Data driven decision making – approaches and techniques

Gain a deeper understanding of frequently used Data and Analytics terms.

Analytical approaches | **Analytical techniques**

A/B testing

An experiment whereby two versions (A and B) are compared. They are identical except for one variation that might affect a user's behaviour. Version A might be the currently used version (control), while respect (treatment).

Data discovery

A business intelligence architecture which allows users to explore data for hidden patterns and trends. It focuses on dynamic, easy-to-use reports, whereas traditional business intelligence reports are static.

Descriptive analytics

Summarises what happened in a given situation or scenario. Examples include number of posts, mentions, followers, page views, comments and likes.

Optimisation

Finding an alternative with the most cost effective or highest achievable performance under the given constraints, by maximising desired factors and minimising undesired ones.

Predictive analytics

Uses statistical functions on one or more data sets to predict trends or future events.

Prescriptive analytics

Recommends one or more courses of action and shows the likely outcome of each decision.

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Cluster analysis

The task of grouping a set of objects in such a way that objects in the same group (cluster) are more similar, in some sense or another, to each other than to those in other groups clusters).

Comparative analysis

A step-by-step procedure of comparisons and calculations to detect patterns within very large data sets.

Descriptive tree analytics

A decision support tool that uses a tree-like graph of decisions and their possible consequences including chance event outcomes, resource costs and tility.

Factor analysis

Used to analyse large numbers of dependent variables to detect certain aspects of the independent variables (factors) affecting those dependent variables.

Machine learning

A type of artificial intelligence which provides computers with the ability to learn without being explicitly programmed.

Multivariate analysis

The observation and analysis of more than one statistical outcome variable at a time..

Regression analysis

A statistical process for estimating relationships between a dependent variable and one or more independent variables.

Segmentation analysis

Divides a broad category into subsets that have, or are perceived to have, common features, needs, interests or priorities.

Sentiment analysis

The process of identifying and categorising opinions expressed in a piece of text to determine whether the writer's attitude towards a topic or issue is positive, negative or neutral.

Simulation

The imitation of the operation of a real world process or system over time. It requires a model that represents the key characteristics or behaviours of the selected physical or abstract system or process.

Time Series analysis

Comprises methods for analysing time series data to extract meaningful statistics and other characteristics of the data.