sparkcognition™

Customer Success Story

PREVENTING CUSTOMER CHURN FOR TELECOM

PROBLEM

A major telecom company was losing $1.08 billion to customer churn each year due to increased competition

SOLUTION

Using AutoML and NLP, the company was able to analyze usage patterns in real time, identify key factors contributing to churn, and uncover customer needs and preferences

RESULTS

By using these new insights to proactively prevent churn, the company expects to see an ROI on this project of 7.3 times, or USD $148 million dollars

THE PROBLEM: THE HIGH PRICE TAG OF CHURN

Here's a math problem: A major telecommunications company has 300 million customers, each of whom generates a profit of about $80 per month. If the company experiences 4.5% monthly churn—which is just above the industry average—losing a grand total of 13.5 million customers and $1.08 billion each year, then how much is churn costing your organization?

There is a growing awareness in the telecom industry of the need to improve customer retention rates. Not only do lost customers mean lost revenue, but the cost of acquiring a new customer has been estimated at anywhere from five to 25 times greater than the cost of retaining an existing customer. And according to the Harvard Review, a 10% retention increase can raise a company's overall value by 30%.

Despite all this, improving customer retention rates is easier said than done. To reduce customer churn, it's not enough to react to problems after the fact; organizations need to understand the customer's experience, and anticipate needs ahead of time to shape that experience in the most positive way possible. But this is particularly difficult for telecom companies, which offer a wide range of services to an even wider variety of customers. To retain customers, telecom organizations must understand:

- How customers use their services and their preferences
- How this relates to the current portfolio of solutions
- How to use this information to drive future business strategy

For the major telecommunications company discussed above, new competition was causing an uptick in customer churn that was resulting in the aforementioned loss of $1.08 billion in profit each year. It was clear that a new solution was needed.

THE SOLUTION: PREVENT CHURN WITH NLP AND AMB

By analyzing the customer data they have, telecom organizations can predict which customers might leave. Then they can adjust sales and marketing strategies to proactively address the main contributors to churn, and hopefully prevent it on a per-customer basis with targeted advertising and custom offers.

This analysis can be accomplished by using machine learning—specifically, natural language processing (NLP) and automated model building (AMB).

NLP software like SparkCognition's DeepNLP™ product enables machine learning models to take full advantage of the wealth of customer data available. It transforms natural language content into structured data, which can then be used for process automation, decision support and analytics, and predictive modeling when paired with automated model building software.

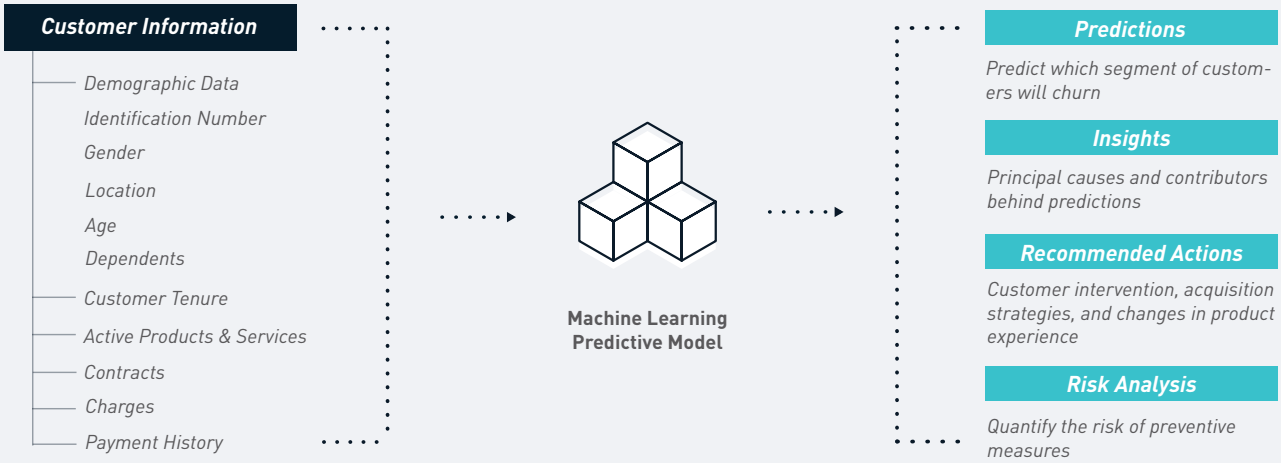
AMB is needed because creating models that can use customer data to predict churn would ordinarily be a difficult task, requiring substantial data science and subject matter expertise, as well as constant dedication to scale and maintain potentially thousands of models across the entire organization. To genuinely create and benefit from customer churn models, telecom organizations must make use of AMB.

AMB solutions, such as SparkCognition's Darwin® product, provide a productive environment to empower users of all data science experience levels to quickly prototype use cases. This allows users to develop, tune, and implement machine learning applications faster than traditional methods.

In this case, AMB solutions can ingest customer data, clean and transform this data for use, and generate a customer churn profile, identifying the characteristics of

FIGURE 1

Creating predictive models with machine learning



these customers and their likelihood of changing telecommunications providers. This model can then be used to predict churn and reduce it by proactively reaching out to dissatisfied customers. It can also generate custom offers based on individual customer profiles that are optimized to prevent churn.

THE RESULTS: A NEW BUSINESS MODEL FOR TELECOM

Using this solution, the major telecom organization was able to analyze usage patterns in real time, identify key factors that contribute to churn rates, uncover customer needs and preferences, and use this data to proactively prevent churn.

The model that was used for this proof of concept was trained for only ten minutes, yet achieved 81% accuracy in identifying customers who were going to churn. With just this, the telecom company estimates that they will see an ROI on this solution of 7.3 times, or $148 million dollars.

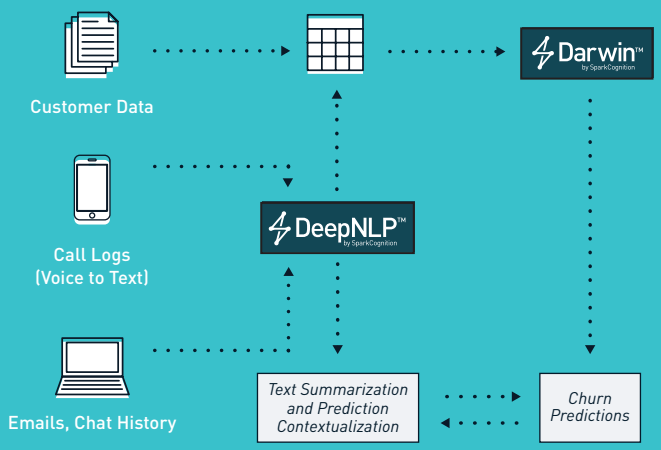
Churn in the telecom industry is inevitable, and expensive. The costly effects of churn, however, can be minimized by understanding the factors that lead to customer attrition, identifying customers likely to churn, and proactively offering them discounts that would reduce the likelihood of them leaving. Machine learning provides telecom companies with the tools and insights they need to make this happen.

ABOUT SPARKCOGNITION

We catalyze sustainable growth for our clients throughout the world with proven artificial intelligence (AI) systems, award-winning machine learning technology, and a multinational team of AI thought leaders. Our clients partner with SparkCognition to understand their industry's most pressing challenges, analyze complex data, empower decision-making, and transform human and industrial productivity. To learn more about how SparkCognition's AI applications can unlock the power in your data, visit www.sparkcognition.com.

FIGURE 2

Churn prediction using the DeepNLP and Darwin products



Contact SparkCognition today at info@sparkcognition.com