.

2. Describe different ways to represent social network data.

- Ego network Analysis
ego network Analysis is the one that finds the relationship among people. The analysis is done for a particular sample of people chosen from the whole population.
- Complete network Analysis
It analyses the relationship among the sample of people chosen from the large population.

3. Define the main terminologies for social network analysis

Sociometric (a.k.an Adjacency Matrix)

A numerical matrix used to describe directed or undirected relationships between actors

Edge list

This only collects information about existing relationships, thus knowledge of the entire number of individuals in the network is required

4. List the Social networks applications?

false insurance claims, abuse of health care, insider trading etc.

According to Dan McKenzie, Fraud Solutions Specialist at SAS Canada, financial institutions are finding that SNA is helping uncover 20 to 50 times more fraudulent activities than before SNA was used.

Fraudulent activities are difficult to capture as they incidents are often buried under huge amounts of normal activities.

CHAPTER 6: Social Media Mining

1. Define Social Media Mining and Motivation for it?

is the process of obtaining big data from user-generated content on social media sites and mobile apps in order to extract actionable patterns, form conclusions about users, and act upon the information, often for the purpose of advertising to users or conducting research.

2. List Uses of Social Media Mining?

- **Trend analysis** - Businesses use social media data mining to gain valuable insights into currently trending keywords, mentions, and topics on social media platforms.
- **Event detection** (social heat mapping) - This metric is of great importance for agencies and researchers who use social media monitoring.
- **Social spam detection** - Social media data mining allows for easier detection of spammers and bots on social media platforms like Instagram and Twitter.
- **Ecommerce** - Social media data mining is used to analyze how people talk about products.

- **Digital media** - Social media data mining is also applied to the field of digital media

3. Describe Social Mining Techniques?

- **Keyword extraction**
This is the process of extracting keywords to summarize or categorize a text. Keyword extraction is popular in data mining because it can reveal behavior and/or popular terms related to services or products.
- **Sentiment Analysis**
Sentiment analysis is the process of analyzing opinion. This could include opinions regarding a new product line, reactions to a sporting event, or the current popularity of a politician or celebrity.
- **Association**
Association is one of the most basic techniques in data mining. In this data mining technique, you need to use machine learning models
- **Classification**
Classification is used in various fields, although it is quite a complicated data mining technique. It requires you to collect various attributes in a data set and combine them together into discernible categories.
- **Tracking patterns**
Tracking patterns is a data mining technique that specifically identifies the rules and patterns in the data based on their relational attributes.

4. why social information is important to be extracted?

For the purpose of integration name disambiguation is performed to make the extracted data useable. Processed data is stored in the database for future reference. Algorithms for relation identification and extraction, expert user determination etc. are then developed. Based on the extracted relationship data and profiles, a social network is extracted which can be visualized through a visualization package