



Designing Smarter Bots for Customer Service

10 important steps to consider when designing Conversational AI solutions for your customers

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Introduction

Chatbots play a crucial role in customer service, sales, and support by streamlining interactions between brands and customers. They provide 24/7 service, address FAQs, reduce operational costs, and boost customer satisfaction.

Conversational AI, powered by ChatGPT, enhances these benefits with sophisticated and natural interactions. Its advanced Natural Language Processing (NLP) capabilities enable understanding nuances, adaptation to various conversational styles, and authentic responses. Intelligent virtual agents surpass rule-based chatbots by understanding context and engaging users like humans, creating smoother and more enjoyable experiences. Human-like voices of advanced Text-to-Speech (TTS) technologies support this new era of experience that customers/users have never seen before.

We are SESTEK, an R&D center with 100+ engineers developing virtual assistants and chatbots for customer service since 2000.

In this e-book, we share our expertise gained over the last two decades in crafting engaging conversational bots for our customers.



Abbreviations and Definitions

Bot

Text and voice-based Conversational AI, designed to engage customers/end-users.

Utterance

A spoken or written expression by the end-user to convey their request/inquiry.

End-User

The beneficiary of the product interacting via spoken or written expressions on different customer service channels like websites, mobile apps, IVR or WhatsApp.

Designers

Individuals are responsible for crafting the flow design of the interface.

Client

The requesting business unit or the owner of the project.

User Persona

A representation of an ideal customer, including demographics, behaviors, goals, and motivations.

NLP

Natural Language Processing enables computers to understand and generate human language.

Node

Fundamental building blocks of a chatbot or flowchart, each representing a specific function or action within the system.

IVR

Interactive Voice Response processes customers' voice commands to automate requests, enhancing call center efficiency across sectors.

Knovvu Virtual Agent

Knovvu Virtual Agent is a conversational AI solution developed by SESTEK; an R&D center developing solutions for customer service since 2000.

How to Structure the Bot

Imagine sculpting the bot as a brand ambassador. It is crucial to align its language with the corporate identity. The birth of this digital team member can be an excellent opportunity for clients to enhance their brand image by infusing it with a likable persona. Designers, as key players, hold the reins in shaping the bot's personality to match the client's brand identity seamlessly.



Use Case

Vodafone Türkiye employs TOBI as a digital assistant for their customers. With SESTEK's enhancements, TOBI can now communicate not only through text but also with voice across a range of customer service channels, including IVR, mobile and webchat.

Creating user personas proves invaluable in tailoring conversational AI solutions for distinct user segments. Consider directing certain age groups straight to live agents or implementing different actions for VIP customers.



1. Personality of the Bot

Establish user personas, route age groups, and implement VIP customer actions before creating your bot. Follow the principles to transform it into an engaging brand representative:

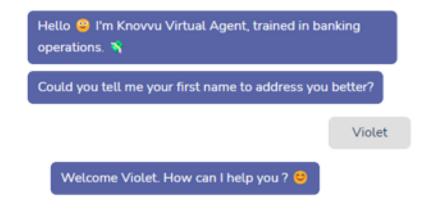
- Understanding the Purpose: Analyze the bot's purpose, functionality, and its impact on simplifying lives and raising awareness.
- Understanding the Audience: Consider the audience demographics. i.e. avoid a teenage vibe for users aged 25-50.
- Naming the Bot: Choose a unique name that reflects the brand.
- **Crafting a Backstory:** Develop a short narrative about the bot, including its motivation, specialty, and distinctive character traits.



Creating a character for your bot is just the beginning; bringing it to life with engaging dialogue is the real deal. End-users crave interactions that feel human and evoke positive emotions.

Address users by their name and congratulate them on occasions

Address the user by name, greet them, and congratulate them if it's their birthday, enhancing the conversation with personalized and friendly touches.



Use alternative responses

To keep things interesting, mix it up. Do not repeat the same messages over and over. In Knovvu Virtual Agent, the conversational AI solution we have been developing at SESTEK, designers can spice up interactions by adding alternative text for responses in **Message Reply** nodes.

Inputs	
Language *	
English	Ť
Text 🗸	8
Alternative Text no with your topic?	e us to help you with? You can %
•	

Make use of the "Wait" response and node

Craft an effective conversational AI by mimicking real chat interactions, breaking information into smaller chunks, and adding pauses for a natural rhythm, avoiding overwhelming users with long messages.

Knovvu Virtual Agent offers two waiting features: one simulates typing in web chat, while the other, the Wait node, provides a predetermined pause in the conversation flow without requiring a **Message Reply** node.

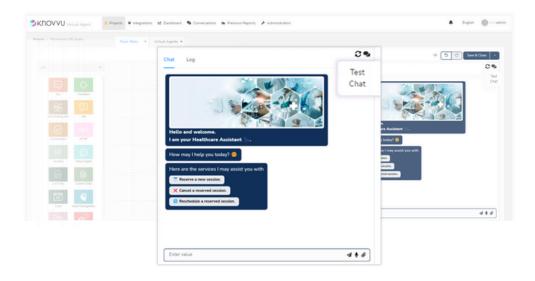


3. Creating an Effective Conversation Flow

When designing a Conversational Flow, it's crucial to guide the audience through quick issue resolution. Therefore, plan to handle off-topic questions and unclear commands. Clearly define the bot's capabilities, responses, and user options.

Use the Test Chat

After making edits, remember to use the dialog icon to ensure a clear understanding of the flow.



Use Entities and "AskMissingSlot" for specifics, not just "Ask" nodes

Leverage Entities for specific input formats; System entities like Dates, Serial Numbers, and Currencies efficiently capture details, while Custom Entities with regex allow further tailoring. In List Custom Entity types, include all relevant keywords and synonyms, ensuring the bot's versatility in understanding user input.

Edit Entity				
Name *	Value Type	Q Search entity value x		
specialty	O List Regex	Values	Synonyms	
Type or copy-paste entity value he	e .	all the doctors	all \times all doctors \times all of them \times	
			everyone 🗙 Insert a new synonym	
		Pediatric	child doc \times children's doctor \times child \times	
			Insert a new synonym	
		Psychology	mental illness 🗙 Psychologist 🗙	
			mental 🗙 Insert a new synonym	
		Gynecology	ladies' doctor 🗙 women's doctor 🗙	
		Gynecology	ladies' doctor X women's doctor X	

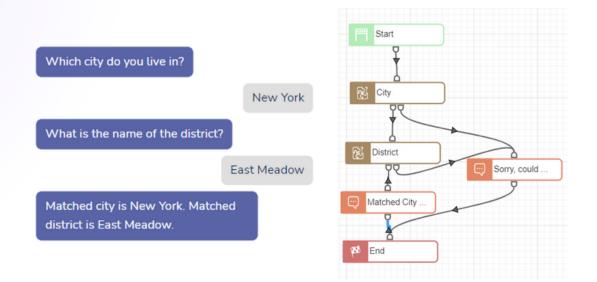
Get close entities values in a single announcement

Use the **AskMissingSlot** node to capture or fill entities automatically. This node captures related entity values from user utterances, filling the entity if already mentioned by the user, and continues the flow.

	c	One for City	,			Or	ne for Dist	trict	
Create New O	Custom Entity				Create New C	ustom Entity			
me *	Value Type	Q Search entity value		×	Name *	Value Type	Q Search entity value		3
City	O List O Regex	Values	Synonyms	1	District	O List Regex	Values	Synonyms	I
pe or copy-past	e entity value here	Bursa	Insert a new synonym		Type or copy-paste	entity value here	Esenyurt	Insert a new synonym	6
		Ankara	Insert a new synonym				Maslak	Insert a new synonym	
		Istanbul	Insert a new synonym	8			Aksaray	Insert a new synonym	8
		0 selected / 3 Total					Fath	Insert a new synonym	8
	Add					ی افغا	0 selected / 4 Total		
			Cancel	✓ Save				Cancel	🗸 Save

Imagine having two entities,

The bot prompts the end-user to provide values for these entities:



AskMissingSlot efficiently captures entity values, even if mentioned earlier, avoiding additional prompts. Additionally, the chatbot suggests tasks to guide the conversation when the user is uncertain, ensuring smoother engagement and providing options for the user.

4. Building a Seamless Experience

Craft a seamless conversational experience where users effortlessly transition from one topic to another, eliminating the need for a main menu.

Ensure a smooth transition from one intent to another

With a banking chatbot, users can request transactions like money transfers, loans, and applications. If the balance is low after a transfer, the bot suggests a loan offer.



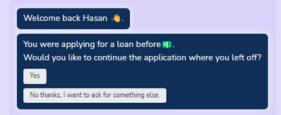
The bot suggests applying or recalculating based on assumed loan details, with quick replies to buttons for options. Choosing "Recalculate" triggers a new calculation, and if the user wants to apply, the details carry over without redundant prompts.

Implementing this approach enables seamless navigation between "Money Transfer" and "Loan Calculation" without exiting the flow, enhancing the overall user experience.



Keep the end-user history

To maintain continuity, the bot remembers past interactions. For example, if a user leaves temporarily during a loan application, the bot offers to resume when they return, saving time and effort.



5. Visual Integration & Download Options

Use visuals for quick attention-grabbing in chatbot design; enable easy document sharing and downloading directly from the chat interface to enhance user experience.

Make use of Emojis 😃 on text-based bots

Knovvu VA boosts engagement with emojis in its text responses! Whether it's about sourcency or just saying hello or goodbye , expect a fun touch to your conversations. It accepts various emojis and can send them to platforms like WhatsApp and Messenger.



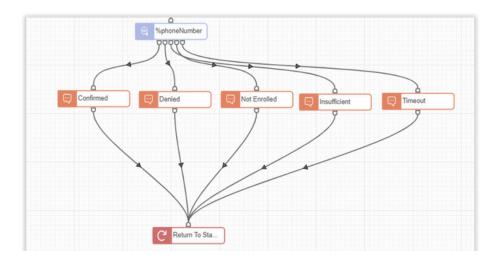
Use Cards to visualize multiple items

Knovvu VA allows direct document sharing in chat; no agent is needed. For non-textual bots like IVR, use links or send files via email or SMS.

6. Integrating Bots Across Channels

Knovvu VA seamlessly integrates with multiple channels including Avatar, Facebook, IVR, Slack, Teams, Telegram, Threads, Webchat, and WhatsApp. It also offers enhancements like Live Chat, Sentiment Analysis, Text-to-Speech (TTS), Speech Recognition (SR), and Voice Biometrics for an improved user experience.

Utilize the **Voice Biometrics** node for authentication: SESTEK's Knovvu Biometrics enables voice authentication. For authentication needs, integrating Voice Biometrics is recommended. Verification happens seamlessly through the integrated service using the Voice Biometrics node.

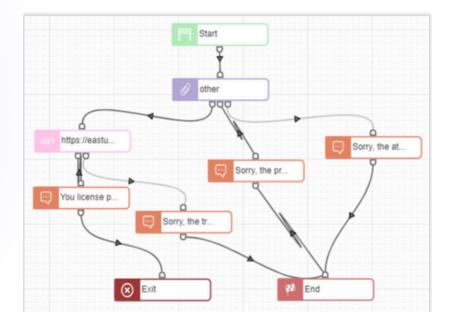


7. Collecting Files from Users and Sharing

Knovvu VA can receive attachments, documents, and visuals from end-users.

Use the "AskAttachment" node and "HTTP" node

AskAttachment node gathers files for improved interaction. For example, to recognize a license plate, users upload a photo via "Upload Attachment." The bot sends it to a recognition service via **HTTP** node and displays the result dynamically.



Ask Attachment				
Inputs				
File Category *	HTTP		××	
image				
audio	Inputs			
document	Method *	URL*		Please upload a photo of your license plate. 🙏
image	POST *	https://eastus.api.cognitive.microsoft.com/vision/v3.2/ocr? language=unk&detectOrientation=true&model=version=latest	×	Prease upload a proto or your ucense plate.
video	Content Type *			A)/shide excitation aloba inc
other	application/octet-stream		*	Vehicle_registration_plate.jpg
	Content			
Text v	Last/AttachmentPath		×	You license plate has been successfully scanned!
Please upload a photo of your license plate. 🙏	Headers			
•	Ocp-Apim-Subscripti × *	User's own Azure Cognitive Servies API subscription key to be X entered here	8	Number: P688CC
+ New Response	•			Number, Posocc
	Service Response Timeout Duration(s	10		
Imeout Auretion(sec)	20			
600	Output			
	Response content *			
	httpOorResult			

8. Empowering Users to Master Bot Usage

Improving user experience starts with educating users on effective bot commands and usage.

Suggest common intents and create a "What can the bot do?" intent

Guide users with common requests using clickable buttons for engagement and efficient navigation. You can educate users easily by employing buttons for frequently asked intents. Additionally, users can inquire about the bot's capabilities by asking "What can you do?" If users stay silent, the bot can gently remind them of shortcut commands or provide button options for common actions.



Make the alternative prompt more explanatory

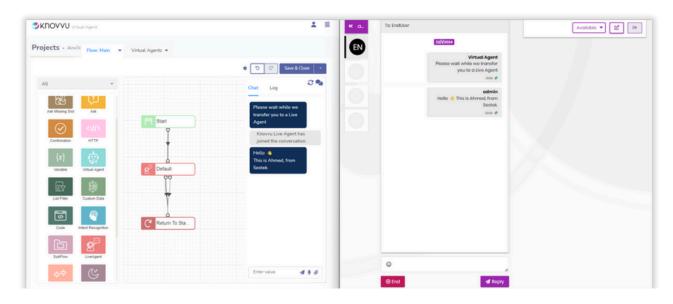
Educate users on expected input and guide them if they enter incorrectly. For instance, if the bot asks for a full name and it's entered incorrectly, it can guide the user by explaining the correct format. Surveys may start with yes/no confirmation buttons for convenience.

9. From Chatbot to Live Support

Ensure a smooth transition from bot to human support, as chatbots handle routine queries but complex issues often need human assistance.

- Repetitive Queries: Transfer to a human if the user repeats a question.
- Availability Hours: Direct users to agents during specific times.
- User Preference: Offer live agents for users preferring human support.

Integrate Knovvu Live Chat with Knovvu VA for seamless interaction. Use the **Live Agent** node to route users to the appropriate agents based on expertise, ensuring a smooth user experience.



10. Striking the Balance

When using chatbots to promote products or deals, it's vital to avoid overwhelming users. Understand customers' preferences and past interactions to suggest relevant actions that align with their interests, enhancing the experience.

Consider proactive strategies like inviting users to start a conversation with special offers triggered after a certain time on the page. For instance, "Hey, if you order within 24 hours, shipping is free." or informing users about deals on items they've viewed: "We have summer shoes on sale! Click here to browse."



Conclusion

Designing an effective Conversational Al solution for customer service requires thoughtful consideration of various elements, including bot personality, engaging dialogue, seamless conversation flow, visual integration, and user empowerment.

By leveraging advanced technologies and integrating across multiple channels, businesses can enhance user experiences and streamline interactions. Additionally, educating users on bot usage and facilitating smooth transitions to human support are vital for comprehensive customer service solutions.

With these strategies in place, companies can stay competitive in the evolving landscape of customer service and meet the growing expectations of the modern consumer.





ABOUT SESTEK

SESTEK is a conversational automation company that has been developing AI-powered solutions for customer service since 2000. Our R&D team of 100+ engineers develops conversational products based on technologies such as speech recognition (SR), natural language processing (NLP), and voice biometrics. We help digitize the customer service operations of 500 enterprise clients in 20 countries worldwide.

SESTEK acquired by Unifonic, one of the leading Communications Platform as a Service (CPaaS) providers, in 2022.

