

# ASA Introduces Customized AI Solutions for Student Success

## How can AI help achieve student success goals?

ASA Research is pleased to offer customized artificial intelligence (AI) tools, including chatbots and predictive analytics. These technologies offer new and effective ways of harnessing large amounts of numerical and textual data to support potentially vulnerable students, close achievement gaps, and improve outcomes. We build our work on four pillars of responsible AI implementation:

### Pillars of Responsible AI

Progress	Fairness	Transparency	Context
<ul style="list-style-type: none"><li>• Improved outcomes, especially for vulnerable groups.</li><li>• Increased access to knowledge.</li><li>• Narrowed gaps.</li></ul>	<ul style="list-style-type: none"><li>• Absence of harmful bias.</li><li>• Fair representation and service quality.</li><li>• Equitable access to resources.</li></ul>	<ul style="list-style-type: none"><li>• Open documentation.</li><li>• Explainability and accountability.</li><li>• Privacy and data governance.</li></ul>	<ul style="list-style-type: none"><li>• Monitoring and oversight.</li><li>• Human expertise and diverse ways of knowing.</li><li>• Downstream impact.</li></ul>

## Predictive Analytics

Predictive analytics can help your organization anticipate outcomes and act proactively, not reactively. For example, a predictive model might help advisors, coaches, or teachers identify students who may be at risk of a negative outcome so that they can offer early support. Predictions from such a model can serve as a new source of information for practitioners to consult when making complex decisions, such as an advisor deciding which students to reach out to for follow-up meetings. Used this way, predictive analytics can bring resources to students less likely to access them conventionally, improving outcomes for vulnerable students and narrowing gaps.

Our models can be tuned to provide accurate predictions for students of all backgrounds, avoiding harmful bias. In a case study for a large public university, our model accurately identified 35% of non-returning first-year undergraduate students, compared with only 10% identified through alternative models. The model performed even better in accurately identifying first-generation students and students of historically underserved race and ethnicities. With a holistic approach, advisors can integrate such a model's predictions with their existing expertise and lived experience, and downstream outcomes can be measured for evaluation.

## Chatbots

ASA's customized AI-powered chatbots help students navigate critical campus services such as billing and financial aid. Students can text a designated phone number and receive personalized guidance from an AI language model that draws on official university sources. The chatbot can also offer to connect students with traditional human-powered resources.

**STUDENT** I'm behind on tuition and need to withdraw from the term

**CHATBOT** I'm sorry to hear that! According to the [Office of the Registrar](#), you can withdraw by filling out a quick form at Parkhurst Hall, open weekdays from 9:00 to 5:00. However, we also have some resources that could potentially help you stay enrolled, like bridge grants and loans. Would you like someone from the Financial Aid office to reach out to you about options?

**STUDENT** Yes please

**CHATBOT** Great, I've put in a request. You should hear from someone tomorrow.

ASA's chatbots connect vulnerable students with information and resources that are traditionally difficult to navigate, improving equity in both access and outcomes. We can also provide high-quality responses across more languages and dialects than typically spoken by staff.

### What makes ASA's AI solutions unique?

Our AI is shaped by ethics and equity standards that we co-create with you and your stakeholders, and that we use to design, test, and fine-tune our solutions.

ASA Research is an interdisciplinary team of subject matter experts and technologists. As an SBA-certified Small, Women-Owned Business, our goal is to help you implement the best available tools in a way that aligns with your goals **and your values**. Our team of established leaders in the field of AI ethics and equity focus not only on building and implementing the best technologies, but on helping you use them to do good.