



Conversational AI Transforms Shopping Experience

The chatbot solution enhanced customer experience and boosted customer loyalty by delivering a seamless and efficient omnichannel shopping experience.

Overview

A chatbot solution that leverages artificial intelligence (AI) and natural language processing (NLP) technology to analyze user inputs and respond in a humanized conversational flow that reflects the client's brand.

The solution handles a wide range of customer queries, making the purchasing process easy while providing personalized recommendations. The chatbot solution deployed across various channels helped create an omnichannel customer experience.

Client Profile

Our client is one of Asia's largest clothing retailers with over 2500 stores across the globe.



Business Requirements

The client required a chatbot solution that would serve as a sales assistant that helps shoppers by guiding them through the search process. If shoppers are not able to find what they're looking for using the chatbot, the discussion is forwarded to a live agent.

- Promptly attend to customer queries and resolve them without delay
- Facilitate decision-making and order placement for customers
- Improve overall accessibility of product information
- Update customers about their orders and help them track its movement
- Enable third-party integrations and facilitate in-depth reporting

QBurst Solution

We leveraged Dialogflow (NLP platform) and Spring Boot (Java-based framework) to create the core solution.

The conversational flow was designed using Dialogflow to guide users through specific processes, such as making a purchase. Dialogflow uses machine learning algorithms to understand and interpret user inputs. Numerous training phrases were used to handle product search and purchase scenarios. Additionally, conversational responses were reviewed and evaluated to ensure accuracy and consistency. The process also involved manual testing with a variety of inputs. Dialogflow's training and testing features were leveraged to evaluate chatbot performance and identify areas for improvement automatically.

We used the Dialogflow API to integrate the solution with Spring Boot. This enabled us to use the functionality of Dialogflow within Spring Boot microservices. Spring Boot microservices communicate with the Dialogflow agent by sending and receiving data through the Dialogflow API. Dialogflow API handles NLP by interpreting user intent and uses the Spring Boot microservices to provide the actual responses.

Microservices use the information provided by Dialogflow to generate responses and relay the responses back to the user through the chatbot interface. In addition, microservices are also used to communicate with live agents, enabling the chatbot to escalate to a human agent when necessary.

BigQuery is used to store and manage the data generated by the chatbot, such as user interactions, responses, and other relevant information. This data is used to analyze the performance of the chatbot, identify areas for improvement, and provide insights that

can help make data-driven decisions. In addition, we leveraged Dialogflow tools and features to manage and improve chatbot analytics, logging, and integrations with other systems and services. This enabled us to create a seamless user experience and optimize the chatbot solution over time.

Additional Cost Savings With Smart Implementation

Originally the client had to pay the managed service provider (MSP) for every conversation even if an agent was not required. Therefore we added an interfacing middle component in the implementation which helped the client to save on cost by paying the MSP only in case of agent involvement.

Key Features

- Ability to act as a salesperson and guide customers through the purchase process.
- Ability to handle a wide range of customer requests, such as product inquiries, order status updates, and shipping information
- Capability to provide personalized recommendations based on the purchase and browsing history
- Ability to process and manage customer orders, payment details, confirmations, and tracking information
- Integration with the client's existing e-commerce platform and inventory management systems
- Seamless process to hand off the query to a live agent based on their skill sets and workload
- Robust security measures to protect customer data and ensure the privacy and confidentiality of customer information

- Ability to handle multiple customer conversations simultaneously, and provide timely and accurate responses to customer inquiries
- Ability to provide a seamless and intuitive user experience with clear and concise responses that are easy for customers to understand and act upon

Technologies Used



Benefits

- Enhanced customer experience and increased customer loyalty
- Improved customer service by providing quick responses to customer queries
- Reduced workload for customer service team
- Increased opportunity for up-selling and cross-selling
- Reduced cart abandonment rate and increased conversions



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