Leading Australian University Harnesses the Power of Machine Learning to Improve Student Retention Rate and Enrollment Conversion

About the Customer- The University is ranked among top 2% universities in the world & is the number one Catholic university in the Asia-Pacific region. It operates 8 campuses in Australia and caters to around 35000 students and 6500 staff and partners. It stands for meaningful education, rewarding research, and life-changing community engagement employing.

Challenges faced by the customer-

The university was facing the challenge of a high dropout ratio of students. So, the administration wanted to take proactive actions and adopt solutions that can improve student retention rate with a data-centric approach.
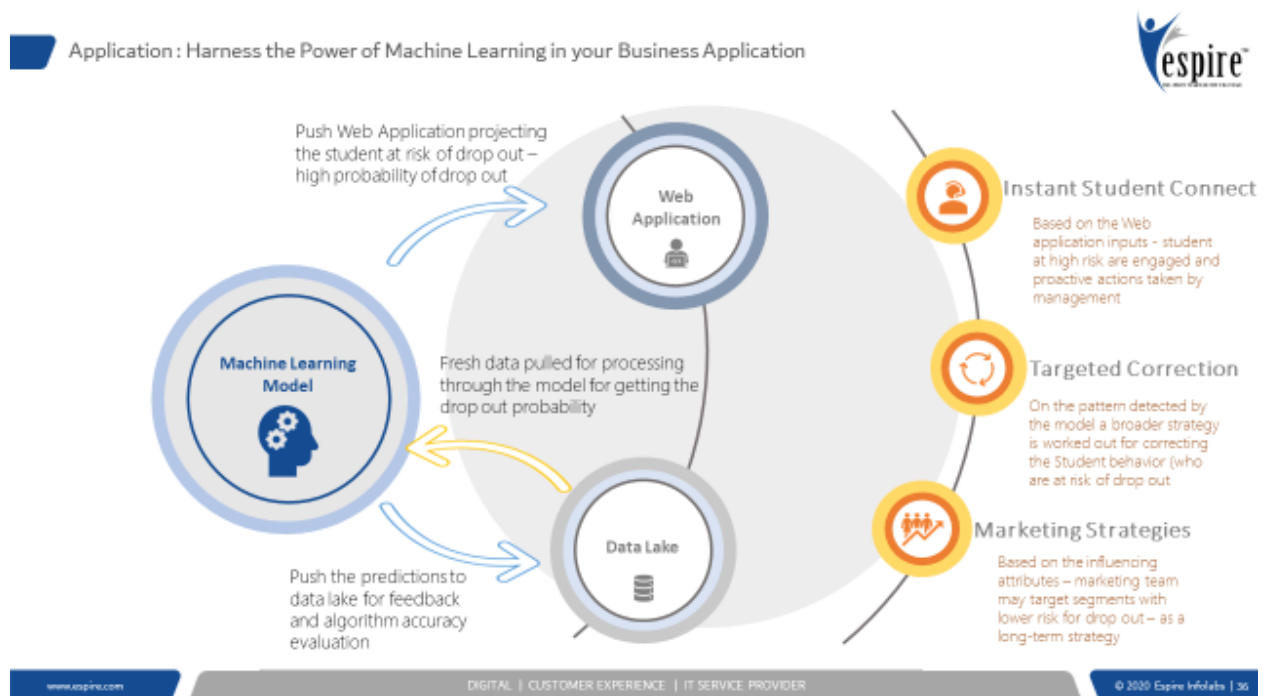
Major challenges were-

- Lack of Data-driven decision making to support student retention
- 360° view of students for helping the student when their drop out probability is high
- Lack of business efficiency due to manual processes and lack of innovation.

Solution offered by Espire Infolabs

We proposed to create a Data Lake for the implementation of AI/ML applications to increase enrollment conversion, student retention and targeted promotion.

1. Identifying Conversion Propensity through Ensemble Algorithm-ML
2. Probability of Student Drop Out through Classification of ML Algorithms
3. Prospect Student Segmentation using Clustering ML for personalized Marketing and Promotions

Application : Harness the Power of Machine Learning in your Business Application

Push Web Application projecting the student at risk of drop out – high probability of drop out

Web Application

Machine Learning Model

Fresh data pulled for processing through the model for getting the drop out probability

Data Lake

Push the predictions to data lake for feedback and algorithm accuracy evaluation

Instant Student Connect
Based on the Web application inputs - student at high risk are engaged and proactive actions taken by management

Targeted Correction
On the pattern detected by the model a broader strategy is worked out for correcting the Student behavior (who are at risk of drop out

Marketing Strategies
Based on the influencing attributes – marketing team may target segments with lower risk for drop out – as a long-term strategy

Benefit of the Solution offered by Espire

Instant Connect with students at remarkably high dropout probability helped in **increasing retention rate by 2%.** Enabling Marketing Strategy to focus on influencing features for better student application conversion. Here are the other benefits of the solution-

1. Recommendation of supplementary material for a given lecture/class.
2. Lecture room capacity optimization and calibrating problem-solving skills of students
3. Prospective student segmentation for marketing resource allocation & strategy.
4. Social media sentiment analysis to gauge the overall image of the institution.