

# SOCIAL MEDIA ANALYTICS

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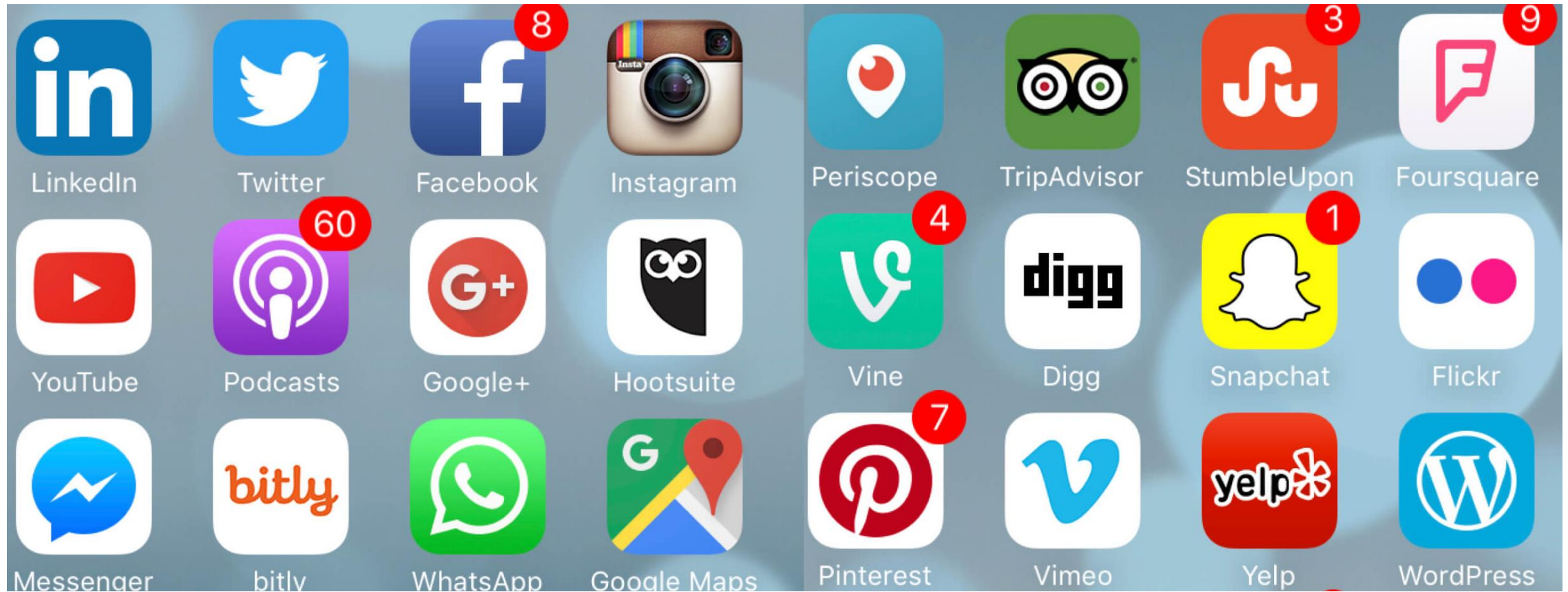
**L.B.S College of Engineering**

(Managed by LBS Centre for Science & Technology - A Govt. of Kerala Undertaking)

Online Session: 15-04-2020

# SOCIAL MEDIA ANALYTICS

- Web users have been putting billions of data online



# Users

- Users are no longer reluctant to share personal information about themselves, their friends, their colleagues, their idols, and their political preferences with anybody who is interested in them.
- Web users are 24/7 connected to all kinds of social media platforms, giving real-time information about their whereabouts.
- While these data sources offer invaluable knowledge and insights in customer behavior and enable marketers to more carefully profile, track, and target their customers

# Consumers

- From a sales-oriented point of view, social media offers advantages for both parties in the business–consumer relationship.
- First, people share thoughts and opinions on weblogs, microblogs, online forums, and review websites, creating a strong effect of digital word-of-mouth advertising.
- Web users can use others' experience to gain information and make purchase decisions.
- As such, consumers are no longer falling for transparent business tricks of a sales representative, but they are well-informed and make conscious choices like true experts

# Companies

- Companies are forced to keep offering high-quality products and services, and only a small failure can have disastrous consequences for the future.
- The Internet changed the competitive environment drastically, and consumers can easily compare product and service characteristics of both local and global competitors.
- Marketers who are searching for the most promising and profitable consumers to target are now able to capture more concrete consumer characteristics, and hence develop a better understanding of their customers

# Others

- Politicians and governmental institutions can get an impression of the public opinion through the analysis of social media
- Nonprofit organizations such as those in the health sector benefit from the dissemination power of social media, anticipating, for example, disease outbreaks, identifying disease carriers, and setting up a right vaccination policy

# Social Networking Sites: B2B Advertisement Tools

A new business-to-business (B2B) billion-dollar industry is launched by capturing users' information in social network websites, enabling personalized advertising and offering services for budget and impact management.

# Facebook Advertising

- Depending on the goal of the advertising campaign, Facebook Advertising calculates the impact and spread of the digital word-of-mouth advertising.
- Marketing campaigns: Increasing the number of clicks to a website (click rate) or page likes (like rate), striving for more reactions on messages posted by the user (comment and share rate), more advanced options like mobile app engagement (download and usage rate) and website conversion (conversion rate)
- The conversion rate of a marketing campaign refers to the proportion of people who undertake a predefined action.
- Enrollment for a newsletter, leaving an email address, buying a product, downloading a trial version, and so on, and is specific for each marketing campaign



# Personalized ads

Create Your Audience Help: Choose Your Audience

Location: [?]   
☒ Country  
☐ City

Age: [?]  -   
Gender: [?] ☒ All  
☐ Men  
☐ Women

Precise Interests: [?]

Broad Categories: [?]

Android Owners 1 ▶	<input checked="" type="checkbox"/> Android Owners (All)
Apple iOS Owners ▶	<input type="checkbox"/> HTC
Autos / Vehicles ▶	<input type="checkbox"/> LG
Books 1 ▶	<input type="checkbox"/> Motorola
Business / Finance ▶	<input type="checkbox"/> Samsung
Consumer Electronics ▶	<input type="checkbox"/> Sony
Custom Categories ▶	<input type="checkbox"/> Android (Other)
Events ▶	

Connections: [?] ☒ All  
☐ Advanced connection targeting

Friends of Connections: [?]

**Estimated Audience**  
**1,740,000** people  
▪ Who live in Belgium  
▪ age exactly 20 and older  
▪ Who are in the broad categories Literature/Reading or Android Owners (All)

**Suggested Bid**  
**€ 0.15–€ 0.28** EUR

- Facebook Advertising allows users to create personalized ads and target a specific public by selecting the appropriate characteristics in terms of demographics, interests, behavior, and relationships.

# The LinkedIn Campaign Manager

- Allows the marketer to create personalized ads and to select the right customers
- LinkedIn Campaign Managers offers services to target individuals based on the characteristics of the companies they are working at and the job function they have
- While Facebook Advertising is particularly suitable for Business-to-Consumer (B2C) marketing, LinkedIn Campaign Manager is aimed at advertisements for Business-to Business (B2B) and Human Resource Management (HRM) purposes.

1  
Create Ad Campaign

2  
Targeting

3  
Campaign Options

4  
Checkout

### Who's the audience for this campaign?

Location	Please specify at least one location
Companies	<input checked="" type="radio"/> All <input type="radio"/> By name <input type="radio"/> By category (industry, company size)
Job Title	<input checked="" type="radio"/> All <input type="radio"/> By title <input type="radio"/> By category (job function, seniority)

### Audience

200,000,000 LinkedIn Members

▼ More targeting options (Schools, Groups, Age, etc.)

☒ Also reach LinkedIn members on other websites through the LinkedIn Audience Network

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Cancel

Next

# Network Analytics

- Network analytics focuses on the relationships between users on social media platforms
- Five types of relationships can be distinguished:
  1. **Friends.** There is a mutual positive relationship between two users. Both users know each other, and acknowledge the association between them.
  2. **Admirers.** A user receives recognition from another user, but the relationship is not reciprocal.
  3. **Idols.** A user acknowledges a certain positive connectedness with another user, but the relationship is not reciprocal.
  4. **Neutrals.** Two users do not know each other and do not communicate with each other.
  5. **Enemies.** There is a negative relationship between two users. Both users know each other, but there is a negative sphere.

# Examples

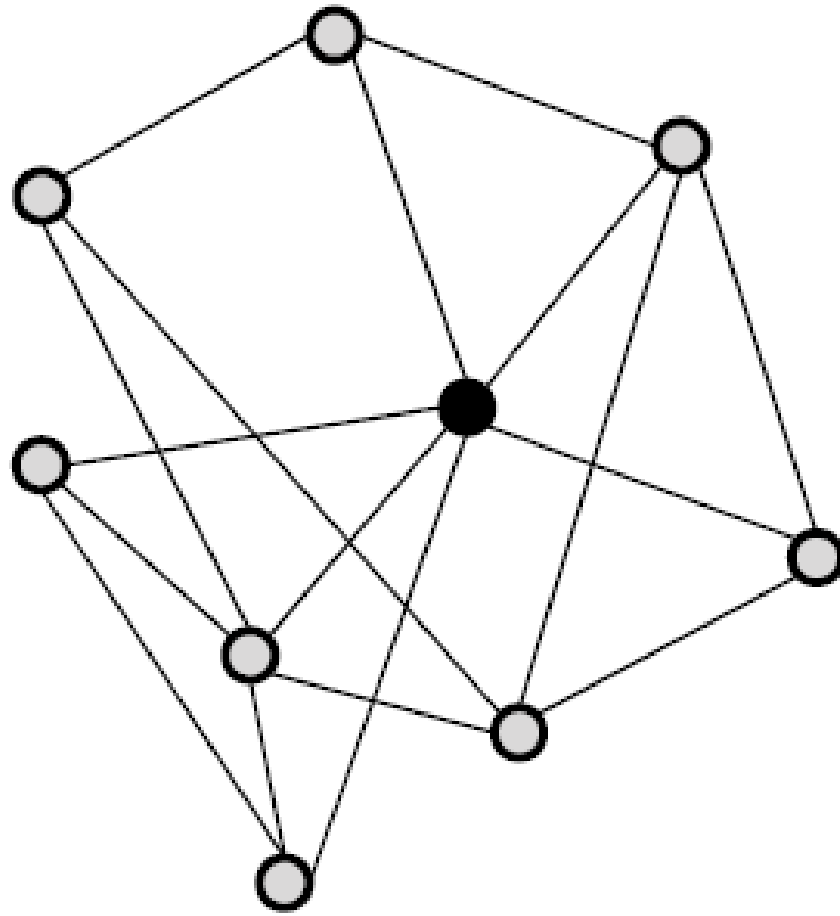
- Although in most social networking sites only friendship relationships are exploited
- Twitter incorporates admirers (followers) and idols (followees) by enabling users to define the people they are interested in.
- Admirers receive the tweets of their idols.
- Enemy relationships are not common in social networking sites, except for EnemyGraph

# Link prediction and Tie strength prediction

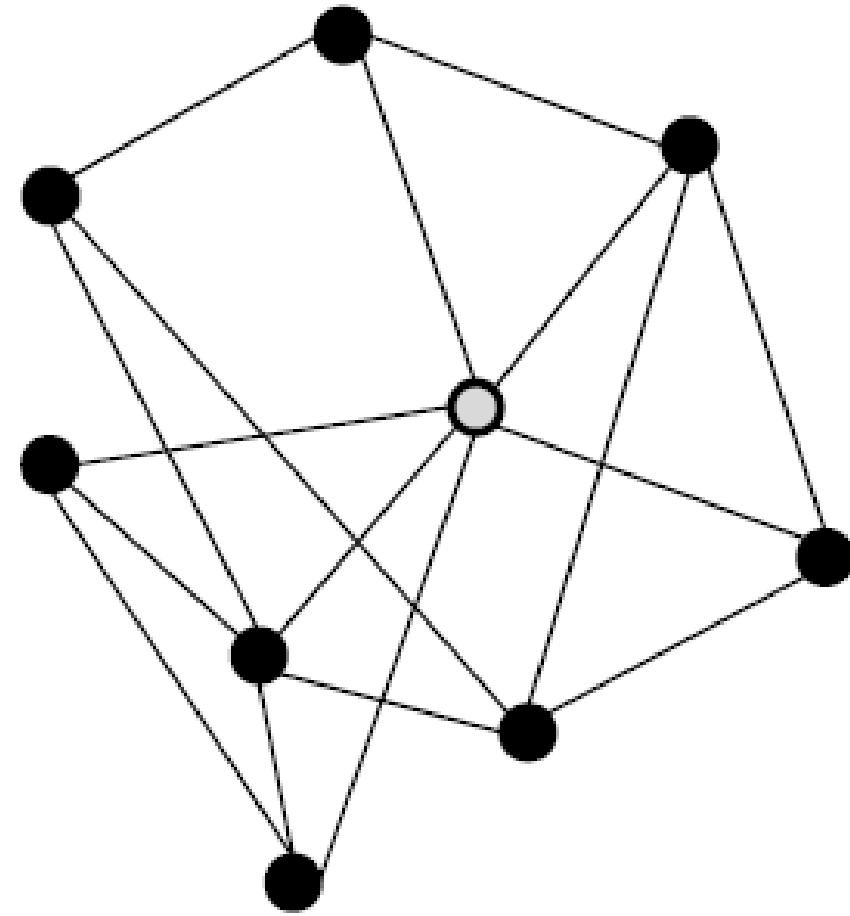
- Link prediction is one subdomain of network analytics where one tries to predict which neutral links are actually friendship, admirer, or idol relationships
- Tie strength prediction is used to determine the intensity of a relationship between two users.

# *Homophily*

- *Homophily* , a concept from sociology, states that people tend to connect to other similar people and they are unlikely to connect with dissimilar people.
- Similarity can be expressed in terms of the same demographics, behavior, interests, brand affinity, and so on.
- People connected to each other are more likely to like the same product or service
- Gathering the true friendship, admirer, and idol relationships between people enables marketers to make more informed decisions for customer acquisition and retention.



(a)



(b)

**Figure 8.22** Social Media Analytics for Customer Acquisition (a) and Retention (b). Grey nodes are in favor of a specific brand, black nodes are brand-averse.



# Sentiment Analysis



Sentiment Analysis

*Scheduled for 4:00 PM*



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Due Apr 18

Answer for 10 marks