Digital Transformation of Higher Education

with MicroStrategy 10
The challenge
With increasing competition for students, faculty, and funding, institutions of higher education need to harness the power of data to streamline operations and enhance the student experience. At the same time, integration with legacy banner systems can result in deployment costs that strain tight budgets. Furthermore, threats to colleges and universities, both online and on campus, demonstrate an urgent need for security and intelligence about students and staff more than ever before.

The solution
By seamlessly integrating with a variety of systems, the MicroStrategy 10 platform presents a wide variety of potential benefits to higher education institutions, which can use our software to promote educational accountability and academic achievement, manage students from recruitment to post-graduation, and analyze institutional data in a cost-effective manner. Furthermore, by delivering convenient mobile-based identity services to campus community members, MicroStrategy’s enterprise security offerings can protect valuable intellectual assets and safeguard physical locations.

MICROSTRATEGY 10 provides universities with a platform to digitally transform their campuses.
ANALYTICS APPLICATION:
ADMISSIONS TRACKER

The challenge
Colleges and universities of every type and size always strive to recruit and retain great students. To answer questions surrounding where and how to conduct outreach or which students to admit and offer scholarships to, it is essential to have a deep understanding of the types of students applying – as well as which ones will actually enroll and succeed.

The solution
Analytics provide a new model for college and university leaders to improve organizational efficiency and decision-making as they pertain to admissions and enrollment. Data is the key to successful planning and recruitment, and MicroStrategy can let universities answer a variety of questions, whether it be how prospective students and parents are interacting with web channels, or if demographics are changing in meaningful ways.

MicroStrategy offers one of the most extensive advanced analytical libraries on the market. From basic summarization, to optimization, to even forecasting and predictions, users can embed statistical metrics into an analytical workflow very easily. With MicroStrategy, important types of rich data collected on web visitors, applicants, and matriculates can help schools understand what different people are looking for and shape both their marketing strategy and curriculum accordingly.

Armed with more than 350 native functions out of the box, admissions staff are able to perform data mining and create highly advanced statistical algorithms with minimal support from IT. This will help improve the effectiveness of each admission recruiting cycle, and help ensure that educational offerings meet institutional, learner, and employer needs.
ANALYTICS APPLICATION:
ENROLLMENT OPTIMIZATION

The challenge
University administration and staff are often charged with the construction and maintenance of course sections for thousands of students each semester and must schedule the classrooms for the inventory of approved courses. Alongside that workload, they must also monitor course enrollment levels over time and determine which courses should be repeated or dropped to meet student interests and needs.

The solution
Universities constantly look ahead to plan for tomorrow’s educational needs based on current student behavior and activity. MicroStrategy Analytics provides speed and accuracy when university administrators and registrars drill into data about student course preferences. MicroStrategy applications help colleges measure the health of their academic programs so they can align them with overall university goals. Administrators in distinct departments can drag and drop course codes or course names to compare student enrollment by semester. They can also use filters to refine analysis by department to understand course popularity by subject and faculty member to figure out classroom allocation. 

With MicroStrategy, professors and administrators can collaborate and recognize which majors and minors are popular among students. With these insights, they can help solidify short- and long-term education strategy. Universities can develop more specialized programs and tracks as a reflection of data on student interests.

ENROLLMENT OPTIMIZATION are data discovery applications that help universities account for student interest when planning course offerings.
The challenge
In 2016, college graduates left school with an average of $37,172 in student loan debt.* Furthermore, only about 40% of 2007–08 first-time bachelor’s degree candidates completed their degree within 4 years of their initial enrollment.** Factors driving this include excess credits due to transfers or changes in major. In this environment, improved academic advising is crucial to improve student outcomes. However, self-reported ratios from colleges and universities nationwide show that, on average, there are about 300 students for each full-time adviser in a four-year public institution.

The solution
Universities are constantly gathering data on their students. The next step is to turn this data into actionable information that can be used to help learners. With MicroStrategy, complex data collected by LMS and SIS systems can be translated into real-time, student-level recommendations. These insights help inform advisors’ decisions as they consider intervening on behalf of students, whether it’s to minimize excess credit hour accumulation, flag critical alternate-year courses for registration, or just generally reduce the time it takes a student to graduate.

MicroStrategy allows universities to leverage existing investments by integrating with data mining models from other applications using the Predictive Model Markup Language (PMML). This helps schools identify the attributes of students who did or didn’t successfully complete courses, so they can better support students who may be at risk of falling behind. Furthermore, MicroStrategy can easily incorporate SAS and SPSS much like native functions, as well as integrate with R in a way that’s fast, simple, and scalable.

The challenge
Universities that embrace technology are constantly looking to provide improved, differentiated services for students while remaining within budget. Innovation drives recruiting and donation initiatives alike.

Current methods of campus identity verification, such as physical ID badges or passwords, are simply not safe enough and can result in identity theft or fraud. Physical student IDs can be easily forged, lost, or stolen. Passwords protecting highly personal or academic information are frequently forgotten or written down by students. With so many important resources at stake, universities are looking to add security onto their current identity management architecture.

The solution
By deploying digital student ID badges with Usher, colleges and universities can grant their students convenient, secure access to the campus ecosystem. These badges can be used by faculty to verify student attendance, and students can use their assigned badges to access campus facilities and systems. The Usher badge can be integrated into library systems to help streamline the checkout and return process and can be used with campus dining point-of-sale systems. Students can also use their digital badge to verify their identity while taking exams, picking up their transcripts, or using a laboratory. If the phone is lost or stolen, revoking and re-issuing the credential is quick and easy.

At the same time, Usher collects access-related telemetry for further analysis and insight into how students are interacting with campus systems and spaces.
SECURITY APPLICATION: 
STAFF BADGE

The challenge
Universities have many different constituencies using their campus facilities and resources. If a school uses separate forms of identity to control access to physical and logical systems, it can lead to gaps in access management — whether it’s for faculty, visitors, or support staff. In addition, access cards, passwords, and hardware tokens are cumbersome to personalize, issue, manage, and revoke, leading to further gaps in security.

The solution
Usher helps universities secure access to laboratories, athletic facilities, and important information systems by using digital badges deployed on smartphones. With Usher, universities can issue digital badges to faculty and staff so they can access physical entryways as well as university systems and applications, conveniently and securely. Visitors and alumni can also be given temporary, customized levels of access to the digital and physical campus ecosystem. Usher lets users unlock doors and gates simply by walking up to them or tapping a digital key on their phone.

Usher can help ensure that only authorized personnel have access to restricted areas or to sensitive information. It provides a variety of options for strong, convenient multi-factor authentication including push notifications, biometrics, one-time passwords, face-to-face validation, and Bluetooth proximity. It also generates back-end telemetry data on user behavior and location so campus security and administrators can maintain an in-depth view of activity on school grounds.

STAFF BADGES provide secure access to information systems and facilities with digital identity badges on smartphone.

STAFF BADGE

Faculty

- Functionality provided:
  - Unlock workstations/IT applications
  - Access offices/lounges
  - Access facilities/garage
  - Remote access to research databases

Support staff

- Functionality provided:
  - Unlock workstations/IT applications
  - Access facilities/garage
  - Timekeeping
  - Access to inventory

Visitors

- Functionality provided:
  - Event ticketing
  - Identity verification
  - Receive campus alerts
SECURITY APPLICATION:
CAMPUS ACCESS AND SAFETY

The challenge
University campuses face a wide array of security and safety threats and must be prepared to respond appropriately. Depending on the specific situation, emergency responders need to be dispatched quickly, and buildings need to be evacuated or locked down.

When the appropriate response has been determined, universities face various challenges. How will everyone affected be notified? If a student is fleeing a pursuer, how do you locate the student? In the case of an evacuation, do you know if everyone made it out? And where are the people who remain inside?

The solution
Usher Professional helps colleges and universities take fast, targeted action during campus emergencies. By providing location data on users, and the ability to communicate with impacted students and staff, Usher gives administrators the tools to manage a variety of urgent situations. Students can use the app to report incidents or call for aid, and administrators can identify and track the location of users in distress and send important messages via email, text, or phone call. When buildings are evacuated, people on campus can receive a push notification letting them know to stay away, and people still inside an evacuated building can be quickly identified and located. Regardless of the type of incident, Usher’s real-time insight will help improve campus emergency response capabilities.

CAMPUS ACCESS AND SAFETY identifies anomalies, responds to emergencies, and helps increase safety.
The challenge
Campus operations managers struggle to maintain a full view of resource allocation because information is scattered across disparate information systems. This makes it even more difficult to effectively plan yearly budgets.

The solution
Comprised of student centers, gym facilities, large lab areas, and multiple dining facilities, colleges and universities resemble miniature cities. Administrators want to understand how campus facilities and resources are used in order to effectively plan budgets and resource allocation. MicroStrategy helps collect information from across the campus and various systems, yielding a holistic view of campus activity. This gives administrators a way to oversee operations in an efficient way.

MicroStrategy also helps campus network administrators keep systems running smoothly. Network administrators can review data logs to get a better understanding of speed outputs, connection mishaps, or data interceptions and can analyze bandwidth usage and data transfer rates by individual routers in a variety of locations. With these insights, they are better equipped to eliminate bottlenecks, enhance service quality, and improve resource planning.

MicroStrategy can also provide a window into sensor data from a variety of sources. For example, lighting equipment can log information whenever its switched on. By reviewing this light sensor data, admins can identify if a room is occupied and can use this information to more effectively manage facilities.
ANALYTICS APPLICATION:  
VENDOR PORTAL

The challenge
With distributed decision makers at the school and department level, universities often provide vendors with inconsistent business intelligence. Different parties may be using different versions of data, and departmental staff may have limited time to review vendor performance information at the level of detail needed to drive better results.

The solution
MicroStrategy provides relevant and timely data to both vendors and suppliers, helping foster collaboration to drive efficiency. Vendors and suppliers have a secure, common view of current data related to sales, inventory, profitability, supply chain, and promotions. Schools control the data that individual vendors can view, and vendors are equipped to drive better business results for their products and categories.

These solutions also help vendors benchmark their performance against peers at an anonymous level, view product forecasts, and better understand how they can be more effective with the use of their promotional funds. Universities can also communicate more effectively with vendors throughout the year, which helps facilitate better negotiations. By utilizing the MicroStrategy platform to deliver timely, valuable business insights to vendors, universities can drive efficiencies in supply chain management while maintaining an open, competitive, and friendly atmosphere for a mutually beneficial relationship with vendors.

VENDOR PORTAL is two-way intelligence for procurement lifecycles from “req to check.”

Provide vendors with access to up-to-date sales and inventory performance information and forecasts

Benchmark vendor performance against peers at an anonymous level to encourage improvement

Deliver visibility into vendor supply chain performance metrics related to shipment timeliness, order fill rates, and lead times
GRANTS MANAGEMENT enhances research while maintaining financial responsibility.

The challenge
Managing the regulatory and fiduciary responsibilities that accompany public and private research funds is a complex undertaking. Spending should be in direct support of project efforts and should not exceed the total amount of funds awarded. In addition, researchers and universities must demonstrate sound financial oversight of sponsored funds in order to maintain trust and continue to receive research support.

The solution
With MicroStrategy, research and grant management teams can get quick access to essential information they need to work smarter, remove bottlenecks, and streamline processes. MicroStrategy reports and documents can help teams manage the grant funding pipeline, committed effort, compliance requirements, subcontracts, and supporting documentation.

Using MicroStrategy, grant managers can produce superior reports, help maintain budget balances for multi-year projects, track special commitments, and calculate projected personnel costs. The result is a more comprehensive financial management solution for research teams and organizations.

These applications also help accountants or principal investigators reconcile project ledgers on a timely basis and review expenditures including fringe benefits, facilities, and administration, and tuition charges.
The challenge

Many colleges and universities rely on alumni donations to help cover operational expenses and provide financial aid to current students. Development and alumni relations professionals face increasing pressure from institutional leaders to justify the value of their engagement efforts. But while other offices like admissions, advising, and career services have developed metrics to demonstrate return on investment, many alumni relations offices continue to rely on “soft” metrics like event attendance and post-programming satisfaction.

The solution

At progressive institutions, engagement programming helps establish and enhance relationships with alumni, allowing development staff to identify and nurture prospects who are apt to donate. Engagement data can also reveal the personal affinities of prospective donors, helping development teams segment potential donor profiles and design more effective programs.

MicroStrategy applications allow universities to take a granular look at alumni affinity, on an aggregate or individual basis, and drive decision-making accordingly. With easy access to alumni engagement data, MicroStrategy can help drive donations by identifying top donors, locating potential new donors, and analyzing the effectiveness of different fundraising campaigns and techniques. This allows development staff to prioritize resources and take targeted action to engage alumni who are the most likely to give.