A Top Public University Chooses EpiAnalytics® SmartCase™ to Help Maximize Student Success

Learn how a top public university is using natural language processing (NLP) and machine learning technology from EpiAnalytics to improve its retention and graduation rates, by ensuring at-risk students receive the attention they need to achieve academic success.

**Organization Overview:**
- A public research university with a student population of over 30,000
- Three campuses in the U.S. as well as several campuses overseas
- Ranked among the top 50 in the “Top Public Schools – National Universities” category by US News & World Report

**The Situation**
Universities often look at student retention and graduation rates as a way to measure the success of their students. A top public university, with a student population of more than 30,000, understood that academic advising was a key component to helping its students graduate. Its advisors meet with the university’s 30,000 students a minimum of twice per year - once during the fall semester and then again in the spring, as well as any other time based upon student requests. Advisors take notes and write a summary of their meeting with each student. As a result of these meetings, the university ends up with as many as 2,500 advisor notes per week.

In 2017, the university implemented Salesforce.com to connect its campus and obtain a more complete view of student data helping to ensure their success and improve the day-to-day operations of the university. Salesforce was beneficial in terms of providing a single platform for capturing student data, however the volume of advisor notes being entered into the system made it nearly impossible to read through and manage effectively. Not only did it require considerable time for advisors and staff to review all the notes, but the university was also relying on advisors to alert them with any student concerns via email. In many instances, cases that required attention were sometimes overlooked. The university quickly realized there was room for improvement.

“What we immediately liked about EpiAnalytics SmartCase solution was that it was already native to Salesforce, so we wouldn’t have to worry about the integration piece. Additionally, when we first implemented SmartCase, several of our data scientists attempted to poke holes at it but have found very few opportunities to do so because it’s been so accurate. We obviously don’t want notes being flagged when an action isn’t required, and we certainly don’t want to miss notes where we could have helped a student be successful. SmartCase has done an excellent job of minimizing the number of false positives or false negatives.”

– A director of business analytics at a top public university
A top public university took advantage of the SmartCase solution to replace and augment manual efforts, resulting in:

- Increased efficiencies by analyzing student advisor notes in real-time increasing resolution speed and accuracy.
- Higher utilization of support resources using student data to maximize student success and reduce attrition rates.
- Enhanced risk identification, ensuring important student concerns don’t fall through the cracks.

**The Challenge**

One of the directors that looks after technology needs for the university, including Salesforce, saw several options, including creating a turnkey analytics tool in house or working with a technology partner. However, both efforts would have required resources to build the solution and then integrate it with Salesforce. The technology director and his team were intent on finding a solution that not only integrated with Salesforce but also accurately classified advisor notes so that less time was spent reading notes and more time was focused on activities aimed at maximizing student success.

**The Solution**

While searching the Salesforce AppExchange marketplace, the university discovered a business intelligence and process automation solution called SmartCase™ from EpiAnalytics.

“What we immediately liked about SmartCase was that it was already native to Salesforce, so we wouldn’t have to worry about the integration piece,” remarked the university’s director of business analytics. “If we had built the tool ourselves or with another technology partner, we would have to process the data and would then need to figure out how to get it back into Salesforce. The potential headaches that could arise from doing this were significant. The fact that SmartCase easily integrates into Salesforce was a huge benefit to us.”

Confidence that the solution would accurately flag and classify/categorize unstructured data was another key factor in the university’s decision. They wanted to be sure that cases that required escalation were never overlooked.

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Using machine learning and NLP technology, SmartCase first learns from historical notes data and then analyzes new notes that have been entered into Salesforce and categorizes them according to predefined themes and phrases that the director and his team have validated as requiring prompt action. Once the notes are categorized, appropriate workflows are triggered, including case routing. Now when the university’s advisors write up a summary from their meeting with a student, their comments are automatically loaded into Salesforce, where SmartCase takes the data from the comments fields, categorizes it, and updates the file with an appropriate classification. SmartCase also keeps analytical models up-to-date by continuously adding to the training data, including subtle nuances in the way notes are captured, to ensure maximum precision with minimal effort.
“The other thing that we really like about SmartCase is its ability to learn from any changes we make to the way we classify the notes so it can apply the logic correctly the next time,” adds the director. “In the cases where a note is flagged as being a concern when it’s not something of concern, we’re able to make that change so the next time that SmartCase re-processes the algorithm, it gets categorized appropriately. In other cases, if we see a note that should have been flagged because a student was having financial difficulty, for instance, and was missed initially, we can simply tag the note and SmartCase will take the input and learn from it, so that any similar notes will be treated according to the rules that have been assigned to that situation.”

The Result
With the help of EpiAnalytics’ SmartCase solution, the university has been able to eliminate a lot of the manual processes associated with reviewing student case notes and as a result has improved student attrition rates by freeing up more resources to address student needs more quickly. Now instead of spending time manually reading through notes, the university’s staff can focus more energy on addressing the needs of its students. SmartCase’s seamless integration with Salesforce means the university’s 75 Salesforce users can easily access all the native reports and dashboards and track student data in real-time. Its automated machine learning capabilities leverage the university’s existing processes and workflows to systematically build and validate analytical models, enabling the university to realize even more labor-saving features.

Before SmartCase, the university’s business analytics team would have to find advisor notes, review them and then route the file to the appropriate case owner. Now its advisors simply enter their notes into Salesforce, without having to send an email specifying that a student has a problem. The business analytics team no longer has to read through every note as it comes in, only those notes that are flagged. And with SmartCase’s machine learning technology, they’re able to work through some of the logic to make it more streamlined and automated, which has helped the university save time and money.

The university has also begun to leverage SmartCase’s automation features to continue making improvements to the student experience by increasing response times. For example, if a student expresses that he or she intends to leave, the university seeks to understand why and determines if there’s anything it can do to help the student stay. Using SmartCase, the business analytics team has automated that process so that when a note is flagged, a case is created and is immediately escalated to a case owner. The case owner is alerted and able to follow up so that he or she can hopefully resolve the challenge before it’s too late.

The university credits Salesforce and SmartCase with giving his team greater access to critical student data, which has enabled the university to better meet the needs of its 30,000 students more quickly and efficiently, while attracting new students to attend. Last year, the university exceeded its first-year retention rate of 92% and is aiming to improve its rate to 95% by the end of this year.

“We have a lot of confidence that with Salesforce and SmartCase we’ll be able to incrementally make our way from 92% to 95% first year retention,” adds the director. “Not only do we expect to be able to improve our retention rates for first year, but also for second, third, fourth, and beyond because we’re getting that same data which helps us track our graduation rate as well.”

The university stands to increase revenue by approximately $9.8M in retained tuition based on the university’s student population and estimated tuition rates.