

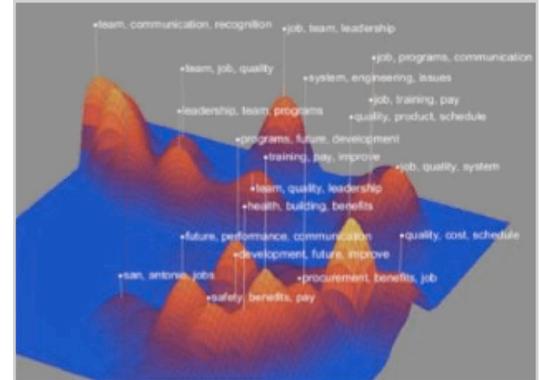
Visual Analytics Use Case

Employee Survey Data Analysis at Boeing

Context

Boeing, one the largest global aircraft manufacturers, collects tremendous amounts of data on domains such as aircraft maintenance, employee surveys, material sciences, workplace safety, finance, etc. The Enterprise Architecture Advanced Analytics Team within Boeing's Information Technology works with Boeing Research and Technology and various Business Units / Business Functions to make data-driven decisions.

<http://boeing.com>



A screenshot from IN-SPIRE

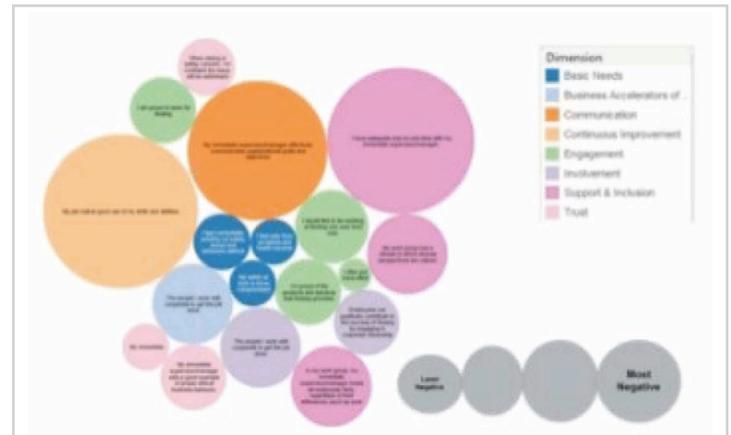
Problem

Employee comments captured during employee surveys create a large amount of text data which were not previously analyzed in a systematic way. As a result, executives had to spend hours (estimated hours: 1200 hours in Boeing Defense, Space & Security (BDS), 1020 hours in Information Technology(IT)) going through those comments to extract actionable insight.

Solution

Visual analytics was used in text analytics techniques to explore the survey comments to 1) find out the core concerns, and to 2) make actionable recommendations.

IN-SPIRE and Tableau were used to complete BDS Employee Survey data analysis for the CEO, VPs and Directors (40 packages), and IT Employee Survey data analysis for the CEO, VPs and Directors (8 packages). Text and sentiment analysis were performed on survey comments, and results from the text analysis were correlated with numeric survey questionnaire results.



A screenshot from Tableau

Outcome

The text analysis provided insights on key concerns expressed by employees at every VP/Director level, which would not be apparent from manual scanning. It also significantly reduced the amount of time executives need to spend to extract useful information from survey comments. A repeatable process for analyzing employee survey data has been established, and next steps include transitioning to Human Resources for future analysis of employee surveys.