‘Watson’ - a new approach to analytics and cognitive computing

Dr Mohamed Zaki
• What is Cognitive Computing?

• IBM Watson Analytics

• Why Watson Analytics is Different?

• IBM Content Analytics
What is Cognitive Computing?

Applying human-like characteristics to conveying and manipulating ideas, that when combined with digital computing help users to address complex challenges.

Watson is a cognitive system that is learning the right question to ask within a given context from the data at hand.
Why Cognitive?

Expensive labor

Too much data

Need for accurate decisions

Tedious work

Powerful technologies
IBM Watson Analytics

Self-service analytics capabilities in the cloud

**Single Analytics Experience**

**Fully Automated Intelligence**

**Natural Language Dialogue**

**Guided Analytic Discovery**
IBM Watson Analytics

**Infrastructure**
- SoftLayer
- User Administration
- Data Security
- User Interface

**Tell a Story**
- Recommended Visualizations
- Reusable Content
- Templates & Themes
- Collaboration

**Think Ahead**
- Guided Analytics
- Predictive Drivers
- Anticipate Outcomes

**Understand your Business**
- Jumpstart Your Analysis
- Natural Language Dialogue
- Automatic Insights
- Easy Search

**Get Better Data**
- Integration
- Access
- Refinement
- Quality

**Data Sources**
Exploration Mode

What do you want to explore in "Auto - US Sales"?

Here are some starting points.

- What are the values of ElapsedDaysInSalesStage by State?
- How do the values of RatioDaysIndenitifiedToTotal compare by Sales Region and RevenueFromClientPastTwo?
- How do the values of RatioDaysQualifiedToTotalID compare by Sales Region and SuppliesGroup?
- What is the breakdown of RatioDaysValidatedToTotalID by RevenueFromClientPastTwo and State?
- What is the grouping of Sales Region by RevenueFromClientPastTwo and
- What is the relationship between TotalDaysIdentifiedThroughC and ElapsedDaysInSalesStage and
- What are the values of RatioDaysIndenitifiedToTotalID by State?
- What is the relationship between ElapsedDaysInSalesStage and

Select and dive deeper into each exploration.

Ask your own questions about your data using natural language.

Automatically analyzes your data and provides questions for you to explore.
Prediction Mode

Predict

Additional insights discovered for you

Identified predictors of your target analysis

Pin your results for use in dashboards and storytelling

Automated data visualizations
IBM Content Analytics

Text Analytics is the basis for Watson Content Analytics

What is Text Analytics?

*Text Analytics* (NLP*) describes a set of linguistic, statistical, and machine learning techniques that allow text to be analyzed and key information extraction for business integration.

Not only was the pick-up line at the counter very long, but I waited 30 minutes just to talk to a rude representative who gave me a car that smelled like smoke had stained floor mats, a dented fender and only half a tank of gas.

What is Content Analytics?

*Content Analytics* (Text Analytics + Mining) refers to the text analytics process plus the ability to visually identify and explore trends, patterns, and statistically relevant facts found in various types of content spread across internal and external content sources.
The Solution – Watson Content Analytics*

Watson Content Analytics used to structure unstructured content and extract relevant information

- Physical Documents
- Classification
- Document Type
- OCR/ICR Recognition
- Digital Documents
- Electronic Forms

Watson Content Analytics

Natural Language

The Solution

- Watson Content Analytics crawls through multiple sources of documents, identifying relevant conditions or excerpts of information for the claims processor into a single unified view, eliminating manual search and analysis steps
- Structuring of information could lead to further automation
IBM Content Analytics Visualisation

- Document Analysis
- Facets
- Dashboard
- Time Series
- Sentiment
- Connections
- Facet Pairs
- Deviations / Trends