ALVARIA®

Discovering Emerging Trends in Data

Overview / Benefits

Alvaria Engagement Analytics™ offers a full suite of capabilities for discovering emerging trends hidden in unstructured data. By Alvaria's definition, "discovery" in analytics refers to the ability of the system to identify interesting and valuable points of information without guidance from users or a predefined set of criteria. The huge benefit of true discovery is that the organization can identify issues that they otherwise would not know to look for. Discovery helps us through the morass when "We don't know what we don't know". This is particularly important in contact analytics, where there is an astronomically broad range of potential topics of conversation.

Technology

The Alvaria approach to customer contact analytics provides a significant advantage by offering true discovery. Leveraging large vocabulary continuous speech recognition (speech to text), Alvaria captures every word spoken in every conversation. The result is a transcript that's almost perfect, similar to text forms of communication such as chat and email, providing a consistent body of interaction information regardless of channel.

By storing and indexing every word exchanged during conversations, the system can count and trend the occurrence of words and phrases, or apply cluster analysis by grouping similar sets or portions of conversations together. Most importantly, the analytics engine does this automatically, without input from users or pre-configured settings. Cluster analysis is the core enabler of exploratory data mining and a common technique in statistical data analysis. Without transcripts, this approach only works with known entities such as a predefined set of categories, keywords, or metadata. Contact analytics systems that do not capture and store full transcripts are therefore limited to highlighting relationships and frequencies of these known entities and lack the ability to discover the unknown.

The valuable result of organic frequency and trend analysis on conversations is automatic topic identification for any set of conversations or parts of conversations, the identification of high frequency topics, and the ability to identify new topics entering the conversation. This is particularly beneficial in understanding the root cause of various words or phrases of interest.

Organic Discovery

Organic discovery capabilities help you understand what is happening in any set of contacts, without listening to them or knowing what to look for ahead of time, by conducting a point-in-time frequency and cluster analysis for any set of calls or portions of call transcripts.

With the click of a button, the Alvaria tool can automatically subdivide a set of contacts or snippets of contacts into labeled groups based on the frequency and proximity of unique sets of words or phrases found within the associated transcripts. These topics are not derived from a predefined list, search or category. Rather, the analysis is performed organically based on the unique content of the conversation. When you do not know what to look for, organic discovery is a great tool for trending and root cause analysis.

For example, if contacts handled by a specific department or agent group have high dissatisfaction scores for a specific day, you can search using filters for that department and that day and then generate a word cloud based on the resulting data. The "topics" presented within the word cloud give you an idea as to what could be driving the emotion of those contacts.

Similarly, you could use organic discovery to analyze long contacts, short contacts, contacts that hit a certain reason category, or that miss a certain procedural category, and so on. You can also target your analysis to portions of the customer interaction. Targeting options include speakers, location within the contact, and events such as silence, words, phrases, or categories.

Creating a visual representation in the form of a word cloud (see below) can provide an easy and efficient way to better understand areas for improvement or where gaps exist in the business.

Case Study

Consider an analysis conducted on 10,000 calls in a paid workshop for one of the nation's top drug retailing companies. The analysts involved had no prior knowledge of the nature of the calls. Leveraging the built in cloud visualization and organic discovery capabilities of Alvaria Engagement Analytics™, analysts quickly identified a number of topics that seemed out of place, sparking further investigation. Phrases like "magnifying glass", "can't read", and "typeface" appeared in tag cloud views.

Drilling into underlying sample calls revealed that these calls were from the retailer's online services department. Through the retailer's website, customers had the ability to print greeting cards with their own photos and personalized messages. A printing problem resulted in the typeface being printed too small, prompting callers to complain about the size of the type and having to use a magnifying glass in order to read the print. This issue burdened the retailer with significant reprinting costs and customer satisfaction issues. It took the retailer's contact center almost 11 days to discover and report on the problem, while the analysts found it almost immediately through the use of customer interaction analytics and discovery methods (the workshop was conducted after the fact).

The Future

Speech and text anlytics is an electronic way to do what the human mind can do, only better, cheaper and faster. Organic discovery helps us take speech and text analytics to the next level of similarity to the human mind, yielding what a person could do if a person really could listen to 100% of calls in real time and draw conclusions from that huge volume of data. That's powerful stuff. As analytics becomes more of a requirement than a luxury in the contact center, expect to see even more sophisticated discovery techniques providing astounding insights about the contact center operation.