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Leveraging Data and AI to Boost Enrollment and Retention

With the rise of automation, including AI and ChatGPT, two new trends are emerging among higher-education institutions, transforming the way they collect, store, synthesize and analyze data to support the recruitment and academic success of students, through a more tailored experience.

The first trend, "silo busting", is an effort to integrate data collection across departments: registration, financial aid, housing, course management, career services, and even alumni relations. Tom Green, director of strategic enrollment management at Salesforce, says his campus partners are integrating data systems to create broader and more detailed student profiles so university administrators "can see all the different ways in which the student is really engaged with the institution or failing to engage." Smart institutions are building feelings of belonging from the very first interaction with students, creating an engaging student experience that can make students lifetime advocates for the institutions.

The second trend that Green highlights is a heightened effort by colleges to act on collected data more quickly and respond to student needs immediately. For example, in the past, colleges might analyze enrollment data after an admissions cycle to see which prospective students applied and which ones didn't, and then use that analysis to plan for future recruitment. Many administrators were studying quarterly reports on paper. Now, Green says, administrators use rapidly updated digital dashboards for real-time insights and respond instantly, reaching out to prospective applicants when they are still in the middle of making

decisions about college applications and enrollment. Institutions, says Green, are asking "What is happening now and how can we respond now?" The same idea can be applied to enrolled students, using data and insights, to identify students who are at risk of leaving the institution.

Streamlined data collection, analysis and sped-up responses can result in heightened engagement with prospective and current students throughout their university experience by sending them timely invitations to open houses, or detecting when currently enrolled students are considering dropping out due to financial problems. "Students worry a lot," says Green. "They don't always vocalize that. And they could be sitting there stewing about an unpaid balance and thinking 'I've gotta leave.'"

Personalization in the Admissions Cycle

Understanding and meeting those student expectations can be difficult to track, so colleges lean on a data-driven approach to personalize engagement with prospective students. Customer relationship management software, or CRM's, enables colleges to customize their communication with each student. This includes using just the channels a student prefers, sending messages at times when they're most likely to read and respond, and tailoring messages based on a student's expressed academic interests.

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Tailored communication can provide considerable rewards, enrollment managers say, especially when colleges are trying to improve yield, the proportion of students who enroll among those who were admitted. Yield is a critical factor for colleges seeking to hit their enrollment targets and institutional goals.

Geography can also play a role in personalizing messages to prospective students. David Burge, vice president for student enrollment at George Mason University, in Fairfax, Va., says "The further away prospective students are from campus, the less likely they are to know who we are." That means more institutional description must be wrapped into communication to distant prospects.
George Mason emphasizes the importance of starting early in the admissions

cycle when using a CRM to gather student data. "We probably collect more information about a student when we're recruiting them, than we do as they're going through our system," says Burge, "because we have to know so much more about them in order to be competitive."

Burge says it is as important to collect data about the parents of students as it is to collect data about the students themselves, but the data collection should be done with deep respect for family privacy, with careful data security, and with strict limits on who can access the data.

At Santa Fe College, a two-year college in Gainesville, Fla., Quinten Eyman, director of student recruitment and SF Achieve, agrees with that sentiment. The college focuses on students who may not even think that higher education is for them. "If students don't have parents, you bring in their guardians," says Eyman. "You bring in their teachers, you bring in the community." Having this kind of data on students' support networks can inform colleges on how to get them engaged and help the students through the possible barriers they might face pursuing an education.

"It's all about the barriers," he adds. "How do we knock those down?"

Individualized Case Management for Student Success

Santa Fe College has had a CRM for nine years, which was initially used only in enrollment management. But the philosophy behind the CRM has expanded from one for managing applicant data to one devoted to case management and making sure enrolled students' needs are met, says Eyman. "We try to get students' questions answered quickly, promptly, accurately, and in a personal human way," he says.

Over the past five years, Eyman says, they have merged many campus data silos, resulting in a 50-percent increase in staff efficiency, a 200-percent increase in student engagement, and an eight percent increase in new student enrollment last fall. Some of that, he says, is due to the college adopting a CRM that's more user-friendly, enabling students to request and obtain

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the support that they need via technology: "Data is king, and ease of use is queen, the most powerful piece on the board."

An initiative to improve student-success rates at the University of Michigan at Dearborn exemplifies how personalization can play out. Dearborn administrators began the effort with a legacy of ad-hoc data systems spread out over the university's four colleges. They didn't even have a unified list of student emails. Over time, the university shifted to using a digital platform to create a ticketing system to capture students' requests that are brought to administrators' attention so they can manage individual cases, track the tickets, and resolve issues. In the case management system, academic advisors use a dashboard to look at student profiles, including details about academic standing, financial status, advising notes and more.

The case-management system can help both well-performing students and students at risk of dropping out. For example, an advisor can help a student on academic probation create a success plan, and then send timely reminders to the student to take relevant actions, such as making appointments with faculty members. In the same way, students can use the technology platform to easily get information about their advisors and student-success team, to proactively request the support they need across multiple devices.

Artificial Intelligence: New Eyes on Data

As universities get better at collecting student data, human analysis of the data becomes increasingly difficult. "There can be just hundreds and hundreds and hundreds of data points that are now suddenly available to you," says Green. But knowing which data to pay attention to is not always clear. Indeed, it can be difficult for administrators to even know what questions to ask of the data.

That is exactly the sort of environment where artificial intelligence can excel, says Green, since the computing power behind it can work with hundreds of data points per student or millions. AI can be deployed, for example, to help uncover hidden bias in application review. AI can keep learning from its successes and mistakes as it tries to predict which prospective students will apply, which admitted applicants will enroll, and which enrolled students will graduate. While AI powers its way through the fine details of data, staff members can focus on more strategic, high-level efforts. AI can also improve the student experience by improving personalization during the admissions process, giving colleges the ability to send more tailored, timely messaging to engage prospective students.

Paul Napleton, head of digital and marketing automation at the University of East Anglia, in Norwich, England, says the university uses a Salesforce artificial intelligence capability known as Einstein to predict the likelihood of prospective students to engage with the university's communication based on their previous activity. That allows the university to hone its communication strategy. For instance, identifying students who haven't engaged with previous emails, and testing a different approach such as sending them a text instead.

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Responsible Use Towards Global Impact

At UEA, the goal is to use data to send relevant messages to prospective students to help them make informed choices about their course of study, says Sarah

Cox, head of data, systems, and applicant engagement within the admissions department. The university uses events, peer-to-peer chat, display advertising and other channels to get its messaging out to prospective students and to collect data, within the framework of the U.K.'s data privacy laws, which are stricter than in the United States.

"We should always remember that the data isn't our data," says Napleton. "It's the customer's data. It's the student's data. If we can develop a relationship with them in a transparent, value-added way, then that's where the true advantage comes."

"It's not about replacing humans with technology," he adds. "It's allowing technology to do the heavy lifting of some of the automation pieces so humans can do what they do best, which is engage on a personal level."

The University of East Anglia is at a similar point in developing its CRM as many American institutions: Integrating admissions and recruitment data with student-success data collected once students have begun their coursework.

As David Burge at George Mason describes it, the hope is to create "A single source of truth on student engagement that will allow us to deliver the right information, to the right person at the right time; to proactively assist students and not wait for them to raise their hand or wind up in a crisis and simply float away."

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He and other enrollment managers say that universities have a tremendous opportunity to use technology to break down campus data silos, ease the workload of staff members, and reach out to students with timely, relevant messages. The end result is a more satisfying workplace for faculty and staff members and a better experience for enrolled and prospective students who then market the institution to their peers.

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