M.Sc.-II

Computer Science



Savitribai Phule Pune University

(Formerly University of Pune)

Two year M.Sc. Degree Program in Computer Science (Faculty of Science & Technology)

M.Sc.- II (Computer Science)

Choice Based Credit System Syllabus To be implemented from Academic Year 2020-2021

CSDT234B- Web Analytics

Total Credits: 2

Objectives:

- 1. Understand social media, web and social media analytics, and their potential impact.
- 2. Determine how to Leverage social media for better services and Understand usability metrics, web and social media metrics.
- 3. Use various data sources and collect data relating to the metrics and key performance indicators.
- 4. Identify key performance indicators for a given goal, identify data relating to the metrics and key performance indicators.

Chapter No.		Topics	# Lectures
1	Introduction		2
	1.1	What is web Analytics	
	1.2	Importance of web Analytics	
	1.3	Web Analytics process	
	1.4	Types of web analytics	
	1.5	Web analytics technical requirements	
	1.6	Web analytics 2.0 framework	
2	Qua	litative Analysis	4
	2.1	Heuristic evaluations:	
		2.1.1Conducting a heuristic evaluation	
		2.1.2. Benefits of heuristic evaluations	
	2.2	Site Visits:	
		2.2.1. Conducting a site visit,	
		2.2.2. Benefits of site visits	
	2.3	Surveys:	
		2.3.1. Website surveys	
		2.3.2. Post-visit surveys	
		2.3.3. creating and running a survey	
		2.3.4. Benefits of surveys.	
3	Web	Metrics	10
	3.1	Key metrics	
	3.2	3.2. Dashboard	
		3.2.1. Implementation	
		3.2.2. metrics	
		3.2.3. Types of metrics	
	3.3	Conversion	

- 3.3.1. goals,
- 3.3.2. funnels
- **3.4** Data sources
 - 3.4.1. server log
 - 3.4.2. visitors data
 - 3.4.3. search engine statistics and conversion funnels
- **3.5** Data segmentation
- **3.6** Analysis
- **3.7** Emerging analytics
 - 3.7.1. e commerce
 - 3.7.2. mobile analytics
 - 3.7.3. A/B testing
- **3.8** Social Media Analytics
 - 3.8.1. Sentimental Analysis
 - 3.8.2. Text Analysis
- **3.9** Annotation and Reporting
 - 3.9.1. Automated
 - 3.9.2. Actionable

4 Web Analytics 2.0

- **4.1** 4.1 Introduction to analytic 2.0
- **4.2** Competitive intelligence analysis
- **4.3** CI data sources:
 - 4.3.1. Toolbar data
 - 4.3.2. Panel data
 - 4.3.3. ISP data
 - 4.3.4. Search engine data
 - 4.3.5. Hybrid data
- **4.4** Website traffic analysis:
 - 4.4.1. Comparing long term traffic trends
 - 4.4.2 Analyzing competitive site overlap and opportunities.

5 Google Analytics:

- **5.1** Audience analysis
- **5.2** Acquisition analysis
- **5.3** Behaviour analysis
- **5.4** Conversion analysis
- **5.5** Google website optimizer
- **5.6** Implementation technology
- **5.7** Privacy issues

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References:

- 1. Clifton B., Advanced Web Metrics with Google Analytics, Wiley Publishing, Inc.2nd ed.
- 2. Kaushik A., Web Analytics 2.0, The Art of Online Accountability and Science of Customer Centricity, Wiley Publishing, Inc. 1st ed.
- 3. Kaushik A., Web Analytics: An Hour a Day, 1st ed.
- 4. Sterne J., Web Metrics: Proven methods for measuring web site success, John Wiley and Sons

CSDP234B

Web Analytics Practical

Total Credits – 2

1 Mining Twitter: Exploring Trending Topics, Discovering What People Are Talking About, and More

Why Is Twitter All the Rage?, Exploring Twitter's API, Fundamental Twitter Terminology, Creating a Twitter API Connection, Exploring Trending Topics, Searching for Tweets, Analysing the 140 Character, Extracting Tweet Entities, Analysing Tweets and Tweet Entities with Frequency Analysis, Computing the Lexical Diversity of Tweets, Examining Patterns in Retweets, Visualizing Frequency Data with Histograms

2 Mining Facebook: Analysing Fan Pages, Examining Friendships, and More

Overview, Exploring Facebook's Social Graph API, Understanding the Social Graph API, Understanding the Open Graph Protocol, Analysing Social Graph Connections, Analysing Facebook Pages, Examining Friendships

3 Mobile Analytic: Analyse the your site on mobile device

In last 30 days, how many new users come from mobile, What was the bounce rate of visitors on mobile device, What was the average session duration?

4 Segment traffic:

Which social channel is sending the most engaged new users, Which page of your Website have been shared most, Which URL has the best engagement matrix.

5 Use Google Analytics to measure the various metrics for E-commerce site amazon. On-site – It measures the users' behaviour once it is on the website. For example, measurement of your website performance. Off-site – It is the measurement and analysis irrespective of whether you own or maintain a website. For example, measurement of visibility, comments, potential audience, etc.

6 Use Google Analytics to measure the various metrics for E-commerce site flipkart **Count**

It is most basic metric of measurement. It is represented as a whole number or a fraction. For example,

Number of visitors = 12999, Number of likes = 3060, etc. Total sales of merchandise = \$54,396.18.

Ratio

It is typically a count divided by some other count. For example, Page views per visit.

Key Performance Indicator (KPI)

It depends upon the business type and strategy. KPI varies from one business to another.

7 Visitors loyalty:

Analyse the person who visit site again and again is loyal to company because they can become customer

8 Consider the any E-Commerce site and to measure the web analytics.

Content

It gives you insight about website's content section. You can see how each page is doing, website loading speed, etc.

Page Load Time

More is the load time, the more is bounce rate. Tracking page load time is equally important.

Engagement Rate

It shows how long a person stays on your web page. What all pages he surf. To make your web pages more engaging, include informative content, visuals, fonts and bullets.

9 Text Analytics: Interpreting Twitter Data From college students Tweets. Extracting Tweet Entities, Analysing Tweets and Tweet Entities with Frequency Analysis, Computing the Lexical Diversity of Tweets, Examining Patterns in Retweets, Visualizing Frequency Data with Histograms

10 Consider the any E-Commerce site and to measure the web analytics. Bounce Rate

If a person leaves your website within a span of 30 sec, it is considered as a bounce. The rate at which users spin back is called the bounce rate.

To minimize bounce rate include related posts, clear call-to-action and backlinks in your webpages.

Behavior

Behavior lets you know page views and time spent on website. You can find out how customer behaves once he is on your website.