



Ear to the Ground: Conversation Mining Used for Implementing Process Efficiencies

The Client

A telecom equipment manufacturer headquartered in the US, with manufacturing and sales operations spread across the globe.

Business Challenge

The client needed a solution that could detect relevant topics and derive the root cause of issues from multi-channel conversations such as chats, emails, call notes and other messages.

Client requirements:

- Build an approach to drive the root cause of an issue from the conversations
- Predict future occurrence of such issues, on the basis of patterns discovered from the data
- Drive optimal resources allocation and process improvement to prevent issues

Business Benefits

The solution drove substantial improvements to overall process efficiency. Measurable improvements were realized in issue prevention, reduction of rework, and optimal resource allocation.



Beyond Possible

With the help of our customized conversation mining framework, the client was able to derive actionable insights from the vast number of conversations and make business-critical decisions at the right time. They obtained insights about their current process and were able to make root cause changes.



Technosoft's Solution

A Conversation Mining Framework was used to:

- Create a Conversation Sequence Analysis
- Generate a 'sequenced' bag of words from the conversation
- Analyze term sequences to identify the rootcause of an issue
- Detect conversation topics, perform Association mining and tracking
- Group records by unique product-level combinations
- Create a bag of words for each chat, all items in the clique
- Find associations between cliques and product level classifications, and anomalies

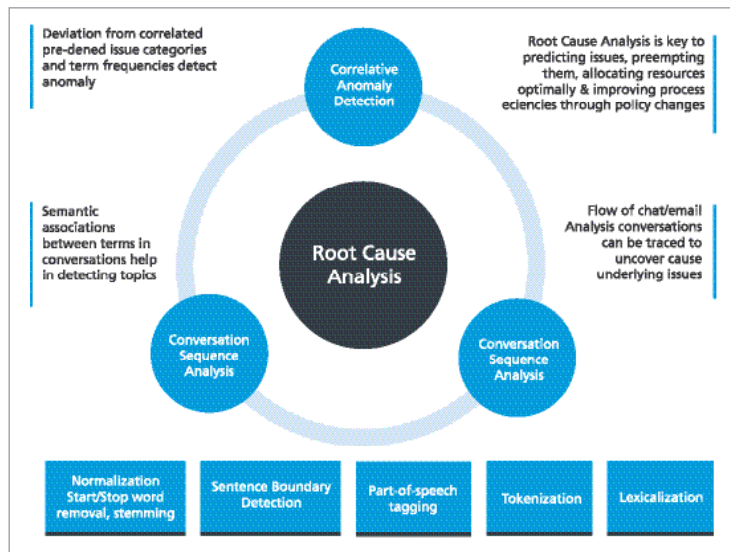
Tools & Technology

The solution was built using:

- Open Source R Software
- Python
- Open Source Library OpenNLP

The algorithms applied include:

- Latent Dirichlet Allocation
- Lexicalization, Sentence boundary Detection
- Clustering (Proprietary Distance)



About Technosoft

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