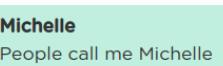
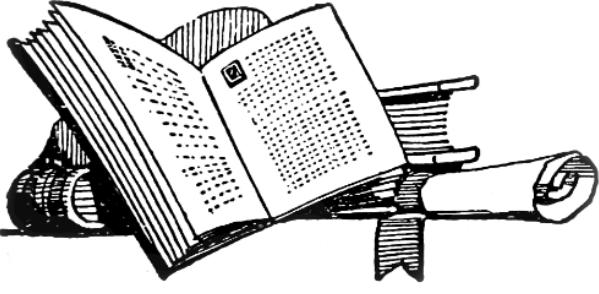
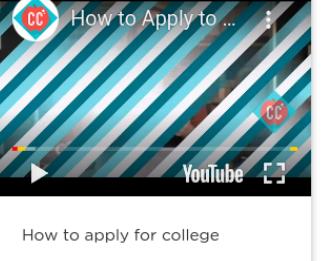
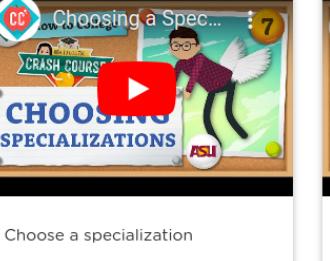
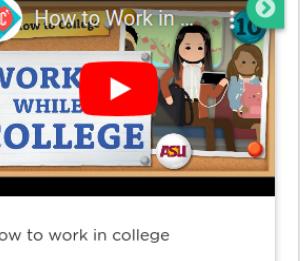
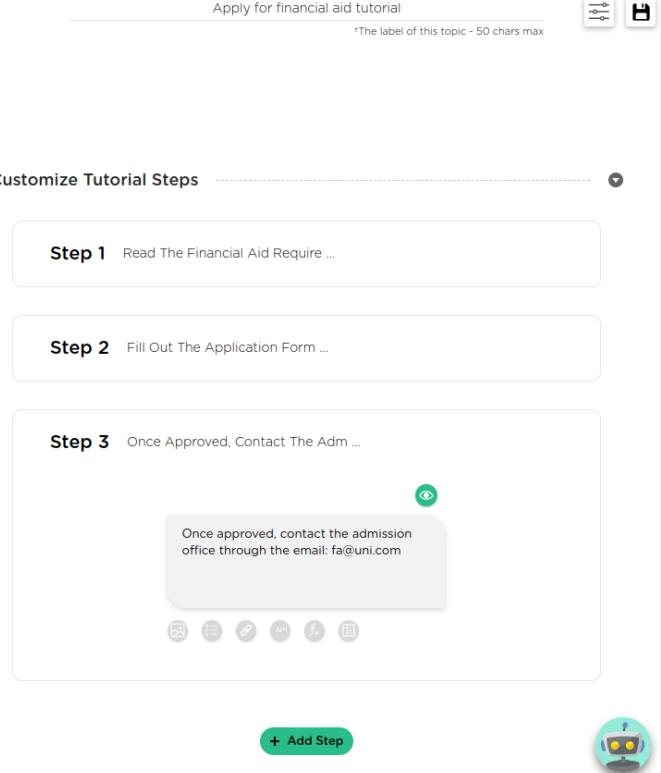
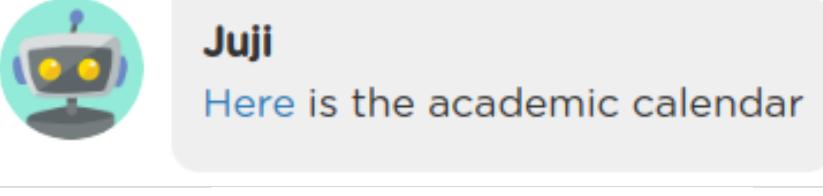
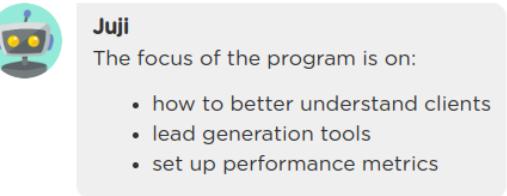
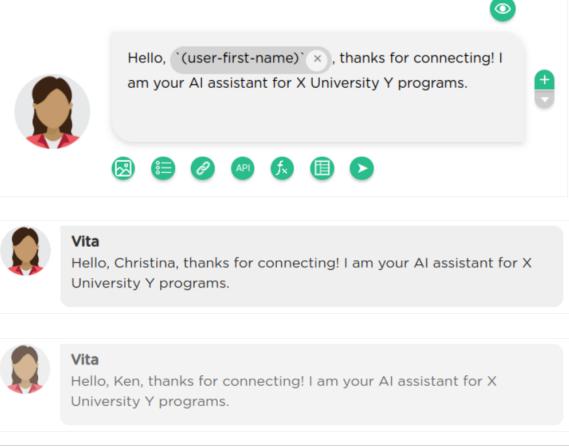
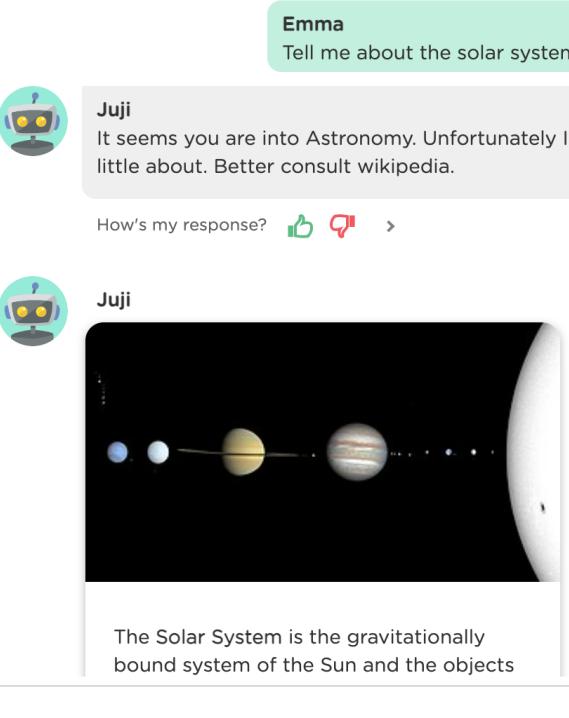
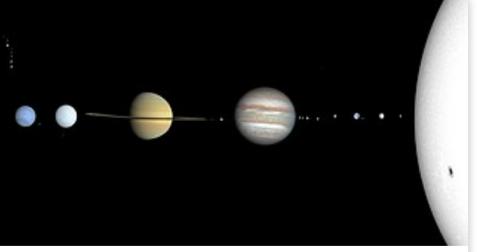


Capability	Key Function Synopsis	Examples	Juji References
I. User Experience and Business ROI	A chatbot or conversational AI agent is meant to scale out human engagements (e.g., universities with prospective and existing students) through a conversation. A key factor to evaluate a chatbot platform is to assess how well a chatbot engages with a user and delivers satisfactory user experience as well as maximize business ROI, such as improving prospective student conversion rate and existing student retention rate. Use the following factors to evaluate a chatbot performance in delivering satisfactory customer experience and achieving intended business values. In addition to evaluating chatbot features, gathering direct user ratings and feedback would be another way to assess this dimension.		
1.1 Empathetic and Productive Two-Way Conversations	Humans enjoy an empathetic and productive conversation no matter whether they are interacting with other humans or an AI. Such a conversation requires both conversation parties to collaboratively drive the conversation forward. It should never be a one-way monologue (e.g., user asks questions and a chatbot passively answers; or a chatbot asks questions and take in whatever a user says). Test if a chatbot option can support following features, which determine whether a conversation would be empathetic or productive.		
1.1.1 Abilities to gather quality data from users	In a two-way human-AI conversation, one key use of a chatbot is to gather information from users, e.g., prospective or existing students. This helps educational organizations better understand their users (e.g., student interests and feedback) and plan the next best actions (e.g., student conversion or retention). This requires a chatbot to ask both open-ended questions to collect qualitative information as well as choice questions to collect quantitative data		
Gather rich, qualitative data.	Evaluate how well a chatbot can ask open-ended questions and automatically interpret user free-text input to respond to users properly and also auto-extract certain data from the input (e.g., name and interest).	 Juji Hello, Stranger, thanks for connecting! I am your AI helper and cannot wait to chat w/ you.  Juji What's your first name?  Juji Thanks. Just to confirm, the first name is: Michelle  Juji What brings you here today?  Michelle People call me Michelle  Juji Higher education is a great way to further your career. Better career, higher pay as well.	Free-text Request
Gather quantitative data	Evaluate how well a chatbot can ask choice questions and support customized branching responses or follow-up questions based on user choice. The chatbot should also gracefully handle when a user enters something that does not match any of the choices.	 Juji What type of degree are you interested? Associate Bachelor Master's Doctoral  Juji I'm glad to hear that you are interested in getting an advanced degree.	Choice Request
1.1.2 Abilities to answer user questions	In a two-way human-AI conversation, another key use of a chatbot is to answer user (e.g., student) questions, which are typically phrased in free text with diverse expressions. A capable chatbot should be able to interpret diverse question expressions.		
Answer users' free-text questions.	Evaluate how well a chatbot could interpret students' diverse free-text question expressions even for the same question.	 Juji Our admission criteria are listed on our admissions page .  Juji Let me know if there's anything else I can help with?  Juji Our admission criteria are listed on our admissions page .	Customize Q&A and Fallback
Answer users' complex, free-text questions.	Certain user questions cannot be answered simply as the chatbot would need to gather more info from the users before answering the question, which requires multi-turn interactions. Evaluate how well a chatbot can handle such complex questions.	 Juji Which type of degree are you interested? Associate Bachelor Master's Doctoral  Juji Typically it costs between \$2500-\$5000 to get an associate degree.	How to teach your chatbot to answer complex user questions

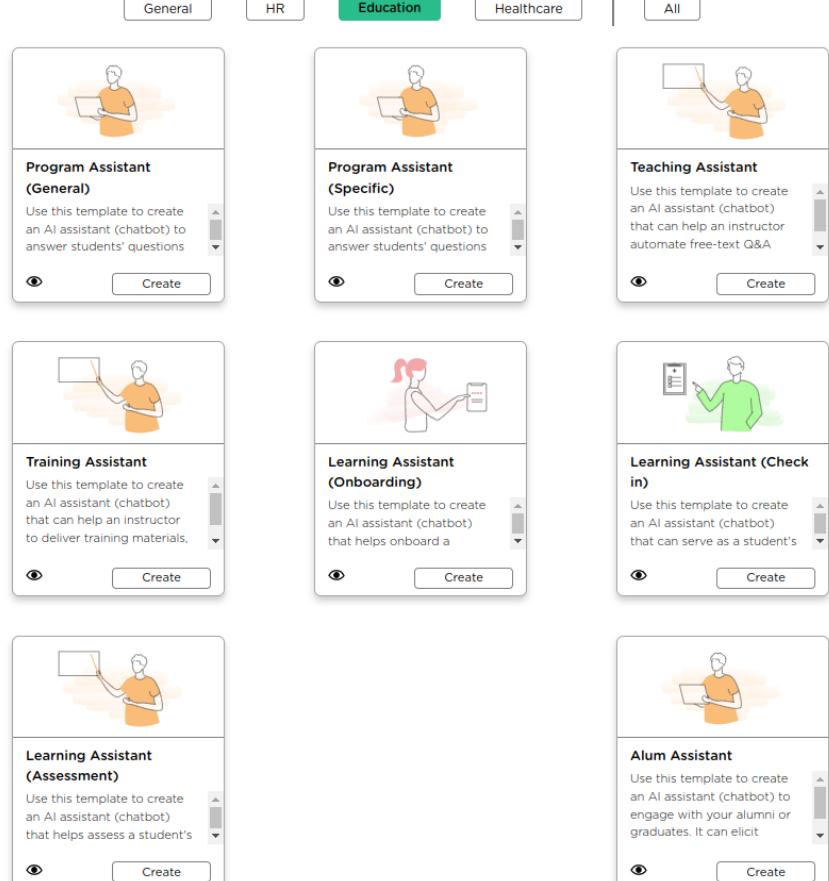
Capability	Key Function Synopsis	Examples	Juji References
Automatically recommend answers to similar questions.	When a chatbot does not have enough confidence to interpret a user question, it should inform users what its interpretation might be by automatically recommending similar questions along with their answers.	 Vita Hmm... I couldn't interpret your question... However, I am able to answer the following questions: 1. Am I eligible for financial aid? 2. when will the next enrollment period be? 3. Will I have access to alumni when I graduate? 4. None of above.	Tom Do you have alumni testimonials?
Automatic "HELP" menu generation.	A user may not know what a chatbot can answer and a chatbot's knowledge base (KB) may be updated frequently. This convenience function allows a chatbot to automatically generate a help menu from its KB and inform users what it knows about.	 Vita I can answer the following questions:  Vita <ul style="list-style-type: none"> • how easy is it to graduate? > • what is average starting salary post graduation? > • Military students? > • how many hours of study per week? > • How does this work for a working adult? >  Vita I can answer the following questions:  Vita <ul style="list-style-type: none"> • What are the degree requirements? > • application link > • max program length > 	Tom What can you answer? Tom What else can you answer?
1.1.3 Abilities to conduct context-sensitive, productive conversations	Just like in a human-human conversation, a human-AI conversation should also be context sensitive. A chatbot should be able to interpret and properly respond to humans' abbreviated or incomplete expressions used in context. It should also handle user interruptions any time and maintain a coherent conversation context to deliver a natural and productive conversation experience.	 Juji What's your favorite subject?  Juji Mine would be computer science, in particular AI - Artificial Intelligence.  Juji What do you enjoy doing in your spare time?  Juji understanding people - what they think and how they feel	Emma What about you? Emma What about you? Handle Context-Sensitive User Inquiries
Support arbitrary user interruptions	Evaluate how well a chatbot can remember and maintain a conversation context by testing a chatbot's abilities to handle the interleaving of any two multi-turn questions.	 Juji What brings you to chat with me today?  Juji Which type of degree are you interested? Associate Bachelor Master's Doctoral	Kevin How expensive is your program? Kevin Associate  Juji Typically it costs between \$2500-\$5000 to get an associate degree.  Juji What brings you to chat with me today?
1.1.4 Abilities to use rich communication form to delight users	To deliver a fun and engaging conversation and great user experience, a chatbot should be able to send messages in rich formats. Evaluate how well a chatbot supports the rich forms of a conversation by the following aspects.		

Capability	Key Function Synopsis	Examples	Juji References										
Free-text input with click to text.	Allows users to input free-text anytime during a conversation to deliver a fluid conversation experience. The auxiliary "click-to-text" allows users to send a quick reply in certain situations for efficiency of communication.	 <p>Vita Anytime during our chat, you can text HELP to see what I can do or RESTART to restart our chat.</p> <p>Click to Text</p> <p>HELP ➤ RESTART ➤</p>											
Image Message.	Send an image message. Images can be directly uploaded and via an URL.	 <p>Vita Books are our friends</p> 											
Video Message	Send a video message. Videos can be played directly in a chat.	 <p>Vita</p>  <p>Watch the video on how to apply for college</p> <p>More info here</p>											
Image Carousel	Send an image carousel with up to 5 images for info comparison.	 <p>Juji</p> <div style="display: flex; justify-content: space-around;"> <div>  <p>Online nursing programs prepare for new career opportunities in Healthcare, e.g., how to apply your skills to the quality and safety of patient care.</p> <p>read more</p> </div> <div>  <p>Our online technology degrees prepare you for the growing field of IT, including cybersecurity, information technology, and more.</p> <p>Read More</p> </div> <div>  <p>Open the door to exciting, new career opportunities with a degree or certificate in business. Do it on your schedule - and your terms.</p> <p>Read More</p> <p> DONE</p> </div> </div>											
Video Carousel	Send a carousel in a chat with up to 5 videos for info comparison. Videos can be directly played within a chat.	 <p>Vita</p> <div style="display: flex; justify-content: space-around;"> <div>  <p>How to apply for college</p> <p>read more</p> </div> <div>  <p>Choose a specialization</p> <p>read more</p> </div> <div>  <p>How to work in college</p> <p>read more</p> <p> DONE</p> </div> </div>											
Information Graphics	Send an information graphics in a chat to display rich information/insights.	 <p>Juji</p> <p>Based on your conversation text, I've inferred your Big 5 personality scores. Please see the chart below.</p> <p>Big 5 Personality</p> <p>The Big 5 personality traits include five factors (O.C.E.A.N.). Each factor further consists of 6 facets.</p> <p>Your scores are inferred based on 475 words.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #2e7131; color: white;">Openness</td> <td>Openness - 20%</td> </tr> <tr> <td style="background-color: #009688; color: white;">Conscientiousness</td> <td>measures how much a person is inclined to new experiences or views from six facets</td> </tr> <tr> <td style="background-color: #f0ad5d; color: white;">Extroversion</td> <td></td> </tr> <tr> <td style="background-color: #9b59b6; color: white;">Agreeableness</td> <td>Click on another factor bar to view its definition</td> </tr> <tr> <td style="background-color: #ffd700; color: white;">Neuroticism</td> <td>View this factor facets</td> </tr> </table>	Openness	Openness - 20%	Conscientiousness	measures how much a person is inclined to new experiences or views from six facets	Extroversion		Agreeableness	Click on another factor bar to view its definition	Neuroticism	View this factor facets	
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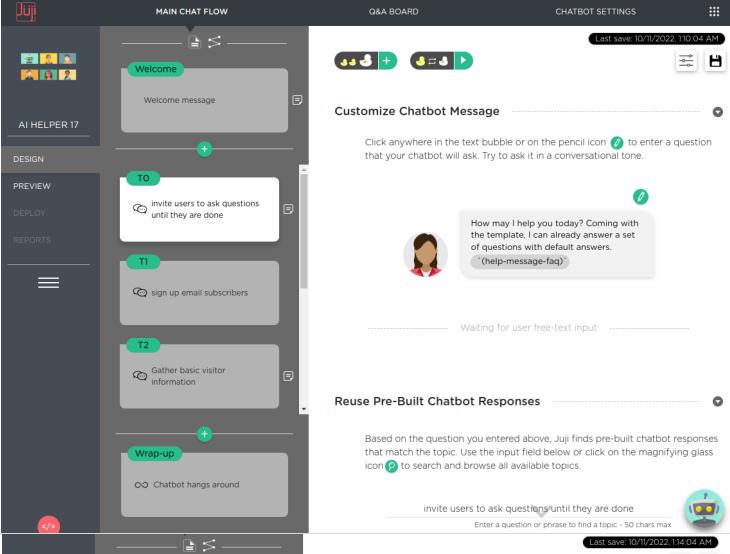
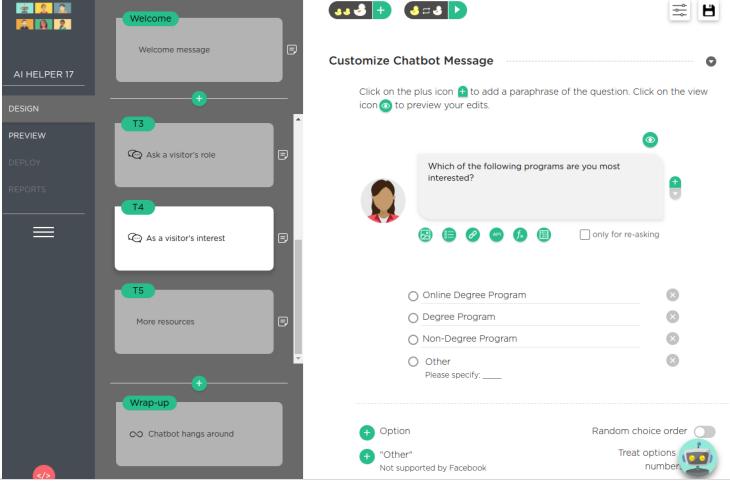
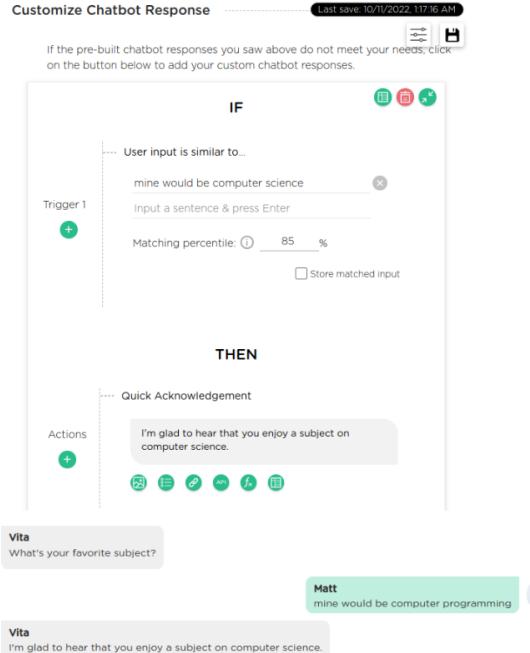
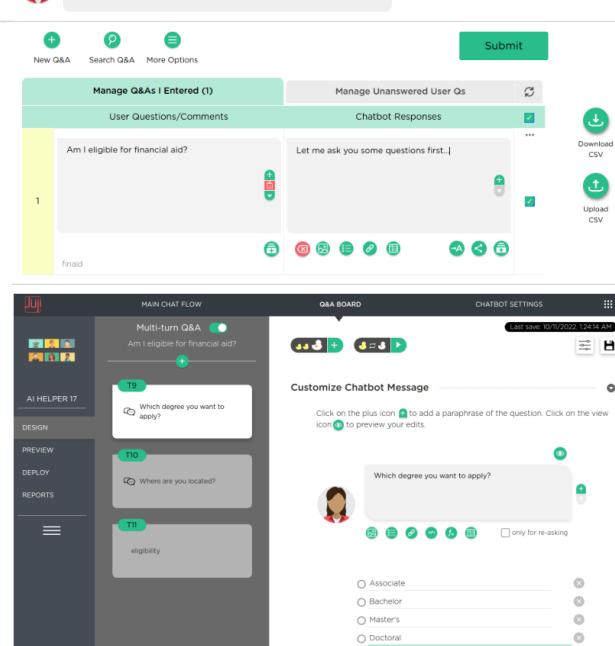
Capability	Key Function Synopsis	Examples	Juji References									
Step by Step Tutorial	Initiate an empathetic tutorial, the chatbot will lead the user one step at a time and give the user opportunities to ask questions at each step.	 <p>Customize Tutorial Steps</p> <p>Step 1 Read The Financial Aid Requirements</p> <p>Step 2 Fill Out The Application Form</p> <p>Step 3 Once Approved, Contact The Admin</p> <p>Once approved, contact the admission office through the email: fa@uni.com</p> <p>+ Add Step</p>										
Messages with Hyperlinks	Send a chatbot text message with hyperlinks. The hyperlinked content can be displayed either on the same webpage or a different webpage where the chatbot is installed.	 <p>Juji</p> <p>Here is the academic calendar</p>										
Messages with Bullet Lists	Send a chatbot text message in a bullet list.	 <p>Juji</p> <p>The focus of the program is on:</p> <ul style="list-style-type: none"> • how to better understand clients • lead generation tools • set up performance metrics 										
Paraphrasing of Chatbot Messages	Send a message or ask a question with different expressions to make a conversation more natural and engaging.	<p>Alternative Chatbot Expressions</p> <p>Make changes to the list or select an expression to edit</p> <table border="1"> <tr> <td>Can you tell me about yourself?</td> <td>Re-asking <input type="checkbox"/></td> <td></td> </tr> <tr> <td>Can you describe yourself in a couple sentences?</td> <td>Re-asking <input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>How would you describe yourself?</td> <td>Re-asking <input checked="" type="checkbox"/></td> <td></td> </tr> </table>	Can you tell me about yourself?	Re-asking <input type="checkbox"/>		Can you describe yourself in a couple sentences?	Re-asking <input checked="" type="checkbox"/>		How would you describe yourself?	Re-asking <input checked="" type="checkbox"/>		Paraphrase Messages and Requests
Can you tell me about yourself?	Re-asking <input type="checkbox"/>											
Can you describe yourself in a couple sentences?	Re-asking <input checked="" type="checkbox"/>											
How would you describe yourself?	Re-asking <input checked="" type="checkbox"/>											
Dynamic Chatbot Messages Powered by Functions	Send a chatbot message customized by a function. The example on the right shows the use of function to retrieve a user's first name and call the user by his/her first name to make a message more personal and dynamic.	 <p>Hello, (user-first-name) x, thanks for connecting! I am your AI assistant for X University Y programs.</p> <p>Vita</p> <p>Hello, Christina, thanks for connecting! I am your AI assistant for X University Y programs.</p> <p>Vita</p> <p>Hello, Ken, thanks for connecting! I am your AI assistant for X University Y programs.</p>										
Dynamic Chatbot Messages Powered by API calls	Send a chatbot message customized via API calls. The example shows the call of a wikipedia API to display the information about the solar systems. In an educational solution, a chatbot can make API calls to backend CMS or CRM systems like Salesforce to retrieve relevant information and answer student questions (e.g., a student's application status). Similarly, the API can also be used to store student information, e.g., a prospective student's interest and contact or an existing student's banking info update.	 <p>Emma</p> <p>Tell me about the solar system</p> <p>Juji</p> <p>It seems you are into Astronomy. Unfortunately I know little about. Better consult wikipedia.</p> <p>How's my response? ></p> <p>Juji</p>  <p>The Solar System is the gravitationally bound system of the Sun and the objects</p>										

Capability	Key Function Synopsis	Examples	Juji References
1.2 Hyper-Personalized, Empathetic Engagements driven by Computational Psychology	Educational organizations hope to understand the unique needs and wants of each student and use such insights to deliver the next best actions, e.g., advising the student on program selection or encourage the student to complete his/her program. To obtain the best ROI of a chatbot solution, evaluate how well a chatbot can infer student insights from conversations and make such insights to aid human decision making (e.g., advising and coaching)		
1.2.1 Infer psychographic insights to deeply understand users as each unique individuals	Traditional item-based, self-reported personality or psychometric tests are subject to social desirability faking or subjective ratings. A good chatbot solution should be able to automatically infer a user's unique psychographic characteristics, such as interests, personality, and needs, from a conversation without asking any of the self-reported scaled questions.		
Infer Big 5 Personality Insights	Evaluate whether a chatbot can auto-infer a user's 35 Big 5 personality trait scores (5 factors and 30 facets) from a conversation. The Big 5 personality model is the most widely used and well-known personality model that has shown to relate to student academic achievements and learning styles.	<p>Personal Characteristics: Hover/click on a factor to view more information</p> <p>Big 5 Personality ▾</p>	Inferred User Characteristics
Infer Holland Codes	Evaluate if a chatbot can auto-infer a user's 6 Holland Codes scores from a conversation. Holland Codes indicate one's interests especially career or learning interests.	<p>Personal Characteristics:</p> <p>Holland Codes ▾</p>	
Infer Soft Skills	Evaluate if a chatbot can auto-infer a user's 14 softskill scores, such as Collaboration and Resourcefulness. Such information may be used by human advisors to provide personalized learning advice or guidance.	<p>Juji Based on our chat, your top-3 soft skills are:</p> <ul style="list-style-type: none"> Calmness: This assesses how well a person deals with stressful situations. Innovativeness: This assesses how creative one is in terms of thinking outside the box and inventing new things that others have not thought of. Inquisitiveness: This measures how eager a person is to learn new things or ask questions on what one doesn't yet know. <p>Juji I could not get a strong signal on the 3 skills below:</p> <ul style="list-style-type: none"> Leadership: This measures how much one is willing to take charge and rally people to accomplish common goals. People Skills: This measures how well a person interacts with others. People scoring high on this dimension have a talent that enables even strangers to socialize with them and remember them. Teamwork: This measures how well a person works with others and how much one wants to be a team player. 	
Infer Moral Characters	A chatbot auto-infers a user's 6 moral characters, such as Honesty and Compassion from a conversation. Such information may be used by human advisors to provide personalized learning advice or guidance.		
Infer Shopper DNA	A chatbot auto-infer a user's 7 shopping characteristics (e.g., value-based shopper vs. aspiring shopper). This type of insights can be used by human advisors to understand the motivations of a student and helps aid the student decision making (e.g., instead of advising a student who is attracted to a popular or trendy subject, advising him/her with a program that best suits his/her cognitive characteristics such as their Holland Codes).	<p>Personal Characteristics:</p> <p>Shopper DNA ▾</p> <p>Sophisticated Shopper - 11%</p> <p>Who are successful and have a sophisticated taste.</p> <p>Click on a factor bar to view more information</p>	
1.2.2 Deliver genuine advices and messages to help and persuade users based on their psychographic characteristics	People are more likely to resonate well with messages that align with their interests, psychological needs, and personality. Evaluate whether a chatbot platform allows you to customize chatbot messages based on one's interests, psychological needs, and personality.		

Capability	Key Function Synopsis	Examples	Juji References
Hyper-personalized messages per Big 5 Personality	A chatbot sends hyper-personalized messages and advices to students based on their inferred Big 5 personality trait scores.	 Juji Tell me about yourself  Juji I'm happy to help you find it out. Let me ask you a couple of quick questions.  Juji Could you introduce yourself in 2-3 sentences?  Jim Does online-learning suit me?  Juji Thanks for your input. Really appreciate your sharing it with me.  Juji What do you enjoy doing in your spare time?  Jim I am quiet and hard working. I live by myself. I have a high school diploma and now I work in shipping and receiving for a big retailer. It's hard work - that's why I want to get more education so I can find a new job, a new profession.  Juji How exciting!  Juji From our conversation, you are a doer - your can-do attitude and resourcefulness could really help you in online learning.	
Hyper-personalized message templates per Holland Code	This is a message template that shows how to send personalized messages based on one's inferred Holland Codes.	<p>----- Select a DNA below to personalize its message -----</p> <p>6/6 active message(s) 0/6 skipped message(s)</p> <p>Thinker Who are curious investigators, the likes of Bill Gates, enjoying reading, problem solving, and researching </p> <p> You seem inquisitive and thoughtful. Our world definitely needs more thinkers like you! </p> <p><input type="checkbox"/> Skip message for thinker</p> <p>Maker Who are doers and the builders of the world, like MacGyver, enjoying working with their hands and valuing self sufficiency </p> <p>Mover And Shaker Who have type A personality, similar to that of Mark Zuckerberg, adventurous, hardworking, and ambitious </p> <p>Organizer Who are model citizens and great managers, similar to that of Tim Cook, orderly, thorough, and precise </p> <p>Creator Who have type B personality, just like Lady Gaga, living for the fun of life and relying on feelings, ideas, and imagination </p> <p>Helper Who are the humanists like Mother Teresa, striving to help others and improve society </p>	

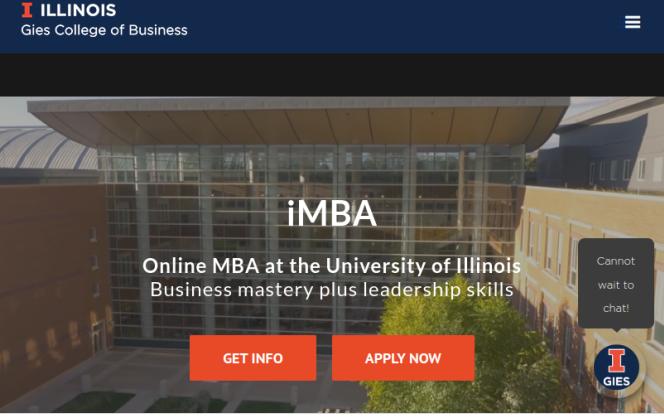
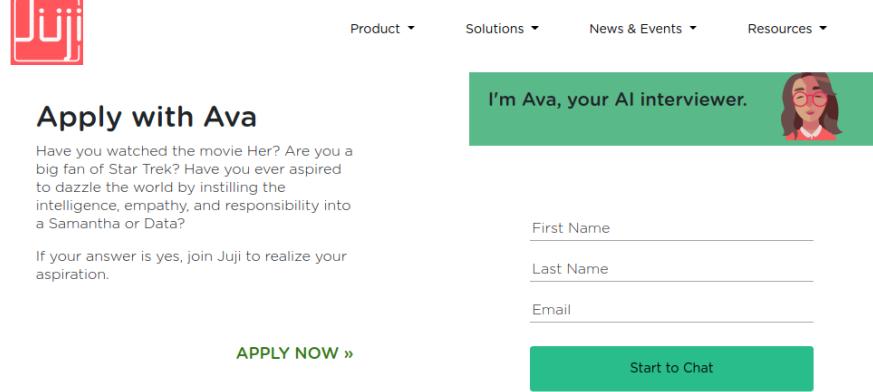
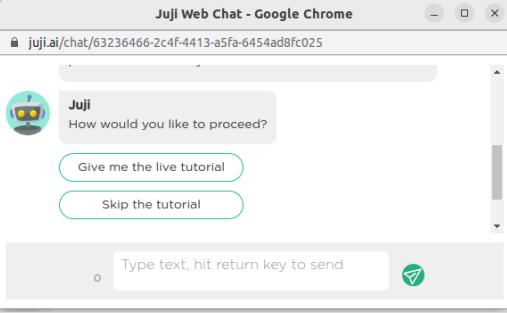
Capability	Key Function Synopsis	Examples	Juji References
Hyper-personalized message templates per Shopper DNA	This is a message template that shows how to send personalized messages based on one's inferred Shopper DNA	<p>Select a DNA below to personalize its message</p> <p>7/7 active message(s) 0/7 skipped message(s)</p> <p>Smart Shopper Who are analytical and make informed economic decisions</p>  <p>From your chat, you seem analytical and smart. You'd appreciate our product, which is backed by years of research and testing.</p> <p><input type="checkbox"/> Skip message for smart shopper</p> <p>DIYer Who are anti-materialistic and shop for value, durability, and comfort</p> <p>Explorer Who emphasize identity and enjoy new and unique experiences</p> <p>Achiever Who are goal-oriented and make economic decisions based on the needs of career and family</p> <p>Sophisticated Shopper Who are successful and have a sophisticated taste</p> <p>Value Shopper Who are cautious and prefer big, well-known brands</p> <p>Aspiring Shopper Who enjoy shopping as social activities, and love fun and trendy stuff</p>	
II. Time to Value and Cost of Ownership: Chatbot Customization, Testing, and Deployment	Building and owning a chatbot solution especially for an organization like educational institutes is not a trivial task. To evaluate if an organization can take on such a task, it is good to evaluate "time to value" as well as "cost of ownership" of a chatbot solution. "Time to value" assesses how fast an organization can build, test, and deploy a chatbot solution on a platform to deliver value (e.g., helping students), while "Cost of ownership" measures how much would be the cost (now and future) for an organization to build, deploy, and manage the chatbot solution and what resources are required to do so. Use the following aspects to assess these two factors.		
2.1 Reusable Conversational AI	Building AI from scratch is a daunting task, as it requires AI expertise, software engineering skills, not to mention large amounts of resources including training data. To drastically reduce time to value and cost of ownership, pre-built AI, just like transferring one's intelligence into another's brain, offers a much quicker and better way to build AI chatbot solutions. Good pre-built AI often requires ZERO training AND produces higher quality of AI as it is built by AI experts (analogously, comparing a professionally-built turnkey house vs. a DIY fixer upper by amateurs).		
AI Chatbot Templates	Evaluate whether a whole AI chatbot template can be reused to conduct conversations with ZERO training. Typically a pre-built AI chatbot template has pre-built, often domain-specific workflow (chat flow) and Q&As. It is important to check whether such an AI template supports two-way conversations as described above to deliver a satisfactory user experience and business ROI. The example shows a set of AI chatbot templates for the education domain.	<p>What do you intend to use your AI Helper for?</p> <p>Choose one of our templates to get started</p> <p>Education (highlighted)</p> <p>General HR Healthcare All</p>  <p>Program Assistant (General) Use this template to create an AI assistant (chatbot) to answer students' questions</p> <p>Program Assistant (Specific) Use this template to create an AI assistant (chatbot) to answer students' questions</p> <p>Teaching Assistant Use this template to create an AI assistant (chatbot) that can help an instructor automate free-text Q&A</p> <p>Training Assistant Use this template to create an AI assistant (chatbot) that can help an instructor to deliver training materials.</p> <p>Learning Assistant (Onboarding) Use this template to create an AI assistant (chatbot) that helps onboard a student.</p> <p>Learning Assistant (Assessment) Use this template to create an AI assistant (chatbot) that helps assess a student's knowledge.</p> <p>Alum Assistant Use this template to create an AI assistant (chatbot) to engage with your alumni or graduates. It can elicit</p>	Create a new chatbot

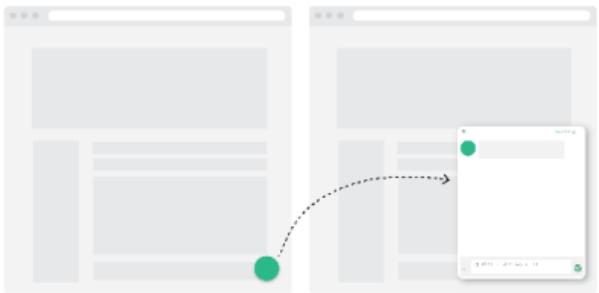
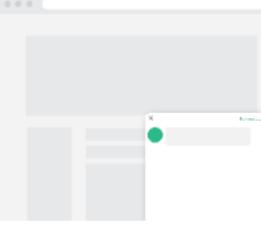
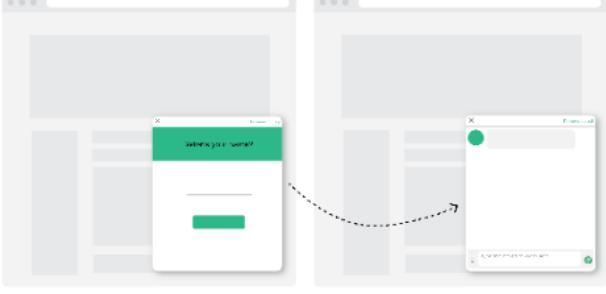
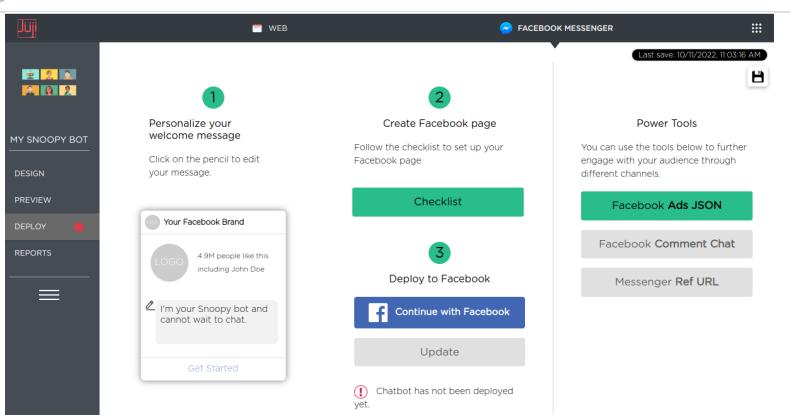
Capability	Key Function Synopsis	Examples	Juji References														
Multi-turn conversations by topic	Evaluate whether multi-turn conversations on a specific topic can be directly reused to engage with a user in a quality conversation automatically off the shelf with ZERO additional training. Instead of handcrafting every intent from scratch, reusing a pre-built, multi-turn conversation by topic will save an organization tremendous amounts of time. The pre-built conversation library should automatically handle diverse user responses including exceptions so chatbot owners do NOT need to train the chatbot to do so. The example on the right shows a pre-built conversation around one's self.	 Juji Could you introduce yourself in 2-3 sentences?  Juji Now I am puzzled... Since you came to chat w/ me, we ought to make a proper intro to each other :-).  Juji I'll ask again, could you say a bit about yourself?  Patrick ok.. I am a student at a business school. I am graduating later this year  Juji Thanks for sharing with me what you do. You are way smarter than I am.	Ensure Conversation Quality														
Entity Extraction	Evaluate whether a chatbot can auto-extract information (e.g., entity extraction) from free-text user input off the shelf with ZERO additional training. The example on the right shows that the chatbot auto-extracts the user's name without any customization. This alleviates all the machine learning and NLP training burdens from chatbot owners.	 Juji Hello, Stranger, thanks for connecting! I am your AI helper and cannot wait to chat w/ you.  Juji What's your first name?  Stranger People call me Michelle  Juji Got it. Just to confirm, the first name is: Michelle	Attributes														
Sentiment Analysis	Evaluate whether a chatbot can perform sentiment analysis of a user's free-text automatically off the shelf with ZERO additional training. This feature will come handy to deliver empathetic chatbot messages.	 Juji How is your day?  Juji Good to hear your positive tone.  Juji What happened that made you feel this way?	Custom Attributes														
Question Templates	Evaluate whether and how well a chatbot can automatically learn hundreds of thousands user expressions from a couple of keywords. The example on the right shows the user inputs just a couple of keywords and the chatbot can auto-recognize diverse user expressions about the cost of the program.	 Generate Custom Questions This question template contains variables, please input custom values to replace the variables. Define Question Variables <table border="1"> <tr><td>Question Examples</td><td>Provide your program name and its variants, such as IMBA, online MBA, Gies online MBA, UIUC IMBA</td></tr> <tr><td>- Could you tell me the cost of ?XYZ program?</td><td>MBA</td></tr> <tr><td>- What's the cost of ?XYZ</td><td>Business Administration</td></tr> <tr><td>- I'd like to learn about the cost of ?XYZ program</td><td></td></tr> </table> View and Select Generated Questions <input checked="" type="checkbox"/> Select this checkbox to add all variations <table border="1"> <tr><td>Could you tell me the cost of MBA program?</td></tr> <tr><td>Could you tell me the cost of Business Administration program?</td></tr> <tr><td>What's the cost of MBA</td></tr> <tr><td>What's the cost of Business Administration</td></tr> <tr><td>I'd like to learn about the cost of MBA program</td></tr> <tr><td>I'd like to learn about the cost of Business Administration program</td></tr> </table> Back Done	Question Examples	Provide your program name and its variants, such as IMBA, online MBA, Gies online MBA, UIUC IMBA	- Could you tell me the cost of ?XYZ program?	MBA	- What's the cost of ?XYZ	Business Administration	- I'd like to learn about the cost of ?XYZ program		Could you tell me the cost of MBA program?	Could you tell me the cost of Business Administration program?	What's the cost of MBA	What's the cost of Business Administration	I'd like to learn about the cost of MBA program	I'd like to learn about the cost of Business Administration program	
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Psychographic Insights (Personality) Analytics	Evaluate whether a chatbot's psychographic inference works on any user in any conversation automatically off the shelf with ZERO additional training.	 Juji You seem independent and resourceful. Anyone would appreciate practical solutions from you and be lucky to have you by their side.  Juji You have a sophisticated taste and love finer things. We have an authentic product that will meet your standard.															
Dialog Management	A conversation is often complex with multiple threads on multiple topics. Evaluate how well a chatbot manages a dialog especially how it remembers and maintains a conversation context properly. It is important to evaluate how well a chatbot can perform dialog management automatically off the shelf with ZERO additional training.	 Juji What brings you to chat with me today?  Juji Which type of degree are you interested? <table border="1"> <tr><td>Associate</td></tr> <tr><td>Bachelor</td></tr> <tr><td>Master's</td></tr> <tr><td>Doctoral</td></tr> </table>  Kevin How expensive is your program?  Juji Typically it costs between \$2500-\$5000 to get an associate degree.  Juji What brings you to chat with me today?	Associate	Bachelor	Master's	Doctoral	Detecting the Invisible AI that Makes a Chatbot Smart										
Associate																	
Bachelor																	
Master's																	
Doctoral																	

Capability	Key Function Synopsis	Examples	Juji References
2.2 Customizable AI: Chatbot Content	All AI chatbot solutions require certain customization to conform the chatbot behavior and messages to the brand's image and needs. One key factor to evaluate time to value and cost of ownership of a chatbot solution is to evaluate the cost of customizing a chatbot solution from both time, effort, and resource requirements. Following includes the frequent customizations that are often done to a chatbot solution and their evaluation.		
Customize chat flows	This is to customize the main work flow of a chatbot. Evaluate how easy and how flexible a chat flow can be defined and updated. Also evaluate how a chatbot supports a complex chat flow, such as nonlinear chat flows (work flows) as a conversation is hardly linear. In the example shown on the right, the chatbot helps answer student questions as well as elicits prospective student information. A good chatbot should automatically support the interleaving of these two tasks in ONE workflow regardless the number of questions a user will ask.		Customize Main Chat Flow
Customize chatbot questions	This is to customize a chatbot's question to a user, e.g., asking a user's program interest or interviewing a student for his/her learning experience. Evaluate how easy it is to add and edit a chatbot question and the types of question a chatbot can ask. To ensure task completion and user experience, it is also important to evaluate how the chatbot automatically handles user responses to the questions.		Chatbot Request
Customize chatbot responses	This is to customize a chatbot's response to a user input. Evaluate how easy and fast one can customize a chatbot response under different conversation contexts. For example, how to customize a chatbot's response based on a user expressed sentiment, the semantics of a user input, or the personality of a user with ZERO training or just a couple of training examples? The example shown on the left indicates a custom user response to a user input by semantics.		Chatbot Actions
Customize Q&As	This is to customize a chatbot's knowledge base to answer user questions. Evaluate how easy and fast one can add custom Q&A including multi-turn Q&As and automatic support of their arbitrary nesting (e.g., starting a Q&A in the middle of another Q&A). Evaluate how many sample questions are required.		Customize Q&A and Fallback

Capability	Key Function Synopsis	Examples	Juji References
Auto-generate question paraphrases	Users often ask the same questions in different expressions (e.g., how old are you and what's your age are the same question phrased differently). Evaluate whether a chatbot can auto-generate paraphrases of question expressions, which will save a chatbot designer a tremendous amount of time to come up with those alternative expressions for training.	<p>Generate Custom Questions Please input your custom question/sentence to generate the variations.</p> <p>Input Sentences to Generate</p> <p>Multiple sentences can be entered in the text box. Please separate each sentence with a new line by hitting the return/enter key.</p> <p>What happen if I drop the course?</p> <p>View and Select Generated Questions</p> <p>Select this checkbox to add all variations</p> <p>What happen if I drop the course?</p> <p>What do I do if I drop the course?</p> <p>What should I do if I drop the course?</p> <p>What happens if I drop the course?</p> <p>What will happen if I drop the course?</p> <p>What if I drop the course?</p> <p>Cancel Done</p>	
Auto-generate response paraphrases	To make a conversation more natural and engaging, a chatbot should be able to paraphrase a message without sounding robotic. Evaluate whether a chatbot can auto-generate paraphrases of a message.		
Chatbot fallback handling	A conversation hardly follows a pre-planned path. Evaluate how a chatbot handles exceptions (fallback), which could be caused by a user's intentional or unintentional interruptions, such as asking a clarification question or giving excuses to dodge a question. Evaluate how easy and fast it is to customize the handling of fallbacks and the type of fallbacks, e.g., ignoring a user's gibberish input or disallowing a user's "I don't know" answer.		Handling User Excuses to Open-Ended Questions
2.3 Customizable Chatbot Settings	To create a custom chatbot that conforms with a brand's image or gives a chatbot certain characteristics, evaluate what types of chatbot settings are possible.	<p>Persona</p> <p>Conversation Tempo</p> <p>Turn pace: 0 second(s)</p> <p>Message pace: 1500 millisecond(s)</p> <p>Refresh duration: 180 minute(s)</p> <p>User Input Control</p> <p>Spelling Checker </p> <p>Special Words to be Excluded Please separate each word by a comma</p> <p>IBM, Alexa, Fb</p>	Customize Chatbot Persona Customize Conversation Parameters

Capability	Key Function Synopsis	Examples	Juji References		
	Customize User feedback Options	<p>Enable user feedback during chat: (Select a design below)</p>			
	Enable Collaborative Chatbot Design Notes	<p>Reminding collaborators to customize Q&As:</p>			
2.4 Testing and Iterative Development	Just like any software solutions, a chatbot solution also requires testing and iterative development. Evaluate how fast one can preview and test a chatbot and how it can be quickly and iteratively improved based on the testing.				
Instant live chatbot preview and testing	Evaluate whether one can preview or test a live chatbot during the design process.		Preview Chatbot Often When Building		
Instant chatbot design improvements	Evaluate whether one can easily switch from testing to design stage to improve a chatbot instantly based on the test				
2.5 Chatbot Deployment and Update	Evaluate how easy and quick a chatbot can be deployed and how a production chatbot can be updated.				
One-click deployment (URL)	Deployment should be made simple and quick.	<p> Generate web URL</p> <p>Email or embed the URL on your website for your audience to access your chatbot.</p> <table> <tr> <td>Test Link Use the test URL to try out the AI without impacting live results. https://juji.ai/pre-chat/6344b7 Copy</td> <td>Web Link Email or embed the URL on a website for your audience to access https://juji.ai/pre-chat/6344b7 Copy</td> </tr> </table> <p> Chatbot deployed on 10/10/2022. Version 1. Click on the "Manage" button to deploy the updates.</p>	Test Link Use the test URL to try out the AI without impacting live results. https://juji.ai/pre-chat/6344b7 Copy	Web Link Email or embed the URL on a website for your audience to access https://juji.ai/pre-chat/6344b7 Copy	Generate URL
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Capability	Key Function Synopsis	Examples	Juji References
One-click update	A chatbot should be updated easily.	 <p>4 Deploy</p> <p>Update Chatbot Release</p> <p>Your chatbot is updated with new messages or knowledge. Whenever you're ready, publish the changes to your audience.</p> <p>Update New Release</p>	Update Deployed Chatbot
Deployment customization options (website)	A chatbot might be used for different tasks and should be allowed to be configured to suit different tasks. Below lists some of frequently used options.	<p>1 Personalize your welcome message</p> <p>This is what your audience will see before chatting. Click to edit your message.</p> <p>I'm your Snoopy bot and cannot wait to chat.</p>  <p>First Name _____ Last Name _____ Email _____</p> <p>Start to Chat</p>	Deploy to Website
Embedded website deployment (avatar)	This is a typical chatbot deployment option where a chatbot shows up as an icon in a corner of a webpage.		Deploy as Web Widget
Embedded website deployment (cover page)	This is to show the chat cover page on a website.		
Popped-out website deployment	This option allows a chat window to pop up so it can be moved around without obscuring the content behind the window.	<p>Customize Chat Window Settings (Optional)</p> <p>When you deploy your chatbot on a webpage, you may wish to customize the chat window. Currently, you can customize its settings to enable your chatbot window to pop out or to stay open across web pages. To do so, please provide the URL of the website that you plan to deploy your chatbot to.</p> <p>Hover over the title "Web Url" to view more information.</p> <p>Web URL <input type="text" value="https://mycompany.com"/></p> <p>Customize Chat Icon on Website</p> <p>You can customize the chat icon appearing on a web page by avatar. You must re-copy and paste the web plugin code (see below).</p> 	

Capability	Key Function Synopsis	Examples	Juji References
Customize chat start options	This configures how a chat will start, with or without requiring initial user information such as a first name or email.	<p> Install Web plugin code (Optional)</p> <p>1. Juji allows you to configure how your chatbot starts on a website depending on your purpose, e.g., on a landing page versus on a main website. Select a desired setting for your website chatbot:</p> <p>Setting 1: This setting is the most commonly used setting for a main website with any audience. A chatbot will initially show up as an animated icon at the lower right corner of a web page. A user clicks on the icon to open a chat window and then start a chat.</p>  <p>Setting 2: This setting is recommended to be used for a main website that has a familiar target audience (e.g., job candidates) or wishes to elicit visitor information before a chat starts. Similar to Setting 1, the chatbot will initially show up as an animated icon. A visitor clicks on the icon to bring up the chat window, and then enters certain information such as his/her first name to start a chat.</p>  <p>Setting 3: This setting is recommended for a landing page use such as a page used for a Google Ads campaign or an email campaign. Once a visitor lands on the page, a chat window will automatically pop up and a chat will start immediately.</p>  <p>Setting 4: This setting is similar to Setting 3, recommended for a landing page use. Once a visitor lands on the web page, a chat window will pop up automatically. Unlike Setting 3, the visitor however must enter certain information, such as his/her first name to start a chat.</p>  <p>2. If a chat starts automatically without requiring a visitor to enter his/her first name, the default name used is Stranger. You can enter a different default name to start a chat: <input type="text" value="Stranger"/></p> <p>3. Copy the code below and insert it directly after the opening <body> tag on each page where you want the plugin to appear.</p> <p>Copy Code</p> <pre><div id='jujibot-bubble'> aria-label='Chat pop-up text bubble.' alt='Chat pop-up text bubble.' tabindex='0'></pre>	
Facebook Messenger deployment on FB pages	Deploy a chatbot on FB messenger		Deploy to Facebook Page
2.6 Real-Time Reporting and Analytics	Human-AI engagements are complex, dynamic, and often difficult to predict. To better understand how your chatbot behaves or how your audience behaves, more important whether and how well your chatbot has delivered the desired ROI, it is important to get a real-time reporting of both chatbot and user behavior as well as distilled insights from their behavior. Use the metrics below to evaluate how easy, timely, and comprehensive the aggregated chatbot and user behavior and insights distilled from their interactions are.		
2.6.1 Real-Time Chat Stats	The metrics below present an overview of user information and their behavior with your chatbot. When evaluating chatbot options, evaluate whether the following information is available for real-time access.		

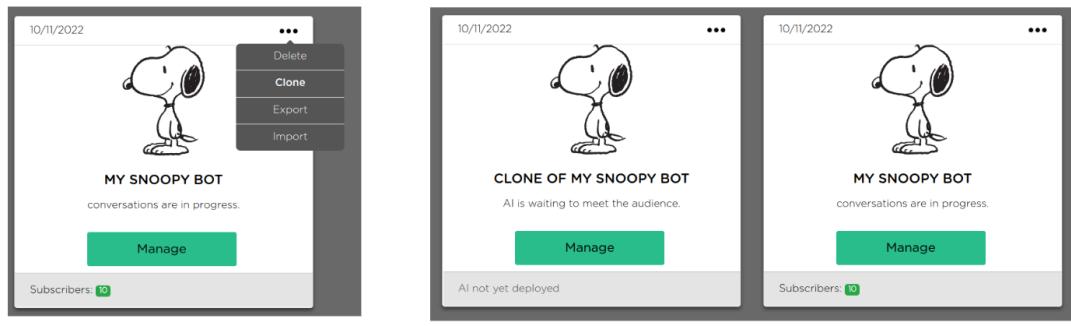
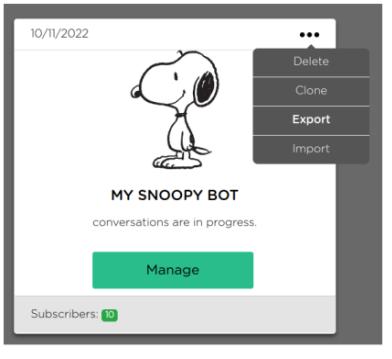
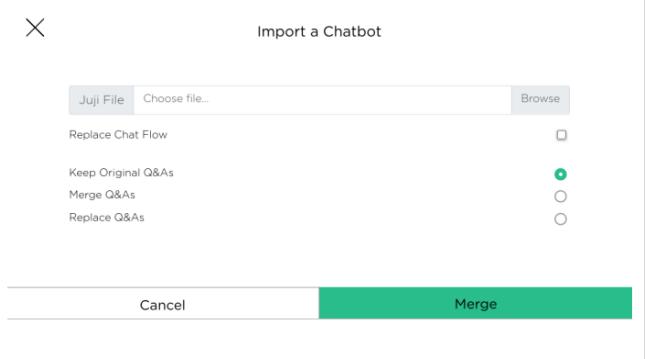
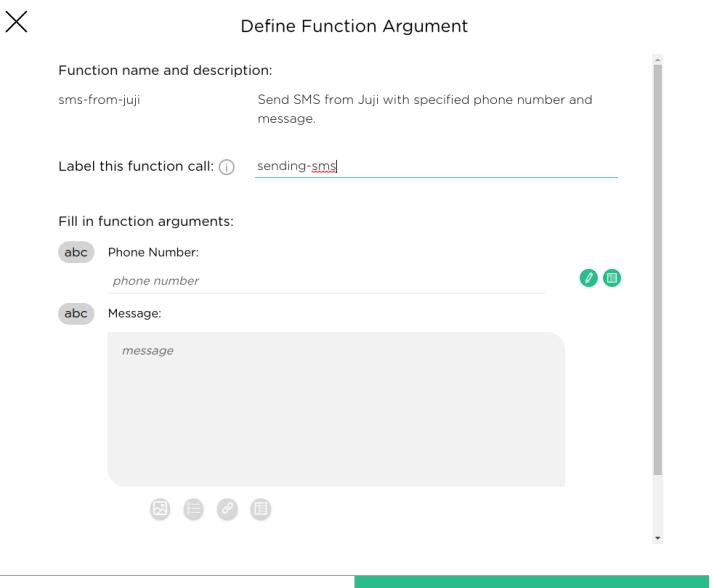
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Chat traffic volume by date	How many chat sessions in total or by date	<p>226 TOTAL CHATS (Time Zone: Pacific Time)</p>	Chat Stats																																																																																																																																																																										
Chat duration (average)	How long does a chat session last on average. A very short, e.g., less than 1 minute, may indicate a potential "bounce" and inherent issues with your chatbot	<p>AVERAGE ENGAGEMENT DURATION</p> <p>5.66 min</p>																																																																																																																																																																											
Chat start time	When do people typically start their chat. This could you the insights on your user habits as well as when you can safely update/upgrade your chatbot if needed.	<p>CHAT TRAFFIC BY TIME OF DAY</p> <table border="1"> <thead> <tr> <th>Time (24 Hours PT)</th> <th>Number of Chats</th> </tr> </thead> <tbody> <tr><td>0-3</td><td>~45</td></tr> <tr><td>4-7</td><td>~45</td></tr> <tr><td>8-11</td><td>~55</td></tr> <tr><td>12-15</td><td>~40</td></tr> <tr><td>16-19</td><td>~15</td></tr> <tr><td>20-23</td><td>~25</td></tr> </tbody> </table>	Time (24 Hours PT)	Number of Chats	0-3	~45	4-7	~45	8-11	~55	12-15	~40	16-19	~15	20-23	~25																																																																																																																																																													
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Chat completion (e.g. , for interview chats)	How many people have completed their chat. This information is useful especially if you are using a chatbot to collect information from an audience. This tells you how many have finished answering your questions.	<p>Input & "Enter" to search user</p> <p>Sep 1, 2022 - Sep 30, 2022</p> <p>CHAT DATA</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Location</th> <th>Completed</th> <th>Start</th> <th>Finish</th> <th>Tell me about yourself</th> </tr> </thead> <tbody> <tr><td>Mark</td><td>Sunnyvale California</td><td>Yes</td><td>2022-09-19 17:06:25</td><td>2022-09-19 17:06:47</td><td>I'm a typical introvert and would like to i</td></tr> <tr><td>Jim</td><td>Sunnyvale California</td><td>Yes</td><td>2022-09-19 17:05:51</td><td>2022-09-19 17:06:12</td><td>I am quiet and hard working. I live by m</td></tr> <tr><td>Matt</td><td>Sunnyvale California</td><td>Yes</td><td>2022-09-19 17:05:14</td><td>2022-09-19 17:05:37</td><td>I'm a quiet and calm person. I live by my</td></tr> <tr><td>Michelle</td><td>Sunnyvale California</td><td>Yes</td><td>2022-09-19 17:04:35</td><td>2022-09-19 17:05:04</td><td>I am a high school graduate and curren</td></tr> <tr><td>Emma</td><td>Sunnyvale California</td><td>Yes</td><td>2022-09-19 17:02:11</td><td>2022-09-19 17:02:42</td><td>I am an outgoing and happy person - ci</td></tr> </tbody> </table> <p>Total Number of Users Retrieved: 5</p>	Name	Location	Completed	Start	Finish	Tell me about yourself	Mark	Sunnyvale California	Yes	2022-09-19 17:06:25	2022-09-19 17:06:47	I'm a typical introvert and would like to i	Jim	Sunnyvale California	Yes	2022-09-19 17:05:51	2022-09-19 17:06:12	I am quiet and hard working. I live by m	Matt	Sunnyvale California	Yes	2022-09-19 17:05:14	2022-09-19 17:05:37	I'm a quiet and calm person. I live by my	Michelle	Sunnyvale California	Yes	2022-09-19 17:04:35	2022-09-19 17:05:04	I am a high school graduate and curren	Emma	Sunnyvale California	Yes	2022-09-19 17:02:11	2022-09-19 17:02:42	I am an outgoing and happy person - ci																																																																																																																																							
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User Channel (e.g., web, FB)	What channels users use to chat. This information helps you understand where your users like to engage with your chatbot.	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>I</th> <th>J</th> </tr> </thead> <tbody> <tr><td>1 First Name</td><td>Last Name</td><td>User Agent</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Channel</td></tr> <tr><td>2 Mayed</td><td>BuAbed</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>3 James</td><td>Chang</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>4 Huahai</td><td>Yang</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>5 Amy</td><td>Pottoroff</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>6 Frank</td><td>Wang</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>7 Barry</td><td>Hiew</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>8 Huahai</td><td>Yang</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>facebook</td></tr> <tr><td>9 Wenxi</td><td></td><td>Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:100.0) Gecko/20100101 Firefox/100.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td>web</td></tr> <tr><td>10 Michelle</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11 Julia</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12 hh</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/101.0.4951.64 Safari web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>13 viswa</td><td></td><td>Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari/537 web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>14 Chiman</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/101.0.4951.64 Safari web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>15 Ann</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16 Mark</td><td></td><td>Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_6) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/15.4 Safari/605.1.1 web</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	A	B	C	D	E	F	G	H	I	J	1 First Name	Last Name	User Agent							Channel	2 Mayed	BuAbed								facebook	3 James	Chang								facebook	4 Huahai	Yang								facebook	5 Amy	Pottoroff								facebook	6 Frank	Wang								facebook	7 Barry	Hiew								facebook	8 Huahai	Yang								facebook	9 Wenxi		Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:100.0) Gecko/20100101 Firefox/100.0							web	10 Michelle		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web								11 Julia		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web								12 hh		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/101.0.4951.64 Safari web								13 viswa		Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari/537 web								14 Chiman		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/101.0.4951.64 Safari web								15 Ann		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/102.0.5005.61 Safari web								16 Mark		Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_6) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/15.4 Safari/605.1.1 web								Export Audience Data
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2.6.2 Real-Time User Question Analytics	The following metrics are used to present a quick overview of user behavior around the questions/requests they asked/made.																																																																																																																																																																												

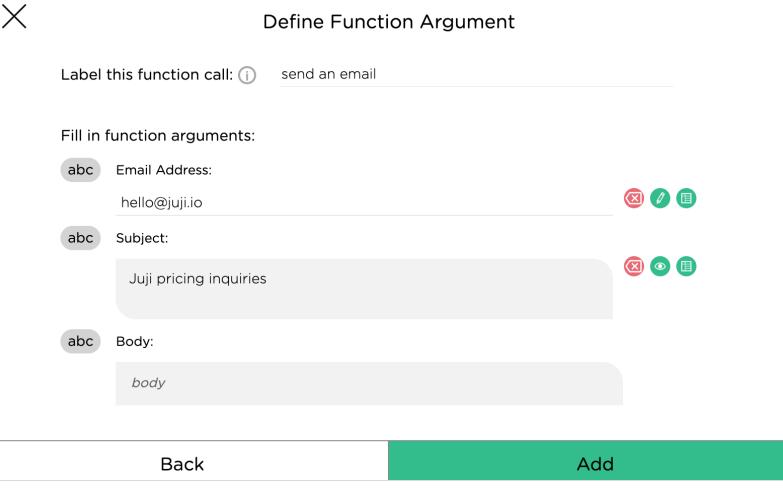
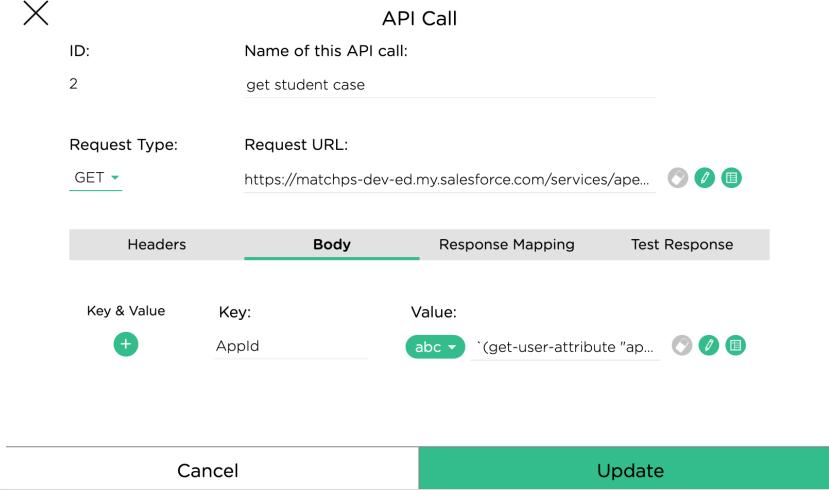
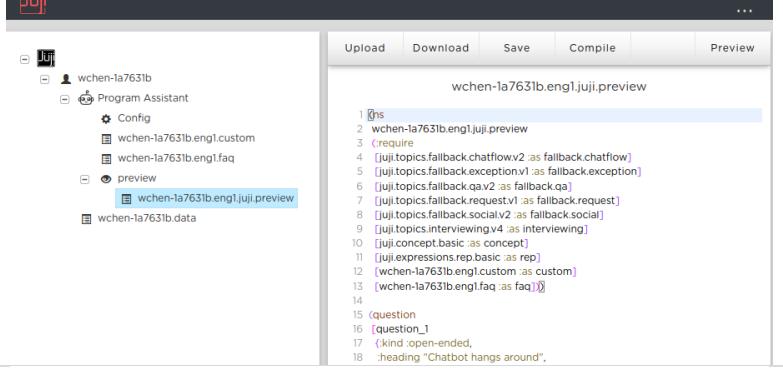
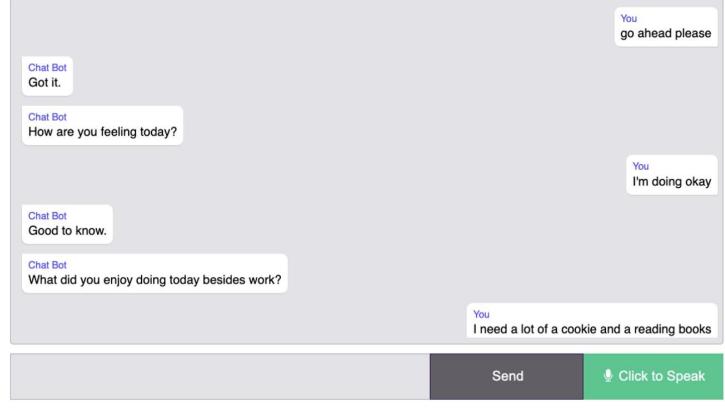
Capability	Key Function Synopsis	Examples	Juji References																		
User question analytics	<p>This gives an overview of user Q&A stats, such as how many questions were asked, how many were answered, and how many were not answered. These insights help you understand what your users care about the most and what's knowledge your chatbot might be missing so you can improve it.</p>	<p>TOTAL ASKED 2339</p> <p>ANSWER RATE</p> <p>PERCENT OF QUESTIONS ANSWERED</p> <p>Percent of Questions Answered vs Date (2021-11-19 to 2022-09-02)</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Percent of Questions Answered (%)</th> </tr> </thead> <tbody> <tr><td>2021-11-19</td><td>~85</td></tr> <tr><td>2021-12-30</td><td>~65</td></tr> <tr><td>2022-02-09</td><td>~60</td></tr> <tr><td>2022-03-22</td><td>~60</td></tr> <tr><td>2022-05-02</td><td>~85</td></tr> <tr><td>2022-06-12</td><td>~85</td></tr> <tr><td>2022-07-23</td><td>~85</td></tr> <tr><td>2022-09-02</td><td>~85</td></tr> </tbody> </table> <p>Question/Comment Frequency</p> <ul style="list-style-type: none"> What are the difference in your products? (62) Tell me what your public pricing plans are (48) how does no-code ai chatbot works? (45) 	Date	Percent of Questions Answered (%)	2021-11-19	~85	2021-12-30	~65	2022-02-09	~60	2022-03-22	~60	2022-05-02	~85	2022-06-12	~85	2022-07-23	~85	2022-09-02	~85	
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User feedback analytics	<p>This gives an overview of user feedback received, including the number of total feedbacks, both positive and negative feedback or user comments. This enables you to understand your chatbot behavior as well as your user behavior, including where the chatbot has been doing well and where it fell short. It should also give a chatbot admin suggestions as how to improve a chatbot per a user's negative feedback.</p>	<p>Help Me Fix It</p> <p>Although the user reported issues might be fixed already, they had two probable causes. If you believe the causes still exist, you can act on them.</p> <p>The user question "what is the life of a chat bot?" does not exist in the system Knowledge Base (KB). So Juji answered the question by matching it with a similar question in the KB.</p> <p>Similar Question and Paraphrases Found in KB</p> <table border="1"> <thead> <tr> <th>Similar Question and Paraphrases Found in KB</th> <th>Answers</th> </tr> </thead> <tbody> <tr><td>tell me about chat bot</td><td>chatbot = chat + bot or AI chat, it means a machine like me that can chat :-)</td></tr> <tr><td>AI chatbot</td><td></td></tr> <tr><td>What means ia chatbot</td><td></td></tr> <tr><td>chat box</td><td></td></tr> </tbody> </table> <p>Probable Cause 1</p> <p>Due to machine learning error, Juji might have made the wrong match. If you believe the user question should not match the question(s) in the KB as shown above, you can fix it by (a) adding the user question as a new entry and then (b) entering the correct answer.</p> <p>Act Now</p> <p>Probable Cause 2</p> <p>Although the question match is correct, due to human error one or more answers of the</p>	Similar Question and Paraphrases Found in KB	Answers	tell me about chat bot	chatbot = chat + bot or AI chat, it means a machine like me that can chat :-)	AI chatbot		What means ia chatbot		chat box										
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What means ia chatbot																					
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2.6.3 Real-Time User Response Analytics	The metrics below summarize user responses to chatbot questions.																				
Quantitative user response analytics (multiple visual analytics charts)	<p>A visual analytic summary of user responses to quantitative questions (choice questions) as well as a visual summary of temporal trend of user responses to quantitative questions.</p>	<p>Quantitative Responses (choices)</p> <table border="1"> <thead> <tr> <th>Topic</th> <th># of Answer</th> </tr> </thead> <tbody> <tr><td>What should we talk about first?</td><td>993</td></tr> <tr><td>Curious or shopping?</td><td>243</td></tr> <tr><td>How soon do you want a chatbot</td><td>52</td></tr> <tr><td>Can I tell you about Juji now?</td><td>42</td></tr> </tbody> </table> <p>Topic Analysis</p> <p>WHAT SHOULD WE TALK ABOUT FIRST? TOTAL RESULTS</p> <p>WHAT SHOULD WE TALK ABOUT FIRST? DAY TO DAY RESULTS</p> <p>User Response Count vs Date (2022-05-06 to 2022-09-23)</p> <p>Legend: Walnuts (Orange), Something else (Green)</p>	Topic	# of Answer	What should we talk about first?	993	Curious or shopping?	243	How soon do you want a chatbot	52	Can I tell you about Juji now?	42	Audience Analytics								
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Capability	Key Function Synopsis	Examples	Juji References														
Free-text user response analytics by sentiment	A visual analytic summary of sentiment analysis of user free-text responses to open-ended questions and the temporal sentiment trend. The example on the right shows how it analyzed the expressed sentiment of users' free-text responses to the question "How's your onboarding experience".	<p>HOW'S YOUR ONBOARDING EXPERIENCE? TOTAL SENTIMENT</p> <p>HOW'S YOUR ONBOARDING EXPERIENCE? DAY TO DAY SENTIMENT</p>	Audience Analytics														
Free-text user response analytics by keywords	A visual analytic summary of user free-text responses to open-ended questions by keywords in a word cloud.	<p>Word Cloud</p> <p>COULD YOU INTRODUCE YOURSELF? WORD CLOUD</p>															
Free-text user response analytics by topic	A visual analytic summary of user free-text responses to open-ended questions by topic. This will help a chatbot admin figure out the key topics expressed or cared by users during the chat.																
Link click-through analytics	A visual analytic summary of user link click-throughs. This information helps a chatbot admin understand what information is important or useful for users.	<p>User Click-throughs</p> <p>TOTAL LINK CLICKS PER URL</p> <table border="1"> <thead> <tr> <th>Link</th> <th>Clicks</th> </tr> </thead> <tbody> <tr> <td>https://en.wikipedia.org/wiki/Walnut</td> <td>64</td> </tr> <tr> <td>https://juji.io/#juji-smarts</td> <td>21</td> </tr> <tr> <td>https://juji.io/no-code-ai-chatbot-builder/</td> <td>17</td> </tr> </tbody> </table>	Link	Clicks	https://en.wikipedia.org/wiki/Walnut	64	https://juji.io/#juji-smarts	21	https://juji.io/no-code-ai-chatbot-builder/	17							
Link	Clicks																
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https://juji.io/#juji-smarts	21																
https://juji.io/no-code-ai-chatbot-builder/	17																
2.6.4 Real-Time Psychographic Analytics	Visual displays of inferred psychographic insights that can aid human decision making as well as humans deliver hyper-personalized advices based on each user's individual characteristics, such as their interests, needs, and personality.																
Pre-Built Big 5 Personality Visual Analytics	A visual summary of a cohort's 35 Big 5 personality trait score distribution and an individual's 35 Big 5 scores.	<p>Big 5 Personality</p> <p>Number of users analyzed: 6</p> <p>The Big 5 personality traits include five factors (O.C.E.A.N.). Each factor further consists of 6 facets.</p> <p>Click on a factor on the right to view more details</p> <table border="1"> <thead> <tr> <th>Facet</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Imagination</td> <td>~6.5</td> </tr> <tr> <td>Artistic Interest</td> <td>~6.5</td> </tr> <tr> <td>Feelings</td> <td>~6.5</td> </tr> <tr> <td>Adventurousness</td> <td>~6.5</td> </tr> <tr> <td>Intellectual Curiosity</td> <td>~6.5</td> </tr> <tr> <td>Liberalism</td> <td>~6.5</td> </tr> </tbody> </table>	Facet	Score	Imagination	~6.5	Artistic Interest	~6.5	Feelings	~6.5	Adventurousness	~6.5	Intellectual Curiosity	~6.5	Liberalism	~6.5	Inferred User Characteristics
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Capability	Key Function Synopsis	Examples	Juji References
Pre-Built Holland Codes Visual Analytics	A visual summary of a cohort's 6 Holland Code score distribution and an individual's 6 Holland Code scores	<p>Holland Codes</p> <p>Number of users analyzed: 6</p> <p>The Holland Codes are used to characterize careers and vocational preferences along six dimensions.</p> <p>Click on a factor on the right to view more details</p> <p>Creators</p> <p>Who have Type B personality, just like Lady Gaga, living for the fun of life and relying on feelings, ideas, and imagination.</p> <p>Helpers</p> <p>Who are the humanists like Mother Teresa, striving to help others and improve society.</p>	
Pre-Built Shopper DNA Visual Analytics	A visual summary of a cohort's 7 Shopper DNA score distribution and an individual's 7 Shopper DNA scores	<p>Shopper DNA</p> <p>Number of users analyzed: 6</p> <p>Shopper DNA characterizes a person's shopping preferences along seven (7) dimensions.</p> <p>Click on a factor on the right to view more details</p> <p>Value Shopper</p> <p>Who are cautious and prefer big, well-known brands.</p> <p>Smart Shopper</p> <p>Who are analytical and make informed economic decisions.</p>	
Fit-Risk or Strength-Weakness custom profiles	A visual summary of a custom Fit-Risk or Strength-Weakness contrast profile based on the inferred psychographic insights for a given context, such as a student's fit for completing an online degree and potential risks of quitting.	<p>Ideal Fit</p> <p>This measures how well one matches the ideal profile of the role along multiple dimensions. The higher the number, the better the fit.</p> <p>Risk Factors</p> <p>This assesses potential risks from multiple dimensions for a person to perform the role, e.g., subjecting to burn out. The lower the number, the lower the risk.</p>	
Individuality Quadrant	An individuality Quadrant displays the distribution of a cohort's fit-risk or strength-weakness scores for a quick overview and the plan for the next best actions. For example, human advisors could use the insights to identify who are at risk of abandoning their study and help retain them to complete their online degree programs)	<p>Summary of Fit and Risk</p> <p>An aggregated view shows the distribution of your cohort by their profile fit and risk factors scores. The upper right quadrant includes those who have a high fit score and a low risk score.</p>	
2.7 Real-Time Chatbot Monitoring and Maintenance	Adopting a chatbot solution requires periodical chatbot monitoring and maintenance, such as identifying the chatbot's deficiencies and upgrading the chatbot's knowledge base. How easy one can monitor a chatbot and how fast one can update a chatbot directly impact a chatbot solution's cost of ownership.		
2.7.1 Real-Time Chatbot Monitoring	Evaluate whether one can be notified of a chatbot behavior in real time with the following critical information.		
Notification of unanswered user questions with answer recommendations	This is to notify a chatbot admin of unanswered user questions and the suggestion of possible answers to those questions. This notification inform a chatbot admin of chatbot failures.	<p>MAIN CHAT FLOW</p> <p>Q&A BOARD</p> <p>CHATBOT SETTINGS</p> <p>Set up chatbot to answer user questions/comments</p> <p>You can add or edit user questions and corresponding chatbot. More</p> <p>New Q&A Search Q&A More Options</p> <p>Manage Q&As I Entered (144) Manage Unanswered User Qs (11)</p> <p>User Questions/Comments Chatbot Responses</p> <p>what do you understand by the word intelligence ? What do you think? I'm asking because we have been chatting...</p> <p>63442e0e-2eee-48e5-a666-024264de7aa0</p>	How to Improve Q&A Chatbots with Real-Time Monitoring, Notification, and Enhancements

Capability	Key Function Synopsis	Examples	Juji References
Notification of user chat feedback with fix/enhancement recommendations	This is to notify a chatbot admin of received user feedback and possible solutions to address user negative feedback.		
Access to full chat transcripts	This is to provide a chatbot admin the knowledge of all chats.		
Access to distilled chat information in downloadable CSV	This is to provide a chatbot admin the "cleaned" user responses for further analyses (e.g., user research)		Export Audience Data
Pre-built integration of external tracking software (Google Analytics, Adobe Analytics, FullStory and any tracking tool with JS scripts)	This is to allow a chatbot admin to track user behavior in correlation to their chat behavior, e.g., the percentage of users who chatted also applied for a program.		Activity Tracking
2.7.2 Real-Time Chatbot Maintenance	Once a chatbot failure is detected, it is important to fix the failure ASAP to gain user trust. Evaluate how fast and easy one can fix a chatbot's failure.		
Instant FAQ live update to uninterrupted critical conversations	Evaluate whether one can update a chatbot's Q&A capabilities without interrupting any ongoing conversations. This is an important measure because an update will enable the chatbot to answer more critical user questions however it should NOT interrupt any other ongoing conversations.		How to Improve Q&A Chatbots with Real-Time Monitoring, Notification, and Enhancements
One-click, instant update of production deployment	Evaluate how fast and easy one can update a production chatbot. A chatbot may be updated frequently to fix bugs as well as improve its own intelligence or knowledge. Evaluate how easy and fast is to update a chatbot in production. Preferably in one click.		Update Deployed Chatbot

Capability	Key Function Synopsis	Examples	Juji References
Multi-channel, automated answer notifications to users (via SMS and Email)	If a chatbot failure cannot be patched up instantly (e.g., no humans around to help), evaluate what back channels are supported to notify users, e.g., SMS or email, once the answers or solutions are become available. This provides additional channels to engage with users off chat.	<p>Ask users to opt-in for an email notification when an answer to their question becomes available </p> <p>Customize Email Content</p> <p>Subject: Our answer to your question "(:user-question) ×"</p> <p>CC: Input emails to cc here (separate each email with a comma)</p> <p>BCC: wchen@juji-inc.com</p> <p>Body: Hello (:user-first-name) ×, Thank you for chatting with (:our-ai-assistant) ×! I'm happy to notify you that our AI assistant is now able to answer one of your unanswered questions. For your convenience, I include both your question and the answer below for your information. (:user-question) × (:user-question-answer) × Thank you,</p> 	
III. Enterprise-Scale Adaptability & Extensibility to Maximize Solution ROI	When an organization adopts a chatbot solution, it is often the case that the organization wishes to build upon the current solution and support new users of the chatbot in the future. Thus it is important to evaluate whether such a solution can be easily and quickly adapted to support new tasks or be extended to support multiple tasks. For example, when an educational institute starts with a chatbot solution to support student recruitment, it may want to extend the chatbot to help prospective students in their application process. Likewise, the educational institute may want to add additional chatbots to help student retention or alumni engagement. To evaluate whether a chatbot option is easily adaptable or extensible, assess the following aspects.		
3.1 Adaptability of Chatbot Solution	Evaluate how quickly and easily a chatbot can be adapted to a new task or support multiple tasks. The following factors help assess such capabilities.	<p>This allows rapid reuses of the entire conversation content and logic of an existing chatbot within the same chatbot designer account and adapt it to new tasks.</p> 	Clone Juji Chatbots
Clone a chatbot			
Export and import a whole or partial runnable chatbot	This allows rapid reuse of the entire or partial conversation content and logic of an existing chatbot across chatbot designers' accounts and adapt it to new tasks.	 	Export/Import Juji Chatbots
Export and import FAQs including multi-turn, complex FAQs	This allows rapid reuse of trained Q&A for any chatbots within and across chatbot designers' accounts.		
3.2 Extensibility of Chatbot Solution	In many solutions, a chatbot may need to be integrated with external communication channels (e.g., SMS and Email) or data resources (e.g., CMS or human agents), being white labeled and embedded in a particular application/solution, or being powered with external capabilities (e.g., multilingual or speech). Evaluate how quick and easy it is to connect a chatbot to external resources or integrated with additional external capabilities. The following factors help evaluate the extensibility of a chatbot option.	<p>Allows a chatbot to send a SMS to a user for additional connection. The example on the right shows how to enable a chatbot to send an SMS to a user.</p> 	
Connect to off-chat channel: sending SMS in chat			

Capability	Key Function Synopsis	Examples	Juji References
Connect to off-chat channel: sending emails in chat	Allows a chatbot to send an email to a user for additional connection. The example on the right shows how to enable a chatbot to send an email, e.g., alerting the Juji team of user pricing request/inquiries.		
Hand-off to human agents with Genesys live chat (upcoming this month)	Allows a chatbot to hand off a conversation to a human agent		
Call external CMS or CRM APIs to record or retrieve information during conversation	Allow a chatbot to be integrated with a third-party CMS or CRM to store user information as well as retrieve info from such systems. The example on the right shows an API call to a Salesforce student database to retrieve a student's application status per the student's inquiry "What's my application status". In this call, the chatbot receives the student's applicant ID and then calls the Salesforce API to retrieve the requested information.		
Juji IDE: deep chatbot customization via scripting	Allow a chatbot designer to create his/her own reusable, custom conversational AI resources (e.g., conversation library) and use of external and custom functions.		Juji IDE Overview
Juji API: third-party white-labeling of chatbots with zero-code installation	Allow a chatbot designer/developer to incorporate a chatbot into third-party app (e.g., mobile app) or power a chatbot with external communication resources (e.g., speech + language translation). The example on the right shows a white-labeled chat interface that is also speech enabled.		Juji API Overview