Associate's Performance Monitoring Solution

Developed for COMPANY LLC by Megaputer Intelligence

Background

A large financial clearing house firm in the U.S., provides a broad suite of financial business solutions to advisors and broker-dealers. Serving markets in over 30 countries, the company employs more than 40,000 people. The company and its affiliates provide global financial business solutions to approximately 1,500 financial organizations, broker-dealers, registered investment advisory firms, advisors, fund managers, and asset managers who represent over 5 million active accounts.

Challenge

Excellence in service is the hallmark of this financial clearing house firm. The company operates a call center employing over 300 associates who provide detailed support to customers performing financial transactions. To ensure highest standards in customer service, the company monitors online dialogues between the company's associates and customers. Pioneering the quantitative approach to the analysis of textual data, this firm developed an elaborate set of communication and professionalism standards for online exchanges about eight years ago. Until January 2013, the company was using a third-party vendor to manually evaluate 2,500 randomly selected associate messages each month for compliance with these standards. This was the highest throughput a team of human analysts could deliver at reasonable cost because every message had to be read and scored by an analyst. The results were delivered to the company in the form of monthly paper-based reports, with a two-week lag time.

While associate's performance monitoring proved to be a valuable approach, 2,500 communications comprise only 2.5% of over 100,000 online communications occurring every month between Company associates and customers. The company needed the ability to automatically perform fast, accurate, consistent and transparent analysis of all available data, not just a small subset.

Additionally, the company was seeking the generation of associate scorecard that managers at all levels could view and interact with. Automated extraction of dozens of diverse features from unstructured text-based messages was necessary to evaluate this firm's compliance with communications and professionalism standards. Upon scouting the market for a possible supplier of high end text analysis technology, this firm decided to use the software and services from Megaputer Intelligence.

Solution

During the six months after the project launched, Megaputer developed and deployed the Associate's Performance Monitoring Solution (APMS), generating the associate's scorecard based on in-depth automated analysis of messages to customers. The solution employs a combination of innovative linguistic, semantic, and machine learning techniques to analyze and score textual messages against communication and professionalism criteria defined by the firm. APMS is based on Megaputer's proprietary data and text analysis software, PolyAnalyst™, which combines comprehensive data management, text analysis, and reporting capabilities.

Both the developed solution and analyzed data are now hosted on Megaputer's servers. The company's analysts create and maintain a collection of easily verifiable and modifiable rules for categorizing textual messages on multiple criteria. The software solution extracts the necessary features and scores each message against four core competencies. This generates a total of eleven experience attributes, including empathy, structure, professionalism, correctness of response, and taking responsibility. APMS summarizes the obtained results in an associate's scorecard and then aggregates scores on the individual, team, department, and company level. These scorecards are then delivered in an easy-to-comprehend form to managers at different levels.

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The company feeds weekly batches of data to Megaputer and gains access to reports that summarize the data analysis results by the beginning of the next business day. Aggregated reports are made available through an interactive website with charts and scorecards, enabling Customer Service Managers to monitor customers' experiences through interactive data visualizations. The company's managers can easily drill down to the necessary level of detail, including the original textual messages with highlighted patterns in text.

AMPS performs constant monitoring of all communications between associates and customers. Upon discovering dips in the quality of communications, the system generates corresponding alerts and logs them in an integrated case management system that promptly notifies customer service managers in charge of the identified issues. This helps managers efficiently collaborate with their colleagues to timely resolve the discovered issues.

Benefits

The implementation of APMS provides dramatic cost savings, increases frequency, shortens the lag time of generating reports, ensures consistency and transparency of results, and offers an interactive user interface with multiple data views, drill-downs, and data export capabilities. The key benefits the company derives from the solution include:

- **Comprehensiveness.** APMS enables the company to analyze 100% of the data representing the customer's entire experience instead of being restricted to just a small subset of messages. For example, the company can identify situations when a customer's request is forwarded to multiple teams, which creates confusion and results in bad customer experience. Such cases are promptly addressed through associate coaching.
- **Financial savings.** Direct monetary benefit from implementing APMS amounts to $11.8 million. This calculation takes into account savings derived from replacing previous manual processing of about 2.5% of messages with automated analysis and the fact that the company now processes 40 times more data than they were able to process manually.
- **Timeliness.** APMS increased the frequency of reporting from 12 times a year to 52 and shortened the time lag from two weeks to just half a day thus improving the speed and breadth of the company's ability to understand customer needs and respond to service improvement opportunities.
- **Consistency.** The automated solution based on text analytics established the consistency of the analysis throughout time and across the organization. In the previous manual approach, the same message could have been scored differently by different analysts and even by the same analyst after a certain time lapse.
- **Transparency.** Message scoring rules are easy to manage. Any error encountered in message scoring results can be readily traced to the source and the corresponding rule can be amended to fix the problem immediately on a company-wide level.
- **Broad availability.** A dashboard and a hierarchy of reports for managers of different levels are made available through a secure connection to a single web site. Currently over 60 customer service managers at the firm are viewing and interacting with reports generated by APMS.
- **Interactivity.** APMS users can view results at a high-level of aggregation and then drill down to a more granular level, view individual associate's scorecards, and even see the underlying messages with relevant patterns highlighted in text. This facilitates simple tracking of any potential issues and making decisions supported by facts.

The implementation of APMS improved the quality of information provided to this company's customers and the overall customer experience. The number of **satisfied** and **very satisfied** customers increased year-over-year by over 3% (from 93% to 96%), as measured through transactional customer surveys. The number of customers **willing to recommend** the company increased by 7%, as measured by the annual customer service satisfaction survey.

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