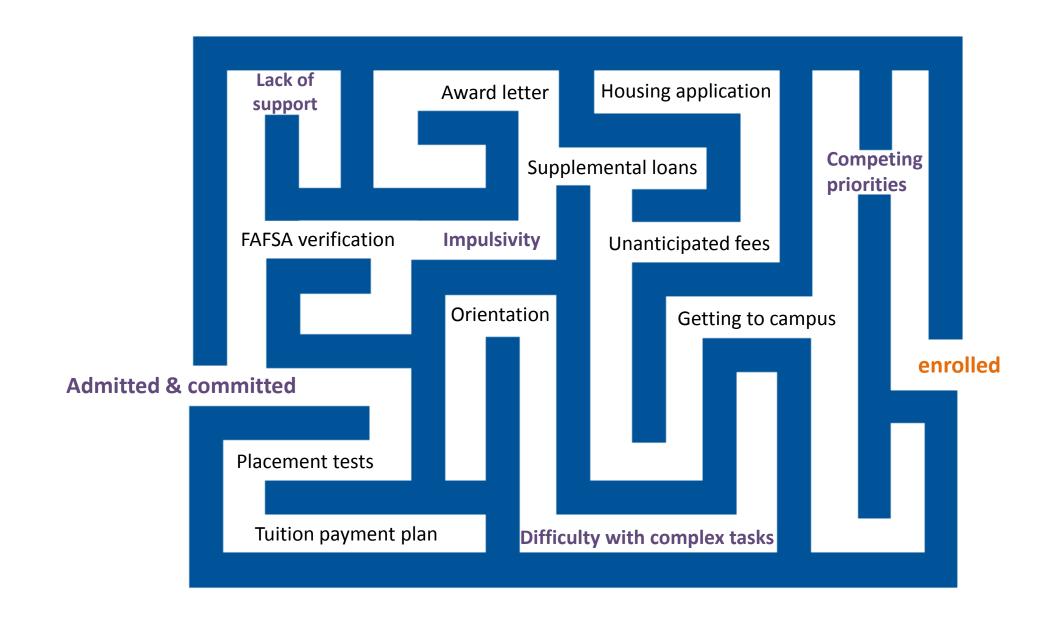
How an artificially intelligent virtual assistant helps students navigate the road to college

Lindsay C. Page Hunter Gehlbach April 2018



## Georgia State 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

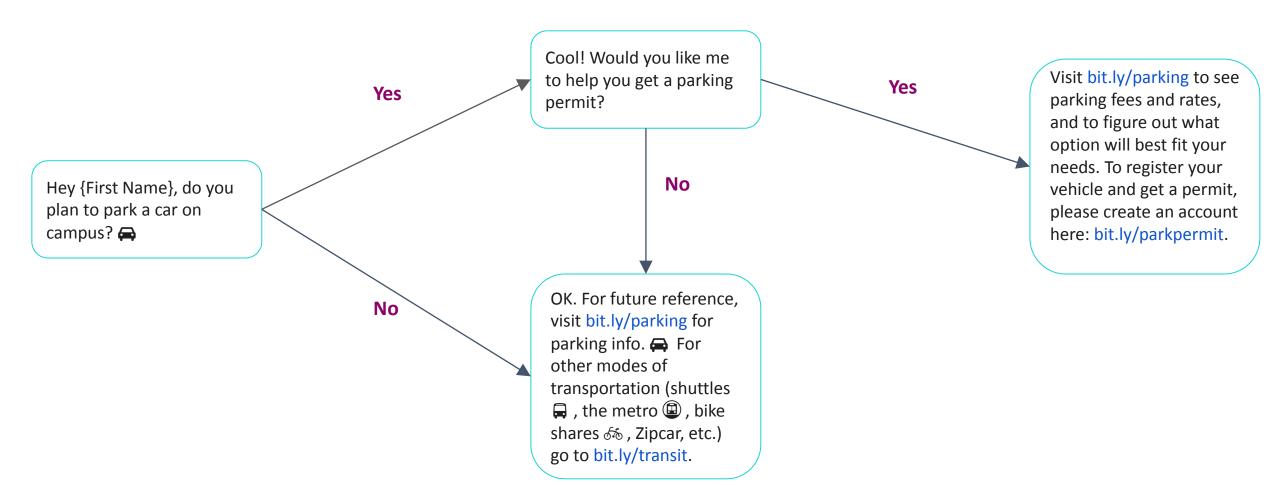


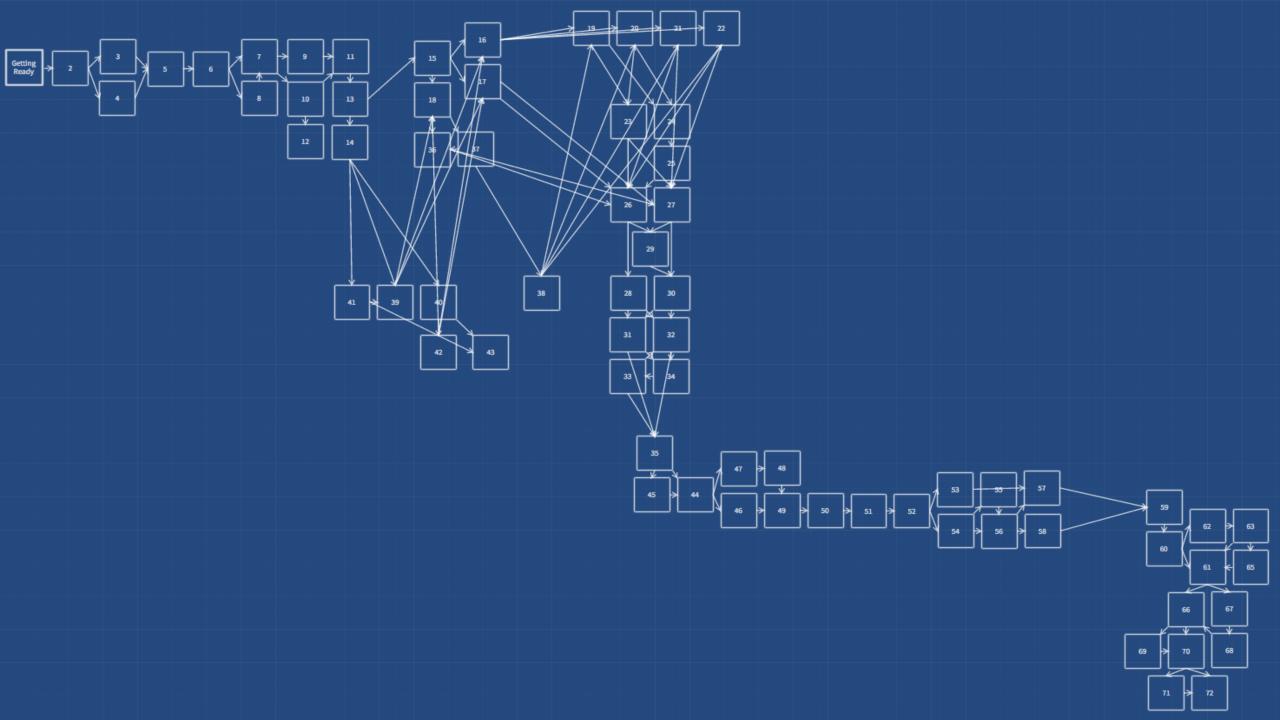
**Planning for transportation** 



Meal plan sign-up

### **Building Pounce**







### **Chatbots**

Computer programs that mimic conversation with people using artificial intelligence



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?





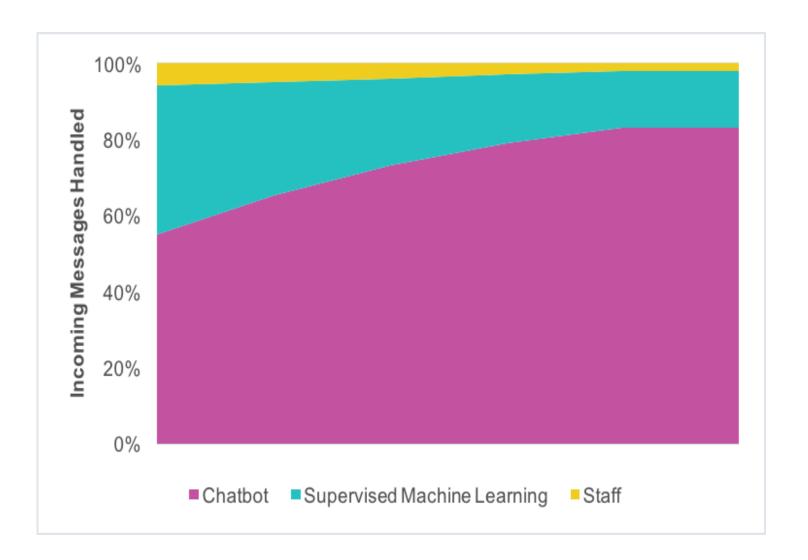
Fish are allowed in tanks no larger than 10 gallons, but all other pets are prohibited. Visit <a href="bit.ly/1SiBe6R">bit.ly/1SiBe6R</a> to see what you should and shouldn't bring.

# 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

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

<sup>~</sup> 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: Al 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:

Page, L. C. & Gehlbach, H. (2017). How an artificially intelligent virtual assistant helps students navigate the road to college. *AERA Open, 3*(4), 1 – 12.