

### BCA SEM-I 2023-2024

# SOCIAL MEDIA ANALYTICS USING R – SCOPE OF PREDICTIVE MODELLING

By,
Dr.Anupriya Kamble,
Senior Faculty-IT
ADYPU, Pune.



#### WHAT IS PREDECTIVE MODELLING

To predict the future using the past.

It's a mathematical process that aims to predict future events or outcomes based of past behaviors.

This can be done by the analysis of the available data from which patterns can be identified, which will predict the forecast that can take place in the future



#### PREDECTIVE MODELLING PROCESS

Once the data of the past and current is collected, the predictive modelling process starts.

Algorithms and statistical models are created with this data by the data analyst or the data scientists.

The data is "train" ed with the subsets of the data and run it against the full data set to generate the predictive model.

## NURTURE

#### SCOPE OF PREDICTIVE MODELLING

#### PREDECTIVE MODELS

Multiple models are used once, to create a single prediction.

Modelling is a hands on part of analytics applications.

Many modelling methods and algorithms are present some of which are decision tree, time series analysis, neural networks, linear regression and logistic regression.



#### MAIN PREDECTIVE MODELLING APPLICATIONS

Commonly used with Meterology and weather forecasting.

Also used in business applications like online advertising and marketing.



#### WHAT ANALYSIS IS DONE IN MARKETING

What the users clicked on,
What did the users buied,
How long users view a particular data,

To determine what kind of products users are likely to purchase in the future.



#### OTHER PREDECTIVE MODELLING APPLICATIONS

SPAM FILTERS
FRAUD DETECTION
CRM
CAPACITY PLANNING
CHANGE MANAGEMENT
DISASTER RECOVERY
ENGINEERING
MEDICAL DIAGNOSIS
SECURITY MANAGEMENT



#### **EFFECTIVE PREDICTING**

- 1. The data should be Acquired, sorted, cleaned and prepared for analysis.
  - 2. Models should not be overfit or overtested.
  - 3. Planning for technical and organizational barriers.
  - 4. The predictive models should address the real business challenges.



#### **REFERENCES**

- 1. <a href="https://emeritus.org/in/learn/business-analytics-predictive-modeling/">https://emeritus.org/in/learn/business-analytics-predictive-modeling/</a>
  - 2. https://www.mathworks.com/discovery/predictive-modeling.html



