

***¿Habla Español?
Do Financial Aid Offices Use
Chatbots...and Can They
Speak Spanish?***

Presented at SFARN 2021

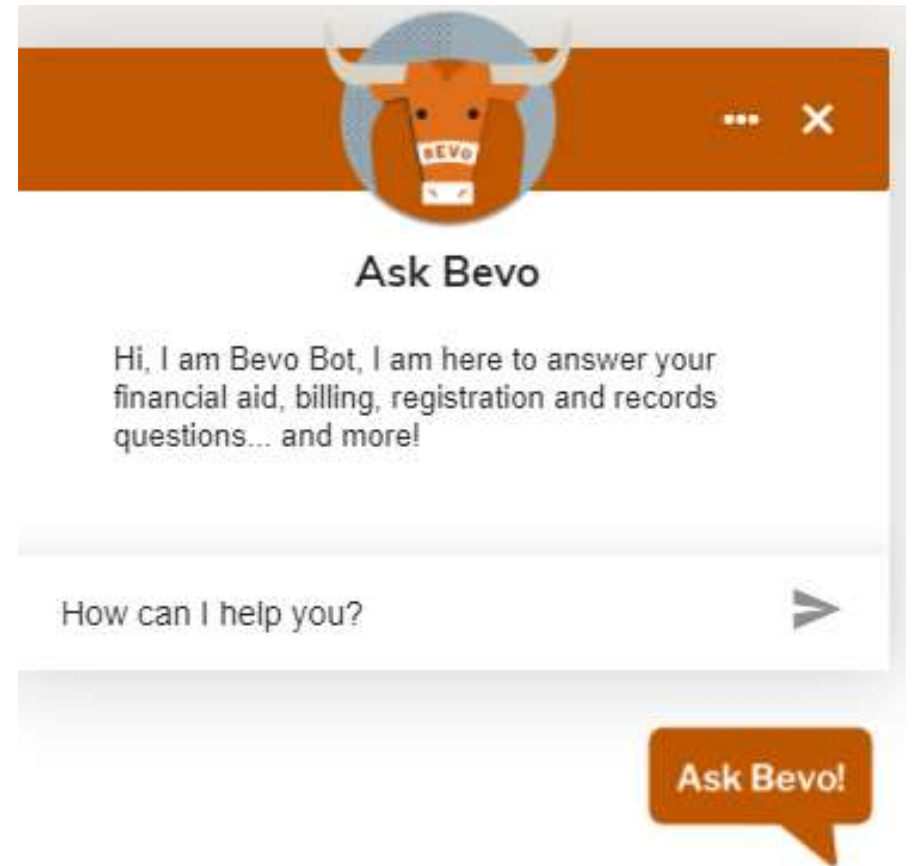
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What are chatbots? Why are they used?

- Chatbot = a computer program that simulates human conversations using complex algorithms, word banks, and keyword tagging.
- Chatbots have been used to lower the cost of connecting Internet users to website resources.
- [Georgia State significantly reduced "summer melt" by using a chatbot.](#)



Chatbots and Higher Education Problems

- Several studies have analyzed and reported on chatbot use in higher education ([source](#)); Primarily used to help students access admissions and financial aid information but not universal.
- Higher education (.edu) websites are primarily in English; only 3-5% of institutional websites translated beyond English ([source](#)).
- **Unanswered questions:** do financial aid offices use chatbots and can they speak Spanish? Are we supporting our Spanish-speaking students and their support networks?

Research Questions

- R1a) How many financial aid offices integrate chatbots into their .edu websites?
- R1b) If so, are there differences among sectors?
- R2a) Are these chatbots capable of conducting conversations in Spanish?
- R2b) If so, what is the fidelity of those Spanish conversations?

Methods

- Sampling = 341 randomly selected Title IV participating institutions of higher education per IPEDS.
- Sample breakdown:
 - 114 four-year public
 - 179 four-year private non-profit
 - 48 four-year private for-profit
 - Somewhat mirrors overall population, private non-profits over sampled.
- Data collection = review each institution's financial aid (.edu) website, code for chatbot presence (yes=1, no=0), then engage with chatbot in both English and Spanish.
- Data analysis = descriptive stats of chatbot prevalence, qualitative analysis of chatbot interactions, English and Spanish fidelity, code for themes.
- Limitations = only 341 websites, only U.S. contexts, only three researchers.

Results

- Overall sample = 21.8% featured a chatbot on their FA website.
 - Public = 31.5% (36 of 114)
 - Private non-profit = 8.9% (16 of 179)
 - Private for-profit = 41.6% (20 of 48)
- Overall sample = <1% (3 institutions) translated FA content on their website.
 - Chatbots much more prevalent than Spanish translations of FA content.
 - **What does this result say about institutional priorities?**

Example: Saint Elizabeth University

The screenshot shows the Saint Elizabeth University website. At the top left is the university logo. To the right is a search bar and navigation links for 'Donate', 'MySEU', and 'More Links'. A blue banner at the top reads 'COVID-19 Vaccine Required for All Students' with details about medical form submission deadlines. Below the banner is a navigation menu with 'Meet SEU', 'Academics', 'Admissions', 'Athletics', 'Student Life', 'Alumni', and an 'Apply' button. The main content area is titled 'Financial Aid Process' and includes a sidebar with links like 'Financial Aid Process', 'Downloadable Forms', and 'Secure File Upload'. The main text describes the university's commitment to financial aid and lists key information: SEU school code 002600, FAFSA completion deadline of October 1st, and the priority deadline of Saturday, April 1st.



The screenshot shows the Spanish version of the Saint Elizabeth University website. It features the same top navigation and COVID-19 banner as the English page. The main content area is titled 'Undergraduate - En Espanol' and 'En Ingles'. The primary heading is 'Proceso de solicitud para la ayuda financiera'. The text explains that the university uses the FAFSA form to determine financial aid packages based on the Expected Family Contribution (EFC). Key information listed includes the school code 002600, the requirement for a complete FAFSA after October 1st, and the priority deadline of Saturday, April 1st. It also lists 'Programas de Ayuda Financiera' which include federal and state grants, scholarships, and institutional funds. Contact information for the Financial Aid Office is provided at the bottom: 973-290-4445 or financialaid@steu.edu.


Results


- Can chatbots speak Spanish? Yes and no, mostly no.
- Best) Chatbot was programmed with Spanish language, including correct grammar and punctuation as well as Spanish-language resources.
- Okay) Chatbot was programmed to direct user to resources in Spanish without speaking Spanish.
- Not great) Chatbot was programmed to place Spanish speaker in a queue to speak to someone in Spanish outside of the chatbot.
- Bad) Chatbot provides rudimentary information in Spanish and suggests English-language resource.

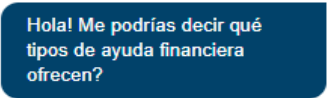
Example: IU Bloomington


- GOOD:
- Response is accurate.
- Matches what FSA website says = communication aligns.
- Depth of response was excellent.
- Conversation not robotic.
- Grammar and punctuation accurate.

Ask Student Central ... X

 Hi! I'm Ask Student Central. I'm a virtual assistant here to answer any questions you may have about Financial Aid, Student Accounts, and Student Records.

 How can I help you?

 **Hola! Me podrías decir qué tipos de ayuda financiera ofrecen?**

 Usted (o sus padres) pueden acumular una deuda considerable pagando su educación en IU con préstamos. Antes de solicitar un préstamo para ayudar a pagar la universidad, es una buena idea explorar todas las oportunidades de subvenciones y becas disponibles para usted. ¡Cuanto menos tenga que reembolsar, más fácil será la transición a la vida después de la universidad! Los préstamos federales directos, los préstamos federales directos PLUS para graduados, los préstamos federales directos PLUS para padres y los préstamos privados son préstamos que están disponibles para los estudiantes. Algunos de los diferentes tipos de ayuda financiera que están disponibles para los estudiantes también incluyen subvenciones, becas, trabajo y estudio y AmeriCorps. Para obtener información detallada sobre estos tipos de ayuda financiera, visite nuestro sitio web.

Did I help? 😊 😞

Example: SUNY Canton

- BAD:
- Asked for Spanish, responded with asking for contact information.
- In Spanish, replied that no one in financial aid can speak Spanish = only admissions.

Please enter your message
Agents are online!

Business Messenger by jivochat

Hola, hablas español?

Please introduce yourself in chat

Linda E.

9565772026

lenduuh@gmail.com

Please enter your message
Agents are online!

Business Messenger by jivochat

Buenos días, lo siento no hablo español. Nuestra Oficina de Admisiones tiene un representante de habla hispana.

Está bien, gracias!

Student Accounts

Eres bienvenido. Su número es (315) 386-7123. ¡Qué tengas un lindo día!

Enter your message

Example: Fort Valley State

- BAD:
- Asked for Spanish, responded in English.
- Asked for Spanish again, seemingly automated response to a question that the chatbot did not recognize.
- No triaging to a person in any office.

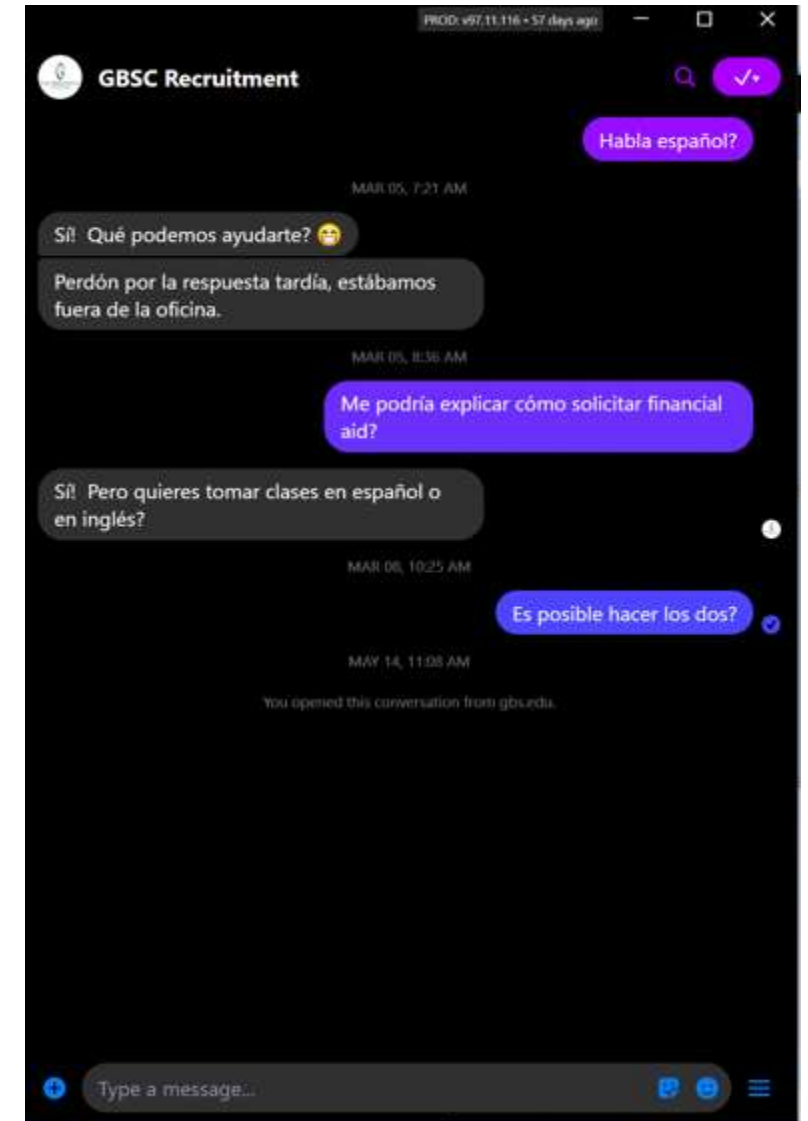
The screenshot shows a chat interface with a blue header bar containing a close button (X) and the text 'Ask Blue'. The chatbot, represented by a yellow cartoon mascot icon, sends the following messages:

- Hi, my name is Blue. I am a chatbot here to help with all of your financial aid questions! What would you like to know?
- Hola! Hablan español?
- Hi there.
- Hablas español?
- Sorry, I don't have the answer to that.
Would you like to contact the office?
- No thanks
- Okay, I'm sorry about that. Do you have any other questions?

Human user responses are indicated by a green circular icon with a white person silhouette on the right side of the chat bubbles.

Odds and Ends:

- Simplified Chinese also present in some chatbots but very rare (2 institutions, Foothill College and Florida State College at Jacksonville).
- Several chatbots redirect to admissions offices, as admissions offices operate the chatbots for the entire institution.
- DeVry College of NY = no Spanish language information because classes are in English.
- Louisiana Tech did not allow non-students to interact with the chatbot, yet chatbot was public-facing.
- God's Bible School = chatbot was powered by Facebook and redirected user to their personal Facebook account, and then connected user to a real person on Facebook Messenger.
- University of New Hampshire = user could leave a message in what appeared to be a chatbot but was really an email system.
- A few chatbots used predictive text while a Spanish language question was being asked = much more advanced than other chatbots.



Discussion and Future Research:

- Financial aid chatbots not prevalent, vary wildly, and largely do not speak Spanish.
- Many institutions seem more invested in technology and not people or human translations.
- Financial aid process may be unnecessarily complex for Spanish speaking students and support networks.
- Future research = how are chatbots developed for higher education industry?
 - Are Spanish speakers represented and included in that process?
 - What dialect of Spanish is used or represented?
 - How is Spanish-language content created and disseminated on higher education (.edu) websites?
 - Are Spanish speakers represented at all in the faculty and staff ranks, allowing access to Spanish-language information on institutional websites?