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.

COMPANY
T-Mobile

INDUSTRY
Communication

EMPLOYEES
38,000

TYPE
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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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	🏢 INDUSTRY
Mastercard	Finance
👤 EMPLOYEES	🔍 TYPE
67,000	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	🏢 INDUSTRY
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 vasts 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	**INDUSTRY**
Spotify	Entertainment

EMPLOYEES	**TYPE**
5,000	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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![InterContinental Hotels Group logo]

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

Walmart
Save money. Live better.

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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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

UNION PACIFIC

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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COMPANY
Coca-Cola Co.

INDUSTRY
Food

EMPLOYEES
146,200

TYPE
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.
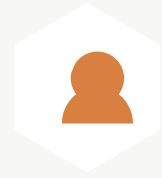
	COMPANY		**INDUSTRY**
	Rabobank		Finance
	EMPLOYEES		**TYPE**
	27,000		Predict Security Threats

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.

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		**INDUSTRY**
	Aurora Health Care		Health Care
	EMPLOYEES		**TYPE**
	30,000		Industry Specific

Aurora Health Care

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.

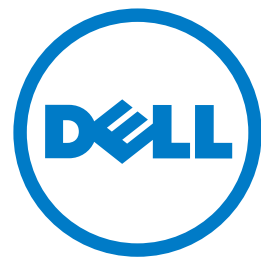tweet this

TOP 10
BIG DATA COMPANIES BY REVENUE

1 IBM

2 HEWLETT PACKARD

3 TERADATA

4 DELL

5 ORACLE

6 SAP

7 EMC²

8 CISCO

9 pwc

10 Microsoft

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