How an artificially intelligent virtual assistant helps students navigate the road to college

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April 2018
Georgiastate University Partnership

University-specific effort to reduce summer melt

- **GSU context**
  - High rates of summer melt among recent cohorts
  - Majority of incoming students are from low-income households (Pell grant eligible)
  - 1/3 admitted students are first-generation college goers

- **Research collaboration with AdmitHub**
Meet Pounce

- Reminders
- Guided Tutorials
- Surveys
Building Pounce

Separate workflows pertaining to all steps in the GSU college transition process

- Intent to enroll form submission
- FAFSA submission/verification, accepting loans, paying tuition bill
- Orientation registration & attendance
- Transcript and test scores submission
- Housing deposits
- Immunization records submission
- Placement test sign-up
- Planning for transportation
- Meal plan sign-up
Hey {First Name}, do you plan to park a car on campus? 🚗

Yes

Cool! Would you like me to help you get a parking permit?

Yes

Visit bit.ly/parking to see parking fees and rates, and to figure out what option will best fit your needs. To register your vehicle and get a permit, please create an account here: bit.ly/parkpermit.

No

No

OK. For future reference, visit bit.ly/parking for parking info. 🚗 For other modes of transportation (shuttles 🚕, the metro 🚃, bike shares 🚴, Zipcar, etc.) go to bit.ly/transit.
Hi Mike! Congrats on being admitted to Georgia State! 🎉 I'm Pounce -- your official guide. I'm here to answer your questions and keep you on track for college. (Standard text messaging rates may apply.) Would you like my help?

Can I bring my dog to the dorm?

Fish are allowed in tanks no larger than 10 gallons, but all other pets are prohibited. Visit bit.ly/1SiBe6R to see what you should and shouldn’t bring.
Implementing Pounce

- Target sample (Summer 2016)
  - Admitted students with a US cell phone
  - 1,948 committed to GSU
  - 5,541 admitted but not committed

- Randomized controlled trial, stratified by GSU commitment status at time of randomization

- Pounce integrated with GSU student data systems
  - Specific workflows targeted only to students who needed them
Implementing Pounce

Reduced need for human input over time
Pounce impacts on pre-enrollment steps & GSU matriculation

Impacts for GSU-committed students

<table>
<thead>
<tr>
<th></th>
<th>Treatment effect</th>
<th>Control mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification hold on financial aid</td>
<td>-0.030~</td>
<td>0.178</td>
</tr>
<tr>
<td>Submit final transcript</td>
<td>0.043*</td>
<td>0.688</td>
</tr>
<tr>
<td>Attend orientation</td>
<td>0.028~</td>
<td>0.857</td>
</tr>
<tr>
<td>Immunization hold on registration</td>
<td>-0.048*</td>
<td>0.513</td>
</tr>
<tr>
<td>Complete loan counseling</td>
<td>0.063**</td>
<td>0.422</td>
</tr>
<tr>
<td>Accept loan</td>
<td>0.055*</td>
<td>0.449</td>
</tr>
<tr>
<td>Accept Stafford loan</td>
<td>0.069**</td>
<td>0.375</td>
</tr>
<tr>
<td>Enroll in GSU</td>
<td>0.033*</td>
<td>0.846</td>
</tr>
<tr>
<td>Enroll in two-year institution</td>
<td>-0.013**</td>
<td>0.017</td>
</tr>
</tbody>
</table>

~ p<0.10, * p<0.05, ** p<0.01
Conclusions

- Data-informed outreach helps to support students through key steps in the college-transition process
- Replace school counselors & college admissions staff with chatbots?
  - No!
  - Systems like Pounce can help improve staff efficiency
  - Efficient use of data to target those who need outreach
  - Pounce: AI can handle common student questions & improve over time in doing so
- Just as self-driving cars don’t do well in bad weather, staff time saved for complex circumstances that only they can help students navigate.
Thank you.

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Paper: