How Cloud-Based Intelligence Can Drive Student Success

AI and machine learning can help provide students with the personalized support they need, from enrollment all the way to graduation.
Only 56 percent of students enrolled in a bachelor’s degree program graduate within six years, according to the higher education technology association EDUCAUSE — and just 29 percent of students pursuing an associate degree graduate within three years. Among low-income students, completion rates are even lower.

Campus leaders are trying to improve these numbers by delivering a more personalized, student-centric college experience. For instance, innovations powered by artificial intelligence (AI) and machine learning technology in the cloud can support students more effectively from enrollment through completion, according to Keith Rajecki, senior director for education and research at Oracle. And that can improve student outcomes dramatically.

“Achieving student success starts with the culture of an institution,” said Rajecki. “We provide applications to support colleges and universities in building this culture, allowing them to be more agile and responsive to students’ needs.”

SMART RECRUITING
Recruiting and accepting students who are a good fit for the institution is a key aspect of student success. “If colleges and universities can identify students who are going to be successful in a certain program,” Rajecki said, “they can focus on recruiting those students in particular, who in turn are more likely to graduate.”

Oracle’s Student Recruiting module uses the information captured during prospecting, as well as data gathered from mining a student’s online activity, to build comprehensive student profiles. The software then uses AI technology to map candidates’ interests, attributes and behaviors to the profile of an ideal student who is likely to succeed at the institution. Candidates recognized as a good match are recommended to recruiters.

Similar technology employed by Oracle’s Human Capital Management (HCM) Cloud solution supports more intelligent recruiting of faculty and staff. The software uses AI to map the skills required for a certain position to the capabilities of applicants, as well as current employees in other departments — and even candidates who have submitted their résumé or curriculum vitae to third-party recruiters.

“Many colleges and universities struggle to recruit and retain top talent,” Rajecki noted. “By leveraging adaptive intelligence, we can help them manage their workforce more effectively — ensuring that institutions never have to cancel courses because they lack the faculty to teach them.”

PERSONALIZED SUPPORT
Student success also relies on giving students the support they need once they are enrolled. AI and machine learning technology can help identify obstacles that stand in the way of a student's progression and recommend solutions.

For instance, challenges with course scheduling can be an impediment to success. “Students often schedule classes that are too difficult, and they end up struggling,” Rajecki explained. “They spend a significant amount of time and money, only to set themselves up for failure.”

The automated intelligence embedded within Student Cloud, Oracle’s next-generation student information system, can predict courses or material that students might struggle
with, based on their profile and the skills gaps the software has identified for them — and it can recommend remediation or suggest courses that are more appropriate. The software also integrates with a student’s personal calendaring system, so it can help students schedule the right courses around their busy personal lives in a way that improves their chances of success.

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—Keith Rajecki, senior director for education and research, Oracle

The intelligence built into Student Cloud can also predict where students may struggle down the road, giving advance warnings to academic advisers. “We are leveraging AI to help advisers intervene and put students on a path to success, before they even become at risk,” Rajecki said.

**DEEPER ENGAGEMENT**

For students to succeed, they not only need the right supports, but also must be fully engaged in their education.

“Engagement is about more than just attending classes and turning in assignments,” Rajecki said. “We have seen that institutions offering additional services to keep students engaged have higher retention and graduation rates. The more affinity that students have for the institution, and the greater their feeling of belonging, the higher their rate of success.”

Advanced analytics can help colleges and universities identify the student engagement and success factors that are unique to their institution. For instance, Valdosta State University in Georgia worked with Oracle to uncover key trends and determine which metrics play a significant role in retention and completion.

By combining and analyzing data from multiple sources, including student surveys and ID card usage, Valdosta State determined that students who eat breakfast on campus have a 10 percent higher retention rate, which led administrators to promote on-campus eateries. With the help of this simple change, the university increased student retention by more than 2 percent in one year.

In addition, Valdosta State discovered that freshmen who work on campus have a much higher retention rate than the general freshman population (85 percent vs. 55 percent). Equipped with this information, the university made a $200,000 investment in student jobs on campus, which is expected to save $2 million in student retention costs over four years.

**POWERFUL INSIGHT**

Finances are another common reason why students drop out of college: Many students simply can’t afford the courses they need to complete their degree program. Having access to sound financial information is critical — and Oracle Student Cloud includes a Student Financial Planning component that helps students stay on track with their finances.

At the institutional level, when Student Cloud is integrated with Oracle’s HCM and ERP solutions, campus administrators have access to all of the information they need to make better decisions and manage the cost of an education, Rajecki pointed out.

“Having a fully integrated solution in a single cloud environment helps campus leaders make timely decisions based on real-time data, giving them much more control over institutional finances,” he said. Through data visualization dashboards, administrators can see how factors such as student and course enrollment, faculty workloads and the resource requirements of classrooms affect their budgets.

With adaptive, cloud-based intelligence at their fingertips, higher education leaders can glean powerful insights, Rajecki concluded — enabling them to support student success more effectively.

For more information, please visit: Oracle.com/higher-education