

E-Negotiator Chabot for E-Commerce Websites: Survey

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Abstract— Chat Bots have indeed proven themselves as a powerful tool to customer satisfaction and an unmatched resource for the enterprises helping them save a lot of time and money. To date, various automated negotiation agents have been formed. Negotiation is a combination of both, linguistic and interpretation problem. It requires an intention for something which needs to be verbalized. Dialogue rollout is a scheme created by FAIR researchers for building long-term planning dialogue agents. Nego Chat showing its effectiveness in two different negotiation roles. It involves continued interaction and dialogue in between parties to find a solution with maximum advantages to both. This paper gives the survey of different techniques used by researchers in negotiation chatbot system.

Key words: NegoChat, Customer Satisfaction, E-Commerce Website, NLP

I. INTRODUCTION

Customer satisfaction is the major concern for developing this web-based the platform which analysis customer's sentiments along with the relationship of the customer with the company and helps to generate priority levels to resolve the complaint depending upon the negation Such helpdesk system automates an issue resolution work, centralize information, and keeps everyone in-the-know with email alerts. And instead of having to track down someone from tech support to get help, employees can simply submit a ticket to the helpdesk team through email or a customizable web-based form. The help desk software will then receive, log, and assign issues to the appropriate help desk technicians automatically, making the process more convenient for all parties involved. We plan to create a software tool which will be used by any user. Chat-bots are mainly too used to provide conversation between both human and machine.

Admin feeds some knowledge to the machine so that machine can identify the sentences and taking a decision itself as a response to answer a question.

Negotiation is the process of exchange that provides the highest likelihood of satisfying the needs of both parties. Negotiation covers many aspects of our lives has led to extensive research in the area of automated negotiators [1].

The E- Negotiator Chabot helps the user to solve query and provide negotiation mode is dissatisfied with the price. Such a system will help the users to freely interact with the software and upload their product related queries and budget and get the response related to the query. Just like retail and logistics companies use data to plot the most efficient route to deliver goods. Negotiation is one of the major components of many e-commerce activities. E-Commerce negotiation is a decision - making the process that seeks to find an electronic agreement, which will satisfy the requirements of two or more parties in presence of limited information and convicting preferences.

II. LITERATURE REVIEW

RAZ LIN et al.[1] Proposed a term GENIUS, a General Environment for Negotiation with Intelligent multi-purpose Usage Simulation. This system that enables alleviation of the difficulties in the design process of generally automated negotiators. GENIUS is freely available for participants to develop and test their agent. It's easy to use agent skeleton makes it a suitable platform for negotiating agent development.

Inon Zuckerman et al.[2] provide the first step towards moving the problem of automated negotiation towards natural language interfaces. The paper explained how the current state-of-the-art automated negotiator would perform when paired against the chat-based interface. This paper extended the GENIUS negotiation system.

Amir Reza Asadi et al. [3] introduces a ChatBot for selling physical and digital goods and also services. This chatbot is implemented for telegram and uses its API. This chatbot is basically designed for order taking with minimal user input and suggested for target markets that costumers have little knowledge of about it.

Md. Shahriare Satu et al.[4] presents a brief review of applications that are used AIML chatbot for their conversational service. These applications are related to cultural heritage, e-learning, e-government, web based model, dialog model, semantic analysis framework, interaction framework, humorist expert, network management and adaptive modular architecture. Such an application can help to the people's providing useful services but also interact with customers and provide the solution of their queries through AIML chatbot instead of human beings.

David Traum et al.[5] present a model of negotiation for virtual agents. Here the agents can dynamically change their negotiating strategies depending on the real-time values of several attributes and factors that can be updated in the course of the negotiation. The negotiation is carried out here in the context of a multi-party meeting with multiple individuals involved in a (virtual) face to face setting.

Yinon Oshrat et al.[6] propose and the KGB agent i.e. automated negotiator that negotiates with each person only once, and uses past negotiation sessions of others as a knowledge base for general opponent modeling. Experiments conducted with people show that the KBAgent negotiates efficiently with people and even achieves better utility values than another automated negotiator, shown to be efficient in negotiations with people. The paper gives general opponent modeling and proposing offers using a concession method and accepting offers using a sophisticated threshold. The paper shows that KBAgent can achieve significantly higher utility values than human players.

III. PROPOSED SYSTEM

Here we present a NegoChat, by using which customers can negotiate according to the user's budget. The figure shows the architecture of the proposed system Firstly, the system can load the data having questionnaires dataset related to the welcome messages, negotiation messages. While using the system user needs to ask a query.

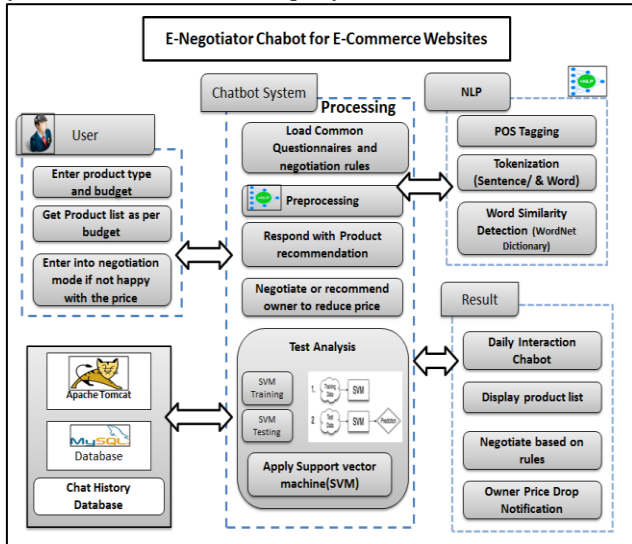


Fig. 1: E-Negotiator Chabot for E-Commerce Websites

Then by using the tag word from the query system gives the response with the help of Natural Language Processing.

If the user is not satisfied with the production budget then the user selects a product and starts a discussion on negotiation on the product with a chatbot.

IV. CONCLUSION

Negotiation is the term where the interaction or discussion in between two parties results to get the mutual solution which is beneficial for both the parties. Negotiation is started when supplier and customer have different expectations about price. Here we represent a survey of the various techniques used in chatbot system for negotiation. There is need to build a system for commercial websites which can help the users to get the product online according to their budget where the user can directly interact with the system and get the responses related to the query.

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