### MBA556: Business Analytics

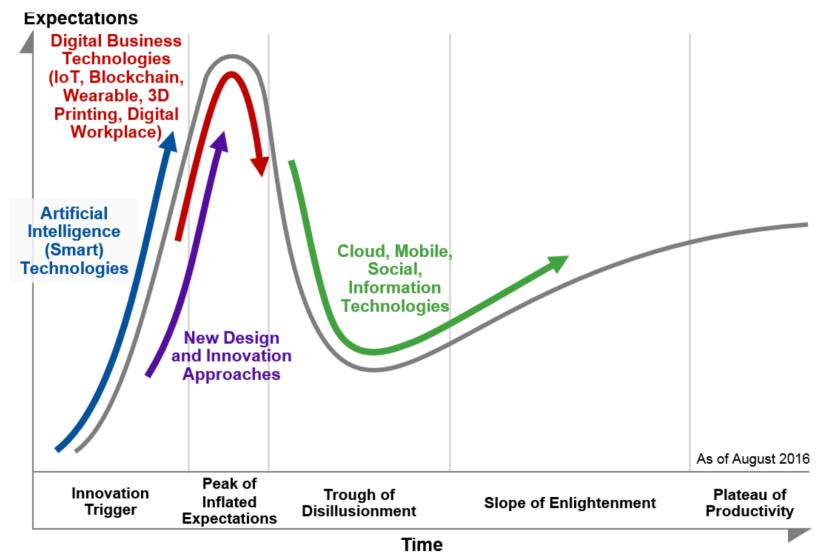
Şadi Evren ŞEKER

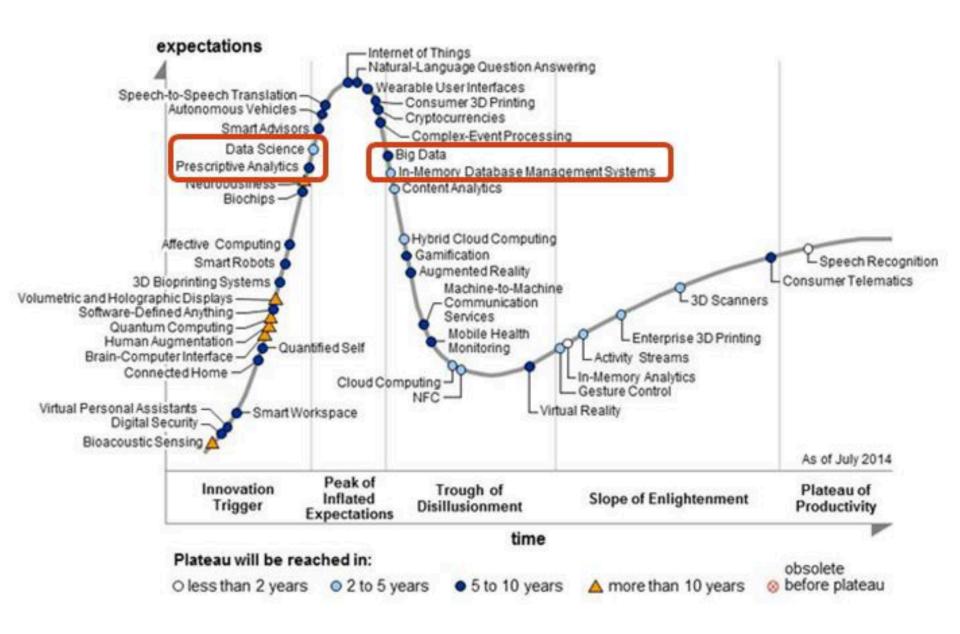
### **Course Information**

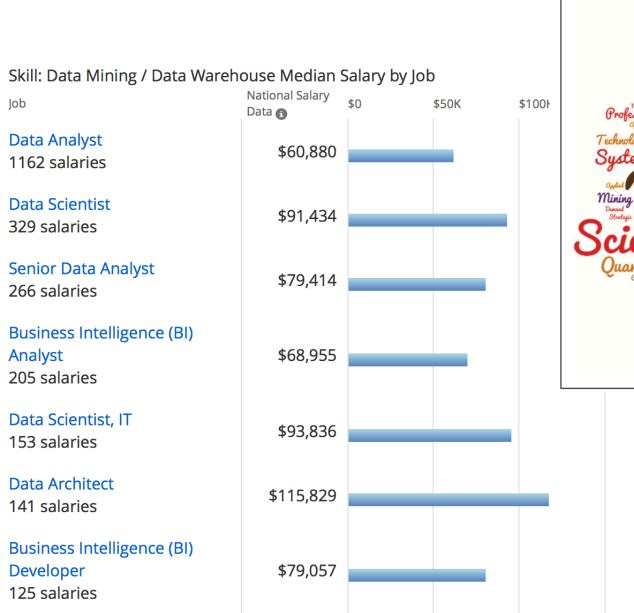
Web Page:

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### Hype Cycle



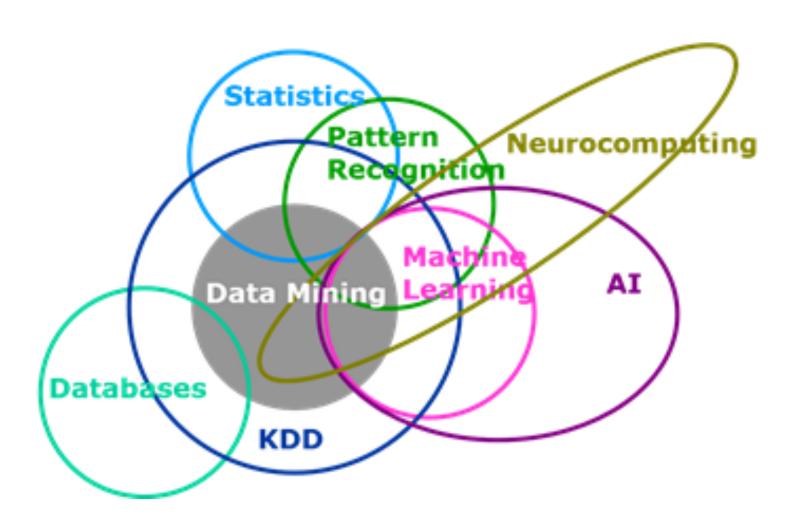


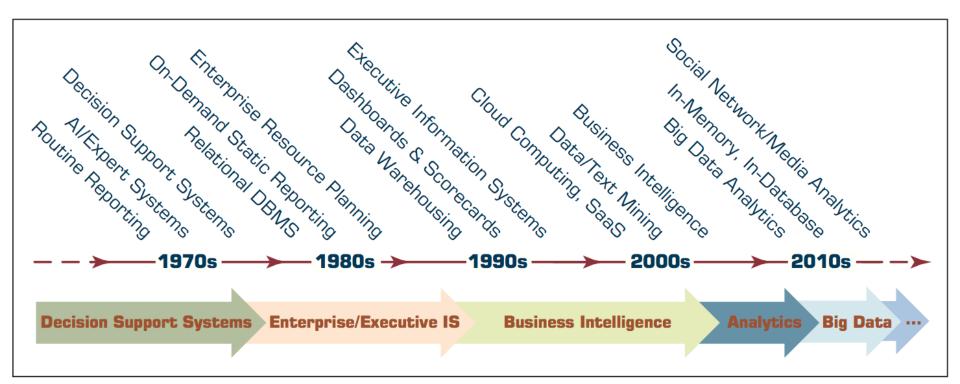




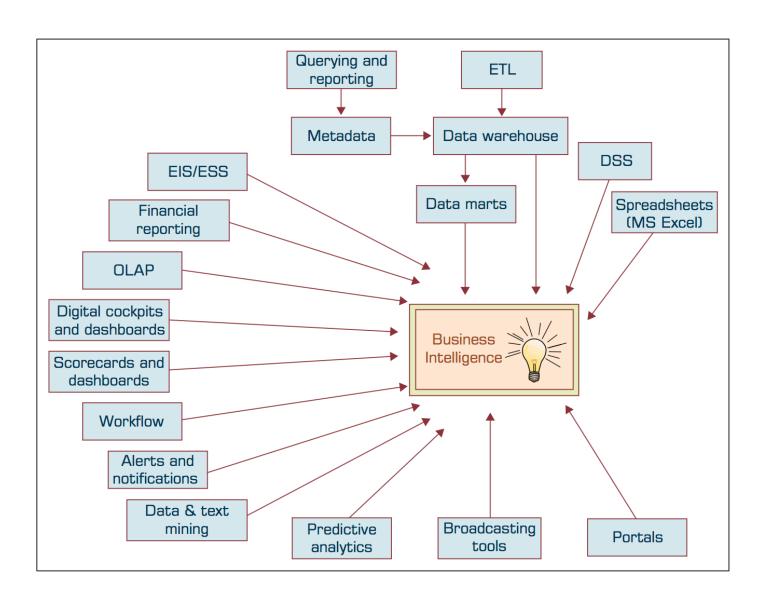
Country: United States | Currency: USD | Updated: 17 Dec 2016 | Individuals Reporting: 3,372

# Disciplines

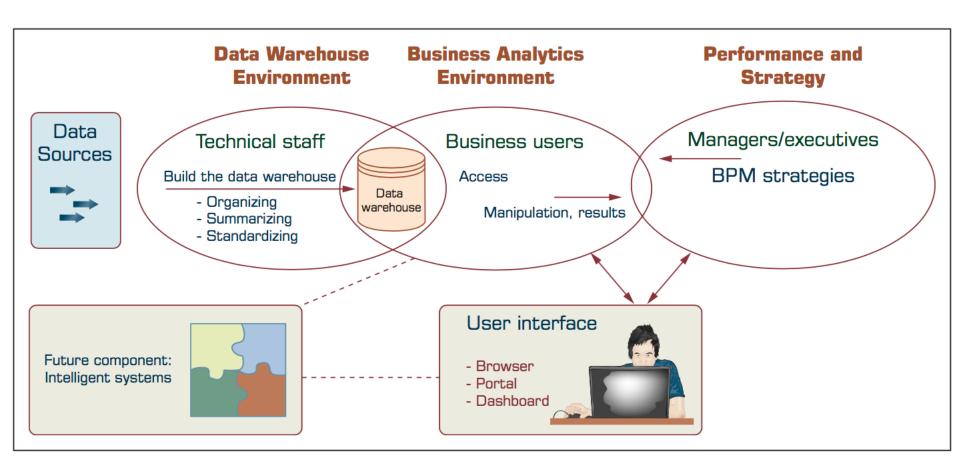




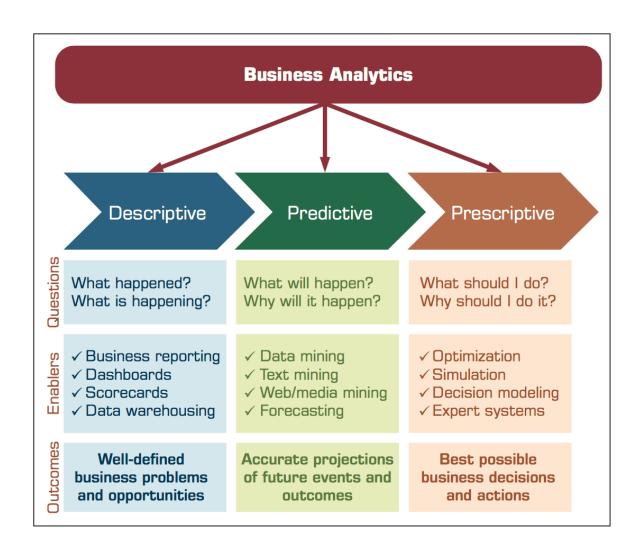
### BI



## **Business Intelligence**



### Analyse is not analytics



### **RVC**

### **Retail Value Chain**

Critical needs at every touch point of the Retail Value Chain

- Shelf-space optimization
- Location analysis
- Shelf and floor planning
- Promotions and markdown optimization

- Trend analysis
- Category management
- Predicting trigger events for sales
- Better forecasts of demand

- Deliver seamless customer experience
- Understand relative performance of channels
- Optimize marketing strategies







**Planning** 



Merchandizing



**Buying** 



Warehouse & Logistics



Multichannel Operations



Customers

- Supply chain management
- Inventory cost optimization
- Inventory shortage and excess management
- Less unwanted costs

- Targeted promotions
- Customized inventory
- Promotions and price optimization
- Customized shopping experience

- On-time product availability at low costs
- Order fulfillment and clubbing
- Reduced transportation costs

- Building retention and satisfaction
- Understanding the needs of the customer better
- Serving high LTV customers better

## **Problems**

Analytic Application	Business Question	Business Value
Inventory Optimization	<ol> <li>Which products have high demand?</li> <li>Which products are slow moving or becoming obsolete?</li> </ol>	<ol> <li>Forecast the consumption of fast-moving products and order them with sufficient inventory to avoid a stock-out scenario.</li> <li>Perform fast inventory turnover of slow-moving products by combining them with one in high demand.</li> </ol>
Price Elasticity	<ol> <li>How much net margin do I have on the product?</li> <li>How much discount can I give on this product?</li> </ol>	<ol> <li>Markdown prices for each product can be optimized to reduce the margin dollar loss.</li> <li>Optimized price for the bundle of products is identified to save the margin dollar.</li> </ol>
Market Basket Analysis	<ol> <li>What products should I combine to create a bundle offer?</li> <li>Should I combine products based on slow-moving and fast-moving characteristics?</li> <li>Should I create a bundle from the same category or different category line?</li> </ol>	<ol> <li>The affinity analysis identifies the hidden correlations between the products, which can help in following values:         <ul> <li>a) Strategize the product bundle offering based on focus on inventory or margin.</li> <li>b) Increase cross-sell or up-sell by creating bundle from different categories or the same categories, respectively.</li> </ul> </li> </ol>

## **More Problems**

Shopper Insight	I. Which customer is buying what product at what location?	By customer segmentation, the business owner can create personalized offers resulting in better customer experience and retention of the customer.
Customer Churn Analysis	<ol> <li>Who are the customers who will not return?</li> <li>How much business will I lose?</li> <li>How can I retain them?</li> <li>What demography of customer is my loyal customer?</li> </ol>	<ol> <li>Businesses can identify the customer and product relationships that are not working and show high churn. Thus can have better focus on product quality and reason for that churn.</li> <li>Based on the customer lifetime value (LTV), the business can do targeted marketing resulting in retention of the customer.</li> </ol>
Channel Analysis	<ol> <li>Which channel has lower customer acquisition cost?</li> <li>Which channel has better customer retention?</li> <li>Which channel is more profitable?</li> </ol>	Marketing budget can be optimized based on insight for better return on investment.
New Store Analysis	<ol> <li>What location should I open?</li> <li>What and how much opening inventory should I keep?</li> </ol>	<ol> <li>Best practices of other locations and channels can be used to get a jump start.</li> <li>Comparison with competitor data can help to create a differentiator/USP factor to attract the new customers.</li> </ol>

## **Problems**

Store Layout	<ol> <li>How should I do store layout for better topline?</li> <li>How can I increase my in-store customer experience?</li> </ol>	<ol> <li>Understand the association of products to decide store layout and better alignment with customer needs.</li> <li>Workforce deployment can be planned for better customer interactivity and thus satisfying customer experience.</li> </ol>
Video Analytics	<ol> <li>What demography is entering the store during the peak period of sales?</li> <li>How can I identify a customer with high LTV at the store entrance so that a better personalized experience can be provided to this customer?</li> </ol>	<ol> <li>In-store promotions and events can be planned based on the demography of incoming traffic.</li> <li>Targeted customer engagement and instant discount enhances the customer experience resulting in higher retention.</li> </ol>

# NORA

