



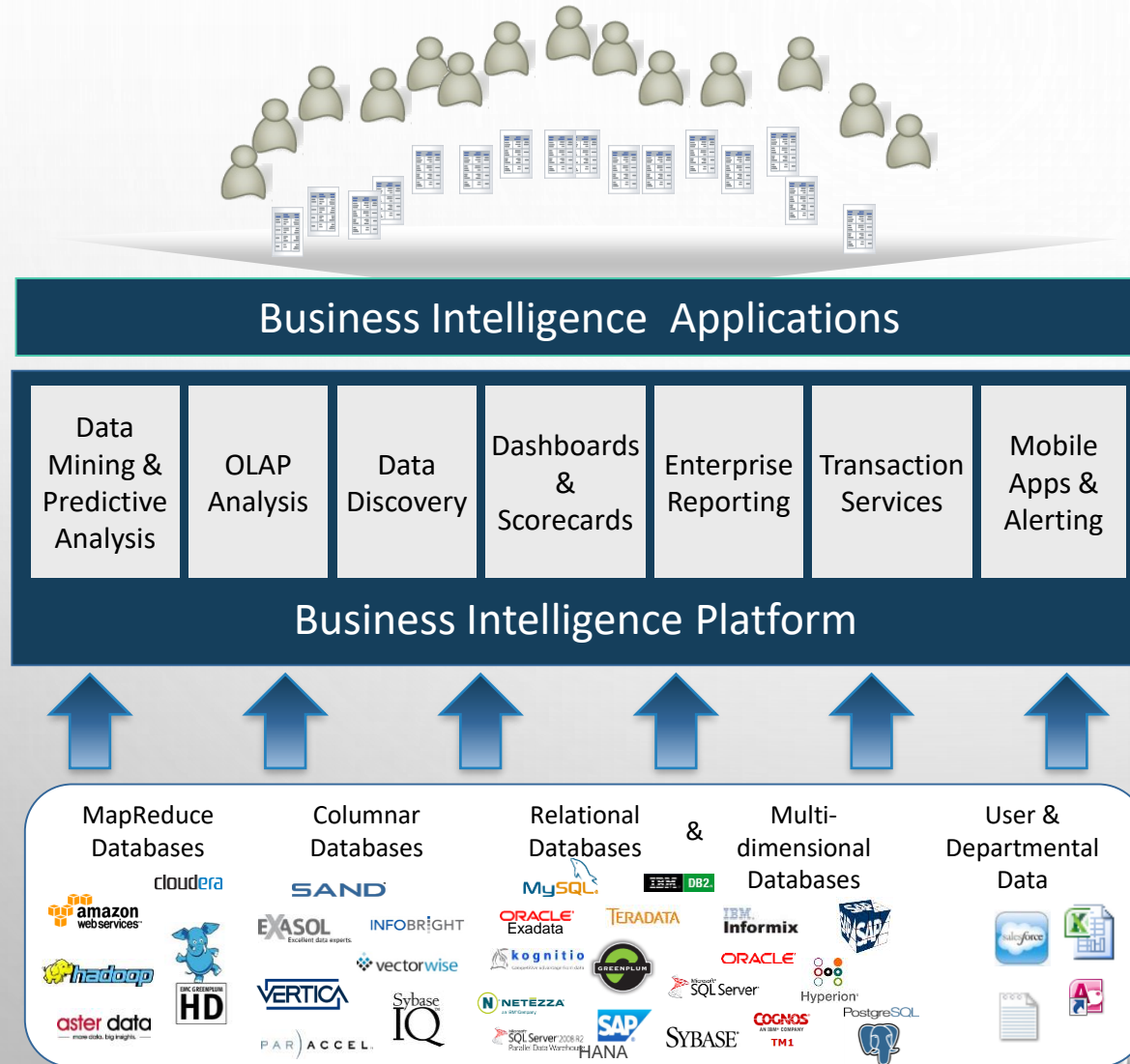
# BUSINESS ANALYTICS

DR. BRENDA MULLALLY

# RESOURCES

- [HTTP://WWW.TERADATAUNIVERSITYNETWORK.COM/TUN/](http://www.teradatauniversitynetwork.com/tun/) A GREAT AND FREE ACADEMIC RESOURCE FOR BI (THE AVAILABLE RESOURCES INCLUDE CASES, ARTICLES, TOOLS INCLUDING MICROSTRATEGY, DATASETS, EXERCISES, ETC.
  - REGISTER ASAP:
    - THE STUDENT PASSWORD IS: ANALYTICS
- TEXTBOOKS:
- BUSINESS INTELLIGENCE, 3RD ED, TURBAN, SHARDA, DELEN & KING.
- STUBBS, E. DELIVERING BUSINESS ANALYTICS PRACTICAL GUIDELINES FOR BEST PRACTICE. NY: WILEY, 2013.
- LAURSEN, GERT H. N, THORLUND, JESPER. BUSINESS ANALYTICS: TAKING BUSINESS INTELLIGENCE BEYOND REPORTING

# BI PLATFORM IS THE KEY COMPONENT OF BUSINESS ANALYTIC APPLICATIONS



## Analytic Applications

### Customer Analysis

- Customer Segmentation
- Customer Profitability
- Cross-sell / Up-sell

### Supply Chain Management

- Inventory Analysis
- Fulfillment Analysis
- Distribution Cost Analysis

### Financial Reporting Analysis

- P&L Reporting
- Profitability Analysis
- Financial Compliance Analysis

### Product Management

- Product Performance Analysis
- Market Basket Analysis
- Category Management

### Vendor Performance Analysis

- Service Level Agreement
- Chargeback Analysis
- Relative Sales Analysis

### Risk Analysis

- Risk Management
- Portfolio Risk Analysis
- Fraud Detection

### Operations Analysis

- Productivity Reporting
- HR Reporting
- Web Commerce Analysis

# THE FULL SPECTRUM OF BUSINESS INTELLIGENCE IN ONE SEAMLESSLY INTEGRATED PLATFORM

**ANALYZE**

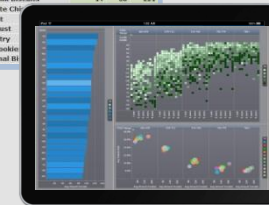
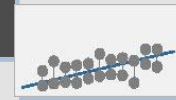
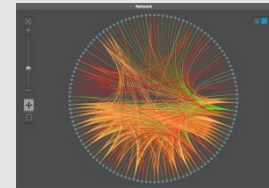
Predictive Analytics

OLAP Analysis

Data Discovery

Data  
Warehouse

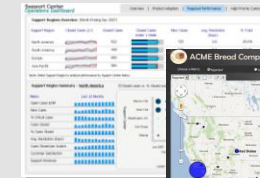
City	Product Line	Product Category	Rejected	Scrap	Output
Arlington	Bread	Country Italian Bread	16	64	155
		Croissants	12	126	228
		Dinner Rolls	2	29	48
		French Loaf	35	139	338
		Rustic French Bread	14	93	212
	Breakfast Items	Biscuit Sandwiches	22	310	524
		Cinnamon Rolls	19	109	284
		Pancakes	12	84	144
	Dough	Strudel	34	290	853
		Turkeywires	7	72	130
		Waffles	41	411	785
		Buttermilk Biscuits	14	88	221
		Chocolate Chip			
		Pie Crust			
		Pizza Crust			



**MONITOR**

Enterprise Reports

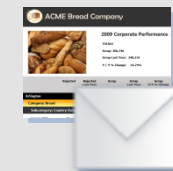
Dashboards



**ACT**

Alerts

Transactions



# BUSINESS ANALYTICS

Analytics focuses on inference, the process of deriving a conclusion based solely on what is already known by the researcher.

The science is generally divided into exploratory data analysis (EDA), where new features in the data are discovered, and confirmatory data analysis (CDA), where existing hypotheses are proven true or false.

<https://hbr.org/video/2386816175001/business-analytics-defined>



# DATA SCIENCE - SKILLS

What skills are needed in the IT industry today?

<http://www.computerworld.com/article/3012033/it-skills-training/10-hottest-tech-skills-for-2016.html>

<http://www.computerworld.com/article/3147427/it-skills-training/10-hottest-tech-skills-for-2017.html>

# BUSINESS ANALYST

- BUSINESS ANALYSTS FOCUS ON DATABASE DESIGN (DATABASE MODELING AT A HIGH LEVEL, INCLUDING DEFINING METRICS, DASHBOARD DESIGN, RETRIEVING AND PRODUCING EXECUTIVE REPORTS, AND DESIGNING ALARM SYSTEMS), ROI ASSESSMENT ON VARIOUS BUSINESS PROJECTS AND EXPENDITURES, AND BUDGET ISSUES. SOME WORK ON MARKETING OR FINANCE PLANNING AND OPTIMIZATION, AND RISK MANAGEMENT. MANY WORK ON HIGH-LEVEL PROJECT MANAGEMENT, REPORTING DIRECTLY TO THE COMPANY'S EXECUTIVES.
- IN GENERAL, BUSINESS ANALYSTS ARE HIRED FIRST, AND IF DATA AND ALGORITHMS BECOME TOO COMPLEX, A DATA SCIENTIST IS BROUGHT IN.

# JOBS

[Business Systems Analyst jobs.ie](#)

[Data analyst jobs.ie](#)

[Business Intelligence jobs.ie](#)



# BUSINESS ANALYTICS

- YOU WILL HAVE THE SKILLS TO LEVERAGE VALUE FROM DATA.
- YOU SHOULD BE ABLE TO APPROACH A BUSINESS ISSUE USING ANALYTICS BY
  - SPECIFYING THE ISSUE IN QUANTITATIVE TERMS
  - CONDUCTING DATA ANALYSIS
  - PRESENT YOUR CONCLUSIONS AND RECOMMENDATIONS IN A BUSINESS ORIENTED, ACTIONABLE AND EFFICIENT WAY

# BUSINESS ANALYTICS

- STRATEGIC BUSINESS ANALYTICS REQUIRES FOUR SETS OF SKILLS TO LEVERAGE VALUE FROM DATA: ANALYTICS, IT, BUSINESS AND COMMUNICATION
- ANALYTICS: TECHNIQUES FOR DISCOVERING RELATIONSHIPS IN DATA ETC
- IT: SOFTWARE TOOLS TO SUPPORT THE ANALYSIS AND PRESENTATION OF FINDINGS
- BUSINESS: FUNCTIONS, SECTORS ETC
- COMMUNICATION: PRESENTATION OF FINDINGS AND RECOMMENDATIONS

# BUSINESS ANALYTICS

- DATA ANALYTICS PROVIDES THE SOLUTIONS OR ANSWERS TO QUESTIONS.
- DIFFERENT BUSINESS ISSUES CAN BE SOLVED LEVERAGING DATA.
- PRESENTING AND ARTICULATING THE ANSWERS IS ALSO VERY IMPORTANT
- THE PURPOSE OF DATA ANALYSIS IS TO UNDERSTAND THE PROBLEM WE WANT TO SOLVE IN ORDER TO DEFINE BUSINESS ACTIONS

# BUSINESS ANALYTICS FUTURE

- INSTEAD OF JUST MEASURING BUSINESS RESULTS, AFTER THEY'VE BEEN ACHIEVED WHICH IS ONE OF THE PRIMARY ROLES OF BA TODAY, PERVASIVE ANALYTICS WILL ADVISE AND DRIVE THE BUSINESS FORWARD WITH AN ARSENAL OF ANALYSES AND TOOLS FOR REAL TIME DECISION MAKING.
- INTERNET OF THINGS, PERVASIVE COMPUTING, IT CIRCLE'S ADVISES AND INFORMS EVERYONE AT ALL TIMES WHEREVER PEOPLE ARE. WE DON'T ALWAYS KNOW THIS IS HAPPENING.
- RIGHT DECISION SUPPORT: INCREASES COMPLEXITY AND PRECISION.
- OPTIMISING BUSINESS PROCESSES WILL ADVANCE TO OPTIMISING INDIVIDUAL BEHAVIOUR IN THE ORGANISATION.

# WEB RESOURCES:

- [TOP 5 BUSINESS INTELLIGENCE MYTHS REVEALED](#)
- [TOP 8 BOOKS TO GET YOU OFF THE GROUND WITH BUSINESS INTELLIGENCE](#)
- [GARTNER BI AND ANALYTICS TRENDS 2017 EXPLORED](#)
- [BUSINESS INTELLIGENCE TOOLS](#)
- [BUSINESS INTELLIGENCE OVERVIEW](#)
- [HEALTHCARE BI PLATFORM MARKET BY 2023](#)