

# Data Analytics

## Modern Data Analysis with AI

Steadily growing amounts of data with varying levels of complexity pose an increasing challenge to companies. This is called Big Data. Such big amounts of data offer chances that have to be taken. The use of Data Analytics methods, such as Machine Learning makes, e.g. analyses of data in real-time possible. Trends or risks can thus be detected in time and respective measures can be taken.

### Motivation

The steadily growing amounts of data are not used in companies or only to an insufficient extent. The use of methods for analyses or predictions depicts efficiency potentials.

### Goal

The efficient use of Data Analytics is supposed to show companies their potentials that afterwards have to be developed. By doing so, processes with Machine Learning can e.g. be automated or improved. At the same time risks such as outflow of customers can be recognized early on. With already existing data an extensive customer analysis and segmentation can be carried out. Offers can be personalized, new cross selling opportunities can be identified and thereby customer satisfaction can be increased.

The advantages are:

- » Process automation – effort and cost saving
- » Customer understanding – recognition of customer demand
- » Risk capturing – create security
- » Identify trends – use competitive advantages

### Solution

targens excels with its profound experience in the field of Data Analytics, especially in the use of current AI methods. Customerspecific, goal-oriented Data Analytics solutions are created that can also be integrated into existing business processes.

#### In the focus of Data Analytics are:

- » Deep Learning/Machine Learning – e.g. checking of already made decisions
- » Natural Language Processing – e.g. analyses of websites
- » Predictive Modelling – e.g. development of rental prices
- » Geographical and demographical analyses – e.g. market analyses
- » Further statistical procedures – e.g. clustering for target group segmentation

### PROFESSIONAL APPLICATIONS

#### Data Mining

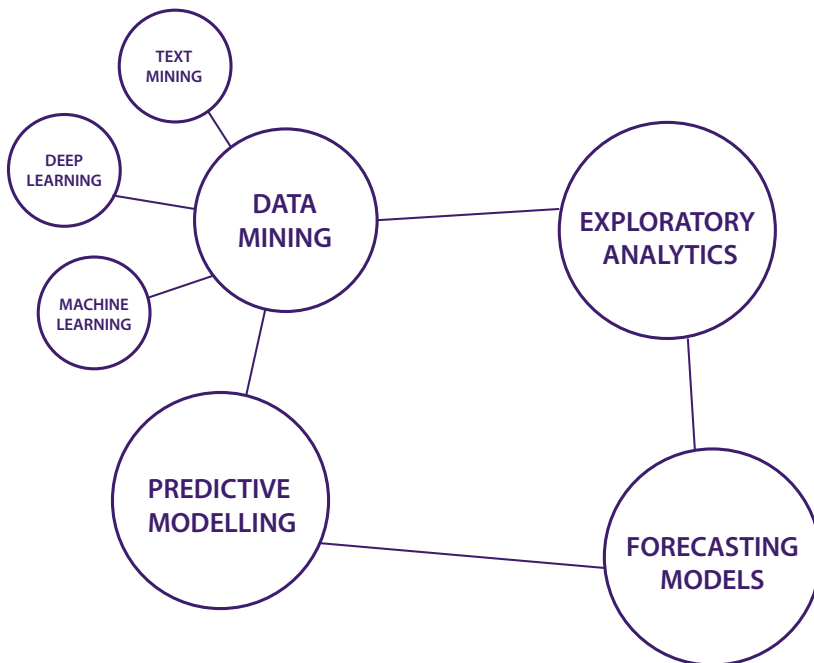
Drawing conclusions from data, e.g. in order to gain further information on a defined group of people, is also called Data Mining. Machine Learning methods, such as Natural Language Processing enable the analysis of texts. In this context we talk about Text Mining. An exemplary use case is the analysis of social media and sentiments. The analysis of texts by adding further data sources referring to a search term identifies a positive or negative atmosphere of the target group. Respective measures can be taken.

#### Exploratory Analytics

The identification of patterns, trends and relationships from existing data is also called Exploratory Analytics. Thereby a customer segmentation with cluster procedure can e.g. be carried out. The customers are divided into homogenous classes according to their behavior. Thus, a specific approach of customers or the use of clustering is made possible. Even in risk management, e.g. during granting of credit, the division into uniform groups is useful.

## At one glance – Data Analytics

- » Data Mining – Drawing conclusions from data
- » Exploratory Analytics – Identification of connections and patterns in data
- » Predictive Analytics – Prognosis of future events



## Predictive Analytics

Being able to estimate future developments and react to it in time is relevant for all sections of a company. Predictive Analytics uses current and historical data, in order to predict future events. Possible application fields are, e.g. fraud prevention, antiabuse, credit scoring, predictions of customer outflow and rate movement.

## Project examples

### » Extraction of key figures from business reports (Data Mining)

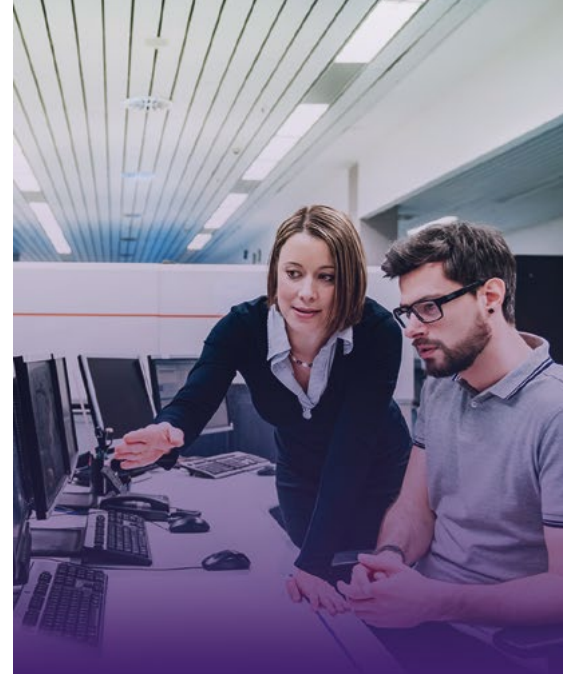
targens has developed a procedure that makes it unnecessary for people to evaluate business reports manually, but that makes it possible to extract important key figures from business reports automatically. Thereby it is possible, to make information available within seconds that usually would have taken several days to be gained.

### » Behavior-based customer segmentation (Exploratory Analytics)

The goal was to divide customers according to their behavior. A customer segmentation based on the respective behavior was carried out with pseudonymized transaction data. Customers that behave similarly in respect to their transactions are also depicted in the same segment. The division of customers makes it possible to detect future, conspicuous change of behavior in time. Especially in the field of money laundering prevention this method offers a decisive added value.

### » Plausibility check of transactions (Predictive Analytics)

By means of existing transaction data a prediction model was created. The goal was to predict the amount of future transactions. Hereby transactions that deviate too much from the prediction are marked as conspicuous. This enables the timely identification and elimination of errors during the detection of transactions.



## SMARAGD

With the targens product line SMARAGD Compliance Suite as an intelligent software solution we support companies in the fields of finance and corporates in their fight against financial crime and fraud. Innovative AI components are also used in our products.



## targens»

targens is a professional service provider for banking, compliance and Digital Finance, as well as a leading provider of consulting, software and product solutions. Based on a professional consulting, high-performance products and the mastering of disruptive technologies, the consulting and software company supports its customers in their corporate management, trading activities, the protection of their business processes and the accelerated attainment of sales activity success.

### Your contact for Data Analytics

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