

Four types of analytics



Why business analytics? Review the different types of analytics & common misconceptions Review the delivery methods for the operational users Propose holistic approach to expand enterprise analytics Value of integration and data quality to analytics Discussion 2 Analytic Quiz What do beer and business analytics have in common? In 1900 W. S. Gosset, an analyst at Guinness invented a distribution to analyze production processes and employment problems. Guinness decided to keep it a trade secret.

He published it under the pseudonym Student. Hence the name of this popular analytic method became Student's t-test. Who made a killing by applying it on a massive scale? 4 Four Types of Analytics Information, Analysis And Decisions: The Basics Analytics Analysis Why Did it Happen? Predictive What is Likely To Happen? Descriptive Prescriptive What Should I Do About It? What is Happening? Information Analytic Excellence Leads to Better Decisions 5 Information Builders' View The Five Types of Analytics Skills Levels Discovery Diagnostic Value It is not about more data! It is about deeper look! 00% Core Analytics 13% Advanced Analytics Descriptive: What Happened? 8 Too many reports in the enterprise Too many ad hoc requests to analysts and IT Why? Once you see, you crave understanding What? Leads to Why? Static reports are the primary cause for this. 9 Descriptive Needs To Merge With Diagnostic Information on Demand with Greater Interactivity 10 Diagnostic: Why did it happen? 11 Getting to the root cause with OLAP 12 13 Diagnostic Analytics Needs To Be Extended To Operational Employees 14 Discovery: Learning from the data Many business analysts feel this way when learning from the data!

WHY? 15 Very often analysts have the wrong approach and tool! 16 Food Stamp Fraud Detection State of Louisiana 17 Insurance Claims Analysis Interactive Data Visual Analysis 18 Predictive: What is likely to happen? "Lies, damned lies, Mark Twain Organizations are skeptical and suspicious of the statistician! 19 Bad statistics can cause the data look good! 50% of scientific articles use wrong methods! 20 No gut feelings anymore Admirable accuracy Analyst hedging Researchers cannot often explain their the probability of hinges happening and resort to explanations that do not make sense. 1 Discovery & Predictive Analytics Simplified They have different objectives, but the concepts are the same Detect trends Detect clusters Detect exceptions Prescriptive: What is the best course of action? With too many choices, which one is the best? Can we simulate various outcomes to choose the best? 24 Delivering Analytics to Operational Users 2. 3. 4. 5. 6. 7. There are five discrete types of analytics Each type has various analytic methods Analysts buy tools Advance analysts buy more specialized tools Tools perform each types of analytics in a separate discrete step But many decisions require a combination of different types and methods Hence, the need of operational analytic applications.