



## CASE STUDY

Student Sentimentalytics by AI  
driven emStream

**CASE STUDY**

## Student Sentimentalytics by AI driven emStream

One of the largest Universities in Latin America deploys AI for student sentiment analysis and predictive modeling for enhancing student performance and student retention.

### OVERVIEW

**Client**

Catholic University

**Industry:**

Education

**Background**

In the LATAM region, students enrolling themselves in universities and colleges expect learning to be more engaging and personalized. The University wanted to retain and grow their student enrollment while leveraging data-driven possibilities using artificial intelligence on their campus. Along the way, they wanted to give greater convenience to students by understanding their sentiments and views about the University.

### CHALLENGE

Today, Latin American countries are taking significant steps to improve their education systems, but major challenges remain. These challenges include high dropout and repetition rates, inconsistent teaching quality, and uneven assessment and accountability systems.

### BUSINESS NEED

Catholic University wanted to harness insights from data using artificial intelligence. They wanted to understand the underlying sentiments of the student community, leveraging which they wanted to provide a superior experience. This will enable the University to improve student retention rates and grow student enrollment.

### SOLUTION

To address these challenges and business needs, the University deployed emStream which enabled them to extract data and use artificial intelligence to provide insights. These insights would help the University achieve a better understanding of the needs of the students and offer them superior academic experience at the same time.

## APPROACH

Our approach helped the University derive insights using data from internal and external sources and run machine learning models that use our proprietary Natural Language Processing engine to mine sentiments on the emStream platform.

### emStream uses:

- Predefined tag set that consists of Person, Organizations, Location, Dates and Facilities to extract named entities
- Modal verbs and context-specific sentiment to do sentiments analytics while handling comparisons and attaching sentiments to the right entity

## BENEFITS

Catholic University was able to use data from various sources for the enhancement of student experience. They were able to:

- Design courses and services based on sentiment map and predictive models using AI-Driven emStream
- Significantly improve student enrolment and predict scenarios related to the launch of new academic programs and courses
- Predict performance and student dropout rates while creating a focused approach for the betterment of specific student groups in the University

## DEPLOYMENT

### This deployment performed:

- Extraction of unstructured data using Natural Language Processing from social media sources including local news and websites.
- Utilization of Machine Learning algorithms to predict two major scenarios:
  - a) Student grade performance for the next semester
  - b) Student dropout rate

**The entire implementation was done in 6 weeks, with the following capabilities:**

- Creation of sentiment maps of positive, negative and neutral sentiments with actual issues that the students faced/expected improvements
- Processing of data from student academic applications and other sources using the Linear Regression algorithm to predict the success rate for launching a new program as per derived suggestions

## OUR SERVICES

### ■ Data Driven Transformation

With deep knowledge of our platforms and extensive industry experience, our consultants will collaborate with you to envision the future, develop detailed data activation strategy, determine platform architecture and redesign data driven processes.

### ■ Platform Implementation and Analytics

Armed with technical knowledge about our platforms, our consultants facilitate platform deployment, customization, user adoption and use case implementation.

### ■ Integration and Stack Upgrade

Our consultants have unparalleled understanding and knowledge of the data and marketing technology stack, thus enabling them to integrate our platforms with a wide variety of marketing automation platforms.

## About emStream

emStream combines powerful data aggregation features with the ability to mine sentiments using proprietary Natural Language Processing engine. emStream can be used across a wide variety of AI-driven use cases that require analysis and visualization of data for learning buying patterns, vendor performance, revenue growth, and factors contributing to the success of your business through actionable insights.