



## **WORKSHOP 1:**

### **Deriving Customer Insights Through Text Mining Repair Notes**

**Presenter:**

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**Workshop Overview:**

**We will provide a hands-on workshop demonstrating the discovery of valuable customer insights through text mining on repair notes. The workshop presents a real world analysis project based on anonymized data from a large manufacturing company. We illustrate the methodology, typical analysis steps, challenges, and potential pitfalls of a repair notes analysis project.**

**Companies record and store millions of repair records consisting of structured data and free-form text related to servicing warranty claims. The text portion of repair notes represents the richest source of information about product issues, customer expectations, and potential cross-sell opportunities. However, these valuable insights frequently remain undiscovered due to the complexity of the analysis of large volumes of textual data.**

**This workshop demonstrates a live data analysis project carried out by a leading high tech manufacturing company with the help of a popular text and data mining system PolyAnalyst. We take attendees through a complete data analysis process from loading repair notes to a text mining system, preparing the data, deriving key insights, presenting extracted knowledge to decision makers, and to outlining possible ways to capitalize on the obtained insights.**

**We discuss typical applications and benefits of the derived results for different groups of users: executives, sales and marketing managers, and engineers. The workshop highlights the importance of enabling decision makers across the enterprise to use the results of text mining in their work. Attendees learn how text mining can facilitate solving the following tasks:**

- 1. Creating corporate awareness. Valuable insights are automatically derived from large volumes of textual reports and presented in concise and easy to comprehend form to the management.**
- 2. Real-time alerts. One can perform continuous monitoring of incoming data. When a preset condition becomes true, the system sends an email alert to people in charge of handling the issue.**

3. **Discovery of emerging trends.** As technologies, consumer preferences and competition are constantly evolving, an early and accurate discovery of emerging trends becomes a new competitive advantage for a company.
4. **Targeted cross-sell activities.** Text mining on repair notes generates numerous new attributes that can serve as an input to predictive modeling algorithms. This approach helps companies perform market segmentation and derive accurate purchase recommendation rules to be used by call center agents in their cross-sell activities.

### **Who Should Attend:**

**This workshop is designed for people interested in learning how text mining can help make more informed business decisions based on knowledge automatically derived from large volumes of repair notes. The presented material will be of interest to corporate executives and other decision makers, as well as to data analysts and product managers in charge of the analysis of repair notes.**

**The target audience for this workshop includes:**

- **Executives: CEO and VP level**
- **Marketing Managers**
- **Customer Experience Managers**
- **Service and Call Center Managers**
- **Quality Managers**
- **Product Managers**

**While we discuss an example taken from a high-tech manufacturing industry, the presented methodology, challenges and solutions are directly applicable to the analysis of repair notes in any other industry. Attendees from the following industries are specially invited:**

- **Electronics**
- **Appliances**
- **Computer Hardware and Software**
- **Automotive**
- **Aerospace**
- **Construction**
- **Equipment**

### **Learning Points:**

**Participants will learn the following:**

- **What insights can be derived from repair notes through text mining.**
- **How the derived knowledge can help improve business decisions.**
- **Methodology, typical analysis steps, challenges, and potential pitfalls of text mining on repair notes.**
- **How a large manufacturing company implemented text mining on repair notes to improve their core business processes.**
- **How one can integrate a text mining system in the production decision support environment.**