

The background features a complex network of thin, golden-brown lines that resemble circuit traces or data pathways. These lines are interconnected with small circular nodes, some of which are solid gold and others are hollow. The overall pattern is dense and organic, spreading across the entire frame. A semi-transparent white rectangular area is positioned in the center, serving as a backdrop for the text.

# **BIG DATA**

## **USE CASES**

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# BIG DATA USE CASES:



1. OPTIMIZE FUNNEL  
CONVERSION



2. BEHAVIORAL  
ANALYTICS



3. CUSTOMER  
SEGMENTATION



4. PREDICTIVE  
SUPPORT



5. MARKET BASKET  
ANALYSIS AND PRICING  
OPTIMIZATION



6. PREDICT SECURITY  
THREATS



7. FRAUD DETECTION








8. INDUSTRY SPECIFIC



# 1. OPTIMIZE FUNNEL CONVERSION

Big data analytics allows companies to track leads through the entire sales conversion process, from a click on an adword ad to the final transaction, in order to uncover insights on how the conversion process can be improved.

	 <b>COMPANY</b> T-Mobile	 <b>INDUSTRY</b> Communication
	 <b>EMPLOYEES</b> 38,000	 <b>TYPE</b> Optimize Funnel Conversion

## PURPOSE:

T-mobile uses multiple indicators, such as billing and sentiment analysis, in order to identify customers that can be upgraded to higher quality products, as well as to identify those with a high lifetime customer-value, so its team can focus on retaining those customers.



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## COMPANY

Celcom Axiata  
Berhad



## INDUSTRY

Communication



## EMPLOYEES

Enterprise



## TYPE

Optimize Funnel  
Conversion

## PURPOSE:

Celcom Axiata Berhad adopted a big data solution in order to improve customer retention and boost its market share by improving the marketing campaign process. The company used real-time data to create a personalized campaign for each customer based on which products or offers the customer would most want or need.



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La forma e la sostanza.



## COMPANY

Credem



## INDUSTRY

Finance



## EMPLOYEES

5,600



## TYPE

Optimize Funnel  
Conversion

## PURPOSE:

Credem uses data analytics to predict which financial products or services a customer would appreciate, so it can better target consumers during the sales process. With these insights, the bank increased average revenue by 22 percent and reduced costs by 9 percent.



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## 2. BEHAVIORAL ANALYTICS

With access to data on consumer behavior, companies can learn what prompts a customer to stick around longer, as well as learn more about their customer's characteristics and purchasing habits in order to improve marketing efforts and boost profits.





## COMPANY

Mastercard



## INDUSTRY

Finance



## EMPLOYEES

67,000



## TYPE

Behavioral  
Analytics

## PURPOSE:

With 1.8 billion customers, MasterCard is in the unique position of being able to analyze the behavior of customers in not only their own stores, but also thousands of other retailers. The company teamed up with Mu Sigma to collect and analyze data on shoppers' behavior, and provide the insights it finds to other retailers in benchmarking reports.



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## COMPANY

Time Warner Cable



## INDUSTRY

Entertainment



## EMPLOYEES

34,000



## TYPE

Behavioral Analytics  
& Customer  
Segmentation

## PURPOSE:

With services like Hulu and Netflix competing for viewers' attention, Time Warner collects data on how frequently customers tune in, the effect of bandwidth on consumer behavior, customer engagement and peak usage times in order to improve their service and increase profits. The company also segments its customers for advertisers by correlating viewing habits with public data—such as voter registration information—in order to launch highly targeted campaigns to specific locations or demographics.



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## COMPANY

Nestlé



## INDUSTRY

Food & Beverage



## EMPLOYEES

>330,000



## TYPE

Behavioral  
Analytics

## PURPOSE:

Customer complaints and PR crises have become more difficult to handle thanks to social media. To better keep track of customer sentiment and what is being said about the company online, Nestle created a 24/7 monitoring centre to listen to all of the conversations about the company and its products on social media. The company will actively engage with those that post about them online in order to mitigate damage and build customer loyalty.



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## COMPANY

McDonald's



## INDUSTRY

Food & Beverage



## EMPLOYEES

>750,000



## TYPE

Behavioral  
Analytics

## PURPOSE:

McDonalds tracks vast amounts of data in order to improve operations and boost the customer experience. The company looks at factors such as the design of the drive-thru, information provided on the menu, wait times, the size of orders and ordering patterns in order to optimize each restaurant to its particular market.



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## COMPANY

Starbucks Coffee



## INDUSTRY

Food & Beverage



## EMPLOYEES

160,000



## TYPE

Behavioral  
Analytics

## PURPOSE:

Starbucks collects data on its customers' purchasing habits in order to send personalized ads and coupon offers to the consumers' mobile phones. The company also identifies trends indicating whether customers are losing interest in their product and directs offers specifically to those customers in order to regenerate interest.



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### 3. CUSTOMER SEGMENTATION

By accessing data about the consumer from multiple sources, such as social media data and transaction history, companies can better segment and target their customers and start to make personalized offers to those customers.



## COMPANY

Heineken



## INDUSTRY

Food & Beverage



## EMPLOYEES

64,252



## TYPE

Customer  
Segmentation

## PURPOSE:

Thanks to its partnerships with Google and Facebook, Heineken has access to vast amounts of data about its customers that it uses to create real-time, personalized marketing messages. One project provides real-time content to fans who happen to be watching a sponsored event.



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## COMPANY

Spotify



## INDUSTRY

Entertainment



## EMPLOYEES

5,000



## TYPE

Customer  
Segmentation &  
Behavioral Analytics

## PURPOSE:

Spotify uses data from user profiles and users' playlists, and historical data on music played to provide recommendations for each user. By combining data from millions of users, Spotify is able to make recommendations even if a particular user doesn't have an extensive history with the site.



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# NORDSTROM



## COMPANY

Nordstrom



## INDUSTRY

Retail



## EMPLOYEES

48,000



## TYPE

Customer  
Segmentation

## PURPOSE:

Nordstrom collects data from its website, social media, transactions and customer rewards program in order to create customized marketing messages and shopping experiences for each customer, based on the products and channels that customer prefers.



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**COMPANY**  
Intercontinental  
Hotel Group



**INDUSTRY**  
Hotel/Travel



**EMPLOYEES**  
7,981



**TYPE**  
Customer  
Segmentation

## PURPOSE:

IHG collects extensive data about their customers in order to provide a personalized web experience for each customer, so as to boost conversion rates. It also uses data analytics to evaluate and adjust its marketing mix.



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## COMPANY

Walmart



## INDUSTRY

Retail



## EMPLOYEES

2,000,000



## TYPE

Customer  
Segmentation

## PURPOSE:

Walmart combines public data, social data and internal data to monitor what customers and friends of customers are saying about a particular product online. The retailer uses this data to send targeted messages about the product, and to share discount offers. Walmart also uses data analysis to identify the context of an online message, such as if a reference to “salt” is about the movie or the condiment.



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## 4. PREDICTIVE SUPPORT

Through sensors and other machine-generated data, companies can identify when a malfunction is likely to occur. The company can then preemptively order parts and make repairs in order to avoid downtime and lost profits.



## COMPANY

Southwest Airlines



## INDUSTRY

Travel



## EMPLOYEES

>45,000



## TYPE

Predictive Support

## PURPOSE:

Southwest analyses sensor data on their planes in order to identify patterns that indicate a potential malfunction or safety issue. This allows the airline to address potential problems and make necessary repairs without interrupting flights or putting passengers in danger.



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## COMPANY

Engine Yard



## INDUSTRY

Cloud Storage



## EMPLOYEES

130



## TYPE

Predictive Support

## PURPOSE:

Engine yard provides big data analytics to its users, so they can monitor the performance of applications in real time, pinpoint problems with the infrastructure and optimize the platform to correct performance issues.



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Morgan Stanley



## COMPANY

Morgan Stanley



## INDUSTRY

Financial



## EMPLOYEES

60,000



## TYPE

Predictive Support

## PURPOSE:

Morgan Stanley uses real-time wire data analytics to detect problems in its applications and prioritize which issues should be addressed first. The company also uses big data to determine the impact of a particular market event, as well as its original cause.



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## COMPANY

Union Pacific  
Railroad



## INDUSTRY

Transportation



## EMPLOYEES

44,000



## TYPE

Predictive Support

## PURPOSE:

With predictive analytics and tools such as visual sensors and thermometers, Union Pacific can detect imminent problems with railway tracks in order to predict potential derailments days before they would likely occur. So far the sensors have reduced derailments by 75 percent.



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## COMPANY

Purdue University



## INDUSTRY

Education



## EMPLOYEES

40,000 students  
6,600 staff



## TYPE

Predictive Support

## PURPOSE:

Purdue University uses big data analytics for a unique kind of predictive support. Its system predicts academic and behavioral issues so that students and teachers can be notified when changes need to be made in order for the student to be successful.



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## 5. MARKET BASKET ANALYSIS & PRICING OPTIMIZATION

By quickly pulling data together from multiple sources, retailers can better optimize their product selection and pricing, as well as decide where to target ads.



## COMPANY

Procter & Gamble



## INDUSTRY

Household Retail



## EMPLOYEES

129,000



## TYPE

Market Basket  
Analysis

## PURPOSE:

P&G uses simulation models and predictive analytics in order to create the best design for its products. It creates and sorts through thousands of iterations in order to develop the best design for a disposable diaper, and uses predictive analytics to determine how moisture affects the fragrance molecules in dish soap, so the right fragrance comes out at the right time in the dishwashing process.



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## COMPANY

Etihad



## INDUSTRY

Travel



## EMPLOYEES

more than 9,000



## TYPE

Market Basket  
Analysis & Pricing  
Optimization

## PURPOSE:

As Etihad Airways seeks to expand internationally, it uses big data to determine which destinations and connections should be added in order to maximize revenue.



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	 <b>COMPANY</b> Coca-Cola Co.	 <b>INDUSTRY</b> Food
	 <b>EMPLOYEES</b> 146,200	 <b>TYPE</b> Market Basket Analysis

## PURPOSE:

Coca-Cola uses an algorithm to ensure that its orange juice has a consistent taste throughout the year. The algorithm incorporates satellite imagery, crop yields, consumer preferences and details about the flavours that make up a particular fruit in order to determine how the juice should be blended.



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## 6. PREDICT SECURITY THREATS

Big data analytics can track trends in security breaches and allow companies to proactively go after threats before they strike.



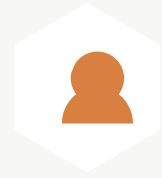
## COMPANY

Rabobank



## INDUSTRY

Finance



## EMPLOYEES

27,000



## TYPE

Predict Security  
Threats

## PURPOSE:

Rabobank analysed criminal activities at ATMs to determine factors that increased the risk of becoming victimized. It discovered that proximity to highways, weather conditions and the season all affect the risk of a security threat.



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## COMPANY

Amazon



## INDUSTRY

Online Retail



## EMPLOYEES

110,000



## TYPE

Predict Security Threats

## PURPOSE:

With more than 1.5 billion items in its catalog, Amazon has a lot of product to keep track of and protect. It uses its cloud system, S3, to predict which items are most likely to be stolen, so it can better secure its warehouses.



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## 7. FRAUD DETECTION

Financial firms use big data to help them identify sophisticated fraud schemes by combining multiple points of data.

# ZIONS BANK®



## COMPANY

Zion's Bank



## INDUSTRY

Finance



## EMPLOYEES

2,700



## TYPE

Fraud Detection

## PURPOSE:

Zions Bank uses data analytics to detect anomalies across channels that indicate potential fraud. The fraud team receives data from 140 sources—some in real-time—to monitor activity, such as if a customer makes a mobile banking transaction at the same time as a branch transaction.



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## COMPANY

Discovery Health



## INDUSTRY

Insurance



## EMPLOYEES

5,000



## TYPE

Fraud Detection

## PURPOSE:

Discovery Health uses big data analytics to identify fraudulent claims and possible fraudulent prescriptions. For example, it can identify if a healthcare provider is charging for a more expensive procedure than was actually performed.



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## COMPANY

Memorial  
Healthcare



## INDUSTRY

Healthcare



## EMPLOYEES

Enterprise



## TYPE

Fraud Detection

## PURPOSE:

Memorial Health Care uses data analytics to vet vendors and to uncover unethical activities, such as bid rigging.



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## 8. INDUSTRY SPECIFIC

Virtually every industry has invested in big data to help solve specific challenges those industries face. Healthcare, for example, uses big data to improve patient outcomes, and agriculture uses data to boost crop yields.



## COMPANY

Kayak



## INDUSTRY

Travel



## EMPLOYEES

101



## TYPE

Industry Specific

## PURPOSE:

Kayak uses big data analytics to create a predictive model that tells users if the price for a particular flight will go up or down within the next week. The system uses one billion search queries to find the cheapest flights, as well as popular destinations and the busiest airports. The algorithm is constantly improved by tracking the flights to see if its predictions are correct.



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## COMPANY

Aurora Health Care



## INDUSTRY

Health Care



## EMPLOYEES

30,000



## TYPE

Industry Specific

## PURPOSE:

Aurora collects internal as well as national data in order to create a benchmark for healthcare quality. It also analyzes data on groups of patients with similar medical conditions, to reveal trends in the diseases and to identify the right candidates for medical research. Finally, the real-time data analysis allows Aurora to predict and improve patient outcomes ,and so far has reduced readmissions by 10 percent.



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**COMPANY**  
Catalyst IT



**INDUSTRY**  
H.R/Recruiting  
Technology



**EMPLOYEES**  
130+



**TYPE**  
Industry Specific

## PURPOSE:

Catalyst IT Services built a program to screen job candidates based on how the candidate completed a survey. The program collects thousands of data points, such as how the candidate approaches a difficult question to determine how the candidate works. Since implementing the program, employee turnover at the company has been reduced to 15 percent.



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**COMPANY**  
Shell



**INDUSTRY**  
Oil



**EMPLOYEES**  
87,000



**TYPE**  
Industry Specific

## **PURPOSE:**

Shell uses sensor data to map its oil and gas wells in order to increase output and boost the efficiency of its operations. The data received from the sensors is analyzed by artificial intelligence and rendered in 3D and 4D maps.



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## COMPANY

John Deere



## INDUSTRY

Farming



## EMPLOYEES

60,000



## TYPE

Industry Specific

## PURPOSE:

Sensors placed on John Deere equipment, along with historical and real-time data on soil conditions, the weather and crop features are all used together to help farmers determine where and when to plant to get the highest yield, and how to boost the efficiency of their work to reduce fuel costs.



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# TOP 10

## BIG DATA COMPANIES BY REVENUE

1



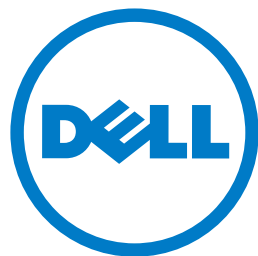
2



3



4



5



6



7



8



9



10



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